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To add more "Other Attachment" attachments, please use the attachment buttons below.

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Project/Performance Site Location(s)

Project/Performance Site Primary Location ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Georgia Environmental Finance Authority
UEI:
* Street1: 47 Trinity Avenue SW
Street2: Fifth Floor
* City: Atlanta County:
* State: GA: Georgia
Province:
* Country: USA: UNITED STATES
* ZIP / Postal Code: 30334-9006 * Project/ Performance Site Congressional District: GA-005

Project/Performance Site Location 1 ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Georgia Transmission Corporation
UEI:
* Street1: (b) (4)
Street2:
* City: (b) (4) County:
* State: GA: Georgia
Province:
* Country: USA: UNITED STATES
* ZIP / Postal Code: (b) (4) * Project/ Performance Site Congressional District: (b) (4)

Project/Performance Site Location 2 ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Georgia Transmission Corporation
UEI:
* Street1: (b) (4)
Street2:
* City: (b) (4) County:
* State: GA: Georgia
Province:
* Country: USA: UNITED STATES
* ZIP / Postal Code: (b) (4) * Project/ Performance Site Congressional District: (b) (4)

Project/Performance Site Location(s)

Project/Performance Site Location 3

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Georgia Transmission Corporation

UEI:

* Street1: (b) (4)

Street2:

* City:

(b) (4)

County:

* State: GA: Georgia

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location 4

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Georgia Transmission Corporation

UEI:

* Street1: (b) (4)

Street2:

* City:

(b) (4)

County:

* State: GA: Georgia

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location 5

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1: (b) (4)

Street2:

* City:

(b) (4)

County:

* State: GA: Georgia

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location(s)

Project/Performance Site Location 6

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1:

(b) (4)

Street2:

* City:

(b) (4)

County:

* State:

GA: Georgia

Province:

* Country:

USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location 7

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1:

(b) (4)

Street2:

* City:

(b) (4)

County:

* State:

GA: Georgia

Province:

* Country:

USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location 8

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1:

(b) (4)

Street2:

* City:

(b) (4)

County:

* State:

GA: Georgia

Province:

* Country:

USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location(s)

Project/Performance Site Location 9

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1:

(b) (4)

Street2:

* City:

(b) (4)

County:

* State:

GA: Georgia

Province:

* Country:

USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location 10

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1:

(b) (4)

Street2:

* City:

(b) (4)

County:

* State:

GA: Georgia

Province:

* Country:

USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location 11

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1:

(b) (4)

Street2:

* City:

(b) (4)

County:

* State:

GA: Georgia

Province:

* Country:

USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location(s)

Project/Performance Site Location 12

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1: (b) (4)

Street2:

* City: (b) (4)

County:

* State: GA: Georgia

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: (b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location 13

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1: (b) (4)

Street2:

* City: (b) (4)

County:

* State: GA: Georgia

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: (b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location 14

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1: (b) (4)

Street2:

* City: (b) (4)

County:

* State: GA: Georgia

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: (b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location(s)

Project/Performance Site Location 15

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1: (b) (4)

Street2:

* City: (b) (4)

County:

* State: GA: Georgia

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location 16

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1: (b) (4)

Street2:

* City: (b) (4)

County:

* State: GA: Georgia

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Project/Performance Site Location 17

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: GTC

UEI:

* Street1: (b) (4)

Street2:

* City: (b) (4)

County:

* State: GA: Georgia

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code:

(b) (4)

* Project/ Performance Site Congressional District:

(b) (4)

Additional Location(s)

Add Attachment

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BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2025

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Grid Resiliency and Innovation Partnership (GRIP)	81.254	\$	\$	\$ 52,096,413.00	\$ 52,663,975.00	\$ 104,760,388.00
2. N/A					8.00	8.00
3.						
4.						
5. Totals		\$	\$	\$ 52,096,413.00	\$ 52,663,983.00	\$ 104,760,396.00

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1) <div style="border: 1px solid black; padding: 5px; min-height: 150px;">Grid Resiliency and Innovation Partnership (GRIP)</div>	(2) <div style="border: 1px solid black; min-height: 150px;"></div>	(3) <div style="border: 1px solid black; min-height: 150px;"></div>	(4) <div style="border: 1px solid black; min-height: 150px;"></div>	
a. Personnel	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">356,101.00</div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">356,101.00</div>
b. Fringe Benefits	<div style="border: 1px solid black; width: 100px; text-align: right;">240,883.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px; text-align: right;">240,883.00</div>
c. Travel	<div style="border: 1px solid black; width: 100px; text-align: right;">18,250.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px; text-align: right;">18,250.00</div>
d. Equipment	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>
e. Supplies	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>
f. Contractual	<div style="border: 1px solid black; width: 100px; text-align: right;">505,949,543.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px; text-align: right;">505,949,543.00</div>
g. Construction	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>
h. Other	<div style="border: 1px solid black; width: 100px; text-align: right;">66,000.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px; text-align: right;">66,000.00</div>
i. Total Direct Charges (sum of 6a-6h)	<div style="border: 1px solid black; width: 100px; text-align: right;">506,630,777.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">506,630,777.00</div>
j. Indirect Charges	<div style="border: 1px solid black; width: 100px; text-align: right;">508,967.00</div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	<div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">508,967.00</div>
k. TOTALS (sum of 6i and 6j)	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">507,139,744.00</div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">507,139,744.00</div>
7. Program Income	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px;"></div>	\$ <div style="border: 1px solid black; width: 100px; text-align: right;">0.00</div>

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SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	Grid Resiliency and Innovation Partnership (GRIP)	\$ 0.00	\$ 0.00	\$ 258,020,362.00	\$ 258,020,362.00
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$ 0.00	\$ 0.00	\$ 258,020,362.00	\$ 258,020,362.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 52,096,412.80	\$ 13,024,103.20	\$ 13,024,103.20	\$ 13,024,103.20	\$ 13,024,103.20
14. Non-Federal	\$ 52,663,975.20	\$ 13,165,993.80	\$ 13,165,993.80	\$ 13,165,993.80	\$ 13,165,993.80
15. TOTAL (sum of lines 13 and 14)	\$ 104,760,388.00	\$ 26,190,097.00	\$ 26,190,097.00	\$ 26,190,097.00	\$ 26,190,097.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b)First	(c) Second	(d) Third	(e) Fourth
16.	Grid Resiliency and Innovation Partnership (GRIP)	\$	\$	\$	\$
17.					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$	\$	\$	\$

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	22. Indirect Charges:
23. Remarks:	

Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

05/19/2023

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

RWEWFEXCBZK6

8. APPLICANT INFORMATION:

* a. Legal Name:

Georgia Environmental Finance Authority

* b. Employer/Taxpayer Identification Number (EIN/TIN):

581667498

* c. UEI:

RWEWFEXCBZK6

d. Address:

* Street1:

47 Trinity Ave SW

Street2:

Fifth Floor

* City:

Atlanta

County/Parish:

Fulton

* State:

GA: Georgia

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

30334-9006

e. Organizational Unit:

Department Name:

Division Name:

Energy Resources Division

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

* First Name:

Kristofor

Middle Name:

* Last Name:

Anderson

Suffix:

Title:

Director of Energy Resources

Organizational Affiliation:

Georgia Environmental Finance Authority

* Telephone Number:

404-584-1031

Fax Number:

* Email:

kanderson@gefa.ga.gov

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

National Energy Technology Laboratory

11. Catalog of Federal Domestic Assistance Number:

81.254

CFDA Title:

Grid Infrastructure Deployment and Resilience

* 12. Funding Opportunity Number:

DE-FOA-0002740

* Title:

BIL Grid Resilience and Innovation Partnerships (GRIP)

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

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* 15. Descriptive Title of Applicant's Project:

Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities

Attach supporting documents as specified in agency instructions.

Add Attachments

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Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="249,129,382.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="258,010,362.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="507,139,744.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:

The Georgia Environmental Finance Authority does not lobby and does not require a SF-LLL form.

Project Title:
Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities

May 18, 2023

Notice of Funding Opportunity / Topic Area: DE-FOA-0002740 / Topic Area 3: Grid Innovation Program

Technical Point of Contact: Joe Sowell, VP System Planning, Georgia Transmission Corporation: 770-270-7779, joe.sowell@gatransmission.com; Jeff Pratt, VP Emerging Technologies, Oglethorpe Power/President, Green Power EMC: 404-310-4157, jeff.pratt@greenpoweremc.com

Business Point of Contact:

Kristofor Anderson, Director of Energy Resources, GEFA: 404-584-1031, kanderson@gefa.ga.gov

Team Member Organizations: Georgia Environmental Finance Authority (State Agency); Georgia Transmission Corporation; Oglethorpe Power Corporation; Green Power EMC; Georgia System Operations Corporation

Senior/Key Personnel and their Organizations: Kristofor Anderson, GEFA; Kelly Cutts, GEFA; Betsy Higgins, OPC; David Sorrick, OPC; Jeff Pratt, OPC; Camron Cardon, GTC; John Raese, GTC; Dustin Zubke, GTC; Joe Sowell, GTC; Nathan Brown, GSOC; and David Revell, GSOC.

Project Location(s): The proposed Project is a bundle of 22 distinct subprojects affecting 27 census tracts throughout the State of Georgia, including 9 DOE-designated DACs. However, nearly all of the proposed projects will benefit DACs due to site location and distribution service.

Statements Regarding Confidentiality: The data contained in ALL pages of this document have been submitted to the U.S. Department of Energy (DOE) in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that DOE shall have the right to use or disclose the data here to the extent necessary to process Georgia Environmental Finance Authority's (GEFA's) application under the Grid Resilience and Innovation Partnership Program. This restriction does not limit the DOE's right to use or disclose data obtained without restriction from any source, including GEFA.

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1.0 Project Overview

The Georgia Environmental Finance Authority (GEFA)—in collaboration with Oglethorpe Power Corporation (OTC), Georgia Transmission Corporation (GTC), Green Power EMC (GPEMC), and Georgia System Operations Corporation (GSOC; collectively referred to herein as the “Family of Companies (FOC)”—proposes to leverage \$250 million in DOE funding to deploy a ~\$500 million Regional Grid Improvement Strategy to Address Resiliency and Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities (Project). Thoughtfully developed to maximize benefits to utility customers, the Project carefully targets high-need yet historically difficult-to-fund upgrades. Specifically, the Project will generate targeted resiliency and reliability benefits that focus on underserved populations, Justice40 communities, and areas most critically affected by grid reliability and resiliency concerns.

The Project will deploy (b) (4) MWh of (b) (4), alongside system-level advanced controls that will add up to (b) (4) of grid down resiliency, helping to ensure that the FOC is prepared for projected increases in the frequency/severity of severe weather events and for at least (b) (4) of future anticipated increases in intermittent renewable generation capacity. The Project will also enable the FOC to better serve new and projected high loads associated with EVs, electric heat pumps, and other electricity-using clean technologies.

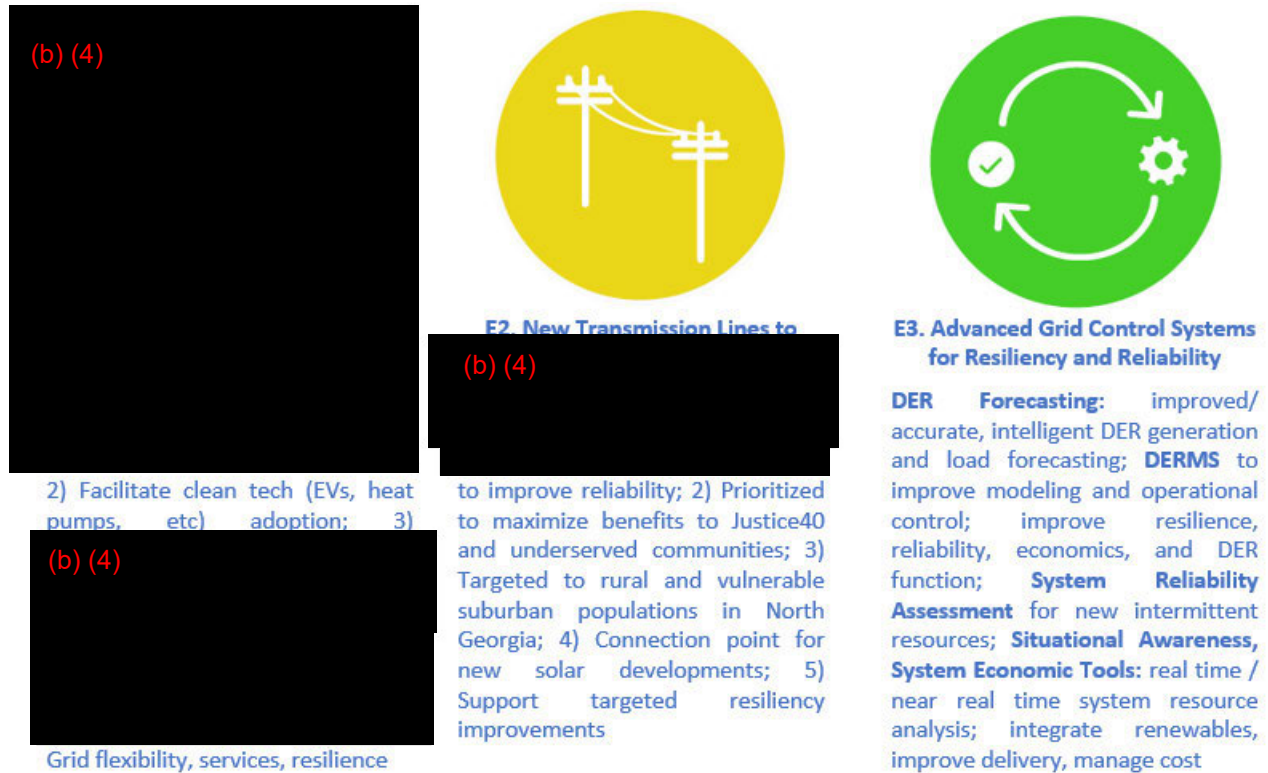


Figure 1. Summary of the three core Project Elements.

The Project will execute a series of targeted system upgrades and enhancements designed to fill gaps in traditional funding to help expand resiliency and grid reliability to those communities most in need. When executed, the Project will effectively transform grid service across much of Georgia and provide a cost-effective/ replicable pathway to significantly improve grid resiliency and reliability at a time when users are increasing their reliance on the electricity grid, resulting in ongoing and future anticipated load growth. In addition, sources of electricity are shifting by fuel source and geographic location due to efforts to decarbonize the grid. Specifically, the Project will deploy an innovative suite of grid and distributed energy resource (DER) solutions and controls that will address critical resiliency issues, reduce outages / increase reliability in underserved rural and some urban communities, and enhance resource adequacy systemwide. Collectively, these Elements will greatly reduce service interruptions—particularly those endured by underserved rural communities and those historically affected by environmental justice considerations. Proposed Elements will include:

- (b) (4) to support near- and long-term resiliency/reliability through strategically located (b) (4); these systems will help the FOC interconnect and integrate increasing levels of intermittent renewable energy;
- **Element 2 (E2). New Transmission Lines to Interconnect Radial Circuits**, to mitigate long-duration, end-of-line grid service interruptions, provide transmission infrastructure for future loads, and support renewable energy interconnection / integration;
- **Element 3 (E3). Advanced Grid Control Systems**, to integrate the forecasting and control of Elements 1 and 2, and other system interconnected distributed energy resources (b) (4) renewable generation / load), enhance the effectiveness of E1 and E2 while improving reliability, resiliency, and increasing grid capacity to integrate additional

intermittent renewable generation and distributed (b) (4) resources (collectively, “Inverter Based Resources,” or “IBRs”).

These elements have been strategically selected and revised since the concept paper to increase benefits to equity and Justice40 communities, increase alignment with DOE goals, and improve Project efficiency, effectiveness, and execution. When complete, the Project will enable the FOC to modernize critical elements of its existing grid system and provide much-needed system and community level benefits. Carefully tailored to maximize and prioritize benefits to underserved and Justice40 communities, the Project will reduce the average duration of grid interruptions, blackout, and brownout events by an estimated (b) (4) across the Project Area, directly improving grid facilities that serve disadvantaged and underserved communities. E1 will enable and greatly support future utility sector investments in facility-specific resiliency and load optimization measures, while improving grid operational flexibility. E1 and E2 will alleviate grid blackouts and brownouts during extreme weather events, while E3 will provide advanced control systems needed to optimize resiliency and effectively integrate the proposed equipment with the FOC’s existing operational controls infrastructure. Finally, the Project will support critically-needed community benefits including equity-prioritized capital investment in local communities, direct electric service improvements in rural disadvantaged areas, increased energy democracy, mitigation of historic environmental justice considerations in Justice40 communities, reliability improvements to critical community services and emergency response facilities during extreme weather events, and direct benefits to low-income households by limiting Project cost impacts.

1.1 Background

Applicant History and Successes.

The Project team includes the **Georgia Environmental Finance Authority** (GEFA or Authority)—a state government authority that serves as the State of Georgia’s Energy Office by promoting energy efficiency, renewable energy, and energy assistance programs to improve the environment, strengthen quality of life, and drive sustainable economic growth. Under the Project, GEFA will oversee and administer funds, subcontract with the FOC to execute the project, and implement funding schedules, verification, auditing, and DOE reporting.

GEFA has a successful history of administering loans and grants and working with DOE and other federal agencies to manage federal funding for energy and water programs.

GEFA has utilized state and EPA State Revolving Fund dollars to provide \$5 billion in loans to communities statewide, including \$476 million in 2021. GEFA’s Energy Resources Division

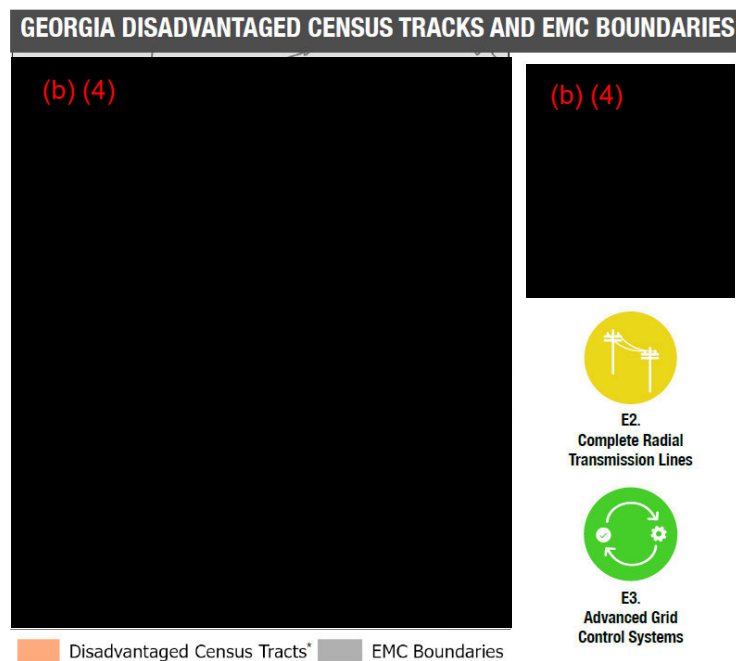


Figure 2. EMC service area boundaries plus disadvantaged census tracts; Georgia Disadvantaged Census Tracts determined by the Council on Environmental Quality (CEQ) Climate and Env Justice Screening Tool:

<https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>.

administered hundreds of millions in DOE funding through the State Energy Program and Weatherization Assistance Program since 2008 and has exceptionally strong experience implementing federal grants and contracting, oversight, and reporting.

Current Development Status / Development Baseline. The FOC’s service area encompasses more than 70% of the land area in the state of Georgia. As shown in Figure 2, 50% of the FOC’s service area is located within federally identified disadvantaged census tracts including more than 100 counties that exceed Georgia’s statewide poverty rate. Moreover, a large proportion of the disadvantaged communities served by the FOC are predominantly rural with low population densities. Maintaining high-resiliency and high-reliability electrical service in these areas presents critical cost and operational challenges. Specifically, system upgrades needed to serve these areas are costly on a per customer basis due to low population densities, making financing of such upgrades a key challenge, while long rural transmission and distribution lines that serve relatively few customers result in higher-than-average outage durations to the electrical grid due to single-source exposure and increased time for restoration personnel to make repairs to the system. Historic operational data illustrate notably higher incidence of grid events in these areas (Table 1).

Substation	Month	Year	Outage Duration (minutes)	Cause
(b) (4)				

Table 1. Historic resiliency and grid down events in rural areas of the FOC service territory.

Current and projected reliability concerns are caused by the following challenges:

Rural system infrastructure challenges. To serve rural customers, the FOC’s grid includes many long, single-end transmission lines and substations; however, these facilities suffer from a disproportionate frequency and duration of outages. During 2017 to 2022, communities in FOC’s service territory served by end-of-line equipment suffered an outage duration (b) (4) times the average systemwide outage duration rate for FOC grid areas served by network infrastructure (Table 1). Critically, the small rural communities served by these lines are almost exclusively classified as disadvantaged and underserved, wherein 1.2 million Georgians pay 6%+ of their household income for electricity¹—highlighting disparities in service quality for those populations that are most vulnerable.

Increasing incidence of extreme weather events. The Project Area is increasingly subject to storm damage caused by high winds, hurricanes, ice storms and other major storm events,

¹ Southern Environmental Law Center, 2019. Community and Faith Leaders shed light on Georgians’ energy burden. July 19, 2019.

resulting in localized flooding along numerous waterways, high winds, and periods of excessive heat or cold. Southern and rural parts of Georgia have suffered the most damage from tropical storms and hurricanes—such as Hurricane Michael, which caused ~\$3.7 billion in damages to Georgia in 2018². Storm strength at landfall has also been increasing. These storms continue to inflict damage to electrical infrastructure, as evident when reviewing the multitude of storm paths since 2008 (Figure 3). Increasingly, these storms and extreme weather events have caused minor to major electricity service outages.

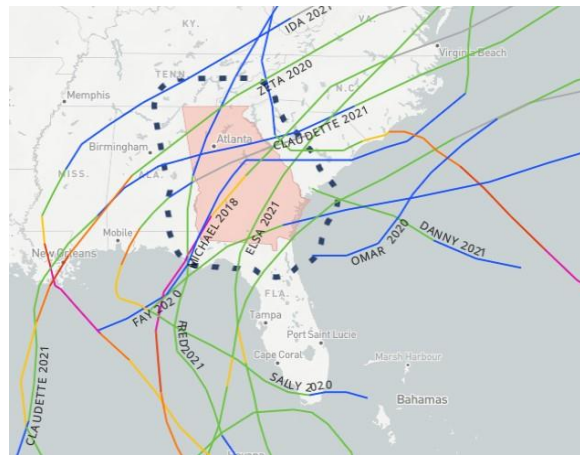


Figure 3. Named storm paths during 2008 to present.

Increasing intermittent renewable energy portfolio and advanced clean energy technologies.

Georgia is embracing the energy transition by deploying clean electricity generation such as solar installations / IBRs, while businesses and citizens are replacing fossil fuel using devices with those powered by electricity such as electric vehicles, water heating and heat pumps. Increasing reliance on intermittent generation resources, coupled with increasing reliance on electricity for basic services—and potentially life-saving services such as transportation and heating—amplifies the importance of grid reliability and resiliency—especially for rural economically challenged communities. Current grid control systems were not designed to maintain grid stability or reliability with higher levels of intermittent, distributed sources of electricity. Additionally, projected increases in intermittent renewables will offset traditional generation and decrease available system inertia, negatively impacting grid reliability/resiliency. New control systems will reduce grid interruptions and avert the need to operate redundant fossil fuel generation.

Population growth. Compounding the other challenges, statewide populations are expected to increase over the next two decades, driving higher demand for electricity services. Per the Georgia Governor’s Office, statewide population will increase by 16%--from 11.0 million at present to 12.9 million—by 2043.³ Rural grid infrastructure will be increasingly strained alongside increases in electricity service demand under this scenario.

Underserved populations. Extensive areas of the FOC’s service territory provide electricity to underserved and Justice40 populations. Reliable, affordable electricity is the foundation of economic opportunity and livability in all areas of the service territory; however, these rural underserved communities suffer disproportionately frequent service interruptions, and are particularly vulnerable to health and economic impacts from electric service interruptions.

1.2 Project Goal

The goals of the Project are to 1) improve grid resiliency and reliability in the FOC service area through key service metrics; 2) enable interconnection and integration of increasing levels of advanced renewable generation; 3) prepare the grid for full IBR integration; 4) harden the grid system against climate derived outages; and 5) improve equity-driven service. The Project will

² NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2023). DOI: [10.25921/stkw-7w73](https://doi.org/10.25921/stkw-7w73)

³ Refer to <https://opb.georgia.gov/census-data/population-projections>

target benefits to grid regions and populations most in need of service improvement, focusing on underserved communities, Justice40 communities, and end of line rural communities.

Targeted Improvements to Baseline Infrastructure. The Project team will deploy targeted improvements to the FOC’s existing grid infrastructure, including the following three elements, prioritized in their execution to focus on disadvantaged / underserved and Justice40 communities. See Section 2.0 for a full description of the Project and its components.

(b) (4)

(b) (4)

(b) (4) E1 will improve resiliency and optimize transmission system operation and function generally. E1 will support near-term and long-term resiliency by deploying (b) (4) in carefully selected locations. It will support (b) (4) deployment to improve the grid system by: 1) providing back-up power for vulnerable communities during grid service interruptions; 2) reducing need for higher cost/cost prohibitive transmission upgrades, distribution feeder upgrades, and/or additional fossil fuel generation; 3) increasing cost-effectiveness of the utility grid; 4) providing a system resource to maintain grid stability and enable increased deployment intermittent renewable generation; and 5) driving decarbonization via storage of green and low carbon nuclear power.

Element 2. New Transmission Lines to Interconnect Radial Circuits. E2 will provide resiliency upgrades to lines where additional transmission is located nearby, and a wired solution is most cost effective. E2 will mitigate existing long-duration, end-of-line grid interruption events and provide additional transmission capacity for anticipated future loads, targeting mainly rural communities located at the ends of existing transmission lines. E2 will mitigate outage duration and associated service issues and bring service outage times/frequency into target range.

Element 3. Advanced Grid Control Systems. E3 will integrate E1 and E2 infrastructure, provide advanced controls needed to support decarbonization and anticipated load/solar forecasts, and deploy additional advanced/coordinated grid management to further improve resiliency and reliability. E3 will improve system function and operability, (b) (4) and increase resiliency through improved system management and control.

Critical Success Factors. The following factors will be critical to Project success:

Critical Success Factor	Rationale, Justification, and Ability to Achieve
Prioritize underserved and Justice40 communities	Underserved and Justice40 communities represent the most vulnerable members served by the FOC. They suffer elevated duration outages, despite their high sensitivity to such outages. The FOC has developed an equity targeted approach to Project deployment prioritizes service improvements to these communities first.
Support community benefits	The project will generate new jobs, workforce development opportunities, and multiple categories of community benefits (see the Community Benefits Report)
Alleviate elevated outage rates for end of line users	The FOC’s existing grid system suffers an elevated frequency and duration of outages for end of line customers. The Project will address this issue by deploying targeted upgrades designed to improve outage rates, focusing on underserved/Justice40 areas.
Improve integration of IBRs	IBR integration is an increasing challenge over the ensuing 10 to 20 years, as more household and utility scale solar comes online. (b) (4) is needed to balance these loads and generation sources. The Project will address this issue by deploying (b) (4) while also improving resilience.
Deploy (b) (4) to improve resiliency	The Project will deploy (b) (4), to support (b) (4) and improved resiliency including during grid down events.

1.3 DOE Impact

DOE funding is critical to deploying the proposed Project. The FOC service area is largely rural, with a high proportion of low income / underserved communities and a generally low population density. As a result, utility revenues from these areas are not sufficient to support significant infrastructure upgrades, as proposed under the Project. Without DOE funding, the Project Area—and its extensive rural and underserved areas—would suffer from excessive reliability concerns, and E1, E2, and E3 would be significantly curtailed, delayed for many years, or not deployed. Critically, DOE funding will also allow the FOC to complete the proposed upgrades with minimal impact to end-use customer bills, thereby improving energy equity and affordability in underserved communities. Therefore, DOE funding will also help to remove barriers to the adoption of additional emission free intermittent solar energy and (b) (4).

1.4 Community Benefits Plan – Job Quality and Equity

The Project will accrue the following community benefits:

Decreased duration, frequency, or impact of power disruption. The Project will address existing disparities in outage duration for rural end of line users, the majority of which are located in rural disadvantaged communities. The Project will reduce outage duration for these areas from (b) (4) times the current average outage duration rate, to be within (b) (4) of the current average outage duration. (b) (4) and advanced controls deployed under the Project will further improve resiliency and reduce the frequency and impact of power disruption, including through (b) (4) deployment and system hardening. These features will help to ensure that extreme weather conditions have a limited impact on targeted communities and grid areas.

Increased access to clean power. The Project will increase access to clean power for communities served by the FOC. It will deploy (b) (4) of new, moderate scale (b) (4) (b) (4) and (b) (4) of new, large scale (b) (4). Collectively, these components will sufficiently enable additional solar energy and other IBR systems to be connected to the FOC grid. (b) (4) will also provide grid resiliency and additional power resources needed to supply electric heat pumps, heat pump water heaters, electric vehicle charging, and other clean power solutions. The FOC anticipates that Project deployments will be sufficient to provide these services to the targeted areas for at least 20 years of projected demand increases.

Support of minority business enterprises. To enhance diversity and inclusion in contracting, the FOC will commit to allocating at least 25% of all DOE and match funds spent on contractual agreements to (b) (4). This allocation ensures that a significant portion of the funding directly benefits these businesses. This commitment relies on the availability of qualified (b) (4) to perform the work and a cost comparison within 15% of other qualified bidding parties. The FOC will diligently document all Good Faith Efforts made to solicit (b) (4) participation in support of achieving the 25% target. Additional preference will be given to contractors who utilize unionized crews. This step acknowledges the importance of supporting the union workforce and the expertise they bring to projects. Furthermore, the FOC will prioritize contractors who commit to hiring from Georgia disadvantaged communities. This commitment ensures that projects not only provide opportunities for local businesses but also create job opportunities for individuals residing in these communities.

Other community benefits. Refer to the attached Community Benefits Plan for additional information on community benefits.

1.5 Strategy for Sharing and Maximizing Project Benefits Across Disadvantaged Communities

The Project team has carefully developed its execution plan to ensure that benefits to disadvantaged communities and Justice40 communities are maximized and prioritized. See Section 2.0 for details on the proposed execution process. GEFA and the FOC understand that proactive engagement with local stakeholders leads to community trust, stronger Project plans, increased transparency, and the reduction or elimination of certain associated risks. The FOC includes four distinct nonprofit companies that are collectively owned by 38 electric cooperatives. The FOC has a polycentric structure that is inclusive and aligned with the best interests of its member-owners and residents – a crucial difference from investor-owned utilities that target investor profits and non-local stakeholders. Accordingly, the Project will provide meaningful community and labor engagement by coordinating with a wide range of local stakeholders including residents, community groups, developers, business owners, neighborhood leaders, and elected officials. GEFA and the FOC will engage county and local officials to educate them on the project, hold public meetings to provide information, and get feedback from the members of impacted communities. GEFA frequently meets with city council members, local chambers of commerce, and other community groups, and both GEFA and the FOCs will extend this process under the project.

The FOC will lead targeted outreach to communities where upgrades will be completed and for communities that will receive direct benefit from the project, to be completed in phases consistent with the project schedule. Communities will be contacted through direct outreach, social media, and community meetings to describe the Project and solicit feedback, which will be incorporated to the extent practicable into system design. All outcomes will be reported to DOE.

1.6 Long-Term Constraints

Transmission line upgrades will be sited along existing lines or, for large scale new facilities, placed outside of communities and rural population centers, and therefore will not divide or interfere with existing communities. High voltage transmission lines, up to (b) (4), will be installed on single pole structures and will not divide or impact community function. With respect to natural resources, to the extent practicable, the Project will site new facilities and infrastructure outside of areas having sensitive natural resources. Facilities will not prevent or interfere with public or community access to natural areas, parks, open spaces, or other natural resources. The Project will not impact water resources. All facilities will undergo full environmental review during deployment; Tribal / cultural resources will be avoided. The transmission lines and (b) (4) will not require long term cleanup. The FOC commits to using safe, non-polluting (b) (4). Therefore, no associated pollution is anticipated, a long-term cleanup strategy will not be required, and communities will not suffer with pollution generated by the project.

1.7 Climate Resilience Strategy

The Project will: 1) Design and site facilities outside of areas prone to flooding wherever possible; 2) Proposed transmission line upgrades will include hardened design and ongoing maintenance

(e.g., vegetation management) to ensure that effects of high winds are minimized; 3)

(b) (4), rather than additional aboveground wired lines, will provide additional resiliency, including

(b) (4) level operation and potential to support temporary (b) (4) of select distribution lines; 4) Control systems will be strategically operated to minimize the effects of extreme weather events; (b) (4) will operate as reserve generation capacity as area loads reach unanticipated levels; 5) (b) (4) operation will be optimized to reduce carbon emissions; Table 2 shows a preliminary estimate of (b) (4).

2.0 Technical Description, Innovation, and Impact

2.1 Relevance and Outcomes

See Section 1.2 for brief summaries of E1 to E3; please refer to those summaries, and the following text provides additional detail:

E1. (b) (4) E1 provides improved reliability for communities served by end-of-line / single source transmission lines, where *no* additional transmission is located nearby, and a (b) (4) solution is *infeasible or cost prohibitive*. The Project team has identified (b) (4) without alternate transmission lines nearby. Here, a (b) (4) is considered to be a cost-effective solution when compared to traditional wires and substations. The targeted facilities were prioritized because they serve a peak load of (b) (4) customers in rural areas of Georgia that meet the Justice40 definition (based on census tract level data).

While small scale (b) (4) projects are located in primarily rural communities, the proposed (b) (4) will be located in more metro, Justice40 areas. The Project team preliminarily identified (b) (4) that are located within Justice40 communities, serve > (b) (4) each, and existing property is currently owned by the FOC to support the installation. Among the 3 identified census tracts, the peak load is (b) (4) customers are served. Each site was targeted due to its low physical impact, while also allowing for the most positive impact to reliability and resiliency for the system and the local community. The main purpose for the (b) (4) will be to support grid reliability/resiliency and manage intermittency of renewables, however each will also have grid forming capability to support local load serving needs during the event of a transmission outage.

In total, the Project will deploy (b) (4) of (b) (4) system capacity, with individual installations typically having capacities of (b) (4) for smaller scale distribution lines, or (b) (4) installations for substation-connected, (b) (4) all with an energy discharge duration of (b) (4). Both the (b) (4) will be deployed behind the substation delivery point meter, where electrical demand will be strategically reduced to minimize annual system expenses related to a mismatch of investment to load.

All (b) (4) will be operated as a *system resource*, as follows: 1) FOC will have direct control to call upon available charge and discharge capacity from all BESS facilities. 2) (b) (4)

(b) (4)
(b) (4)
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(b) (4)
(b) (4)
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(b) (4)
(b) (4)
(b) (4)

(b) (4)

Element 2. New Transmission Lines to Interconnect Radial Circuits. E2 provides transmission line upgrades end-of-line / single source transmission line communities, where additional transmission is nearby and a wired solution is feasible. Presently, (b) (4) consumers in the FOC's service territory through single-source or radial / end-of-line transmission infrastructure, resulting in average outage durations that are (b) (4) times longer than core networked infrastructure. These increased outage times stem from serving rural load centers at the end of long radial transmission segments (b) (4) over the past 12 years; (b) (4) miles or exceed (b) (4) miles). E2 will mitigate end-of-line grid down resiliency concerns and provide transmission needed for anticipated future loads of affected communities, which are mainly rural and underserved. For the (b) (4) targeted substations, the FOC will install additional transmission lines to connect these radial transmission circuits to other available transmission resources, thereby increasing system resiliency and reliability in vulnerable communities. In total, E2 will install (b) (4) miles of new lines in rural areas and select vulnerable suburban areas in North Georgia. The transmission lines will be located in that that are conducive for (b) (4) power development. The lines will provide an interconnection point for new (b) (4) developments, enabling generation to meet the growing in-region demand for emission-free energy.

Element 3. Advanced Grid Control Systems will complete an initial upgrade and expansion of the FOC's existing Advanced Energy Management System (AEMS) environment and will replace the FOC's existing data historian. With these needed upgrades in place, the FOC will deploy the following: DER Forecasting Solution Implementation: Deploy state-of-the-art DER forecasting to provide accurate, intelligent generation forecasting for DERs and support future grid planning. Accurate DER forecasting is essential for operation and planning of a system with high DER penetration. The FOC's existing solar forecasting can only statically compare singular forecasting sources. The Project's automated solution will integrate multiple solar forecasts into AEMS for increased accuracy, reduced error, reduced impact on cost, and resource constraints from high uncertainty. It will add new (b) (4)

These capabilities will allow the FOC to use a hybrid forecasting model approach with a top-down model that considers historical resource data and weather data, and a bottom-up model considering the cost of implementing a DER, government incentives, customer retail rates, and community benefits. To continually improve the DER forecasting model, a FOC DER forecasting working group will be created to review the DER forecasts, approaches, parameters, and other elements.

Distributed Energy Resource Management System (DERMS) Implementation will increase the FOC's ability to model, manage and control DERs within its operational environment by creating unified novel and traditional resource electrical network models using recognized industry modeling standards. Uniquely, it will create aggregated (b) (4) use cases for system level dispatch to support resiliency / reliability while maintaining targeted use cases for (b) (4) and radial end use customer outage mitigation. DERMS will also enhance management of DERs, and introduce DER control methodologies to increase resilience, reliability, and economics of the statewide grid. DERMS will allow study of DER impact on the electrical network, to support development of improved intelligent local and Member control of DERs. The System Reliability Assessment includes a detailed system to ensure reliability is maintained due to the rapid influx

of intermittent resources in Georgia. The assessment will evaluate system resource and energy adequacy, identify current limitations, and develop potential solutions to reliably increase the use of renewables and other intermittent resources on the system. Situational Awareness and System Economic Tools include the development of real-time or near real-time system analysis tools, on-line transmission analysis, and short-term system resource analysis. These tools will increase overall system situational awareness and optimize the use of renewable resources. Short-term resource analysis tools can provide real-time (b) (4)

(b) (4) alternatively, a single (b) (4) may be generated for the entire FOC footprint. The (b) (4) will optimize economic integration of DERs along with the traditional energy resources to optimize (b) (4). The FOC and Members will supply this information to (b) (4) to help them better manage (b) (4).

Required Changes to Existing Advanced Energy Management System To implement the targeted solutions, the existing AEMS environment will require upgrades to their integration. The FOC's existing AEMS provides accurate, reliable operations, but it is built on the premise of operating traditional energy resources. It will require (b) (4) to implement the latest grid control technology to DERMS, DER Forecasting, and price signaling solutions. Hardware and software AEMS upgrades require careful logistics, coordination, and significant amounts of system testing and evaluation to ensure that the system operates properly. The technology solution will allow the centralized control systems to seamlessly transition between data centers and ensure situational awareness for the system operator. The new network will enable data communications to the new tools, and provide network segmentation between pure AEMS environments, expanding Operational Technologies (OT), and corporation Information Technology (IT). These advancements in supporting infrastructure will ensure that the new DER, DERMS, and LMP implementations will be available, visible, and enabled for response.

The FOC's existing data historian provides accurate and reliable data capturing and storage but was designed with a limited number of data connections and data points. To serve the project, the FOC will complete a comprehensive replacement of existing data historian software to meet the new data storage requirements of proposed advanced control elements. The data historian will integrate data from multiple sources, an expanded data point count for collection, support high availability with data redundancy, conform to required system security and hardening, and have a central management system to support all data connections and system administration. Once implemented, these components will enable 1) holistic integration of DER management systems to support remote monitoring, alarming, alerting, scheduling, dispatching, and forecasting for new DERs, to rapidly and effectively identify faults or downed equipment, improve scheduling and dispatch, and enhance grid stability as additional intermittent renewable energy resources are added to the system; 2) advanced control algorithms to deploy DER to increase resilience, reliability, and economics of the statewide grid; 3) simulation to help understand DER impact on grid operation and resiliency; and 4) reliability-focused forecasting for solar energy. This new advanced grid control technology will support the operation of the proposed, as well as any future, clean energy grid resources within the FOC system footprint, thus enabling the extended adoption of future clean energy resources beyond the scope of the Project. The improved management, modeling, forecasting, and data analytics for these resources will allow the FOC to better leverage DERs to increase statewide grid resiliency.

2.2 Feasibility

The Project will be highly technically feasible. The proposed infrastructure and systems are currently commercially available technologies. The project will also review and deploy, using an early-stage commercial technology, at least one non-standard (b) (4) storage system; note that the project team will only rely on proven, warranted technology. Additionally, all other proposed (b) (4) and transmission line upgrades will utilize only commercial equipment, all of which are currently available through multiple suppliers operating in the Southeast region. The proposed (b) (4) will be procured using a bid process requiring the use of operationally verified, commercially available technologies proven at the same scale as the project. Control system upgrades will be Project-tailored using proven and commercially available hardware and algorithms. Reliance on commercially available, proven technologies will greatly facilitate the achievement of **performance targets**, which are summarized in Table 3:

Description	Numerical target	Justification / Ability to Achieve
Reduce outage duration for E1 and E2 target areas from (b) (4) the average outage duration rate for networked facilities	Outage duration shall be within (b) (4) of the average outage duration rate for networked facilities measured over a five year post construction	Project will rely on proven technology to provide transmission line redundancy or (b) (4) to reduce outage duration
Provide backup power supply for distribution lines via (b) (4)	(b) (4) will provide up to (b) (4) of grid down power supplies to improve resiliency	Deploy (b) (4) MW (b) (4) MWh of (b) (4) and (b) (4) MW (b) (4) MWh for grid services / storage
Deploy new transmission lines to improve resiliency	Install at least (b) (4) miles of new transmission lines	New lines will improve resiliency along high need transmission lines
Deploy new control systems to support project integration and DER integration	Proposed control systems, along with (b) (4) and other upgrades will allow integration of (b) (4) of new intermittent renewables	Proposed control system will integrate (b) (4) with grid allowing effective renewable storage and integration.

Table 3. Project performance targets.

The Project team has **previously deployed** (b) (4) **upgrades** (b) (4)

(b) (4)	(b) (4)
(b) (4)	(b) (4)
(b) (4)	(b) (4)
(b) (4)	(b) (4)
(b) (4)	(b) (4)
(b) (4)	(b) (4)
(b) (4)	(b) (4)
(b) (4)	(b) (4)

Table 4. The project team has successfully designed, constructed, and operated (b) (4) in new capital investment projects

(Table 4). To date, these efforts have shown strongly positive results.

The FOC operates a 256 kW/548 kWh BESS that is located adjacent to a 1 MW solar installation at a large-scale commercial facility in Commerce, GA. The facility was constructed in 2020 as a research and development installation to increase the FOC's working knowledge of BESS capabilities to smooth renewable intermittency, reduce load during peak operation, and control the customer peak demand during non-system peak operation.

With respect to **necessary infrastructure**, refer to Section 4.2.

2.3 Innovation and Impacts

Current standard practice. Among many rural co-op utilities, the current standard practice for handling elevated outage incident and duration rates in rural, low population density areas is to make patchwork repairs to ageing transmission and distribution (T&D) grid elements. Cost constraints are the key driver of this approach, wherein the conventional solution—large scale replacement or upgrading of T&D lines is often cost prohibitive. Therefore, many rural serving

utilities must focus efforts on larger population areas, leaving low density areas, including rural underserved areas, to deal with significantly elevated outage incidence rates and durations.

Innovation of the project. The Project will rely on an innovative, minimal wires approach to improving system reliability and resiliency. While the Project does include select transmission line upgrades, these are deployed sparingly and selectively—only for areas where other transmission lines are available nearby, and where connections to those lines can provide redundancy. Providing such redundancies on other lines that are in more remote areas would be cost prohibitive. To address this critical issue, the Project will rely on a non-wires alternative: (b) (4), which has become increasingly affordable with a growing number of commercially available systems and technologies that are currently on the market. Use of (b) (4) in lieu of major transmission and distribution system upgrades will reduce Project deployment costs by at least (b) (4). Moreover, the FOC's innovative approach will also enable the integration of (b) (4) based resiliency services, as well as improved DER integration and grid services such as (b) (4) and renewable energy storage. Finally, the proposed control systems will enable connected, real-time management of the proposed systems, further supporting integration of DERs and resiliency features.

Innovative strategy for maximizing benefits to communities. The Project team has gone to great length to prioritize and maximize benefits underserved and Justice40 communities during Project execution. See Sections 1.4, 2.1, 3.0, and the Community Benefits Plan for more information.

Impact on advancing the state of the art / technical baseline. As noted previously, the Project will focus on deployment of commercially available systems. Its innovation, and where it has the potential to significantly advance utility resiliency, is in the manner in which the Project will collectively deploy a combination of wired (improved transmission lines), nonwired (b) (4), and advanced control systems to improve electricity service resiliency and reliability at a cost that is estimated to be at least (b) (4) less than conventional wires-only solutions. Thus the Project will serve as an initial template for potentially dozens of other rural co-op utilities nationwide that also struggle to complete high need resiliency and reliability upgrades due to cost constraints. The Project will also integrate advanced controls into a rurally-focused utility grid system, greatly improving opportunities for solar power generation, as well as EV and clean technology related loads, in rural areas. The project will also demonstrate an early stage (b) (4)

2.4 Resilience and Decarbonization Support

The Project will strongly support federal goals of achieving a pollution-free power sector by 2035 and a net zero emission economy by 2050 by greatly increasing the FOC's ability to handle new intermittent renewable capacity, and by improving resiliency, reliability, and supply needed to facilitate the more widespread use of clean electricity consuming technologies including EVs, heat pumps, and other advanced systems. The Project will support and facilitate ongoing deployment of the Georgia Low Income Home Energy Assistance Program (LIHEAP), a federally funded program that provides utility bill assistance to low-income households, by helping to minimize rate increases associated with improved resiliency measures. The Project will also support federal workforce development and reinvestment goals by providing workforce training, and high paying local jobs. Preliminary calculations also indicate that the Project will potentially reduce carbon emissions as shown in Table 2.

2.5 Project Impacts

Each of the proposed technologies and systems is commercially available; it is their coordinated application and deployment in rural and underserved communities, while providing systemwide and statewide grid resiliency benefits, that makes the Project innovative. Therefore, from a technology perspective, **risks** associated with the deployment of the Project are minimal, and there is little technical de-risking to be accomplished. Within the industry, financial risks for deployment, including cost-benefit realization, still present a critical risk and a significant potential barrier to deployment for a coordinated grid improvement project such as that proposed here. By demonstrating the specific costs, outcomes, and economic / technical viability of the proposed improvements—particularly as applied to rural and underserved communities—the Project will significantly reduce risks of future deployment by other utilities nationwide.

To help facilitate system replicability by other utilities, the Project team proposes to incorporate a comprehensive review of the specific benefits of the Project into its community benefits planning / development process and into the three Project Elements. The review will include a summary of financial costs including capital, deployment, and operations, costs, as well as benefits to system operability, reduced downtime, reduced service / outage calls, improved reliability to its customers, improved integration of renewable generation, improved transmission, improved electric resource availability even in the event of a natural gas shortage, and other related improvements to be discussed in the full proposal. The Project will proactively reduce and alleviate actual and perceived financial and technical risks of replicating the Project and similar smart grid deployment projects at other rural-focused utilities nationwide.

More broadly, outcomes of the Project will serve as a roadmap for future similar deployments, including by other rurally focused and co-op integrated utilities. By providing a roadmap for deployment of a viable system, and real-world data to validate system operation, the Project will short circuit cost and engineering related bottlenecks and constraints to smart grid system deployment, and therefore strongly advance additional **deployments at scale, especially for utilities that lack the time and resources to undertake innovative grid facilities**. Such additional at-scale deployments will also help to generate continued and improved market demand for the proposed technologies and upgrades. This additional demand will, in turn, help to support **additional private sector investments**—in equipment manufacturing as well as Project development, deployment, and—over time—in new investments targeting innovation surrounding grid resiliency and improvement systems generally.

2.6 Innovative Approaches and Deployment Goals

The Project team has integrated several innovative approaches to deployment, from both technical / conceptual and implementation perspectives:

- **Combined wired and non-wired approach to grid resiliency.** The Project team has taken a carefully planned and innovative approach to selecting Project locations for transmission line upgrade versus (b) (4) storage. Nearly all areas suffering from longer duration outages are located along end-of-line transmission lines and distribution substations, as discussed previously. However, a conventional lines-only solution would be prohibitively costly, requiring **more than twice the investment** proposed under the Project, and would also result in elevated environmental impact from new transmission lines, as well as a substantial increase in long term operational costs to maintain those lines. Therefore, instead, the Project team has proposed line upgrades only for areas with nearby grid lines that can interconnected as backup. For areas where additional grid lines are not in close proximity, the Project team has proposed (b) (4) to create redundancy and improve power resiliency,



even during a partial grid down event. Therefore, the Project represents a low-cost, low environmental impact solution to conventional grid infrastructure upgrades in rural areas. This component, once proven and demonstrated, is expected to be highly replicable, both for other future updates within the FOC's service territory, and for other rural serving utilities and cooperatives that would otherwise find rural system upgrades to be cost prohibitive.

- (b) (4). The Project will deploy both large scale (b) (4) and moderate scale (b) (4) and thereby provide multiple layers of grid system benefits. The proposed moderate scale (b) (4) will provide direct resiliency benefits to specific substations and distribution lines where they are deployed, thereby working in place of a conventional all-wires solution (see previous bullet). In contrast, the large scale (b) (4) will be deployed at the substation level, and will support larger scale grid balancing by mitigating effects of renewable intermittency and increased usage of IBRs, while also being utilized to reduce peak demand. The large scale (b) (4) will provide grid-wide and statewide benefits to Georgia's power grid, allowing increasing penetration levels of clean energy sources such as solar, increasing area reliability, and local resiliency during transmission level outages. Both (b) (4) size categories will improve DER integration and prepare for future increases in DER / clean technology deployment.
- **Advanced (b) (4) system pilot.** The Project team recognizes that (b) (4) technologies are advancing and commercializing rapidly. Improved technology deployments could reduce costs, improve performance, improve safety, and/or reduce Project physical footprints. To help capitalize on these benefits, the Project team proposes to deploy one of the proposed (b) (4) as a pilot demonstration of an early commercial (b) (4) to lower life cycle costs and improve safety via alternate (b) (4).
- **Tailored deployment to maximize benefits to underserved and Justice40 communities.** Refer to Section 2.1 and 3.1 for the prioritization process that the used to select and prioritize individual components to be upgraded under the project. This forward thinking, replicable process will ensure that Project benefits are carefully targeted to those who need it most.

2.7 Additional Public and/or Private Investment

As discussed in Section 1.3, DOE funding is expected to be critical to the viable development of the project. For the Project itself, DOE's funding will enable the Project team to co-invest utility resources in the development of the proposed advanced system upgrades, including (b) (4), control system upgrades, greatly improved DER integration, and targeted community benefits. Absent DOE support, it is anticipated that the Project would be limited to a portion of the line upgrades proposed under the project. Over the longer term, DOE investment and successful Project deployment will help to de-risk future deployments of (b) (4), and advanced controls. Once proven to be economically viable for a rural utility, the FOC and other rural co-op utilities will have the justification needed to replicate or expand the Project for future similar deployments. Regarding **private investment**, the FOC and other co-op utilities do not typically seek private capital to complete grid upgrades. However, deploying the project and likely future deployments as noted above, will initiate increased demand for utility scale (b) (4) and advanced control systems. Increased demand will drive domestic manufacturing capacity, increase private investments, and enable industry scale-up.

2.8 Economic Benefit

The Project will provide economic benefits to affected communities, with a focus on underserved and Justice40 communities, as follows: 1) (b) (4) million in direct purchases from local / regional EPCs, construction service providers, engineers, environmental specialists, equipment/materials

providers, and other industry players; these purchases will increase secondary spending in the Project region and state, further benefitting communities; 2) (b) (4) new jobs to serve the project; 3) Workforce training for local workers, focused on training on grid resiliency; 4) Reduced upward pressure on utility rates via DOE grant funding, and as a result of improved / more efficient grid system operation. Reduced pressure on utility rates will help keep electricity costs affordable with the FOC's service territory; 5) Reduced energy burden, particularly for underserved customers; 6) Reduced energy insecurity and reduced environmental exposure; and 7) Reduced interruptions for (b) (4) customers who will realize (b) (4) in savings via avoided outages.

2.9 Near-Term Impacts

Near-term impacts are summarized in sections: 1.4, 1.7, 2.4, 2.5, 2.8, 3.1, and Table 3.

2.10 Readiness, Viability, and Expected Timing

Project Readiness. All proposed components considered within the Project have undergone preliminary engineering review, planning, and early stage / conceptual design. Therefore, all are considered ready to initiate from a planning perspective, and all components will be ready to move into Project execution within approximately (b) (4) of the notice of award from the DOE. In the past 1-2 years, the FOC has completed preliminary studies to address each of the Elements noted in the proposed Project. Cost screening and preliminary equipment siting review have been completed. In addition, the FOC has completed an initial (b) (4) project including design, integration, installation, and operation. It is also installing a (b) (4) project at one of its warehouses. This experience, along with the identification of equipment supply and strong technical partners, has positioned the FOC to be “shovel-ready” to deploy the Project. See Section 3.7 for a project Gantt; a detailed Project schedule will be included with the formal application.

Project Viability. The Project and all components are exceptionally viable. As noted previously, all physical components are considered commercially viable / commercially available and have been proven through extensive deployments across multiple scales of utilities nationwide; it is their collective / coordinated application and their deployment focus on rural areas that are considered novel, unique, and innovative. All Project components have undergone preliminary feasibility, financial, and operational analyses to verify their viability and cost effectiveness. Moreover, each Project Element and its components aligns with the FOC's core competencies / capabilities and established record for constructing, operating, and maintaining electric grid infrastructure within its service area. All Project components—and the Project overall—are considered highly viable with support from this grant.

Project Timing. The Project team will deploy the Project, including all components, over a period of 96 months, with a rapid start as described in Project Readiness. All construction will be complete by Q2 of 2030, with all community benefits, Project benefit tracking, and closeout activities completed by April, 2031. Refer to Section 3.7 for a summary Project schedule / Project Gantt chart.

3.0 Workplan

The FOC has carefully prioritized individual components of the Project based on their anticipated benefits to underserved and Justice40 communities. Refer to Section 2.1 for a summary of the equity-oriented selection process for each Element. The Project will also strongly support local workforce development, while adhering to BuyAmerica requirements for all elements of the project.

3.1 Project Objectives

Refer to Section 1.2 for the project goal. Objectives apply to component projects deployed during each BP. **BP 1:** 1) Prioritize execution by prioritizing benefits to underserved/Justice40 communities; 2) Complete engineering/design; 3) Complete permitting; 4) Initiate procurement/construction; 5) provide community benefits and workforce development; 6) (b) (4) new jobs. **BP 2:** Objectives 1-5 for BP 2 components; 7) (b) (4) new jobs; 8) Complete construction / start operation for (b) (4); 9) Continue remaining BP 1 construction; 10) Validate (b) (4) resiliency. **BP 3:** Objectives 1-5 for (b) (4) components; 11) (b) (4) new jobs; 12) construction / start operation for (b) (4) and (b) (4) transmission components; 13) Continue remaining (b) (4) construction; 14) Validate (b) (4) resiliency. **BP 4:** Objective 5; 15) (b) (4) new jobs; 16) complete construction / start operation for (b) (4) and (b) (4) transmission components; 17) Continue remaining (b) (4) construction; 18) Validate (b) (4) resiliency for. **BP 5:** Objective 5; 19) (b) (4) new jobs; 20) complete all construction; project-wide objectives: 21) Reduce outage duration and increase system resiliency, including during adverse weather, to <= current average systemwide outage duration rate; 23) Deploy controls to manage new infrastructure and increase solar / DERs; 24) Facilitate (b) (4) of DER integration territory-wide and enable integration of future intermittent renewable generation capacity; 25) Utilize (b) (4) for renewables banking, arbitrage, and grid balancing; 26) Provide workforce training; 27) Improve electrical service in underserved / Justice40 communities; 28) Keep energy costs affordable territory-wide; 29) validate and operate all facilities including (b) (4) MW / (b) (4) MWh (b) (4) and (b) (4) miles new/upgraded transmission lines; 30) Reduce outage duration for targeted areas to within (b) (4) of the current average outage duration rate of networked infrastructure over a five-year period after new facilities are constructed; 31) Increase grid resiliency during adverse weather conditions to within (b) (4) of current average outage duration rate (b) (4) for network infrastructure over last five years.

Key **Project outcomes** will align with the goals and objectives shown above and will include installation of all system hardware and control elements, and completion of all community outreach and benefit elements discussed in the Community Benefits Plan. These efforts will reduce average outage duration rates in affected areas to match or be lower than the current average outage duration rate; improve grid resiliency; facilitate DER integration; provide targeted grid services; improve grid system control; generate new jobs and provide workforce training; provide direct benefits to local communities; improve electrical service; and reduce upward pressures on utility rates. Refer to the list of objectives for specific metrics.

3.2 Technical Scope Summary

The Project team will complete the Project during the following budget periods (BP):

BP 1. Justice40 + Tier 1 Transmission Line Components. Recipient will: initiate (b) (4) components and (b) (4) radial transmission line component projects, all located in / directly support Justice40 and underserved communities. Complete all bids/ contracting, NEPA/permitting, and engineering/design for all of these components. Initiate procurement and construction for all (b) (4) and (b) (4) of the transmission components. Recipient will complete all BP 1 community benefit / workforce development.

BP 2: Justice40 + Tier 2 Transmission Line Components. Recipient will: initiate (b) (4) through permitting, targeting Justice40 and Tier 2 transmission priorities. Finalize procurement / construction, initiate operation of the first (b) (4) component projects; continue development/procurement and construction of BP1 transmission lines; complete BP 2 community benefit / workforce development.

BP 3: Other High-Need Rural Communities. Recipient will: initiate last transmission line upgrade for other high-need rural communities, through initial construction; complete construction and initiate operation for (b) (4) and (b) (4) transmission lines, and controls. Complete all BP 3 community benefit / workforce development.

BP 4: Finalize (b) (4) and Tier 1 + 2 Transmission Lines. Recipient will: complete construction / initiate operation of the final (b) (4) transmission lines from BP3, and continue construction of the final transmission line started in BP 3, and controls, complete BP 4 community benefit / workforce development.

BP 5: Finalize All Remaining Components, Final Reporting. Recipient will complete the remaining transmission line + controls from BP4 and complete all BP5 community benefits / workforce development.

3.3 Work Breakdown Structure and Task Description Summary

The following task will be performed during all BPs; NOTE: see the SOPO for additional detail including timing of specific project components such as specific lines and (b) (4)

Task 1.0: Project Management and Planning. Complete all DOE-required project management and planning (Project Management Plan updates, NEPA compliance, cybersecurity, continuation briefings) and also complete all Project administration, management, deliverables.

BP 1: Justice40 + Tier 1 Transmission Line Components.

Task 2.0 – BP 1 Project Development

Subtask 2.1 – BP 1 Engineering, Design, and Permitting. The FOC will select EPC contractor(s), then complete all engineering and design, and all environmental permitting, as required for the Project components targeted under BP 1 (see SOPO).

Subtask 2.2 – BP 1 Procurement and Construction. The FOC will initiate procurement and construction for BP 1 (b) (4) and radial transmission line components.

Subtask 2.3 – BP 1 Data Collection. Project team will track all progress including costs, progress against milestones, and lessons learned for Subtasks 2.1 and 2.2, for DOE reporting.

Task 3.0 – BP 1 Workforce and Community Benefits. Recipient will complete all hiring, workforce training / workforce development, community outreach / support, and community benefits.

BP 2: Justice40 + Tier 2 Transmission Line Components.

Task 4.0 – BP 2 Project Development. This task will complete Subtasks 4.1 and 4.2 which are the same as Subtasks 2.1 and 2.2, but deployed for BP 2 components. Refer to the SOPO.

Subtask 4.3 – BP 2 Commissioning, Operation, and Validation / Data Collection. Project team will complete commissioning and testing, then initiate operation for each of the (b) (4) components initiated in BP 1, then validate operation via operational data collection and monitoring for the duration of the project.

Task 5.0– BP 2 Workforce and Community Benefits. Project team will complete hiring, workforce training/workforce development, community outreach, support, benefit elements.

BP 3: Other High-Need Rural Communities.

Task 6.0 – BP 3 Project Development. This task will complete Subtasks 6.1 to 6.3, which are the same as Subtasks 4.1 to 4.3, but applicable to BP 3 components. Refer to the SOPO.

Task 7.0– BP 3 Workforce and Community Benefits. Project team will complete hiring, workforce training/workforce development, community outreach, support, benefit elements.

BP 4: Finalize (b) (4) and Tier 1 + 2 Transmission Lines

Task 8.0 – BP 4 Project Development. This task will complete Subtasks 8.1 and 8.2, which are the same as Subtasks 6.2 and 6.3, but applicable to BP 4 components. Refer to the SOPO.

Task 9.0– BP 4 Workforce and Community Benefits. Project team will complete hiring, workforce training/workforce development, community outreach, support, benefit elements.

BP 5: Finalize All Remaining Components, Final Reporting.

Task 10.0 – BP 5 Project Development. This task will complete Subtasks 10.1 and 10.2, which are the same as Subtasks 8.1 and 8.23, but applicable to BP 5 components. Refer to the SOPO.

Task 11.0 – BP 4 Workforce and Community Benefits. Project team will complete hiring, workforce training/workforce development, community outreach, support, benefit elements.

3.4 Milestone Summary

Milestone No. (task, timing)	Milestone Type	Description	Validation
Budget Period 1			
(b) (4)			
Go/No Go Decision Point 1 / Start of BP 2			
Go/No Go Decision Point 2 / Start of BP 3			
Go/No Go Decision Point 3 / Start of BP 4			

(b) (4)			
Go/No Go Decision Point 4 / Start of BP 5			
End of Project Milestone			

3.5 Go/No-Go Decision Points

Go/No-Go Decision Point 1. Recipient will verify completion of Objectives 1 to 6 for BP 1 and reports to DOE; Refer to Section 3.1 for specifics. **Go/No-Go Decision Point 2.** Recipient will verify completion of Objectives 1 to 5 for BP 2 components, and objectives 7-10 and reports to DOE; Refer to Section 3.1 for specifics. **Go/No-Go Decision Point 3.** Recipient will verify completion of Objectives 1 to 5 for BP 3 components, and objectives 11-14 and reports to DOE; Refer to Section 3.1 for specifics. **Go/No-Go Decision Point 4.** Recipient will verify completion of Objective 5 for BP 4 components, and objectives 15-18 and reports to DOE; Refer to Section 3.1 for specifics.

3.6 End of Project Goal

Recipient will verify completion of objective 5 for remaining components, and objectives 19-31 (see Section 3.1), as well as all anticipated community benefits, and targeted metrics / outcomes identified in this Technical Volume.

3.7 Project Schedule

The Project team will complete the Project during (b) (4) months, per the following Gantt chart:

(b) (4)

3.8 Buy America Requirements for Infrastructure Projects

The Project team will adhere to BuyAmerica requirements for all elements of the project.

3.9 Project Management

Overall Approach to Organization and Managing the Work. GEFA's Grant Manager (Section 4.1) will serve as the ultimate Project leader, and will engage the Project manager, support staff, engineers, subcontractors, and Project partners. The Project management (PM) team will work closely with DOE to track technical progress against objectives, manage budgets and schedule, participate in scheduled meetings with DOE staff, and ensure budget / schedule performance. The PM team will closely coordinate all Project parties internally through frequent meetings, calls, and email communications, to proactively identify and address technical and other issues and concerns that could otherwise interfere with milestone progress.

Roles of Each Project Team Member.

Organization	Role
GEFA	Project oversight and admin; management / oversight of goals, objectives, milestones; Project tracking; top level budget and schedule oversight; data compilation, analysis, and reporting
OPC	Finalize design, engineering, and permitting for grid system and grid-wide storage upgrades; install and operate grid system and grid-wide storage; evaluation, analysis, and reporting support
GTC	Finalize design, engineering, and permitting for transmission upgrades (b) (4) integration; install and operate these systems; evaluation, analysis, reporting support
GSOC	Design and engineering for grid system monitoring, management, and control systems; install, test, operate controls to ensure support for DER integration; evaluation, analysis, reporting

Table 5. Project Team Roles

Critical Handoffs and Interdependencies are summarized in Table 6.

Object	Initiating Party	Recipient Party
(b) (4) system info (E1) needed to support improved controls (E3)	OPC	GSOC
New transmission line info (E2) needed to support improved controls (E3)	GTC	GSOC

Table 6. Critical Handoffs and Interdependencies

Management Systems and Practices; Risk Management. Upon initiation of a specific Project component (e.g., a specific (b) (4) system or transmission lines along a specific corridor, etc.), the applicable FOC organization will hold a Project kick-off meeting with its internal staff and contractors. Participants will review Project principles and mandates, project concept and outlay, and budget. The FOC will carefully oversee the work of its internal staff and contractors. Design and permitting reviews will be conducted regularly. During construction, the Project Manager and Construction Inspector will maintain full and direct oversight of the construction process including weekly construction team check ins, equipment procurement schedule alignment checks, weekly issue reporting and critical path issues. If an issue cannot be mitigated internally, the Project Manager will bring the issue to the wider FOC team and work collaboratively to triage and address the concern to allow work to proceed on schedule. Throughout this process, the FOC will follow standard Project Management Professional (PMP) practices, which include design and construction reviews and sign-off and revision control. The FOC will also employ project controls on cost, schedule, and progress, including monthly oversight and mitigation sessions. The reviews will include a progress analysis, a summary of costs, and the current risks on the project. GEFA will be made aware of all critical level issues and concerns and will escalate to DOE if warranted. **Project Changes.** The above management practices / risk management will minimize the need for project changes. In the unlikely event of a change, GEFA will immediately notify DOE and present a series of viable mitigation options.

GEFA will work with the FOC and DOE staff to avoid a Project change if possible. If a change is required, GEFA will work with DOE staff to ensure that the proposed change will still allow the Project to meet all core objectives and milestones, as well as the overarching Project goal, then execute those changes. **QA/QC.** Refer to the Management Systems and Practices discussion above. Each FOC company will have department managers and/or SMEs who – using existing QA/QC procedures - will be responsible for all design and construction elements for each Project component prior to design completion, initiation of procurement, initiation of construction, completion of construction, completion of testing / commissioning, and initiation of operation. **Project Team Communications.** The Management team will hold regular internal check in meetings, and at least monthly check ins with GEFA, DOE, and the FOC team leads. Formal communication points will be supplemented with regular execution and Project team, engineering, construction / execution planning, and other informal calls and emails as needed.

4.0 Technical Qualifications and Resources

4.1 Project Teams

Qualifications and Expertise

GEFA has assembled a Project team that is exceptionally well-poised and well qualified to execute the project. Figure 3 summarizes team organization. Refer to Section 1.1 for a summary of **GEFA** background and experience and attached resumes for staffing qualifications detail. Key GEFA personnel:

- **Kristofor Anderson, Grant Manager, Director of Energy Resources | GEFA.** Kristofor leads the state energy office programs, the Weatherization Assistance Program, the State Energy Program, and the Fuel Storage Tank Program. He joined GEFA as program manager in 2010 with prior planning consultant experience for federal and energy industry clients. At GEFA, he manages millions of dollars of federal grants for energy efficiency, renewable energy, and weatherization.
- **Kelly Cutts, Grant Administrator, Senior State Energy Program Manager | GEFA.** Kelly is a Senior Program Manager in the Energy Resources Division of the Georgia Environmental Finance Authority (GEFA). She manages Georgia's State Energy Program funding through the DOE, and serves on the Board of Directors for Georgia Solar Energy Association.

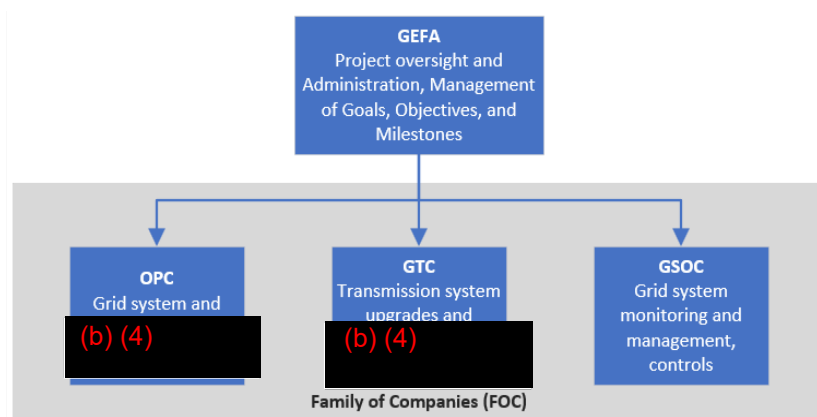


Figure 3. Project org chart.

The **FOC** includes four distinct not-for-profit companies, collectively owned by 38 electric cooperatives—not corporate shareholders. The FOC delivers electricity to 4.4 million people and 65% of Georgia's land area (Appendix A). The FOC generates, transmits, and distributes electricity across the state's grid and monitors/manages system operation, operating as a in the same manner as fully integrated utilities. The FOC will implement the Project through financing, procurement, Project management, design/construction, operation, and deployment of all community benefits. The FOC has extensive experience implementing major, innovative infrastructure projects, deploying federal grants/ loans, compliance with federal requirements

and procedures. The FOC has leveraged \$5.16 billion in USDA Rural Utility Service loans, which require compliance with all federal environmental, procurement and general regulations.

OPC is one of the nation's largest power supply cooperatives with \$16+ billion in assets. OPC's total capital budget for 2023 is \$766 million including its continued investment in Vogtle Unit 3 and 4—the first new nuclear generation to be constructed in the United States in 30 years—funded in partnership with DOE. OPC received \$5 million in ARRA funding from GEFA to improve energy efficiency in homes, poultry production facilities. Key staff:

- **Betsy Higgins, EVP, Chief Financial Officer | OPC** has been employed by OPC for 25 years and has served as EVP, Chief Financial Officer for 18 years. She will be OPC's Financial Administrator.
- **David Sorrick, EVP, Chief Operating Officer | OPC** has 30+ years of energy generation experience in fossil and hydro, and is a licensed PE. He helps manage an annual budget of \$2+ billion with ~\$150M in annual capital projects and a federal agency loan portfolio from USDA/RUS and DOE of \$7.1B. He will serve as Deployment Manager for the project.
- **Jeff Pratt - President | Green Power EMC and Vice President, Emerging Technologies | OPC** is responsible for day to day management of a renewable energy portfolio for 38 Georgia electric cooperatives, and leads OPC's effort to source renewable energy projects. He will integrate the Project with the renewable portfolios of member co-ops; he supported 1 GW of solar and two grid enabled battery projects since 2012.

GTC owns / maintains 4,000+ miles of transmission lines and 750+ substations. GTC adds \$100+ million/yr in annual construction projects (GTC's 2023 capital budget is ~\$200 million). GTC has leverages innovative solutions as a core principle in its approach to all projects. GTC's history of R&D successes provides a proven foundation for continued pursuit of industry progress — including its nationally-recognized EPRI-GTC Siting Methodology and its Delta 500 kV Tower Design. Both innovations have led to proven increases in efficiency and system reliability with reduced environmental footprint. Key staff:

- **Camron Carden, VP, Transmission Projects | GTC** carries extensive front line project management experience and oversight of engineering and development teams, and is currently accountable for a capital portfolio of transmission, substation, and fiber development.
- **Dustin Zubke, Sr. VP and Chief Financial Officer | GTC** has held his current position since 2021. He previously served as CFO for East River Electric Power Cooperative in Madison, South Dakota, and positions of increasing responsibility at CoBank. He is responsible GTC's Project Control's and Accounting teams, having successfully managed nearly 500 projects valued at \$1.0 billion since 2018.
- **Joe Sowell, VP, System Planning | GTC** has held his current position since 2018. He is vice-chair of the Eastern Interconnection Planning Collaborative (EIPC) Technical Committee, and is a licensed PE. He will contribute to system planning and project siting, and leads a team of planning engineers to assist this process.

GSOC manages monitors electric generation and distribution for 38 of Georgia's electric membership corporations, providing service to 5 million Georgians / half of Georgia households, covering more than 2/3 of the state's land area. Key staff:

- **Nathan Brown, EVP, Chief Operating Officer | GSOC** has 30+ years' experience in generation and transmission system operations and planning, is a licensed PE, and will be responsible for implementing the advanced grid control systems, on behalf of GSOC.

- **David Revell, VP, Power Technology/GSOC** has 20+ years of grid security and control systems experience, and will support advanced control deployment.

4.2 Existing Equipment and Facilities

The Project team maintains all equipment and facilities, and all access to such equipment and facilities, as needed to execute the project. Available assets include the following: **1) Warehousing Facilities:** Warehousing capabilities have grown recently and now total of hundreds of thousands of square feet of storage capacity across the FOC. FOC warehouses support capital construction, operations, and maintenance projects. **2) Procurement Department:** FOC purchasing agents will be responsible for the procurement of all materials and are familiar with Rural Utility Service requirements and Critical Infrastructure Protection standards. FOC purchasing agents work with both the RUS Buy American requirements and the Federal Highway Administration Buy America requirements. The FOC has made several improvements to its supply chain by increasing supplier listing, building resilience, and resolving many supply chain disruption impacts. **3) Grid Facilities.** The Project team will have full access to all grid facilities targeted for modification / upgrade under the project. Control facilities for the FOC grid are located across the existing grid. Control system upgrades proposed under the Project will require software upgrades, and in some cases physical control system upgrades. The Project team will have full access to these facilities.

4.3 Previous Work Efforts and Demonstrated Innovations

Refer to Section 1.1 for a summary of relevant GEFA previous work and associated outcomes; prior work efforts for the FOC are provided in Section 4.1, and Table 4 / surrounding text.

4.4 Key Team Member Time Commitments

Key team members identified for Project execution have made the following time commitments to support the project; all team members shown have sufficient availability to meet these commitments.

Team Member / Affiliation	Project Role	Time Commitment
Kristofor Anderson, GEFA	Grant Manager	(b) (4)
Kelly Cutts, GEFA	Grant Administrator	████
Betsy Higgins, OPC	OPC Financial Administrator	████
David Sorrick, OPC	OPC Deployment Manager	████
Jeff Pratt, OPC	Strategic Advisor	████
Camron Carden, GTC	GTC Project Manager	████
John Raese, GTC	GTC Project Support	████
Dustin Zubke, GTC	GTC Grant Administrator and Financial Manager	████
Joe Sowell, GTC	System Planning Lead	████
Nathan Brown, GSOC	GSOC Project Manager	████
David Revell, GSOC	GSOC Project Manager	████

Table 7. Team member time commitments.

4.5 Technical Services to be Provided by FFRDCs

The Project team will not rely on FFRDCs to provide any services or support under the project.

Locations of Work (DE-FOA-0002740)

[illegible]

United States Senate
WASHINGTON, DC 20510

May 11, 2023

The Honorable Jennifer Granholm
Secretary
U.S. Department of Energy
1000 Independence Ave SW
Washington, DC 20585

Dear Secretary Granholm:

I am pleased to write this letter encouraging the full and fair consideration of the application from the Georgia Environmental Finance Authority (GEFA) for United States Department of Energy Grid Resilience and Innovation Partnerships Grid Innovation Program funding.

If awarded, GEFA will use this funding to fund a statewide portfolio of projects that involve transmission improvements, microgrid batteries and utility scale 25MW batteries. When completed, these projects will increase the reliability and resiliency of the electric grid, and inject millions in project spending into disadvantaged communities.

I encourage your full and fair consideration of this application, consistent with all agency rules and regulations. If you have any questions, please contact Cydney Karlins at (202) 224-3643 or Cydney_Karlins@warnock.senate.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Warnock", with a stylized flourish at the end.

Reverend Raphael Warnock
United States Senator

SANFORD D. BISHOP, JR.
SECOND DISTRICT, GEORGIA

COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEES:

RANKING MEMBER

AGRICULTURE, RURAL DEVELOPMENT, FOOD
AND DRUG ADMINISTRATION AND RELATED AGENCIES

MILITARY CONSTRUCTION, VETERAN AFFAIRS
AND RELATED AGENCIES

FINANCIAL SERVICES AND GENERAL GOVERNMENT

COMMITTEE ON AGRICULTURE

SUBCOMMITTEE:

GENERAL FARM COMMODITIES,
RISK MANAGEMENT, AND CREDIT



Congress of the United States

House of Representatives

Washington, DC 20515-1002

May 17, 2023

WASHINGTON, DC

2407 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-1002

PHONE: (202) 225-3631

FAX: (202) 225-2203

ALBANY

323 PINE AVENUE, SUITE 400

ALBANY, GA 31701

PHONE: (229) 439-8067

FAX: (229) 436-2099

COLUMBUS

18 NINTH STREET, SUITE 201

COLUMBUS, GA 31901

PHONE: (706) 320-9477

FAX: (706) 320-9479

MACON

300 MULBERRY STREET, SUITE 502

MACON, GA 31201

PHONE: (478) 803-2631

FAX: (478) 803-2637

The Honorable Jennifer Granholm
Secretary
U.S. Department of Energy
1000 Independence Ave SW,
Washington, DC 20585

RE: Letter of Support for the Grid Resilience and Innovation Partnerships; DE-FOA-0002740 Topic Area
#3: Grid Innovation Program application from Georgia

Dear Secretary Granholm,

I write in support of the above referenced Grid Resilience Innovation Partnership (GRIP) Topic Area #3 grant application from Georgia. This application is being submitted by the state energy office, Georgia Environmental Finance Authority (GEFA) and electric cooperative utility partners, Oglethorpe Power, Georgia Transmission, Green Power EMC, and Georgia System Operations.

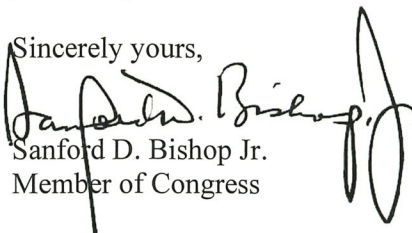
These member-owned, not-for-profit utilities support the thirty-eight distribution electric membership cooperatives (EMCs) in Georgia who provide retail electricity in most of the rural counties of the state. The EMCs in Georgia serve electricity to approximately 4.4 million Georgia citizens, and residential accounts make up approximately 90 percent of their energy consumers. So many of the communities that would benefit from the increased reliability and resiliency of the electric grid are rural, face high levels of poverty, and suffer a higher energy burden than many suburban and urban energy consumers.

Additionally, during the past two decades, the state of Georgia has seen an increase in extreme weather events that cost millions of dollars in damages to homes, businesses, government buildings, and our power systems. The projects made possible by the GRIP program would mitigate power outage duration after such events and allow our communities to rebuild quickly with fewer burdensome costs.

Please accept this letter of support for Georgia's GRIP program application. I appreciate your time and attention to this matter and urge you to give it your full and fair consideration, consistent with all applicable laws and regulations.

With warmest personal regards, I remain,

Sincerely yours,


Sanford D. Bishop Jr.
Member of Congress



May 10, 2023

The Honorable Jennifer Granholm
Secretary
U.S. Department of Energy
1000 Independence Ave SW
Washington, DC 20585

Re: U.S. Department of Energy Grid Resilience and Innovation Partnerships (GRIP) Grant,
Topic Area 3 (DE-FOA-0002740) - Regional Grid Improvements to Address Reliability in
Georgia with a Focus on Remote or Hard-to-Reach Communities

Dear Secretary Granholm,

On behalf of the Beneficial Electrification League, I am writing in support of the state of Georgia's GRIP grant application, entitled Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities.

BEL strongly supports the goals of the Georgia GRIP grant application, which are to improve electric resilience and reliability across the state and minimize outage duration, service issues and the energy burden in disadvantaged communities (DACs).

The Beneficial Electrification League (BEL) is a not-for-profit organization advancing electrification of the economy with programs and policies that benefit consumers, improve quality of life and the environment, and strengthen the grid.

BEL has partnered with the sub-applicants of this grant, including Oglethorpe Power, Georgia Transmission, Georgia System Operations Corporation and Green Power EMC, as well as the 38 not-for-profit electric cooperative member-owners these companies serve on issues related to electrification of the economy. For example, over the course of the last year, BEL partnered with the major stakeholders across the state to hold an Electrification Leadership Summit and joined together with Georgia electric cooperatives on residential weatherization and electrification and electric school bus projects.

BEL commits to be a partner in the long-term success of the projects identified in this grant application, through our ongoing efforts to support investments that will strengthen and modernize the grid in Georgia's underserved communities and end of line rural communities.

Thank you for your consideration of this Georgia GRIP grant application for DOE funding.

Keith Dennis
President, Beneficial Electrification League

May 11, 2023

Mr. Kristofor Anderson, Director of Energy Resources
Georgia Environmental Finance Authority
47 Trinity Avenue SW, Fifth Floor
Atlanta, GA 30334

RE: US DOE Grid Resilience and Innovation Partnerships (GRIP) Grant, AOI 3,
Regional Grid Improvements to Address Reliability in Georgia with a Focus
on Remote or Hard-to-Reach Communities

Dear Mr. Anderson:

Groundswell (groundswell.org) is pleased to share our support the Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities application.

Groundswell is a 501c3 nonprofit whose mission is building community power. We deliver mission-aligned clean energy programs in five states, directly serving more than 6,000 low- and moderate-income customers with more than \$3 million per year in energy savings. A priority focus of our work has been improving energy resilience and reducing energy burdens in service to urban and rural communities in Georgia through programs, projects, and research. These activities have included the design and development of community resilience centers serving SW Atlanta, an energy efficiency program serving low- and moderate-income (LMI) households in Troup County that relieves energy burdens, and data science-driven county-level research on LMI energy burdens. We thus recognize the critical importance of delivering grid improvements to improve energy resilience, particularly in the underserved communities served by the Family of Companies (FOC) identified in this proposal.

If awarded, Groundswell commits to exploring the opportunity to advise the FOC on the development of a community engagement program that will directly engage and involve residents and community-serving organizations including local churches in the project. The objective of the program will be to gather insights on the value of energy resilience from the perspective of residents, to identify community-defined metrics for measuring pre- and post-implementation of grid resilience improvements, and to define additional opportunities to improve resilience that may be directly or indirectly enabled by the project.

Groundswell is currently leading similar programs to develop community-driven energy resilience metrics in Chicago's Southland as well as in Maryland, where we

have been working in collaboration with the Maryland Energy Administration, the City of Baltimore, and Montgomery County for multiple years to identify, develop, and construct community resilience centers. Our team also led community-focused resilience projects in Georgia, where we are in the process of constructing a community resilience center at a local church in SW Atlanta.

We look forward to exploring opportunities to support the FOC as they seek to implement critical grid improvements and more deeply connect with the communities they serve on this critically important topic.

Sincerely,

DocuSigned by:

Michelle Moore

43F9182ED78041A...

Michelle Moore
CEO, Groundswell



STATE OF GEORGIA
OFFICE OF THE GOVERNOR
ATLANTA 30334-0090

Brian P. Kemp
GOVERNOR

February 3, 2023

The Honorable Jennifer Granholm
Secretary
U.S. Department of Energy
1000 Independence Ave SW
Washington, DC 20585

RE: BIL-Grid Resilience and Innovation Partnerships; DE-FOA-0002740 Topic Area #3; *Regional Grid Improvement Strategy to Address Resiliency and Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*

Dear Secretary Granholm:

Please accept this letter as an indication of my full support of the Grid Resilience Innovation Partnership (GRIP) Concept Paper submitted to your office on January 13, 2023, titled *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*. The Georgia Environmental Finance Authority (GEFA) submitted this concept paper in partnership with the Georgia Transmission Corporation, Oglethorpe Power Corporation, Green Power EMC, Georgia System Operations Corporation, Georgia Institute of Technology, and the Electric Power Research Institute.

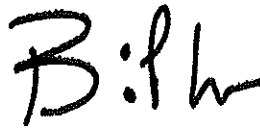
These partners, including a state government agency, cooperative and member-owned utilities, an esteemed university, and a globally recognized energy research institute, have presented a group of rural-focused projects to add resiliency and reliability to the Georgia electric grid. If funded, these projects are expected to reduce the average outage duration, provide battery storage for microgrid deployment, network radial transmission lines, and configure existing generation with backup fuel options to ensure power availability in extreme weather.

The projects, all of which will be located in an electric membership cooperative (EMC) service territory, complement the Biden-Harris Administration's goal to invest in disadvantaged, rural communities with a high proportion of households below the federal poverty level, while at the same time advancing the decarbonization goals shared by the EMCs and the U.S. Department of Energy.

Most importantly, these Georgia projects are a direct reflection of the Bipartisan Infrastructure Law (IIJA) goal to increase the reliability and resiliency of the electric grid, benefiting approximately 4.4 million Georgians who receive power from a not-for-profit electric cooperative.

It is my hope that you will provide thoughtful feedback and guidance on the concept paper submitted by this collaborative team led by GEFA and encourage them to apply for a grant under GRIP Topic Area #3, Section 40103(b), and ultimately give serious consideration to this grant proposal for full funding.

Sincerely,

A handwritten signature in black ink, appearing to read "B:lh". The signature is stylized and cursive.

Brian P. Kemp
Governor of Georgia

J. Camron Carden, PE

(b) (6)

camron.carden@gatrans.com

Licenses & Certificates

- 2011, Professional Engineer, GA (Electrical & Power)
- 2005, Certified NERC Reliability Coordinator

Affiliations & Career Highlights

- 2022, Leadership Georgia
- 2020 - Present, Vice-Chair Brookhaven Chamber of Commerce
- 2019, Chairperson DeKalb School Advisory Board
- 2019, GA Chamber High Potential Leader
- 2018, Leadership DeKalb Graduate
- Active member of IEEE & ASME

Education

Bachelor of Science in Mechanical Engineering, 2001
Auburn University

Master of Business Administration (MBA), Finance, 2021
Georgia State University

Experience

Georgia Transmission Corporation (GTC)

April 2022 to Present – **Vice President, Transmission Projects**

- Provide strategic direction and day to day management of GTC's Capital Construction Projects.
- Directly accountable for capital budget portfolio that includes transmission, substation, and fiber infrastructure projects.
- Identify and escalate risks and issues to Sr. Executives/BOD. Develop and deliver mitigation and contingency planning.

2021 to April 2022 – **Director, Transmission Projects**

- Managed a team responsible for project scoping, estimating, environmental and regulatory compliance, public involvement, design, contract management, procurement, project accounting, land acquisition, and construction functions.
- Advance relationships with Member Systems and all corporate customers of project services to enhance customer service and competitiveness.
- Provided strategic planning, annual budget, and resource plans. Negotiated procurement contracts and customer choice activities as required.

2019 to 2021 – **Director, Engineering Services**

- Provided leadership for all functional engineering departments, including R&D, Transmission Line, Civil, and Substation Design.
- Accountable for engineering prints, bill of materials, procurement of major equipment, right of entry plans, design estimates, and geotechnical reports.

2017 to 2020 – **Manager, Substation Design**

- Managed a department comprised of Engineers, Designers, and support staff responsible for physical engineering, equipment selection, and estimating.
- Ensured that appropriate processes, tools, and standards were developed and implemented to achieve corporate goals.

2012 to 2017 – **Manager, Construction Services**

- Managed a department of (16) associates and (8) contractors, comprised of construction inspectors, environmental technicians, and support staff.
- Directed physical construction activities, including execution of construction plans, surveys, pre-construction, commissioning, and final inspections.

2009 to 2012 – **Transmission Services Engineer**

- Performed as the primary technical liaison between GTC and Member Systems.

2001 to 2009 – **Substation Test Engineer**

2004 to 2005 – **Systems Operations Engineer**

- Georgia System Operations Corporation

2001 to 2004 – **Substation Engineer**

David W. Sorrick, P.E.

Summary:

A forward-thinking executive with extensive experience in leading high-performance teams within the energy industry with a strong focus on safety performance, operational excellence, continuous improvement, achieving financial results and leadership development.

EVP-Chief Operating Officer

Oglethorpe Power Corporation (2/2022 to present)

Accountable for all aspects of utility operations including plant operations, fuel procurement, environmental health & safety, capital projects and technical support.

SVP, Power Operations

New Fortress Energy, Miami FL (3/2021 to 11/2021)

Accountable to build the Power Operations capabilities for the growing New Fortress Energy fleet of generating assets across the Caribbean, Central and South America.

Director, Asset Management & Optimization

Electric Power Research Institute, Charlotte NC (3/2019-2/2021)

Executive leader for the research and development portfolio that supports the current generation fleet. Research activities include overall fleet & unit asset management, flexible operations, wastewater & coal combustion product management and operations & maintenance programs to support more efficient unit and fleet results.

SVP, Power Operations

Tennessee Valley Authority, Chattanooga TN (10/2015-10/2018)

Executive leader for TVA's non-nuclear generation fleet of more than 24,000 MWs of coal, gas and hydro capacity. Accountable for the safe, efficient operations and maintenance of the fleet. Responsibilities include the procurement and management of more than \$2.5B in fuel. Accountable for all generation support services and fleet strategy.

VP, Power Operations

Progress Energy/Duke Energy (6/2007-1/2015)

Accountable for the safe, efficient operations and maintenance of diverse fleets including coal, gas and hydro assets. Responsibilities include fleet support, labor relations strategy, financial/cost management, strategic planning and continuous improvement activities.

General Manager, Power Operations

Progress Energy Florida (4/2001-6/2007)

Accountable for regional fleets – both coal and gas. Responsibilities include the safe, compliant operations and maintenance of a fleet of generation assets, as well as major maintenance and project execution for the fleets. Accountable for the engineering support and major maintenance strategy and execution for Progress Energy's fleet of more than 150 gas turbine units.

Project Manager

GE Power Systems, Marietta GA (11/1999-4/2001)

Managed several complex projects with multi-P&L accountabilities more than \$120M. Responsibilities included engineering, sourcing, installation, commissioning and project closeout activities for both foreign and domestic customers.

Plant Manager

Florida Power Corporation (8/1996-11/1999)

Managed both simple cycle and combined cycle gas power plants. Accountable for all safety, regulatory compliance activities, cost management, labor relations and site business planning.

Construction Manager

Florida Power Corporation (1/1991-8/1996)

Managed major generation construction projects, including engineering design and startup and commissioning activities. Developed a startup and commissioning program for new generation construction.

Various Engineering Positions Early in Career

TVA/Florida Power Corporation (12/1986-1/1991)

Various electrical and plant engineering assignments in nuclear, coal and gas power plants.

Education

University of Tennessee at Chattanooga

Bachelor of Science in Engineering – Electrical Power 1986

University of South Florida

Master of Business Administration 2006

Licensed Professional Engineer – Florida 1993



ELIZABETH “BETSY” HIGGINS

EVP, CFO Oglethorpe Power Corporation
2100 East Exchange Place
Tucker, GA 30085

Business: (770) 270-7168
Mobile: (b) (6)
Work E-mail: betsy.higgins@opc.com
Personal E-mail: (b) (6)

SENIOR STRATEGIC FINANCE EXECUTIVE – PROVEN LEADERSHIP & UNIQUE SKILL SET

A proven finance executive with over 30 years of experience. Currently EVP, Chief Financial Officer of Oglethorpe Power Corporation, a \$16 billion SEC filing electric generation cooperative. Prior consulting experience. Multi-faceted skill set includes engineering and finance education (MBA), critical thinking, influential leadership, and skillful executive communication. **An executive with the intellectual agility and strategic mindset to comprehend and navigate complex issues, as well as the courage, good judgment and integrity to make the right decisions.**

EXECUTIVE ATTRIBUTES

- **Financial Acumen** – Senior finance executive responsible for thorough and timely SEC filings, a growing \$12 billion debt portfolio, \$2 billion in liquidity, and a ~\$600 million long-term investment portfolio. Highlights include \$4 billion in debt capital markets bond offerings, loan guarantees of \$4.7 billion from the Department of Energy for a nuclear plant under construction, and a committed \$1.2 billion syndicated credit facility.
- **Proven Strategic Leadership** – Successful executive leadership of a variety of internal and external strategic initiatives to address new or changing operational, political, and financial issues. Examples include acquisitions of many gas-fired power plants and the creation and oversight of Oglethorpe’s continuous strategic planning process.
- **Poise Under Pressure** – Demonstrated executive ability to lead through uncharted and difficult business situations with a steady hand and balanced thinking. In 2017, a key business partner constructing our interest of a jointly-owned nuclear plant declared bankruptcy halfway through the project. Provided executive direction in evaluating quantitative and qualitative impacts of continuing or discontinuing the project. Also maintained Oglethorpe’s financial strength and integrity through frequent and transparent communications to the financial community during this challenging time.
- **Customer Perspective / Innovative Solutions** – Executive change agent that understands and meets the needs of customers. For example, created program for customers to smooth out projected rate increases associated with the new nuclear plant under construction.
- **Executive-Level Communication** – Talented at building trust through skillful and honest communication of complex issues to multiple audiences including the board, audit committee, rating agencies, investors, banks, employees and customers.
- **Ethics, Integrity, and Transparency** – Track record of conducting business with the highest ethics, utmost integrity, and a high degree of transparency.
- **Collaborative & Inclusive Leadership Style** – An authentic leader who excels leading people in a fast-paced, collaborative, and inclusive environment where diversity is valued and respected.

CORE COMPETENCIES

- | | | |
|-------------------------------|--------------------------------------|---------------------------------|
| • Leading & Managing People | • Enterprise Risk Management | • Corporate Compliance |
| • Public Debt Capital Markets | • Investor / Rating Agency Relations | • Financial Planning & Analysis |
| • SEC Reporting | • Strategic Planning | • Generation Acquisitions |
| • Investment Management | • Internal Controls | • Operational Value Creation |

EDUCATION

Georgia State University, 2003 - Masters of Business Administration, Concentration in Finance

Georgia Institute of Technology, 1991 - Bachelor of Industrial Engineering (High Honors)

EXPERIENCE

July 2004 – Present

Oglethorpe Power Corporation

Tucker, GA

Executive Vice President (2008), Chief Financial Officer

- Responsibilities: SEC reporting, public debt capital markets, accounting, finance, treasury, enterprise risk management, corporate compliance, internal controls, investor and bank relations, rating agency relations, government loans, budgeting and forecasting, strategic planning, financial planning and analysis, insurance, and tax.
- Corporate leadership: Executive Team Member, Board Audit Committee Liaison, Chairperson Internal Controls Steering Committee, Chairperson SEC Disclosure Committee, Chairperson Risk Management & Corporate Compliance Committee, Chairperson Nuclear Decommissioning Trust Investment Committee, Chairperson Strategic Planning Team, and 401(k) Investment Committee.

April 1997 – July 2004

Oglethorpe Power Corporation (cont.)

Tucker, GA

Sr. Vice President – Finance and Planning (7/03 – 7/04)

Vice President, Group Executive – Planning, Rates, and Analysis (9/02 – 7/03)

Vice President, Strategic Projects and Analysis (5/01 – 9/02)

Vice President, Corporate Strategy and Member Relations (9/00 – 5/01)

Vice President, Assistant to the CEO (9/99 – 9/00)

Assistant to the CFO (9/98 – 9/99)

Senior Planning Specialist (4/97 – 9/98)

October 1995 – April 1997

Southern Engineering Company

Atlanta, GA

Project Manager (Utility Consulting)

April 1995 – October 1995

Deloitte & Touche LLP

Atlanta, GA

Senior Consultant, Management Consulting - Utilities

June 1991 - April 1995

Energy Management Associates

Atlanta, GA

Senior Consultant, Regulatory Consulting Department

June 1987 - March 1990

Kennestone Hospital

Marietta, GA

Jr. Management Engineer, Co-Op

PROFESSIONAL HONORS

Atlanta CFO of the Year (Atlanta Business Chronicle - Large Private Company Division) – 2011

40 Under 40 Outstanding Finance Executives (National Award by Treasury & Risk Management Publication) - 2004

NOTABLE SPEAKING ENGAGEMENTS

Georgia State University Guest Lecturer for Masters in Finance Program (2010 - 2015) – Various Finance Topics

Argyle CFO Leadership Forum (2014) – “Financial Implications of a Shifting Energy Policy”

Arizona Electric Power Cooperative Annual Meeting (2012) – “Life After Restructuring at Oglethorpe”

Society of Mechanical Engineers (2007) – “Powering Georgia’s Future / No Easy Choices”

PROFESSIONAL & COMMUNITY INVOLVEMENT

Rotary Club of Atlanta – Membership Committee

FM Global – Advisory Board Member

Atlanta CFO Forum – Advisory Board Member

Metro Atlanta Chamber – Board of Advisors

Business Mentor for Various Organizations (Georgia State University, Pathbuilders)

Young Men’s Service League (Mother / Son Volunteer Organization) – Past Board Treasurer

Kristofor Anderson

(b) (6)

kanderson@gefa.ga.gov

47 Trinity Ave SW, Fifth Floor
Atlanta, GA 30334

Education

Master of City and Regional Planning – Georgia Institute of Technology

Bachelor of Science, Geography – University of Wisconsin – Madison

Training:

Professional Energy Management Certificate – North Carolina State University – 2012

Project Management Certificate – University of Georgia - 2014

Professional Experience:

Director of Energy Resources – Georgia Environmental Finance Authority (June 2021 – Current)

Oversee all state energy office operations and staff, including the State Energy Program, Weatherization Assistance Program, and Fuel Storage Tank Program. Focus areas include energy savings performance contracting, energy emergency planning/ESF-12, building energy codes, energy workforce development, grid resiliency, solar, and building energy efficiency. Responsible for all DOE grant reporting.

Lead the development of new program areas, including energy programs funded by the Bipartisan Infrastructure Law and the Inflation Reduction Act, such as EECBG, HOMES, HEEHRA, EE RLF Capitalization Grant, 40101d, etc.

Program Manager – Georgia Environmental Finance Authority (June 2010 – June 2021)

Managed the energy assurance/ESF-12 program, the guaranteed energy savings performance contracting program, wrote the biennial Georgia Energy Report, designed and implemented new programs under the State Energy Program, and supported energy policy initiatives as needed.

Urban Planner – Jacobs Engineering (May 2007 – May 2010)

Site planning consulting and project management for energy industry and federal government clients, including U.S. Department of Homeland Security.

Kelly Cutts: (b) (6)

kcutts@gefa.ga.gov

47 Trinity Ave SW, Fifth Floor
Atlanta, GA 30334

Education: Bachelor of Science, Education – Health Promotion and Behavior – University of Georgia – Athens (2002)

Training: Project Management Certificate – Georgia Institute of Technology; Instructor Development Training – NHTSA Traffic Safety Institute

Volunteer Experience: Georgia Solar Energy Association Board of Directors 2019 - Present

Professional Experience:

Lead Project Manager 3: Energy – Georgia Environmental Finance Authority (April 2023 -Current)
Manages Energy Division project team, State Energy Program and IIJA funding from the Department of Energy.

Senior Project Manager: Energy – Georgia Environmental Finance Authority (April 2022 – April 2023)
Oversees GEFA's State Energy Program funding from the Department of Energy. Serves as the state energy emergency planning/ESF-12 lead. Leads Georgia's planning to implement DOE's new IIJA and IRA funding including new state energy program funds, grid resiliency, energy efficiency revolving loan funds, and supporting competitive applications, implementation and tracking.

Program Manager II & III – Georgia Environmental Finance Authority (December 2015 – April 2022)
Managed Georgia's State Energy Program funding from the Department of Energy including drafting the annual budget, quarterly reporting, program development, program monitoring, and evaluation. Designed and implemented GEFA's Solar for Schools grant program which included partnering with solar stakeholders and subject matter experts, soliciting participation from colleges, public schools, cities and counties, and negotiating contract terms and conditions. Served as GEFA's representative to Georgia's 2015 International Energy Conservation Code Task Force. Managed program applications and monitoring through web-based technology.

Division Director of Planning and Programs Governor's Office of Highway Safety (May 2015 – December 2015) Developed the annual National Highway Traffic Safety Administration federal grant application awarded to the Governor's Office of Highway Safety (\$13.2 million for FFY2016). This included developing annual performance measures, an overview of the planning process for grant distribution, results from prior year performance, and a listing of cost summaries for all funded projects. Using data-driven and evidence-based countermeasures, determined awarded funding levels in educational program areas include Impaired Driving, Occupant Protection, Distracted Driving, Bicycle Safety, Pedestrian Safety and Motorcycle Safety. Completed the Annual Report to the National Highway Traffic Safety Administration summarizing results of the performance measures and expenditures from the previous year.

Assistant Dir. of Planning and Programs Governor's Office of Highway Safety (June 2013 - May 2015)

Planner Level I & II Governor's Office of Highway Safety (April 2008 - June 2013)

Leah Lord

Atlanta, GA (b) (6)

Skills/Software

Project Management, Customer Relationship Management Tools, Technical Writing, Microsoft Excel, Microsoft Word, Python

Experience

Energy Resources Division- Georgia Environmental Finance Authority, Atlanta, GA [May 2022 – Present]

State Energy Program Manager II

- Manage allocated Dept. of Energy funding from Bipartisan Infrastructure Law, Formula State Energy Program and Inflation Reduction Act to promote energy efficiency, energy assurance and renewable energy projects throughout the state.
- Lead and promote workforce development programs such as the Building Operator Certification in partnership with technical colleges. Since I have managed the BOC program has doubled in size and additional courses have been added.
- Coordinate state and multi-state planning projects, while convening appropriate stakeholder groups.
- Wrote and designed, from the beginning phase to publishing, the 2022 Georgia Energy Report.
- Support Emergency Support Function-12 (ESF-12) through emergency preparedness and response trainings related to energy infrastructure.
- Planned a state-wide energy stakeholder event, Georgia Energy Assurance Table-top Exercise, to engage energy sectors in a multi-day hazard scenario exercise to further strengthen our energy hazard preparedness, response and mitigation.
- Actively work to update the State Energy Security Plan.
- Manage RFIs, vendor contracts, program monitoring and review invoices.

Environmental Services Group- ENERCON Services, Inc., Kennesaw, GA [April 2021 – May 2022]

Environmental Technician

- Performed and provided environmental support for commercial projects associated with real estate transactions. Conducted Phase 1 Environmental Site Assessments, including a multibuilding golf course estate, located in Philadelphia, PA and other locations throughout GA.
- Traveled onsite weekly to collect pH samples, water discharge data, and calibrate pH probe readers. Troubleshoot issues with the pH release system.
- Provided data/ litigation research and proposal support for projects and confidential proposal dealing with Florida salinization issues.

ENERCON Federal Services- ENERCON Services, Inc., Kennesaw, GA [December 2020 – May 2022]

Administrative Assistant III

- Assisted Project Managers and engineering disciplines within the EFS division, providing administrative/ project management services related to DOE Nuclear sites. Sites included Idaho National Lab, Savannah River Site-Titium Finishing Facility, Nevada National Security Site- Mission Support and Test Services.
- Responsible for recording detailed meeting minutes, creating and maintaining project tracking excel sheets; action item lists, key assumptions/ requirements, project milestone schedules, etc. Handled conceptual design report assemblies and submittals to client, contractual edits, established subcontractor collaboration sites; organized folder structures and subcontractor access. Tracked equipment inventory and badge access, scanned calculations drawings, etc.
- Supported proposal/ client management team; researching and providing potential proposal opportunities. Use of Salesforce to create and track proposals and PINS for active and potential proposal opportunities.
- Supported administrative team; new hire onboarding, creating/ managing multiple resume formats, updating rates schedule with relevant experience and hire dates, managing forms for transfers and terminations, tracking employee engineering licenses, conducting Q&A for audits.
- Assisted with departments outside of my division. Utilized technical writing experience to support the Training and Development Department with training roster uploads and edits/ proofreading of training materials. Worked with the Marketing Department to promote EFS through client and community outreach events.
- Utilized GIS experience to support and extract soil data at specific locations for the PRA Pipeline Model Pilot volunteer research project.

Galileo Projects, LLC, Marietta, GA [July 2020 - November 2020]

Project Assistant I

- Performed decision file database entry for planning projects including renewable energy and transmission lines, most closely working with data from Mountain Valley Pipeline, Buckeye Xpress Pipeline, and Atlantic Coast Pipeline.
- Organized and inputted public and internal communications/comments, working with federal agencies such as U.S. Fish and Wildlife Service and U.S. Forest Service regarding land permitting and decision file data that would be used in future litigation cases.
- Assisted with project management tasks related to National Environmental Policy Act (NEPA) process; training in public outreach, tribal consultations and section 508 compliance.

Virginia Tech Transportation Institute, Blacksburg, VA [February 2019 -December 2019]

Data Analyst

Office of U.S. Senator Tim Kaine, Richmond, VA [May 2019 - August 2019]

Legislative Office Intern

Blacksburg Transit, Blacksburg, VA [August 2018 - December 2018]

Transportation Planning Intern

Education

Virginia Tech, Blacksburg, VA - May 2020

B.S. in Environmental Policy and Planning

Minor in Geographic Information System (GIS)

Sustainable Transportation Planning and Policy-Making Study Abroad in Europe May 2018 - June 2018

JEFF PRATT

Jeff.Pratt@GreenPowerEMC.com | (b) (6)

WORK EXPERIENCE

President, Green Power EMC

2010 – Present
Tucker, GA

Vice President, Oglethorpe Power Corporation

2021 – Present
Tucker, GA

Director of Emerging Technologies, Oglethorpe Power Corporation

2008 – 2021
Tucker, GA

Director of Power Supply Planning, Oglethorpe Power Corporation

2000 – 2008
Tucker, GA

Director of Sales, Scana Energy

1999 – 2000
Atlanta, GA

Director of Engineering, Standard Telephone

1998 – 1999
Cornelia, GA

Director of C/I Marketing, Jackson EMC

1988 – 1998
Jefferson, GA

EDUCATION

Masters of Business Administration – Finance

Georgia State University
Atlanta, GA

Bachelor of Electrical Engineering

Auburn University,
Auburn, AL

JOHN C. RAESE

(b) (6)

OBJECTIVE: To obtain an officer level leadership position within an electric utility in infrastructure construction, operations and maintenance or asset management.

QUALIFICATIONS SUMMARY: More than 40 years of results-oriented engineering and management experience in the electric transmission industry, including:

- Transmission Engineering and Project Management
- Transmission Operations, Maintenance and Asset Management
- Budget and Business Planning
- Process Improvement

Effective communicator, team builder and motivator. Sound business instincts with focus on quality, customer satisfaction, and productivity. Strengths include work force leadership, executive vision, and broad understanding of the electric utility industry.

EXPERIENCE:

Sr. Vice President, Project Services Georgia Transmission Corporation (GTC)

2022-Present

Manage multiple departments in Project Services, and the Corporate Safety and External Affairs departments for GTC. Project Services manages an annual construction portfolio of over \$200+ million for transmission line, substation, and associated projects. Departments in Project Services include Land and Environmental Services, Transmission Projects (PMs), Relay, Transmission line, Substation and Civil design areas as well as Construction Inspection.

Vice President, Project Services Georgia Transmission Corporation (GTC)

2009-2022

Manage multiple departments and support staff that oversees a large construction portfolio of complex transmission line and substation engineering and construction projects. Also manage the Corporate Safety Department with Corporate Safety initiatives and goals and long-term development of a "Culture of Safety" within GTC. Departments include Land and Environmental Services, Transmission Projects (PMs), Relay, Transmission lines, Substation and Civil design areas as well as Construction Inspection. Responsibilities also include development and implementation of business processes and procedures, contractor alliances and partnerships, and Member System relationships and expectations. Responsible for an annual \$150+ million transmission construction expansion budget and day-to-day management of department consisting of nine associates.

Manager, Transmission Projects Georgia Transmission Corporation (GTC)

2005-2009

Manage department of multiple Projects Managers and support staff that oversees a large portfolio of complex transmission line and substation engineering and construction projects. Project management functions include scoping, estimating, cost and schedule, siting, environmental, land acquisition, condemnation, construction, commissioning, and close-out. Responsibilities include development and implementation of business processes and procedures, contractor alliances and partnerships, and Member System relationships and expectations. Responsible for an annual \$150+ million transmission construction expansion budget and day-to-day management of department consisting of nine associates.

**Manager, Transmission Line Maintenance
Georgia Transmission Corporation (GTC)**

1997-2004

Manage transmission line maintenance functions for 2,500 miles of overhead and underground transmission owned by GTC. Asset Management functions included ROW maintenance, fiber optics support, common and joint use, and encroachment management. Responsibilities also included Corporate Safety, Land Management, and the Technical Training Program, including GTC's state of the art training facility. Assets managed included a \$500 million transmission line system, \$3 million dollar training center with a combined \$15 million annual expensed and capital budget and department consisting of twelve associates.

**Transmission Line Maintenance Engineer
Oglethorpe Power Corporation (OPC)**

1988-1997

Lead OPC's effort in the development of a transmission line operations and maintenance program. Development of schedule, contracts, inspection, maintenance and capital improvement plan and budget. This included the development and completion of a major capital program to replace spacers on the 500kV system. Duties also included the development and implementation of a common and joint use attachment program and ROW encroachment management program. Responsible for the supervision of five field technicians and an annual budget of \$4 million.

**Transmission Design Engineer
Oglethorpe Power Corporation (OPC)**

1986-1988

Total responsibility for design of OPC's transmission line capital improvement projects including routing input and construction hardspot resolution. Responsible for work direction, coordination, and ultimate work of two transmission line designers.

**Transmission Project Engineer
Municipal Electric Authority of Georgia (MEAGPower)**

1982-1986

SELECTED ACCOMPLISHMENTS:

- Successfully managed GTC largest annual construction program (approx. \$200M+)
- Developed and implemented the Transmission Line Maintenance and the Right-of-way Maintenance Programs at OPC.
- Participated in numerous Disaster Response Plan activations as Restoration Coordinator including the Storm and Flood of the Century (1993, 1994), Hurricane Opal (1995) and the Superbowl ice storm (2000).
- Successfully led the first Geographic Information System (GIS) implementation for GTC.

EDUCATION:

Georgia Institute of Technology - Atlanta, Georgia
Bachelor of Civil Engineering

June 1982

ASSOCIATIONS:

American Society of Civil Engineers (ASCE)	1982-Present
Professional Engineer, State of Georgia (16686)	1987-Present
GA. Herbicide Applicators License (613)	1991-2004
Member EPRI Overhead Lines Task Force, Chairman (1994)	1992-1994
GA. Vegetation Management Association, Board Member, President (2005)	1998-2005
GTC Corporate Representative for Utilities Protection Center (UPC)	2003-2006
MUG Officer, President (2022)	2019-2022

JOSEPH E. SOWELL, P.E.

CAREER HIGHLIGHTS:

- Over 25 years of management/leadership experience in power utility and electrical engineering industry with the last 21 years in Transmission Planning
- Serving on multiple industry committees/groups, such as NERC RISC and Eastern Interconnect Planning Collaborative (EIPC), that influence transmission planning efforts to identify and mitigate risks to the Bulk Electric System

EMPLOYMENT EXPERIENCE:

5/02 – Present ***Georgia Transmission Corporation (GTC); Tucker, GA***

7/18 – Present **Vice President, System Planning:**

- Provides executive management for System Planning functional areas, including Bulk System Planning, Member Planning, System Protection and Control, Compliance and Member Relations
- Provides leadership and strategic direction for planning activities surrounding the expansion, enhancement and utilization of the transmission grid.
- Represents corporate interest and positions in negotiations and relations of business initiatives and ongoing operations with external organizations including corporate participation in the Georgia Integrated Transmission System, SERC and NERC.
- Manages the overall development and presentation of business strategy and policy recommendations to senior executive management and the Board of Directors related to the planning initiatives of the corporation and ensure that planning activities are well-coordinated and in compliance with Board policy.

4/16 – 7/18 **Manager, Bulk System Planning:**

- Managed development and activities of the Bulk System Planning Department in support of the Corporation including policies, procedures, and strategic planning for the expansion, enhancement and utilization of the bulk electric system with an emphasis on compliance with NERC reliability standards.
- Authorized all bulk system capital transmission projects. Coordinated planning activities with other departments and Management to ensure timely delivery and efficient alternatives to meet the bulk electric system needs.
- Selected, developed, and maintained highly qualified and motivated associates. Ensures all necessary performance evaluations, coaching, training, development support, and conflict resolution work is done in a satisfactory and timely manner.

9/05 – 4/16 **Manager, Member Planning Services:**

- Managed development and activities of the Member Planning Services Department in support of the Corporation including policies, procedures, and strategic planning for ensuring customer satisfaction, reliability, and cost goals.
- Cooperated with Member Systems to identify load-serving needs and deliver the most efficient alternatives in a timely manner. Authorized all load-serving capital transmission projects. Facilitated expeditious resolutions to technical issues between Member Systems and GTC. Coordinated planning activities with other departments and Management to ensure timely delivery and efficient alternatives to meet the Member Systems' planning needs.
- Selected, developed, and maintained highly qualified and motivated associates. Ensured all necessary performance evaluations, coaching, training, development support, and conflict resolution work was done in a satisfactory and timely manner.

7/03 – 9/05 **Group Lead, Project Planning Services:**

- Developed core policies and procedures for the Project Planning Services department.
- Oversaw department efforts in planning and developing Member System related capital construction projects including review of project justifications prior authorization.
- Served as primary technical liaison for GTC and Member Systems regarding project planning issues and Dedicated Cost of Service (DCOS) in accordance with Member Transmission Services Agreement (MTSA).

5/02 – 7/03 **Southwest Region Transmission Services Engineer (TSE), Project Planning Services:**

- Served as primary technical liaison for GTC and Member Systems in the Southwest Region of Georgia regarding project planning issues and Dedicated Cost of Service (DCOS) in accordance with MTSA.
- Studied, consulted with Member Systems, and recommended plans for load growth requirements based on forecasted and actual load data. Initiated, scoped, and justified capital projects affecting Member Systems.

12/98 – 5/02

AERO Systems Engineering; Marietta, GA

Director of Engineering & Construction

- Assisted airlines and airport authorities in the evaluation and selection of aircraft ground support systems based on aircraft power/cooling requirements, number of aircraft served, and specific system requirements of the client.
- Designed, constructed, and commissioned aircraft ground support systems for airlines and airport authorities to meet client's requirements, industry guidelines, and local and national electric codes.
- Provided construction management for the installation of aircraft ground support systems at airports throughout the country up to \$8M in total project value.
- Generated detailed construction value and schedule estimates to define required monies and manpower to construct and complete capital improvement projects.
- Generated feasibility studies comparing alternate types of aircraft ground support systems based on technology, project delivery methods, and economic rate of return on investment.
- Managed all employee aspects of M-E engineering staff of up to five engineers and three draftsmen including employee reviews and interviews, ultimately recommending salary adjustments and candidates for hire.

6/96 – 12/98

Motorola, Incorporated; Decatur, GA

Systems Engineer

- Design of two-way, wireless radio systems for voice and data for state and local government entities in the State of Georgia, which generally ranged from \$200K to \$5M and consisted of single and multi-site designs as well as analog and digital technology.
- Generated equipment lists, system diagrams, system power requirements, and system descriptions for proposed two-way radio systems.
- Designed interfaces/upgrades to existing two-way radio systems that often included microwave transmission systems to increase coverage area by adding antenna sites or integrating a telephone interconnect feature for their wireless communications system.
- Performed detailed radio propagation studies, both mobile and point-to-point, and radio interference studies.
- Performed signal strength tests to validate propagation studies and to demonstrate compliance with the proposal coverage maps.

11/92 - 6/96

Aviation Systems, Incorporated; Atlanta, GA

Electrical Engineer

- Designed, constructed, and commissioned aircraft ground support systems for airlines and airport authorities to meet client's requirements, industry guidelines, and local and national electric codes.
- Assisted airlines and airport authorities in the evaluation and selection of aircraft ground support systems based on aircraft power/cooling requirements, number of aircraft served, and specific system requirements of the client.
- Developed program to calculate power system demands, voltage drops for electrical power systems, and Auxiliary Power Unit (APU) and Ground Support Equipment (GSE) emissions generation based on a daily flight schedule.

(4/90-11/92)

FOCAS, Incorporated; Alpharetta, GA

Applications Engineer

- Designed and developed Fiber Optic Ground Wire (OPGW) and All Dielectric, Self-Supporting (ADSS), loose tube fiber optic cables exclusively for the power utility industry, including installation parameters.
- Assisted power utilities in the evaluation and selection of fiber optic cable design and routes to meet their electrical and mechanical requirements.
- Investigated product irregularities and failures; coordinate product field removal and repair of fiber optic systems.

(1987-1989)

Okefenoke Rural Electric Membership Corporation; Nahunta, GA

Co-op Engineering Student (Co-op student 4 quarters)

- Designed underground and overhead power distribution systems.
- Assisted in implementation of fuse and arrester installation program to improve system reliability.

EDUCATION:***Bachelor of Science in Electrical Engineering Technology****Power Generation and Distribution Option*

Minor in Engineering Mathematics and Management

Registered Professional Engineer (1997): GA

Southern Polytechnic State University; Marietta, GA (March 1990)

NATHAN L. BROWN, P.E.

E-Mail: (b) (6)

Executive Summary:

Electric utility executive with over 31 years of industry experience which includes 30 years of experience with generation and transmission electric cooperatives. Strategically focused leader with a history of building strong and diverse teams capable of developing creative solutions to meet member and cooperative needs.

Extensive experience participating on various industry boards and committees including 17 years as part of executive management of Cooperative Energy and as General Manager/CEO of San Miguel Electric Cooperative. Experience includes direct interaction with the board of directors, board committees, and frequent contributions to board strategic planning efforts. Specific experience includes extensive background in safety, environmental compliance, power production, system planning and operations, power supply, power marketing, fuel procurement and delivery, generation and transmission policy and regulatory activities, NERC/CIP compliance, wholesale rates, load forecasting, member services, energy efficiency, renewables, economic development, information technology systems, communication networks, and distributed generation.

Education:

Bachelor of Science in Electrical Engineering, Mississippi State University, December 1991.

Master of Science in Electrical Engineering, Mississippi State University, May 2002.

Master of Business Administration, University of Southern Mississippi, December 2021.

Experience:

Georgia System Operations Corporation, Tucker, GA

11/22 - Present

Executive Vice President and Chief Operating Officer

Executive management position with primary responsibility for the overall operation of member owned generation and transmission assets used to serve the electric needs of thirty-eight electric membership cooperatives in the state of Georgia. Member resources include approximately 12,000 MW of owned and controlled generation resources and approximately 3900 miles of transmission lines, which are operated in coordination with other owners of the Integrated Transmission System within the state of Georgia.

San Miguel Electric Cooperative, Inc., Christine, TX

5/21 to 10/22

General Manager/CEO

Position is responsible for the overall management of the generation and transmission electric cooperative consisting of a 391 MW lignite-fueled power

plant, a lignite mine, and associated transmission facilities. San Miguel has 168 plant-site employees, and its mining contractor has approximately 315 mine-site employees that support the overall operation of the facility. San Miguel is owned and controlled by its ten members which include its customer, South Texas Electric Cooperative, and nine distribution cooperatives that serve load in 47 counties in south Texas.

Cooperative Energy, Hattiesburg, MS; formerly South Mississippi Electric Power Association (SMEPA)

10/07 to 1/21

Senior Vice President and Chief Operating Officer;

Chief Operating Officer (10/07 thru 6/16)

Position was part of the executive management team for the cooperative with primary responsibility for the overall planning and operation of the generation and transmission system. The Cooperative Energy system includes approximately 2600 MW of owned and controlled generation resources and approximately 1850 miles of transmission lines, most of which are operated within the footprint of the Midcontinent Independent System Operator (MISO). Cooperative Energy is also a transmission dependent utility utilizing transmission facilities of Entergy Mississippi and Mississippi Power Company to serve member load under various contractual arrangements.

10/04 to 9/07

Manager of Power Supply

Contributed as part of the executive management team for SMEPA with primary duties consisting of managing a department of approximately 30 employees. Overall departmental responsibilities included system operations, control and computer systems, power purchase/sales contracts, transmission and generation resource planning, NERC compliance, regulatory, wholesale rates, and billing.

11/00 to 10/04

Director of Transmission Planning

Primary duties included supervision of personnel and directing all activities related to transmission planning, operations planning, coordination of distribution system planning, system metering, SCADA, and application of under-frequency relays.

7/93 to 11/00

Planning Engineer; Planning & Metering Engineer

Duties consisted of developing transmission plans, supervision of transmission planning and metering personnel, installation and maintenance of substation metering, including sizing instrument transformers, programming meters, and evaluating metering data.

Ingalls Shipbuilding, Inc., Pascagoula, MS

1/92 to 7/93

Electrical Engineer

Worked in the Power Systems Engineering department providing field support for shipboard power systems and creating procurement specifications used for purchasing disconnect switches and degaussing equipment for naval ships.

SENIOR FINANCE EXECUTIVE: Strategic Planning ■ Capital Structures ■ Treasury Governance

CAREER SUCCESS

GEORGIA TRANSMISSION CORPORATION Atlanta, Georgia

2021 to Present

High voltage, wholesale electric transmission provider generating \$400 million in annual revenue with \$3 billion in assets.

Chief Financial Officer (CFO)

Directs the overall financial and administrative practices of the organization. Oversees accounting, tax and treasury, procurement, information technology, tariff, insurance, corporate strategy and budgeting. Also, oversees related activities of the organization provided through contractual arrangements.

Delivered Results:

- Responsible for the successful development and implementation of corporate financial strategies and for assuring that all corporate financial and accounting requirements and covenants are maintained. Leads in communicating finance and accounting information to all internal and external audiences.
- Responsible for design and development of the corporation's rate and tariff structure for network and point to point services including ensuring proper revenue collection and obtaining appropriate board and regulatory approval. Accountable for corporation's capital and O&M budget administration and assists management in controlling costs and assuring efficient utilization of organization's assets.
- Oversees Procurement and Information Technology functions of organization. Serves as corporate representative on Shared Services Advisory Committee, which sets strategy and approves action plans for all support service functions.
- Directs overall corporate compliance and organizational effectiveness efforts including assurance of Member satisfaction. Leads and directs business process management efforts. Provides useful financial and operational information to the corporate leadership on a routine basis.
- Partnering with CEO, oversee development of corporate strategic plans. Coordinate the business planning process throughout the company gaining active participation of key management. Analyzes and makes recommendations to the CEO and Board of Directors relative to potential threats and opportunities to the organization.

Advises and supports the CEO in setting objectives and addressing corporate issues and implements and administers special projects as assigned by the CEO. Represents the Corporation, both internally and externally, and participates in activities which result in Corporate goodwill.

EAST RIVER ELECTRIC POWER COOPERATIVE, INC. Madison, South Dakota

2018 to 2021

A power supply cooperative with \$300M in revenues, delivering wholesale power to 24 electric distribution cooperatives & 1 municipally owned electric system.

Chief Financial Officer (CFO)

Direct planning, implementation, and management of financial activities and provide guidance on strategic and tactical initiatives. Manage complex financing transactions, business accounting, analytics, treasury services, forecasting, procurement, and investment matters. Oversee the capital structure to optimize financial strength and value for member-owners. Develop and evaluate debt, debt restructuring, and financing opportunities. Monitor lending activities and direct investment decisions and cash management while mitigating risk through the design of strong internal controls and financial integrity safeguards.

Delivered Results:

- Established a capital management program designed to finance a \$700+M capital project program while decreasing rates despite a \$40M increase in annual spend, accelerating equity returns to member-owners, reducing borrowing costs 50+ bps, improving cash flow position, and improving employee morale.
- Championed the restructure of the FP&A team's duties and responsibilities and led the transformation of a materials group to transition to a supply chain management group.
- Increased yields and reduced risk through the reconfiguration of an investment portfolio.
- Designed a formal training program for the financial planning and analysis team, encompassing Excel modeling, treasury management, and FP&A modules.

- Transformed the HR division, including reconfiguring recruiting strategies to leverage a web-based platform to capture cost reductions and enhance applicant pool and talent quality while centralizing training to optimize value.
- Improved employee engagement, retention, and hiring capabilities by restructuring compensation and benefits programs to transition to an environment of outcome- and performance-based compensation.
- Renewed university partnerships and donations to align with future needs of the organization.

COBANK, ACB, Greenwood Village, Colorado

2009 to 2018

Provider of loans and financial services to cooperatives, agribusinesses, rural public utilities, & farm credit associations.

Managing Director, Power, Energy & Utilities Division (2013 – 2018)

Identified and capitalized on new business opportunities with generation and transmission cooperatives, project financed assets, electric and natural gas regulated utilities, and midstream infrastructure initiatives. Built synergies across deal teams, spanning legal, engineers, credit, syndications, treasury, cash management, and leasing personnel.

Delivered Results:

- Managed a portfolio with \$1+B in commitments, balances of \$600M, and income of \$11+ million, realizing YOY increases of 20% in each category and \$330M in growth across key transactions.
- Served as administrative agent charged with arranging and syndicating \$100M, non-recourse financing for an infrastructure investment fund to expand a local natural gas distribution company.
- Delivered \$56M in corporate financing to an electric cooperative creating a new hydroelectric power plant.
- Identified opportunities, aligning with bank's structure and risk tolerance; created a midstream industry business case, gaining approval from the executive committee to pursue and add 5 large, publicly traded accounts with \$250+M in commitments.
- Mentored graduates selected for the bank's advancement program, enhancing skill sets and facilitating networking opportunities.

Chief of Staff, Office of the Chief Banking Officer (CBO), Power Energy & Utilities Division (2014 – 2017)

Advised and supported the CBO, delivering strategic consulting guidance to support business operations, drive growth, and increase profitability. Partnered with senior leadership and developed synergies across teams to ensure key initiatives were executed in alignment with the CBO's vision.

Delivered Results:

- Leveraged data-driven analytics to create a score card to measure and track banker efficiency and optimize resource allocation with the model subsequently adopted to steer the annual budgeting process and head count determinations.
- Optimized employee engagement, retention, and performance by teaming with senior management to establish a committee comprised of bankers and credit managers charged with reviewing division hierarchy and making change recommendations.
- Streamlined and enhanced operations by working with senior project managers to deploy an impactful customer relationship management system and create an executive dashboard for use by the CBO.
- Maintained vast knowledge of existing and emerging banking regulations, including the Dodd-Frank Act; drove efforts to assess impact of new regulation passage on the institution.
- Contributed to an ongoing loan pricing and discipline study for the organization's \$90B loan portfolio.

Prior positions held at CoBank, ACB:

Associate Vice President, Power, Energy, & Utilities Banking Division (2012 – 2013)

Senior Credit Analyst, Energy & Water Banking Division (2009 – 2012)

CREDENTIALS

Bachelor of Science in Business Administration, Finance Concentration | UNIVERSITY OF DENVER, DANIELS COLLEGE OF BUSINESS

Certified Microsoft Excel Application Specialist and Bloomberg User, Fixed Income & Equity Applications

Professional Development: Electric Business Understanding & Energy Regulation Fundamentals, Enerdynamics; Financial & Valuation Modeling Boot Camp, Wall Street Prep; Project Finance Credit Analysis Training Seminar, Moody's; Relationship Manager Trainee Program, CoBank; Hill Financial Education Professional Development Programs

STATEMENT OF PROJECT OBJECTIVES (SOPO)

Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities

A. OBJECTIVES

Objectives apply to component projects deployed during each BP. **BP 1:** 1) Prioritize execution by prioritizing benefits to underserved/Justice40 communities; 2) Complete engineering/design; 3) Complete permitting; 4) Initiate procurement/construction; 5) provide community benefits and workforce development; 6) (b) (4) new jobs. **BP 2:** Objectives 1-5 for BP 2 components; 7) (b) (4) new jobs; 8) Complete construction / start operation for (b) (4); 9) Continue remaining BP 1 construction; 10) Validate (b) (4) resiliency. **BP 3:** Objectives 1-5 for BP 3 components; 11) (b) (4) new jobs; 12) construction / start operation for (b) (4) and (b) (4) transmission components; 13) Continue remaining BP2 construction; 14) Validate (b) (4) resiliency. **BP 4:** Objective 5; 15) (b) (4) new jobs; 16) complete construction / start operation for (b) (4) and (b) (4) transmission components; 17) Continue remaining BP2 construction; 18) Validate (b) (4) for. **BP 5:** Objective 5; 19) (b) (4) new jobs; 20) complete construction; project-wide objectives: 21) Reduce outage duration and increase system resiliency, including during adverse weather, to \leq current average systemwide outage duration rate; 23) Deploy controls to manage new infrastructure and increase solar / DERs; 24) Facilitate (b) (4) of IBR integration territory-wide and enable integration of future intermittent renewable generation capacity; 25) Utilize (b) (4) for renewables banking, arbitrage and grid balancing; 26) Provide workforce training; 27) Improve electrical service in DAC / Justice40 communities; 28) Keep energy costs affordable territory-wide; 29) validate and operate all facilities including (b) (4) and (b) (4) miles new/upgraded transmission lines; 30) Reduce outage duration for targeted areas to within (b) (4)% of the current average outage duration rate of networked infrastructure over a five-year period after new facilities are constructed; 31) Increase grid resiliency during adverse weather conditions to within (b) (4)% of current average outage duration rate (b) (4) for network infrastructure over last five years.

B. SCOPE OF WORK

BP 1. Justice40 + Tier 1 Transmission Line Components. Initiate (b) (4) + (b) (4) radial transmission line component projects, located in/directly supporting Justice40/underserved communities. Complete all bids, contracting, NEPA, permitting, engineering/design for these components. Initiate procurement, construction for all (b) (4) and (b) (4) transmission components. Complete BP 1 community benefit / workforce development. **BP 2: Justice40 + Tier 2 Transmission Line Components.** Initiate (b) (4) through permitting, targeting Justice40 2nd round transmission priorities. Finalize procurement/construction, initiate operation of the first (b) (4) BP 1 (b) (4) components; continue development, procurement, construction of BP1 transmission lines; complete BP 2 community benefit / workforce development. **BP 3: Other High-Need Rural Communities.** Initiate last transmission line upgrade for other high-need rural communities, through initial construction; complete construction and initiate operation for (b) (4), (b) (4) transmission lines, controls. Complete all BP 3 community benefit / workforce development. **BP 4: Finalize (b) (4) and Tier 1 + 2 Transmission Lines.** Complete construction / initiate operation of final (b) (4), (b) (4) BP3 transmission lines, continue construction of final BP3 transmission lines, controls, complete BP4 community benefit / workforce development. **BP 5:**

Finalize All Remaining Components, Final Reporting. Complete remaining transmission line + controls from BP4 and complete all BP5 community benefits / workforce development.

C. TASKS TO BE PERFORMED

The following task will be performed during all BPs:

Task 1.0: Project Management and Planning

Subtask 1.1 – Project Management Plan (PMP): Within 30 days of award, Recipient shall submit a Project Management Plan (PMP) to the designated Federal Project Officer (FPO). Recipient shall not proceed beyond Task 1.0 until the PMP has been accepted by the FPO. The PMP shall be revised and resubmitted as often as necessary, during the course of the project, to capture any major/significant changes to the planned approach, budget, key personnel, major resources, etc. Recipient shall manage and direct the project in accordance with the accepted PMP to meet all technical, schedule and budget objectives and requirements. Recipient will coordinate activities to effectively accomplish the work. Recipient will ensure that project plans, results, and decisions are appropriately documented, and that project reporting, briefing requirements are satisfied.

Subtask 1.2: National Environmental Policy Act (NEPA) Compliance. As required, the Recipient shall provide the documentation necessary for NEPA compliance.

Subtask 1.3: Cybersecurity Plan (CSP). The CSP shall be revised and resubmitted as often as necessary, during the course of the project, to capture any major/significant changes.

Subtask 1.4: Continuation Briefing(s). The Recipient will brief DOE on roughly an annual basis to explain the plans, progress and results of the technical effort. The briefing shall also describe performance relative to project success criteria, milestones, and the Go/No-Go Decision point that are documented in the Project Management Plan (PMP).

Subtask 1.5: Administration, Management, Required Deliverables. Project team will complete all project administration, project management, and develop and submit all deliverables to DOE.

BP 1: Justice40 + Tier 1 Transmission Line Components.

Task 2.0 – BP 1 Project Development

Subtask 2.1 – BP 1 Engineering, Design, and Permitting. The project team will select EPC contractor(s), complete engineering and design, environmental permitting, for (b) (4) and radial transmission lines

Subtask 2.2 – BP 1 Procurement and Construction. Project team will initiate procurement, construction for the Subtask 2.2 (b) (4) and radial transmission line components.

Subtask 2.3 – BP 1 Data Collection. Project team will track all progress, costs, milestones, lessons learned for engineering, design, permitting, procurement, construction; DOE reporting.

Task 3.0 – BP 1 Workforce / Community Benefits. Recipient completes hiring, workforce training / development, outreach/support, community benefits per the Community Benefits Plan (CBP).

BP 2: Justice40 + Tier 2 Transmission Line Components.

Task 4.0 – BP 2 Project Development

Subtask 4.1 – BP 2 Engineering, Design, and Permitting. Project team will complete engineering, design, environmental permitting for (b) (4) and needed control components for BP 1 and BP 2 components.



Subtask 4.2 – BP 2 Procurement and Construction. Finalize procurement, construction for BP1 (b) (4) components, initiate or continue construction for BP 1 transmission, initiate procurement / construction Subtask 4.1 components. Install controls for these components.

Subtask 4.3 – BP 2 Commissioning, Operation, and Validation / Data Collection. Complete commissioning and testing, then initiate operation for BP1 (b) (4) components, validate operation through operational data collection/monitoring, to continue for Project duration. Track all progress, costs, milestones, and lessons learned to support DOE reporting.

Task 5.0 – BP 2 Workforce and Community Benefits. Recipient completes hiring, workforce training / development, outreach/support, community benefits per the CBP.

BP 3: Other High-Need Rural Communities.

Task 6.0 – BP 3 Project Development. Subtask 6.1 – BP 3 Engineering, Design, and Permitting. Project team complete engineering, design, environmental, permitting, for the (b) (4) radial transmission line, controls.

Subtask 6.2 – BP 3 Procurement and Construction. Project team finalize procurement, construction BP 2 (b) (4) components (b) (4) and the (b) (4) transmission. Initiate or continue construction for all other components that are still active in the construction phase, install controls.

Subtask 6.3 – BP 3 Commissioning, Operation, and Validation / Data Collection. Project team will complete commissioning, testing, initiate operation for (b) (4) transmission lines completed during Subtask 6.2; validate operation of completed components, collect operational, monitoring, for the duration of the project. Track lessons learned for DOE reporting.

Task 7.0 – BP 3 Workforce and Community Benefits. Recipient completes hiring, workforce training / development, outreach/support, community benefits per the CBP.

BP 4: Finalize (b) (4) and Tier 1 + 2 Transmission Lines

Task 8.0 – BP 4 Project Development

Subtask 8.1 – BP 4 Procurement and Construction. Finalize procurement, construction for (b) (4) radial transmission (b) (4) controls. Construction for all other active components.

Subtask 8.2 – BP 4 Commissioning, Operation, and Validation / Data Collection. Complete commissioning, testing, initiate operation for Subtask 8.2 (b) (4), transmission components; validate operation via data collection, monitoring, to continue duration of Project; track all Task 8 progress and lessons learned for DOE reporting.

Task 9.0 – BP 4 Workforce and Community Benefits. Recipient completes hiring, workforce training / development, outreach/support, community benefits per the CBP.

BP 5: Finalize All Remaining Components, Final Reporting.

Task 10.0 – BP 5 Project Development

Subtask 10.1 – BP 4 Procurement and Construction. Finalize procurement, construction for (b) (4) transmission, install all remaining controls and control software.

Subtask 10.2 – BP 4 Commissioning, Operation, and Validation / Data Collection. Complete commissioning, testing, initiate operation for Subtask 10.2 components and controls; validate

Task 11.0 – BP 4 Workforce and Community Benefits. Recipient completes hiring, workforce training / development, outreach/support, community benefits per the CBP.

[illegible]

(b) (4)

End of Project Milestone

D. DELIVERABLES

Subtask 1.1: Project Management Plan; Subtask 1.3: Cybersecurity Plan; Subtask 1.4: Pre-Continuation Briefing Document(s); Subtask 1.5: DOE required reportings and final project closeout; Subtask 2.1: Validation of completion of engineering / design; Permitting completion notice; Subtask 2.2: Construction Completion notice; Subtask 2.3: Initiation of Operation notice; Task 3.0: BP 1 Workforce Development and Community Benefits Progress; Subtask 4.1: Validation of completion of engineering / design; Permitting completion notice; Subtask 4.2: Construction Completion notice; Subtask 4.3: Initiation of Operation notice; Task 5.0: BP 2 Workforce Development, Community Benefits Progress; Subtask 6.1: Validation of completion of engineering / design; Permitting completion notice; Subtask 6.2: Construction Completion notice; Subtask 6.3: Initiation of Operation notice; Task 7.0: BP 3 Workforce Development and Community Benefits Progress Report; Subtask 8.1: Construction Completion notice; Subtask 8.2: Initiation of Operation notice; Task 9.0: BP 4 Workforce Development and Community Benefits Progress; Subtask 10.1: Construction Completion notice; Subtask 10.2: Initiation of Operation notice; Task 11.0: BP 5 Workforce Development and Community Benefits Progress. In addition to the deliverables listed above, Recipient shall submit all periodic, topical, final, and other reports in accordance with the Federal Assistance Reporting Checklist and accompanying instructions.

E. BRIEFINGS/TECHNICAL PRESENTATIONS

Recipient shall prepare, and present periodic briefings, technical presentations and demonstrations as requested by the Federal Project Officer, which may be held at a DOE or Recipient's facility, other mutually agreeable location, or via webinar. Such meetings may include all or a combination of the following: **Kickoff Briefing** - Not more than 30 days after submission of the Project Management Plan, the Recipient shall prepare and present a project summary briefing as part of a Project Kickoff Meeting. **Pre-Continuation Briefing** - Not less than 90 days prior to the planned start of a budget period, Recipient shall brief the DOE on the results to date, and their plans for the subsequent periods of work. The DOE will consider the information from this briefing, as well as the content of deliverables submitted to date, prior to authorizing continuing the project. **Final Project Briefing** - Not less than 30 days prior to the end of the project, the Recipient shall prepare and present a Final Project Briefing on the results and accomplishments of the entire project. **Other Briefings** - Recipient shall prepare and present technical, financial, and/or administrative briefings as requested by the DOE.

Instructions and Summary

Award Number: _____
Award Recipient: _____

Date of Submission: _____
Form submitted by: _____

(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
	Budget Period 1	(b) (4)						01/01/2024 - 06/30/2025
	Budget Period 2							07/01/2025 - 12/31/2026
	Budget Period 3							01/01/2027 - 06/30/2028
	Budget Period 4							07/01/2028 - 12/31/2029
	Budget Period 5							01/01/2030 - 06/30/2031
	Total	\$249,129,382	\$258,010,362			\$507,139,743	50.88%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	(b) (4)							
b. Fringe Benefits								
c. Travel								
d. Equipment								
e. Supplies								
f. Contractual								
Sub-recipient								
Vendor								
FFRDC								
Total Contractual								
g. Construction								
h. Other Direct Costs								
Total Direct Costs								
i. Indirect Charges								
Total Costs	\$104,760,388	\$153,137,082	\$110,532,360	\$120,689,661	\$18,020,252	\$507,139,743	100.00%	

Additional Explanation (as needed):

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
Grant Manager/ERD Director																
Senior Lead Project Manager		(b) (4)														
Project Manager																
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
Total:	\$71,220		(b) (4)	\$71,220			\$71,220			\$71,220			\$71,220			\$240,883

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

☐ A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

☒ There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under f. Contractual.
2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.
3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).
4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.
5. Each budget period is rounded to the nearest dollar.

Additional Explanation (as needed):

c. Travel

INSTRUCTIONS - PLEASE READ!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
Domestic Travel		Budget Period 1									
#1-11	In state meetings/stakeholder outreach (7 trips)				(b) (4)					(b) (4)	GEFA historical travel cost
#1-11	Out of state training/travel (DOE or NASEO related)										
										\$0	
Budget Period 1 Total										\$3,650	
Domestic Travel		Budget Period 2									
#1-11	In state meetings/stakeholder outreach (7 trips)										GEFA historical travel cost
#1-11	Out of state training/travel (DOE or NASEO related)										
										\$0	
										\$0	
International Travel											
										\$0	
Budget Period 2 Total										\$3,650	
Domestic Travel		Budget Period 3									
#1-11	In state meetings/stakeholder outreach (7 trips)										GEFA historical travel cost
#1-11	Out of state training/travel (DOE or NASEO related)										
										\$0	
										\$0	
International Travel											
										\$0	
Budget Period 3 Total										\$3,650	
Domestic Travel		Budget Period 4									
#1-11	In state meetings/stakeholder outreach (7 trips)										GEFA historical travel cost
#1-11	Out of state training/travel (DOE or NASEO related)										
										\$0	
										\$0	
International Travel											
										\$0	
Budget Period 4 Total										\$3,650	
Domestic Travel		Budget Period 5									
#1-11	In state meetings/stakeholder outreach (7 trips)										GEFA historical travel cost
#1-11	Out of state training/travel (DOE or NASEO related)										
										\$0	
										\$0	
International Travel											
										\$0	
Budget Period 5 Total										\$3,650	
PROJECT TOTAL										\$18,250	

Additional Explanation (as needed): Travel costs are based on historical data and are included to allow for in-state workshops, stakeholder meets, site visits, etc. Out of state costs are included for DOE meetings, conferences, trainings, etc. and are based on historical data.

d. Equipment

INSTRUCTIONS - PLEASE READ

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.

2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.

3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.

4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 1 Total			\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 2 Total			\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 3 Total			\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 4 Total			\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 5 Total			\$0		
	PROJECT TOTAL			\$0		

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.

2. **Subrecipients (partners, sub-awardees):** Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.

3. **Vendors (including contractors):** List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.

4. **Federal Funded Research and Development Centers (FFRDCs):** FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.

5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
#1-11	GSOC	GSOC scope of work						
#1-11	OPC	OPC scope of work	(b) (4)					
#1-11	GTC	GTC Scope of work						
								\$0
								\$0
		Sub-total	\$104,521,548	\$152,898,242	\$110,293,520	\$120,454,821	\$17,781,412	\$505,949,543
SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0
SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0
	Total Contractual		\$104,521,548	\$152,898,242	\$110,293,520	\$120,454,821	\$17,781,412	\$505,949,543

Additional Explanation (as needed):

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Line Construction and Fiber / High Speed Communications Installation

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
	Budget Period 1 Total	\$0		
Budget Period 2				
	Budget Period 2 Total	\$0		
Budget Period 3				
	Budget Period 3 Total	\$0		
Budget Period 4				
	Budget Period 4 Total	\$0		
Budget Period 5				
	Budget Period 5 Total	\$0		
	PROJECT TOTAL	\$0		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
#1-11	Training and Registration		GEFA historical training costs	Employee and subgrantee training for award management
#1-11	Workshop and stakeholder events	(b) (4)	GEFA historical workshop and stakeholder event cost	Engagem community in benefits of proposed project
	Budget Period 1 Total	\$14,000		
Budget Period 2				
#1-11	Training and Registration		GEFA historical training costs	Employee and subgrantee training for award management
#1-11	Workshop and stakeholder events		GEFA historical workshop and stakeholder event cost	Engagem community in benefits of proposed project
	Budget Period 2 Total	\$14,000		
Budget Period 3				
#1-11	Training and Registration		GEFA historical training costs	Employee and subgrantee training for award management
#1-11	Workshop and stakeholder events		GEFA historical workshop and stakeholder event cost	Engagem community in benefits of proposed project
	Budget Period 3 Total	\$14,000		
#1-11	Training and Registration		GEFA historical training costs	Employee and subgrantee training for award management
#1-11	Workshop and stakeholder events		GEFA historical workshop and stakeholder event cost	Engagem community in benefits of proposed project
	Budget Period 4 Total	\$10,000		
Budget Period 5				
#1-11	Training and Registration		GEFA historical training costs	Employee and subgrantee training for award management
#1-11	Workshop and stakeholder events		GEFA historical workshop and stakeholder event cost	Engagem community in benefits of proposed project
	Budget Period 5 Total	\$14,000		
	PROJECT TOTAL	\$66,000		

Additional Explanation (as needed): Costs are included to cover likely stakeholder meetings/workshops, subgrantee training, conference registration (for training and presenting), etc.

i. Indirect Costs

INSTRUCTIONS - PLEASE READ

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	(b) (4)					\$508,966.55	fringe.
General & Administrative (G&A)							
FCCM Rate, if applicable							
OTHER Indirect Rate							
Indirect Costs (As Applicable):							
Overhead Costs						\$508,967	
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:						\$508,966.55	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

☐ An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.

☐ There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total). GEFA charges an 85% indirect rate to salary plus fringe. This allowable based on GEFA's attached indirect rate agreement with EPA. GEFA's allowable indirect rate is 150%.

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. **Each budget period is rounded to the nearest dollar.**

50.9%

Additional Explanation (as needed):

Applicant Name: 0 Award Number: 0

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		Total (g)
1. Budget Period 1							
2. Budget Period 2				(b) (4)			
3. Budget Period 3							
4. Budget Period 4							
5. Budget Period 5							
6. Totals				\$249,129,382	\$258,010,362		\$507,139,743
Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	(b) (4)						
b. Fringe Benefits							
c. Travel							
d. Equipment							
e. Supplies							
f. Contractual							
g. Construction							
h. Other							
i. Total Direct Charges (sum of 6a-6h)							
j. Indirect Charges							
k. Totals (sum of 6i-6j)	\$104,760,388	\$153,137,082	\$110,532,360	\$120,689,661	\$18,020,252	\$507,139,744	
7. Program Income						\$0	

Instructions and Summary

Award Number: _____
Award Recipient: GEFA

Date of Submission: 18-May-23
Form submitted by: GEFA
(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
Budget Period 1	(b) (4)							01/01/2024 - 06/30/2025
Budget Period 2								07/01/2025 - 12/31/2026
Budget Period 3								01/01/2027 - 06/30/2028
Budget Period 4								07/01/2028 - 12/31/2029
Budget Period 5								01/01/2030 - 06/30/2031
Total		\$17,466,551	\$17,466,486			\$34,933,037	50.00%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	(b) (4)							
b. Fringe Benefits								
c. Travel								
d. Equipment	\$							
e. Supplies								
f. Contractual								
Sub-recipient								
Vendor								
FFRDC								
Total Contractual								
g. Construction								
h. Other Direct Costs								
Total Direct Costs								
i. Indirect Charges								
Total Costs	\$16,264,858	\$8,140,150	\$8,743,320	\$1,784,709	\$0	\$34,933,037	100.00%	

Additional Explanation (as needed):

a. Personnel

INSTRUCTIONS - PLEASE READ

1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under f. Contractual.

2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.

3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).

4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.

5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 5			
1	Sr. Engineer (EXAMPLE)	2000	\$85.00	\$170,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	2400	\$190,000	Actual Salary
2	Technicians (2)	4000	\$20.00	\$80,000	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	4000	\$80,000	Actual Salary
1-11	Project Management	(b) (4)																	Average salary in Operations division
1-11	System Operations (15)																		Average salary in Operations division
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
	Total Personnel Costs	(b) (4)																\$9,410,069	

Additional Explanation (as needed):

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
EXAMPLE!!! Sr. Engineer	\$170,000	20%	\$34,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$38,000
Project Management	(b) (4)															
System Operations (15)																
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
Total	\$3,459,861		\$1,231,711	\$2,765,675		\$984,580	\$2,879,416		\$1,025,072	\$305,117		\$108,622	\$0		\$0	\$3,349,984

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

☐ A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

☐ There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel	Budget Period 1									
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel	Budget Period 2									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel	Budget Period 3									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel	Budget Period 4									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel	Budget Period 5									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 5 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

d. Equipment**INSTRUCTIONS - PLEASE READ!!!**

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3,4,5	EXAMPLE!!! Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3
2,4,6,8,10	Situational Awareness and System Economic Tools		(b) (4)		Feasibility Grade Estimate	Software for generating pricing signal
2,4,6,8,10	Energy Management System				Feasibility Grade Estimate	Software/hardware for monitoring grid infrastructure for reliability
2,4,6,8,10	Centralized Support Infrastructure - Phase 1				Feasibility Grade Estimate	Server/network infrastructure for phase 1 buildout
2,4,6,8,10	Data Historian				Feasibility Grade Estimate	Software for storing grid data for analysis
				\$0		
				\$0		
	Budget Period 1 Total			\$9,496,800		
Budget Period 2						
2,4,6,8,10	DER Forecasting Software		(b) (4)		Feasibility Grade Estimate	Software for forecasting distributed energy resources
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 2 Total			\$3,575,880		
Budget Period 3						
2,4,6,8,10	Distributed Energy Resource Management System		(b) (4)		Feasibility Grade Estimate	Software for managing distributed energy resources
2,4,6,8,10	Centralized Support Infrastructure - Phase 2 (Network Infrastructure)				Feasibility Grade Estimate	Network infrastructure for phase 2 buildout
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 3 Total			\$3,964,500		
Budget Period 4						
2,4,6,8,10	Centralized Support Infrastructure - Phase 2 (Server Infrastructure)		(b) (4)		Feasibility Grade Estimate	Server infrastructure for phase 2 buildout
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 4 Total			\$1,192,500		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 5 Total			\$0		
	PROJECT TOTAL			\$18,229,680		

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
4,6	EXAMPLE Wireless DAS components	10	\$360.00	\$3,600	Catalog price	For Alpha prototype - Task 2.4
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
2. Subrecipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
3. Vendors (including contractors): List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
4. Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2,4	EXAMPLE!!! XYZ Corp.	Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
6	EXAMPLE!!! ABC Corp.	Vendor for developing robotics to perform lens inspection. Estimate provided by vendor.						
1-11	Contractor to be selected per DOE Requirements	System Reliability Assessment	(b) (4)					
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$450,000	\$0	\$0	\$0	\$0	\$450,000

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0
	Total Contractual		\$450,000	\$0	\$0	\$0	\$0	\$450,000

Additional Explanation (as needed):

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: **Example Only!!! - Build wind turbine platform**

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	(b) (4)						
General & Administrative (G&A)							
FCCM Rate, if applicable							
OTHER Indirect Rate							
Indirect Costs (As Applicable):							
Overhead Costs							
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	\$1,626,486	\$814,015	\$874,332	\$178,471	\$0	\$3,493,304	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

- ☒ An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.
- ☐ There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): ***IMPORTANT:** Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. **Each budget period is rounded to the nearest dollar.**

50.0%

Additional Explanation (as needed):

Applicant Name: GEFA Award Number: 0

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		Total (g)
1. Budget Period 1				(b) (4)			
2. Budget Period 2							
3. Budget Period 3							
4. Budget Period 4							
5. Budget Period 5							
6. Totals				\$17,466,551	\$17,466,486		\$34,933,037
Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	(b) (4)						
b. Fringe Benefits							
c. Travel							
d. Equipment							
e. Supplies							
f. Contractual							
g. Construction							
h. Other							
i. Total Direct Charges (sum of 6a-6h)							
j. Indirect Charges							
k. Totals (sum of 6i-6j)	\$16,264,858	\$8,140,150	\$8,743,320	\$1,784,709	\$0	\$34,933,037	
7. Program Income						\$0	

Instructions and Summary

Award Number: _____
Award Recipient: GEFA

Date of Submission: 5/18/2023
Form submitted by: GEFA
(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
Budget Period 1	(b) (4)							01/01/2024 - 06/30/2025
Budget Period 2								07/01/2025 - 12/31/2026
Budget Period 3		\$0	\$0			\$0	0.00%	01/01/2027 - 06/30/2028
Budget Period 4		\$0	\$0			\$0	0.00%	07/01/2028 - 12/31/2029
Budget Period 5		\$0	\$0			\$0	0.00%	01/01/2030 - 06/30/2031
Total		\$81,485,716	\$81,154,500			\$162,640,216	49.90%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	(b) (4)							
b. Fringe Benefits								
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
d. Equipment	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
f. Contractual								
Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Vendor								
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual								
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Direct Costs								
i. Indirect Charges								
Total Costs	\$68,499,553	\$94,140,663	\$0	\$0	\$0	\$162,640,216	100.00%	

Additional Explanation (as needed):

a. Personnel**INSTRUCTIONS - PLEASE READ**

1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under f. Contractual.

2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.

3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).

4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.

5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 5			
1	Sr. Engineer (EXAMPLE)	2000	\$85.00	\$170,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	2400	\$190,000	Actual Salary
2	Technicians (2)	4000	\$20.00	\$80,000	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	4000	\$80,000	Actual Salary
1,3,5,7,9,11	Community Outreach		(b) (4)																
1	Contracts Administration																		
1-11	Project Manager																		
2,4,6,8,10	Onsite Construction Support																		
2,4,6,8,10	Environmental Compliance																		
2,4,6,8,10	Design Review																		
2,4,6,8,10	Safety and Training																		
2,4,6,8,10	Project Controls																		
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
	Total Personnel Costs			\$456,220			\$547,464	0		\$0	0		\$0	0		\$0		\$1,003,683	

Additional Explanation (as needed):

b. Fringe Benefits

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

There is not a current federally approved rate agreement negotiated and available.**

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel	Budget Period 1									
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel	Budget Period 2									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel	Budget Period 3									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel	Budget Period 4									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel	Budget Period 5									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 5 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.

2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.

3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.

4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3,4,5	EXAMPLE!!! Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 1 Total			\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 2 Total			\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 3 Total			\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 4 Total			\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 5 Total			\$0		
	PROJECT TOTAL			\$0		

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
4,6	EXAMPLE Wireless DAS components	10	\$360.00	\$3,600	Catalog price	For Alpha prototype - Task 2.4
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: **Example Only!!! - Build wind turbine platform**

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
2. Subrecipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
3. Vendors (including contractors): List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
4. Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2,4	EXAMPLE!!! XYZ Corp.	Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
6	EXAMPLE!!! ABC Corp.	Vendor for developing robotics to perform lens inspection. Estimate provided by vendor.						
1-11	Contractor to be selected per DOE Requirements	(b) (4)						
1-11	Contractor to be selected per DOE Requirements							
1-11	Contractor to be selected per DOE Requirements							
1-11	Contractor to be selected per DOE Requirements							
1-11	Contractor to be selected per DOE Requirements							
1-11	Contractor to be selected per DOE Requirements							
								\$0
		Sub-total	\$60,907,328	\$83,835,873	\$0	\$0	\$0	\$144,743,201

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

	Total Contractual		\$60,907,328	\$83,835,873	\$0	\$0	\$0	\$144,743,201
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Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	(b) (4)						
General & Administrative (G&A)							
FCCM Rate, if applicable							
OTHER Indirect Rate							
Indirect Costs (As Applicable):							
Overhead Costs							
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:			\$0	\$0	\$0	\$16,230,900	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.

☒ There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): ***IMPORTANT:** Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. Each budget period is rounded to the nearest dollar.

Total Project Cost: \$162,640,216	Cost Share Percent of Award:	49.9%
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Additional Explanation (as needed):

Applicant Name: GEFA Award Number: 0

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		Total (g)
1. Budget Period 1							
2. Budget Period 2				(b) (4)			
3. Budget Period 3							
4. Budget Period 4							
5. Budget Period 5							
6. Totals				\$81,485,716	\$81,154,500		\$162,640,216
Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	(b) (4)						
b. Fringe Benefits							
c. Travel							
d. Equipment							
e. Supplies							
f. Contractual							
g. Construction							
h. Other							
i. Total Direct Charges (sum of 6a-6h)							
j. Indirect Charges							
k. Totals (sum of 6i-6j)	\$68,499,553	\$94,140,663	\$0	\$0	\$0	\$162,640,216	
7. Program Income						\$0	

Instructions and Summary

Award Number: _____
Award Recipient: GEFA

Date of Submission: 5/18/2023
Form submitted by: GEFA

(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
Budget Period 1	(b) (4)							01/01/2024 - 06/30/2025
Budget Period 2								07/01/2025 - 12/31/2026
Budget Period 3								01/01/2027 - 06/30/2028
Budget Period 4								07/01/2028 - 12/31/2029
Budget Period 5								01/01/2030 - 06/30/2031
Total		\$148,986,914	\$159,389,376			\$308,376,290	51.69%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	(b) (4)							
b. Fringe Benefits								
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
d. Equipment								
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
f. Contractual								
Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Vendor								
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual								
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
h. Other Direct Costs								
Total Direct Costs								
i. Indirect Charges								
Total Costs	\$19,757,137	\$50,617,429	\$101,550,200	\$118,670,112	\$17,781,412	\$308,376,290	100.00%	

Additional Explanation (as needed):

a. Personnel

INSTRUCTIONS - PLEASE READ

1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under f. Contractual.
2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.
3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).
4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 5			
1	Sr. Engineer (EXAMPLE)	2000	\$85.00	\$170,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	2400	\$190,000	Actual Salary
2	Technicians (2)	4000	\$20.00	\$80,000	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	4000	\$80,000	Actual Salary
1,2,4,6,8,10	Contracts Administrator		(b) (4)																Salary based on position
1,2,4,6,8,10	CI - Environmental Compliance																		Salary based on position
1,2,4,6,8,10	CI - Performance Specialist																		Salary based on position
1,2,4,6,8,10	CI - Construction Inspector																		Salary based on position
1,2,4,6,8,10	DS - OH Design																		Salary based on position
1,2,4,6,8,10	DS - SS CAD Support																		Salary based on position
1,2,4,6,8,10	DS - SS Designer																		Salary based on position
1,2,4,6,8,10	DS - SS Review & Structural																		Salary based on position
1,2,4,6,8,10	DT - Environmental Compliance																		Salary based on position
1,2,4,6,8,10	DT - SS Site Design																		Salary based on position
1,2,4,6,8,10	DT - TL CAD Support																		Salary based on position
1,2,4,6,8,10	DT - TL Designer																		Salary based on position
1,2,4,6,8,10	ES - Environmental Compliance																		Salary based on position
1,2,4,6,8,10	ES - Environmental Planning																		Salary based on position
1,2,4,6,8,10	LS - Contract Agents																		Salary based on position
1,2,4,6,8,10	LS - Land Document Coordinator																		Salary based on position
1,2,4,6,8,10	LS - Land Legal Rights Coordinator																		Salary based on position
1,2,4,6,8,10	SS & EM Maintenance																		Salary based on position
1,2,4,6,8,10	PR - Proj Control Spec.																		Salary based on position
1,2,4,6,8,10	RC - Design Engineer																		Salary based on position
1,2,4,6,8,10	TP - Proj Manager																		Salary based on position
1-11	XA - Public Affairs																		Salary based on position
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
	Total Personnel Costs			\$1,175,407			\$2,016,774			\$1,924,843			\$474,193			\$71,029		\$5,662,246	

Additional Explanation (as needed):

b. Fringe Benefits

(INSTRUCTIONS - PLEASE READ!!!)

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
EXAMPLE!!! Sr. Engineer	\$170,000	20%	\$34,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$38,000
Contracts Administrator	(b) (4)															
CI - Environmental Compliance																
CI - Performance Specialist																
CI - Construction Inspector																
DS - OH Design																
DS - SS CAD Support																
DS - SS Designer																
DS - SS Review & Structural																
DT - Environmental Compliance																
DT - SS Site Design																
DT - TL CAD Support																
DT - TL Designer																
ES - Environmental Compliance																
ES - Environmental Planning																
LS - Contract Agents																
LS - Land Document Coordinator																
LS - Land Legal Rights Coordinator																
SS & EM Maintenance																
PR - Proj Control Spec																
RC - Design Engineer																
TP - Proj Manager																
XA - Public Affairs																
			\$0			\$0			\$0			\$0			\$0	\$0
Total	\$1,175,407		\$370,253	\$2,016,774		\$635,284	\$1,924,843		\$606,326	\$474,193		\$149,371	\$71,029		\$22,374	\$1,783,607

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

X There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel	Budget Period 1									
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel	Budget Period 2									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel	Budget Period 3									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel	Budget Period 4									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel	Budget Period 5									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 5 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3,4,5	EXAMPLE Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3
2,4,6,8,10	(b) (4)	1				
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 1 Total			\$2,159,080		
Budget Period 2						
2,4,6,8,10	(b) (4)	1				
2,4,6,8,10		1				
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 2 Total			\$10,232,182		
Budget Period 3						
2,4,6,8,10	(b) (4)	1				
2,4,6,8,10		1				
2,4,6,8,10		1				
				\$0		
				\$0		
				\$0		
	Budget Period 3 Total			\$30,485,877		
Budget Period 4						
2,4,6,8,10	(b) (4)	1				
2,4,6,8,10		1				
2,4,6,8,10		1				
				\$0		
				\$0		
				\$0		
	Budget Period 4 Total			\$20,699,787		
Budget Period 5						
2,4,6,8,10	(b) (4)	1				
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 5 Total			\$3,529,722		
	PROJECT TOTAL			\$67,106,648		

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
4,6	EXAMPLE Wireless DAS components	10	\$360.00	\$3,600	Catalog price	For Alpha prototype - Task 2.4
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
2. Subrecipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
3. Vendors (including contractors): List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
4. Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2.4	EXAMPLE!!! XYZ Corp.	Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
6	EXAMPLE!!! ABC Corp.	Vendor for developing robotics to perform lens inspection. Estimate provided by vendor.						
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards	(b) (4)						
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
2.4,6,8,10	Contractor to be selected per DOE Requirements and Project / Project Team Standards							
		Sub-total	\$14,076,683	\$24,961,757	\$58,378,134	\$84,690,692	\$12,380,146	\$194,487,411

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

	Total Contractual		\$14,076,683	\$24,961,757	\$58,378,134	\$84,690,692	\$12,380,146	\$194,487,411
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Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total		\$0		
Budget Period 2				
2	(b) (4)			
Budget Period 2 Total		\$7,709,690		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
2	(b) (4)			
Budget Period 4 Total		\$789,059		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$8,498,748		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
(b) (4)							
Indirect Costs (As Applicable):							
							Base would be labor, equipment,
Total indirect costs requested:	\$1,975,714	\$5,061,743	\$10,155,020	\$11,867,011	\$1,778,141	\$30,837,629	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.

☒ There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): ***IMPORTANT:** Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

8. Each budget period is rounded to the nearest dollar.

Additional Explanation (as needed):

Applicant Name: GEFA Award Number: 0

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		Total (g)
1. Budget Period 1							
2. Budget Period 2				(b) (4)			
3. Budget Period 3							
4. Budget Period 4							
5. Budget Period 5							
6. Totals							
Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	(b) (4)						
b. Fringe Benefits							
c. Travel							
d. Equipment							
e. Supplies							
f. Contractual							
g. Construction							
h. Other							
i. Total Direct Charges (sum of 6a-6h)							
j. Indirect Charges							
k. Totals (sum of 6i-6j)		\$19,757,137	\$50,617,429	\$101,550,200	\$118,670,112	\$17,781,412	\$308,376,290
7. Program Income							\$0



May 18, 2023

Mr. Kristofor Anderson, Director of Energy Resources
Georgia Environmental Finance Authority
47 Trinity Avenue, SW
Fifth Floor
Atlanta, GA 30334

Re: U.S. Department of Energy Grid Resilience and Innovation Partnerships (GRIP) Grant, Topic Area 3 (DE-FOA-0002740) - *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*

Dear Mr. Anderson,

As a subrecipient and third-party cost share provider of your proposed GRIP project, *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*, Oglethorpe Power Corporation shares your goal to improve electric resilience and reliability across the electric grid of the State of Georgia.

Oglethorpe Power is a power supply cooperative and one of the largest energy producers in Georgia. We are a cooperative that operates on a not-for-profit basis, owned by the 38 electric cooperatives we serve. Many of our member-owners serve largely rural service territories with low population densities, including more than 100 counties¹ that exceed Georgia's statewide poverty rate. Oglethorpe Power's generation assets are spread throughout many of Georgia's most rural counties, where our financial contributions through property taxes and charitable giving have a meaningful impact. Reliability and affordability are key pillars of the cooperative business model and Oglethorpe Power provides wholesale electricity and services to our members at the lowest possible cost, in part by eliminating the pressure to maximize profits or a return on equity.

Subject to final approvals as required by our governing documents, Oglethorpe Power is committed to the projects in this grant application that will minimize the energy burden in disadvantaged communities (DACs) that can least afford electric rate increases and are often most impacted by electric outages. The grant proposes deployment of three key integrated resiliency and grid management projects, including: 1) (b) (4) grid resilience (b) (4) 2) complete radial transmission lines, and 3) advanced grid control software and hardware. These three project components, when implemented together, will significantly reduce rural grid outage durations, provide a foundation for future renewable energy deployments, and deploy strategically located utility-scale energy storage on the grid to enhance reliability. Anticipated project benefits include increased energy savings, decreased DAC household energy burden, equitable access to improved reliability and resiliency resources, improved health and safety for all impacted by the proposed projects, and significant direct financial investment in rural, underprivileged project communities that are served by electric cooperatives.

As the President and CEO of Oglethorpe Power, I commit that we will work with you during the implementation of the grant projects to do the following, subject to final approvals as required by our governing documents:

¹ Source: United States Census Bureau, 2020



1. Perform project management of the deployment of (b) (4) within (b) (4) months, as identified in the project budget, scope and schedule detailed in this grant application;
2. Allocate at least 25% of all DOE and match funds spent on contractual agreements to MWBE/DBEs, with a preference for contractors that utilize union and locally sourced crews from disadvantaged communities, contingent on the availability of qualified MWBE/DBE bidders to perform the work;
3. Engage with the disadvantaged communities where our projects will be located, to achieve our shared community benefit goals including community and labor engagement, investing in the American workforce, and benefitting rural, disadvantaged communities.

The overarching goal of these projects is to improve grid resiliency and reliability in rural Georgia, while anticipating and enabling the future support of renewable energy systems in a manner that improves key service metrics while hardening the grid system against climate derived outages and improving equity-driven service. Oglethorpe Power supports these benefits to the electric grid and populations most in need of service improvement, including underserved communities, Justice40 communities, and end of line rural communities currently suffering from comparatively frequent electric service interruptions.

We look forward to working together with you to advance this project and hope it will receive every consideration for funding.

Sincerely,

Michael L. Smith

Michael L. Smith
President & CEO
Oglethorpe Power



Georgia System Operations Corporation
2100 East Exchange Place
Tucker, GA 30084-5336
phone 770-270-7200
fax 770-270-7872

May 18, 2023

Mr. Kristofer Anderson, Director of Energy Resources
Georgia Environmental Finance Authority
47 Trinity Avenue, SW
Fifth Floor
Atlanta, GA 30334

Re: U.S. Department of Energy Grid Resilience and Innovation Partnerships (GRIP) Grant, Topic Area 3 (DE-FOA-0002740) - *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*

Dear Mr. Anderson,

As a subrecipient and third-party cost share provider of your proposed GRIP project, *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*, Georgia System Operations Corporation shares your goal to improve electric resilience and reliability across the electric grid of the State of Georgia.

Georgia System Operations Corporation was created in 1997 when Oglethorpe Power spun off its transmission and system operations business units to form Georgia Transmission and Georgia System Operations, respectively, although we had, in effect, been managing system operations since 1990. Georgia System Operations ensures reliable, independent system operations by controlling and monitoring the electric generation, transmission, and distribution assets owned by Oglethorpe Power, Georgia Transmission, our 38 Member Systems, and other customers.

Subject to final approvals as required by our by-laws, Georgia System Operations is committed to the projects in this grant application that will minimize the energy burden in disadvantaged communities (DACs) that can least afford electric rate increases and are often most impacted by electric outages. The grant proposes deployment of three key integrated resiliency and grid management projects, including: 1) (b) (4) grid resilience (b) (4) 2) complete radial transmission lines, and 3) advanced grid control software and hardware. These three project components, when implemented together, will significantly reduce rural grid outage durations, provide a foundation for future renewable energy deployments, and deploy strategically located utility-scale energy storage on the grid to enhance reliability. Anticipated project benefits include increased energy savings, decreased DAC household energy burden, equitable access to improved reliability and resiliency resources, improved health and safety for all impacted by the proposed projects, and significant direct financial investment in rural, underprivileged project communities that are served by electric cooperatives.

As the President and CEO of Georgia System Operations, I commit that we will work with you during the implementation of the grant projects to do the following, subject to final approvals as required by our by-laws:

1. Perform project management of the deployment of advanced grid control systems to integrate and manage renewable energy technologies, such as (b) (4) as identified in the project budget, scope and schedule detailed in this grant application;
2. Allocate at least 25% of all DOE and match funds spent on contractual agreements to Minority or Women Business Entities/Disadvantaged Business Entities (MWBE/DBEs), with a preference for contractors that utilize union and locally sourced crews from disadvantaged communities, contingent on the availability of qualified MWBE/DBE bidders to perform the work;
3. Engage with the disadvantaged communities where our projects will be located, to achieve our shared community benefit goals including community and labor engagement, investing in the American workforce, and benefitting rural, disadvantaged communities.

The overarching goal of these projects is to improve grid resiliency and reliability in rural Georgia, while anticipating and enabling the future support of renewable energy systems in a manner that improves key service metrics while hardening the grid system against climate derived outages and improving equity-driven service. Georgia System Operations supports these benefits to the electric grid and populations most in need of service improvement, including underserved communities, Justice40 communities, and end of line rural communities currently suffering from comparatively frequent electric service interruptions.

We look forward to working together with you to advance this project and hope it will receive every consideration for funding.

Sincerely,



Gregory S. Ford
President & CEO
Georgia System Operations Corporation



May 18, 2023

Mr. Kristofor Anderson, Director of Energy Resources
Georgia Environmental Finance Authority
47 Trinity Avenue, SW
Fifth Floor
Atlanta, GA 30334

Re: U.S. Department of Energy Grid Resilience and Innovation Partnerships (GRIP) Grant, Topic Area 3 (DE-FOA-0002740) - *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*

Dear Mr. Anderson,

As a partner in your proposed GRIP project, *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*, Green Power EMC shares your goal to improve electric resilience and reliability across the electric grid of the State of Georgia.

Green Power EMC is a not-for-profit cooperative that secures renewable energy resources on behalf of 38 of Georgia's Electric Membership Corporations (EMCs). Founded by Georgia's EMCs in 2001, Green Power EMC is the first renewable energy provider in Georgia and obtains clean energy from renewable facilities all across the state including solar, landfill gas, hydro, wood waste and wind. In partnership with Green Power EMC, Georgia's EMCs lead the nation in utility-scale solar deployment among electric co-ops and are responsible for more than one-third of the total solar capacity planned by co-ops across the U.S. By harnessing the state's natural resources, Georgia's EMCs are helping to power homes and businesses with emission-free, clean energy.

Green Power EMC is committed to the projects in this grant application that will minimize the energy burden in disadvantaged communities (DACs) that can least afford electric rate increases and are often most impacted by electric outages. The grant proposes deployment of three key integrated resiliency and grid management projects, including: 1) (b) (4) grid resilience (b) (4) 2) complete radial transmission lines, and 3) advanced grid control software and hardware. These three project components, when implemented together, will significantly reduce rural grid outage durations, provide a foundation for future renewable energy deployments, and deploy strategically located utility-scale energy storage on the grid to enhance reliability. Anticipated project benefits include increased energy savings, decreased DAC household energy burden, equitable access to improved reliability and resiliency resources, improved health and safety for all impacted by the proposed projects, and significant direct financial investment in rural, underprivileged project communities that are served by electric cooperatives.

As the President of Green Power EMC, I commit that we will work with you and the grant subrecipients and third-party cost share providers Oglethorpe Power, Georgia Transmission and Georgia System Operations Corporation, during the implementation of the grant projects to achieve the overarching goal to improve grid resiliency and reliability in rural Georgia. Green Power EMC supports these benefits to the electric grid and populations most in need of service improvement, including underserved communities, Justice40



communities, and end of line rural communities currently suffering from comparatively frequent electric service interruptions.

We look forward to working together with you to advance this project and hope it will receive every consideration for funding.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Pratt". The signature is stylized with a long horizontal stroke at the end.

Jeff Pratt
President
Green Power EMC

Georgia Transmission Corporation
2100 East Exchange Place
Tucker, GA 30084-5336
phone 770-270-7400
fax 770-270-7872

Mr. Kristofor Anderson, Director of Energy Resources
Georgia Environmental Finance Authority
47 Trinity Avenue, SW
Fifth Floor
Atlanta, GA 30334

Re: U.S. Department of Energy Grid Resilience and Innovation Partnerships (GRIP) Grant, Topic Area 3 (DE-FOA-0002740) - *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*

Dear Mr. Anderson,

As a subrecipient and third-party cost share provider of your proposed GRIP project, *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*, Georgia Transmission Corporation shares your goal to improve electric resilience and reliability across the electric grid of the State of Georgia.

Georgia Transmission is a not-for-profit transmission-only electric cooperative owned by our members, which includes 38 of Georgia's Electric Membership Corporations (EMCs) and Oglethorpe Power. We plan, build and maintain the high-voltage electrical infrastructure that delivers power to our state's EMCs, providing electricity to more than 4.4 million Georgians. As of December 31, 2022, we own and maintain 3,916 miles of transmission lines and 774 substations. Our 38 member EMCs deliver electricity to homes and businesses throughout the state, covering more than 70% of the state's land area. Together, with Georgia Power, Municipal Electric Authority of Georgia and Dalton Utilities, we plan and operate Georgia's electric transmission system through the Integrated Transmission System, ensuring electric transmission service remains efficient and reliable for all Georgians.

Subject to approval from our Board of Directors, Georgia Transmission is committed to the projects in this grant application that will minimize the energy burden in disadvantaged communities (DACs) that can least afford electric rate increases and are often most impacted by electric outages. The grant proposes deployment of three key integrated resiliency and grid management projects, including: 1) (b) (4) grid resilience (b) (4) 2) complete radial transmission lines, and 3) advanced grid control software and hardware. These three project components, when implemented together, will significantly reduce rural grid outage durations, provide a foundation for future renewable energy deployments, and deploy strategically located utility-scale energy storage on the grid to enhance reliability. Anticipated project benefits include increased energy savings, decreased DAC household energy burden, equitable access to improved reliability and resiliency resources, improved health and safety for all impacted by the proposed projects, and significant direct financial investment in rural, underprivileged project communities that are served by electric cooperatives.

As the President and CEO of Georgia Transmission, I commit that we will work with you during the implementation of the grant projects to do the following (subject to Board Approval):

1. Perform project management of the deployment of (b) (4) and (b) (4) miles of new transmission lines serving (b) (4) substations, within (b) (4) months, as identified in the project budget, scope and schedule detailed in this grant application;
2. Commit to allocating at least 25% of all DOE and match funds spent on contractual agreements to MWBE/DBEs, with a preference for contractors that utilize union and locally sourced crews from disadvantaged communities, contingent on the availability and cost range of qualified MWBE/DBE bidders to perform the work;
3. Engage with the disadvantaged communities where our projects will be located, to achieve our shared community benefit goals including community and labor engagement, investing in the American workforce, and benefitting rural, disadvantaged communities.

The overarching goal of these projects is to improve grid resiliency and reliability in rural Georgia, while anticipating and enabling the future support of renewable energy systems in a manner that improves key service metrics while hardening the grid system against climate derived outages and improving equity-driven service. Georgia Transmission supports these benefits to the electric grid and populations most in need of service improvement, including underserved communities, Justice40 communities, and end of line rural communities currently suffering from comparatively frequent electric service interruptions.

We look forward to working together with you to advance this project and hope it will receive every consideration for funding.

Sincerely,



Barbara Hampton
President & CEO
Georgia Transmission Corporation



May 10, 2023

Mr. Kristofor Anderson, Director of Energy Resources
Georgia Environmental Finance Authority
47 Trinity Avenue, SW
Fifth Floor
Atlanta, GA 30334

Re: U.S. Department of Energy Grid Resilience and Innovation Partnerships (GRIP) Grant, Topic Area 3 (DE-FOA-0002740) - *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*

Dear Mr. Anderson,

Clean Cities Georgia is an initiative of the Department of Energy (DOE) with a mission to advance the energy, economic, and environmental security of the U.S. by supporting local actions to reduce petroleum in transportation. The Georgia Clean Cities coalition is a central coordinating point for activities to promote Alternative Fuel Vehicles (AFV) in Georgia. I write this letter on behalf of Clean Cities Georgia, in support of GEFA's proposed GRIP Topic Area 3 grant application, *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*.

The projects within the GEFA grant application will improve electric resilience and reliability across the State of Georgia, which is critical to our goals to increase the electrification of the transportation industry and reduce the consumption of petroleum. The transition of the transportation fleet to electric vehicles (EVs) is highly dependent upon a robust, reliable EV charging infrastructure. EV drivers expect EV charging equipment to be readily available, affordable and reliable. A reliable, resilient electric grid, is the foundation of a dependable EV charging system.

We appreciate that the projects in the grant application focus on underserved communities. These communities rely on dependable, affordable transportation for daily activities and for potentially lifesaving emergency services. Often underserved communities are among the last to experience transformative new technologies like electric transportation. The GEFA grant application proposes projects that will help increase the adoption of electric transportation in these communities.

Clean Cities Georgia also supports your community benefit goals, such as community and labor engagement, investing in the American workforce and Justice40 initiatives. As a pilot project of the Justice 40 Initiative with DOE's National Clean Cities Network, we have received training and funding for energy and environmental justice outreach, including hiring a full time contractor to serve as a Community Engagement Liaison to work with these communities.

Clean Cities Georgia can commit to the following actions to support your grant application:

1. Continue to promote EV education in Georgia's communities, including underserved communities, which will receive improved reliable and resilient electrical service from the projects proposed in your grant application.
2. Coordinate with the electric service providers that will implement the projects proposed in the grant application to help ensure that the relevant communities have information and tools to help accelerate EV adoption.

We look forward to working together on our shared goals of a reliable, resilient electric grid to support the electrification of the transportation industry.

Sincerely,

A handwritten signature in blue ink that reads "Frank Morris". The signature is written in a cursive, flowing style.

Frank Morris
Executive Director
Clean Cities Georgia



Georgia EMC

A Touchstone Energy® Partner



May 15, 2023

Mr. Kristofer Anderson
Director of Energy Resources
Georgia Environmental Finance Authority
47 Trinity Avenue, SW
Fifth Floor
Atlanta, GA 30334

Re: U.S. Department of Energy Grid Resilience and Innovation Partnerships (GRIP) Grant, Topic Area 3 (DE-FOA-0002740) - *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*

Dear Mr. Anderson,

Georgia EMC is a statewide trade association representing the state's 41 electric membership corporations, Oglethorpe Power Corporation, Georgia Transmission Corporation, and Georgia System Operations Corporation. Our association's mission is to provide leadership and unity through advocacy, education, and communications. We are a not-for-profit 501 (C)(6), member-owned organization governed by a board of directors elected from our member cooperatives.

Georgia EMC is in support of your proposed GRIP project, *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*, and your goal to improve resilience and reliability across the electric grid in Georgia. If funded by the DOE, the grant would deploy three key resiliency projects including complete radial transmission lines, (b) (4) and advanced grid control system hardware and software. Together these projects will reduce rural grid outage durations in some of the most rural and disadvantaged communities within our state. The grant funding will also assist the electric grid to accommodate new renewable energy deployments. Georgia energy consumers that are served by electric cooperatives will see increased energy savings and a decreased energy burden. Furthermore, this grant will initiate hundreds of millions in financial investment into underprivileged communities across rural Georgia.

As the CEO of the trade association representing the electric cooperatives of Georgia, I commit to work with GEFA and the utility partners that will implement these projects to help you accomplish your goals. Georgia EMC commits to work with GEFA, Oglethorpe Power, Georgia Transmission and Georgia System Operations to provide opportunities to educate our membership on the progress of the three projects and the community benefits they are providing in rural Georgia.

As a part of our commitment to this project, we would use *Georgia Magazine*, our statewide publication that goes to EMC member-consumers across the state to publish articles that educate them on the benefits these projects will bring to our state and facilitate discussion of the community benefits for these projects within our membership.

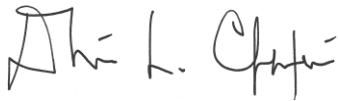
Representing Georgia's Electric Cooperatives

2100 E. Exchange Place, Ste. 510 • Tucker, GA 30084 • (770) 270-6950 • www.georgiaemc.com



I offer my strong support for your goal to improve grid resiliency and reliability in rural Georgia and you have my commitment that Georgia EMC will assist all the partners in these endeavors.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis L. Chastain". The signature is written in a cursive, flowing style with some capitalization.

Dennis L. Chastain
President and CEO



Brian P. Kemp
Governor

Gregory C. Dozier
Commissioner

May 12, 2023

The Honorable Jennifer Granholm
Secretary
U.S. Department of Energy
1000 Independence Ave SW
Washington, DC 20585

Re: U.S. Department of Energy Grid Resilience and Innovation Partnerships (GRIP) Grant, Topic Area 3 (DE-FOA-0002740) - *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*

Dear Secretary Granholm,

I am writing in regards to the state of Georgia's GRIP grant application, entitled *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*.

The Technical College System of Georgia (TCSG) oversees the state's technical colleges, adult literacy programs, and a host of economic and workforce development programs. TCSG provides a unified system of customized business and industry training to the electric utility industry among many others.

TCSG has a longstanding, mutually beneficial partnership with the sub-applicants of this grant, including Oglethorpe Power, Georgia Transmission, Georgia System Operations Corporation and Green Power EMC, as well as the 38 not-for-profit electric cooperative member-owners these companies serve. TCSG's technical colleges educate and prepare students to become the future workforce of electric utilities, filling positions such as electricians, linemen, generation facility technicians and other business professionals.

TCSG is supportive of the goals of the Georgia GRIP grant application, which are to improve electric resilience and reliability across the state and minimize outage duration, service issues and the energy burden in disadvantaged communities (DACs).

TCSG commits to be a partner in the long-term success of the projects identified in this grant application, through our ongoing efforts to train technical students to succeed as the workforce that will maintain and operate the transmission lines, (b) (4) assets that would be funded by this grant. Georgia's technical schools offer degree programs in Electrical Construction Systems, Industrial Systems Technology and Electrical and Computer Engineering. Furthermore, we commit to recruit and train students to our programs from the same rural disadvantaged areas where these assets will be located, escalating the benefit to these communities.

TCSG's critical role in Georgia's workforce development strategy will support the utilities that build these projects, and result in increased grid resiliency and reliability in Georgia. TCSG supports this grant's focus on Georgia's underserved communities and end of line rural communities, that are currently suffering from comparatively frequent electric service interruptions.

Thank you for your consideration of this Georgia GRIP grant application for DOE funding.

Sincerely,

A handwritten signature in blue ink, appearing to read 'G. Dozier', with a stylized flourish extending to the right.

Greg Dozier
Commissioner



GREMA

Georgia Rural Electric Managers' Association

May 8, 2023

Mr. Kristofor Anderson, Director of Energy Resources
Georgia Environmental Finance Authority
47 Trinity Avenue, SW
Fifth Floor
Atlanta, GA 30334

Re: U.S. Department of Energy Grid Resilience and Innovation Partnerships (GRIP) Grant, Topic Area 3 (DE-FOA-0002740) - *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*

Dear Mr. Anderson,

Your proposed GRIP project, *Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities*, will improve electric resilience and reliability across the State of Georgia and minimize the energy burden in disadvantaged communities (DACs) that can least afford electric rate increases and are often most impacted by electric outages. The grant proposes deployment of three key integrated resiliency and grid management projects that will significantly reduce rural grid outage durations, provide a foundation for future, additional renewable energy deployments, and deploy strategically located (b) (4) on the electric grid to enhance reliability. Anticipated project benefits include increased energy savings, decreased DAC household energy burden, equitable access to improved reliability and resiliency resources, improved health and safety for all impacted by the proposed projects, and significant direct financial investment in rural, underprivileged project communities that are served by electric cooperatives.

As the President, Vice President and Treasurer of the Georgia Rural Electric Managers Association (GREMA), we commit to work with you during the implementation of the grant projects, to achieve our shared community benefit goals including community and labor engagement, investing in the American workforce, and benefitting rural, disadvantaged communities.

On behalf of the leadership within the 38 electric cooperatives that are members of GREMA, and the approximately 4.4 million Georgia citizens who receive electricity from an electric cooperative in Georgia, we commit to the following actions:

1. Engage with GEFA and the project implementors to help ensure the projects proposed in the grant application are successfully implemented and that the affected communities receive the benefits noted in the application.

2. Coordinate with GEFA and the project implementors to effectively integrate the technology included the proposed projects with the distributions systems that are owned and operated by members of GREMA.

The overarching goal of these projects is to improve grid resiliency and reliability in rural Georgia, while anticipating and enabling the future support of renewable energy systems in a manner that improves key service metrics while hardening the grid system against climate derived outages and improving equity-driven service. Our cooperatives support these benefits to the electric grid and populations most in need of service improvement, including underserved communities, Justice40 communities, and end of line rural communities currently suffering from comparatively frequent electric service interruptions.

We look forward to working together with you to advance this project and hope it will receive every consideration for funding.

Sincerely,



Tim Martin
President & CEO
Carroll EMC
President, GREMA



Chris Fettes
President & CEO
Coastal EMC
Vice-President, GREMA



Todd Payne
President & CEO
Amicalola EMC
Treasurer, GREMA

Project Information



GEORGIA ENVIRONMENTAL
FINANCE AUTHORITY

Project Title: Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities

Prime Recipient: Georgia Environmental Finance Authority (GEFA)

Total Project Cost:	DOE Grant Request:	Match Commitment:
\$507,139,744.00	\$249,129,382	\$258,010,362

Project Summary

The Georgia Environmental Finance Authority (GEFA) and the Oglethorpe Power Corporation (OPC) Family of Companies (FOC) are collaborating on a transformative project that will benefit communities across the state of Georgia. The project aims to improve resilience and clean energy development in the state of Georgia with an estimated investment of more than \$507,000,000. The comprehensive smart grid infrastructure upgrade program includes investments in (b) (4), and grid reliability while implementing new transmission lines to link radial circuits. In addition, advanced grid control systems will improve resilience and dependability. The collaboration is anticipated to improve service reliability, reduce outage durations, and increase distributed energy resource support (DERs). This initiative will pave the way for a more resilient, sustainable, and prosperous future in the state of Georgia.

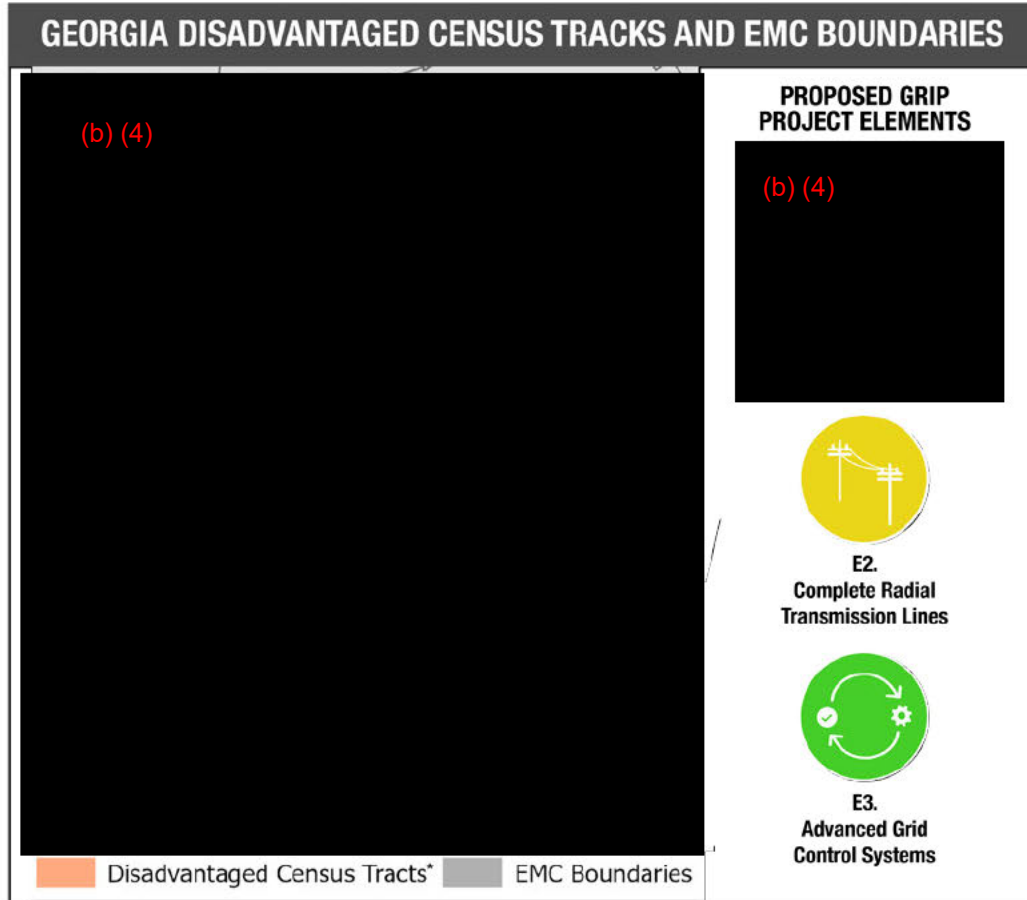
Key Personnel

Kristofor Anderson	GEFA Grant Manager
Kelly Cutts	GEFA Grant Administrator
Betsy Higgins	OPC Financial Administrator
David Sorrick	OPC Deployment Manager
Jeff Pratt	Strategic Advisor
John Raese	GTC Project Manager
Camron Carden	GTC Project Manager
Dustin Zubke	GTC Grant Administrator and Financial Manager
Joe Sowell	GTC System Planning Lead
Nathan Brown	GSOC Project Manager
David Revell	GSOC Project Manager

Technology Summary, Impact and Outcomes



GEORGIA ENVIRONMENTAL
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* Georgia Disadvantaged Census Tracts determined by the Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool, found at <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>.

- E1.** (b) (4)

(b) (4)

1) Integrate/manage solar and IBRs; 2) Facilitate clean tech (EVs, heat pumps, etc) adoption; 3) (b) (4) for resiliency and backup power

(b) (4): 1) Transmission level storage; 2) Solar and IBR integration grid-wide; 3) Grid flexibility, services, resilience
- E2. New Transmission Lines to Connect Radial Circuits**

(b) (4) miles of new transmission lines serving (b) (4) substations: 1) Connect existing radial transmission circuits to improve reliability; 2) Prioritized to maximize benefits to Justice40 and underserved communities; 3) Targeted to rural and vulnerable suburban populations in North Georgia; 4) Connection point for new solar developments; 5) Support targeted resiliency improvements
- E3. Advanced Grid Control Systems for Resiliency and Reliability**

DER Forecasting: improved/accurate, intelligent DER generation and load forecasting; **DERMS** to improve modeling and operational control; improve resilience, reliability, economics, and DER function; **System Reliability Assessment** for new intermittent resources; **Situational Awareness, System Economic Tools:** real time/near real time system resource analysis; integrate renewables, improve delivery, manage cost

Project Goal



GEORGIA ENVIRONMENTAL
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The project led by GEFA (Georgia Environmental Finance Authority) aims to transform the energy landscape in underserved communities through a comprehensive set of goals and objectives.

The project focuses on enhancing energy resiliency, increasing access to clean energy, promoting economic development, improving energy efficiency, and fostering community engagement by accomplishing the following objectives:

Enhance Energy Resiliency	Increase Access to Clean Energy	Promote Economic Development and Foster Community Engagement	Improve Energy Efficiency
<ul style="list-style-type: none">• Upgrade and modernize grid infrastructure.• Implement advanced technologies to reduce power outages.• Ensure reliable and uninterrupted energy supply.	<ul style="list-style-type: none">• Promote the adoption of clean energy resources.• Integrate utility-scale solar and renewable energy storage systems.• Provide residents in underserved communities with sustainable power sources.	<ul style="list-style-type: none">• Create job opportunities in the clean energy sector.• Stimulate local economies through investments in grid infrastructure.• Foster economic equity and prosperity in underserved communities.	<ul style="list-style-type: none">• Implement energy-saving measures and programs.• Deploy advanced metering infrastructure for accurate energy monitoring.• Reduce energy consumption and lower utility bills for residents.

[illegible]

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Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Oglethorpe Power Corporation (OPC)	
Oglethorpe Power Corporation (OPC)	
Oglethorpe Power Corporation (OPC)	

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- ☒ Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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In 2003, Georgia Transmission Corporation (GTC) partnered with the Electric Power Research Institute (EPRI) to develop the EPRI/GTC Electric Overhead Transmission Line Siting Methodology. The research projects' goals were to develop a methodology that was objective, quantitative, consistent, and defensible; while also creating an approach that incorporated stakeholder input and was flexible enough to produce several alternatives instead of just a computer generated "best" route. The Methodology developed uses geographic information system (GIS) model building techniques and algorithms to narrow down preferable areas with connectivity between the project's start and end locations. Data layers (maps) are divided into four perspectives to analysis potential alternative corridors: The Built Environment, The Natural Environment, Exiting Corridors, and Engineering Concerns. The Methodology also incorporates expert judgment to determine constructible alternative routes, evaluate risk, and determine the most preferable solution for the project by the GTC multi-disciplinary project team.

More information on the Siting Methodology can be found at:

<https://www.epri.com/research/products/000000003002017601>

<https://www.epri.com/research/products/000000000001013080>

GTC plans to utilize this methodology to develop and evaluate route alternatives between (b) (4)

GTC does not anticipate that this proposed project will have extraordinary circumstances that would indicate a significant or adverse effect to protected resources, which would require the consideration of alternatives to avoid those potential impacts. Based on the scope of the project and the assumption a preferred route will be develop that avoids extraordinary circumstances, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.54 of USDA Rural Development Environmental Policies and Procedures requiring an Environmental Report and not an Environmental Assessment.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project area is in (b) (4) Counties, Georgia. The cities of (b) (4) are within proximity of the project area. The straight-line distance between the (b) (4) substations is (b) (4) miles. However, a preferred route of (b) (4) miles is likely. The project area roughly parallels Georgia Highway (b) (4) and encompasses the unincorporated communities of (b) (4). The surrounding area is primarily agricultural with naturally occurring forest within stream systems and wetlands.

2. **Attach** a project site location map of the project work area.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input checked="" type="checkbox"/> Rural	<input type="checkbox"/> Residential	<input type="checkbox"/> Research Facilities
<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> University Campus	<input type="checkbox"/> Other:	

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

The likely distance of the preferred route for this proposed transmission line project will likely be (b) (4) miles. The proposed right-of-way width required is 100'. In segments where the route is able to parallel roadways, a variable right-of-way width will be

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required depending on the curvature of the road. On average, roadside sections will be 35' in width. Based on the length and assuming approximately half of the proposed corridor will be roadside, GTC anticipates requiring (b) (4) acres of right-of-way. GTC will need to place a (concrete or steel mono-pole) structure every 600' on average. Based on the average span length, the project would require approximately (b) (4) structures. Structures will be 85' to 110' in height based on engineering requirements and site conditions.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

GTC will need to clear trees within the proposed right-of-way, develop access paths to reach each structure, install BMPs to stabilize the right-of-way, erect each structure using cranes, string conductor, and terminate each end into the existing substations. Some structures may require concrete foundations, but most angled structures will use guys for stability.

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Most agricultural land will have minimal affects except for fields utilizing center field irrigation. These are identified during routing and efforts are made to avoid or minimize impacts to these features.

Forested areas within the right-of-way will be cleared, including naturally occurring forests, planted pine, pecan trees, and yard trees. Many land uses may continue within the right-of-way, but most man-made structures are not allowed within the maintained right-of-way. Generally, vegetation or structures exceeding 15' in height are not compatible with the operation of transmission lines.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

Areas cleared of trees will be seeded for stabilization. With approval from Georgia Environmental Protection Division, GTC will likely use shredded material created from the on-site woody material to apply to the right-of-way. GTC has found the application of the large, shredded material creates good stabilization by interlocking and amends the soil to create good herbaceous and grass cover over time, ideal right-of-way conditions.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
- ☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)

The state of Georgia administers the (b) (4) and the USFWS has isolated tracks of land associated with the (b) (4). However, these tracks are not directly between the the (b) (4). These resources will likely be avoided during routing. GTC does not anticipate impacts to these resources.

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None
- See maps appended a the end of the questionnaire.

A route for the proposed transmission line has not been selected to date. GTC's project team will select a preferred route after considering existing land use patterns, the natural environment, existing corridors, and engineering practices. GTC will

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also hold public information meetings to garner public input that that may affect the final alignment. Based on the project scope, GTC anticipates erecting approximately (b) (4) mono-pole structures and would require (b) (4) acres of transmission line rights-of-way. Also, some construction work will need to occur at the existing substations on either end.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)
- c. Would the proposed project affect any existing body of water? ☐ No ☒ Yes (describe)

There are not large lakes or reservoirs in the project area. However, when building a linear facility, it is unlikely that hydrologic features can be avoided. When crossing these features, GTC may considered placing vehicular crossings (culverts or rock crossings) is smaller streams and acquire a section 404 general (nationwide) permit. Large streams will be crossed aerially with conductor (wire) but will not be crossed with construction equipment. However, the trees within the stream buffers will need to be removed using 'Non-Land Disturbing' techniques. GTC is exempted by the Georgia Environmental Protection Division from acquiring stream buffer variances in these situations when streams are crossed perpendicularly. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands that would require a Section 404 Individual Permit or hydrologic features that are suitable habitat for federally protected species.

Therefore, GTC does not anticipate significant impacts to bodies of water.

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

When building a linear facility, it is unlikely floodplain or wetland features can be avoided. USDA Rural Utilities Service has determined that single-pole structures will not significantly impact the flood handling capability of the floodplain or change the pattern or magnitude of the flood flow. Most wetlands can be aerially spanned without fill needing to occur in the wetland. GTC will use techniques that would minimize rutting and mucking within wetlands, likely working off of mats. If fill from access roads or mono-pole structure placement is required within a wetland, GTC will apply a Section 404 general (nationwide) permit. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands that would require a Section 404 Individual Permit or hydrologic features that are suitable habitat for federally protected species.

Therefore, GTC does not anticipate significant impacts to floodplains or wetlands.

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Tree clearing and some minor grading and blading of access paths will be needed to develop a transmission line corridor for the proposed transmission line. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- ☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- ☐ None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- Potential for wading bird colonies
- Spotted Bullhead (*Ameiurus serracanthus*) – state rare
- Pond Spice (*Litsea aestivalis*) – state rare
- Alligator Snapping Turtle (*Macrochelys temminckii*) – state threatened
- Variable-leaf Indian-plantain (*Arnoglossum diversifolium*) – state threatened
- Delicate Spike (*Elliptio arcata*) – state endangered
- Inflated Spike (*Elliptio purpurella*) – state threatened
- Greenfly Orchid (*Epidendrum conopseum*) – state unusual
- Shinyrayed Pocketbook (*Hamiota subangulata*) – state endangered
- Curtiss' Loosestrife (*Lythrum curtissii*) – state threatened
- Oval Pigtoe (*Pleurobema pyriforme*) – state endangered
- Bluenose Shiner (*Pteronotropis welaka*) – state threatened
- Swamp Buckthorn (*Sideroxylon thornei*) – state rare
- Rayed Creekshell (*Strophitus radiatus*) – state threatened

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Alligator Snapping Turtle (*Macrochelys temminckii*) – proposed federally threatened
- Eastern Indigo Snake (*Drymarchon couperi*) – federally threatened
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- Reticulated Flatwoods Salamander (*Ambystoma bishopi*) – federally endangered
- Gulf Moccasinshell (*Medionidus penicillatus*) – federally endangered
- Oval Pigtoe (*Pleurobema pyriforme*) – federally endangered
- Shinyrayed Pocketbook (*Hamiota subangulata*) – federally endangered
- Pondberry (*Lindera melissifolia*) – federally endangered
- Relict Trillium (*Trillium reliquum*) – federally endangered
- American Chaffseed (*Schwalbea americana*) – federally endangered

GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species along the project corridor.

- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)

(b) (4) on the periphery of the project area, is designated critical habitat for several freshwater mussel species. This proposed project will be avoided and effects to critical habitat are not anticipated.

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- ☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)

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- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions with migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)

This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas? ☒ No ☐ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the corridor temporarily during construction. After initial, the facility will not generate additional amounts of traffic.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs. ☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☐ None

The (b) (4) is on the NRHP.

The is a district on the NRHP

The central business district of (b) (4) are likely considered NRHP eligible historic districts.

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO to develop plans to avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A

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component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)

Tree clearing for a transmission line corridor may alter the present landscape on a small scale. However, no designated scenic views or vista are known at this time outside the historic resource noted above. No adverse impacts are anticipated.

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oagps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

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	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		
<input type="checkbox"/> Other -- List: N/A		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?
All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

Stream systems within the project area are tributaries associated with (b) (4) including (b) (4) (b) (4) as well as tributaries associated with the (b) (4), including (b) (4). Impacts to water bodies will be minimized and permitted under a Section 404 (nationwide) general permit if need. Stringent BMPs will be installed and maintained to prevent sedimentation issues.

- b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

■ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ■ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

■ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

■ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ■ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)

m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

■ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None
- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☒ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☒ None ☐ Hazardous or toxic materials that would be used (identify):
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☒ None
- c. Would there be any special physical hazards or health risks associated with the project? ☒ No ☐ Yes (describe)
- d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

GTC will develop a HIS (Hazard Information Sheet) and hold safety briefings specifically for this project with all workers.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

Workers that are required to come within 20 feet of energized, electrical equipment are required to take special training.

- f. Describe any increases in ambient noise levels to the public from construction and operational activities.

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- ☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

- ☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this corridor. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☒ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operation per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

- ☒ No ☐ Yes (describe)

It is not anticipated. However, on occasion GTC has discovered materials that may be hazardous along the project corridor that will need to be removed. If needed, GTC will use qualified contractors to dispose of materials per regulatory requirements.

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

- ☒ No ☐ Yes (describe)

However, the NDPES permit will require stormwater monitoring until a 'Notice of Termination' is filed with the Georgia EPD.

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☐ None ☒ New Required ☐ Modification Required
Describe:

GTC will contract with an ecological consultant to identify and delineate streams and wetlands along the project corridor. Section 404 general (nationwide) permits are expected due to the linear infrastructure facility. However, stream buffer variances or Section 404 individual permits are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

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- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: A take permit is not anticipated. GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: When building a linear facility, it is unlikely floodplain or wetland features can be avoided. USDA Rural Utilities Service has determined that single-pole structures will not significantly impact the flood handling capability of the floodplain or change the pattern or magnitude of the flood flow. Most wetlands can be aerially spanned without fill needing to occur in the wetland. GTC will use techniques that would minimize rutting and mucking within wetlands, likely working off of mats. If fill from access roads or mono-pole structure placement is required within a wetland, GTC will apply a Section 404 general (nationwide) permit. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands.

See answer above

- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: Any impacts would be temporary and minor. Transmission line rights-of-way can provide valuable habitat for many types of wildlife.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. GTC will study alternatives that avoid or minimize impacts to cultural resources. GTC will consult with Georgia SHPO to develop mitigation strategies as needed.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within ^{(b) (4)} of Georgia's ^{(b) (4)}. Therefore, this project will not impact coastal resources are require compliance with the CZMA.
2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

None are known at this time. However, during GTC public outreach and public meeting processes, public concerns are often heard, acknowledged, and modifications made to the proposed project to avoid public controversy.

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

- ☒ No ☐ Yes (describe)

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H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

- ☒ None (provide supporting detail) ☐ Significant impacts (describe)

Significant impacts are not anticipated. GTC will make every effort to study alternatives, survey for sensitive resources, and consult with agencies to avoid significant impacts. GTC is committed to developing mitigation strategies to minimize impacts if needed.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

It is unlikely. However, if required, GTC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: _____

Date (mm/dd/yyyy): 05/18/2023

Typed Name: _____

Title: _____

Organization: _____

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____

Date (mm/dd/yyyy): _____

Typed Name: _____

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(b) (4)



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(b) (4)



[illegible]

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	(b) (4)
Georgia Transmission Corporation	
Oglethorpe Power Corporation (OPC)	
Oglethorpe Power Corporation (OPC)	
Oglethorpe Power Corporation (OPC)	

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.
Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely

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require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4) site. The site is located within (b) (4) County, Georgia approximately (b) (4) miles north of the city of (b) (4). The site is near the intersection of (b) (4) and (b) (4) Road. In addition to the existing substation site and associated transmission line rights-of-way, the surrounding area consists of planted pine plantations, naturally occurring forests, and rural residential areas. The surrounding area is known for (b) (4).

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require (b) (4) acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

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Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None
See maps appended a the end of the questionnaire.

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing (b) (4) property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent (b) (4) facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately 2 to 3 acres, dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)
- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)
- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- No □ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- The GDNR Biodiversity Portal did not identify any state species within this quarter-quad with a Georgia protection status.

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- Relict Trillium (*Trillium reliquum*) – federally endangered

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely within the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ■ No □ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- No planned construction □ No habitats ■ None □ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ■ No □ Yes (describe)
- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ■ No □ Yes (describe)

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? □ No ■ Yes (describe)
- This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

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- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?

☒ No ☐ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.

☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)

- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? ☒ No ☐ Yes (describe)

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

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	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		
<input type="checkbox"/> Other -- List: N/A		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

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g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

This project is approximately (b) (4) feet from a man-made pond associated with adjacent wetlands (b) (4) (b) (4) is a tributary of the (b) (4). Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

■ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ■ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

■ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

■ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ■ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)

m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

■ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

(b) (4)

GTC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
GTC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4)

that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable activities under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within one of Georgia's six coastal counties or five 'inland tier' counties. Therefore, this project will not impact coastal resources and require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b)(4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

(b) (4)



(b) (4)

Subcontractor or sub-recipient	Location of activities for this project
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	

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	(b) (4)	
Georgia Transmission Corporation		
Georgia Transmission Corporation		
Oglethorpe Power Corporation (OPC)		
Oglethorpe Power Corporation (OPC)		

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4) Substation site. The site is located within unincorporated (b) (4) (b) (4), Georgia between the cities of (b) (4). The site is on (b) (4) Road near the intersection with (b) (4). The interchange of (b) (4) are in close proximity. In addition to the existing substation site, associated transmission line rights-of-way, and transportation corridors, the surrounding area consists of dense residential development, commercial development, and industrial development.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require (b) (4) acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.
☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
☐ No land areas would be affected.

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Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

See maps appended to the end of the questionnaire.

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing (b) (4) property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the (b) (4) will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately 2 to 3 acres, dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)
- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)
- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. OPC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- No □ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- The GDNR Biodiversity Portal did not identify any state species within this quarter-quad with a Georgia protection status.

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely within the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ■ No □ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- No planned construction □ No habitats ■ None □ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ■ No □ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ■ No □ Yes (describe)

IPAC lists an experimental/non-essential population of Whooping Crane. This project's interaction with this species is highly unlikely and would have no effect to this species.

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? □ No ■ Yes (describe)
- This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

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- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent (b) (4) facility.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)

- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

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- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oagps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		
<input type="checkbox"/> Other -- List: N/A		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?

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- ☒ No ☐ Yes (describe, including collection efficiencies)

g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. **Hydrologic Conditions/Water Quality**

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

This project is in a developed upland area between (b) (4) and several of its tributaries. The site is approximate (b) (4) feet from (b) (4) is a tributary of the (b) (4). Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

b. What sources would supply potable and process water for the proposed project?

Not needed.

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- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced
- e. Identify the local treatment facility that would receive wastewater from the proposed project.
■ No discharges to local treatment facility
- f. Describe how wastewater would be collected and treated. ■ No wastewater produced
- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)
- h. Would project require issuance of new or modified water permits to perform project work or site development activities?
■ No ☐ Yes (describe)
- i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced
- j. Would the proposed project be permitted to discharge effluents into an existing body of water?
■ No ☐ Yes (describe water use and effluent impact)
- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?
☐ No ■ Yes (describe)
- If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.
- l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)
- m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?
■ No ☐ Yes (describe)
- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?
■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) will use (b) (4). It has not been determined the type of (b) (4) for this project. OPC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
OPC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent (b) (4) does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable actives under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4) Therefore, this project will not impact coastal resources are require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b)(4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

(b) (4)



(b) (4)

Subcontractor or sub-recipient	Location of activities for this project
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	

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Georgia Transmission Corporation
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required. If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.
In 2003, Georgia Transmission Corporation (GTC) partnered with the Electric Power Research Institute (EPRI) to develop the EPRI/GTC Electric Overhead Transmission Line Siting Methodology. The research projects' goals were to develop a

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methodology that was objective, quantitative, consistent, and defensible; while also creating an approach that incorporated stakeholder input and was flexible enough to produce several alternatives instead of just a computer generated "best" route. The Methodology developed uses geographic information system (GIS) model building techniques and algorithms to narrow down preferable areas with connectivity between the project's start and end locations. Data layers (maps) are divided into four perspectives to analysis potential alternative corridors: The Built Environment, The Natural Environment, Exiting Corridors, and Engineering Concerns. The Methodology also incorporates expert judgment to determine constructible alternative routes, evaluate risk, and determine the most preferable solution for the project by the GTC multi-disciplinary project team.

More information on the Siting Methodology can be found at:

<https://www.epri.com/research/products/000000003002017601>

<https://www.epri.com/research/products/0000000000001013080>

GTC plans to utilize this methodology to develop and evaluate route alternatives between (b) (4)

GTC does not anticipate that this proposed project will have extraordinary circumstances that would indicate a significant or adverse effect to protected resources, which would require the consideration of alternatives to avoid those potential impacts. Based on the scope of the project and the assumption a preferred route will be develop that avoids extraordinary circumstances, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.54 of USDA Rural Development Environmental Policies and Procedures requiring an Environmental Report and not an Environmental Assessment.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project area is located in (b) (4) County, Georgia. The city of (b) (4) is within proximity of the project area. The straight-line distance between the two substations is (b) (4) miles. However, a preferred route of (b) (4) miles is likely. The project area encompasses the unincorporated communities of (b) (4). The surrounding area is primarily agricultural with naturally occurring forest within stream systems and wetlands.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input checked="" type="checkbox"/> Rural	<input type="checkbox"/> Residential	<input type="checkbox"/> Research Facilities
<input checked="" type="checkbox"/> Forest	<input type="checkbox"/> University Campus	<input type="checkbox"/> Other:	

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

The likely distance of the preferred route for this proposed transmission line project will likely be (b) (4) miles. The proposed right-of-way width required is 100'. In segments where the route is able to parallel roadways, a variable right-of-way width will be required depending on the curvature of the road. On average, roadside sections will be (b) (4) in width. Based on the length and assuming approximately half of the proposed corridor will be roadside, GTC anticipates requiring (b) (4) acres of right-of-way. GTC

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will need to place a (concrete or steel mono-pole) structure every (b) (4) on average. Based on the average span length, the project would require approximately (b) (4) structures. Structures will be (b) (4) to (b) (4) in height based on engineering requirements and site conditions.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

GTC will need to clear trees within the proposed right-of-way, develop access paths to reach each structure, install BMPs to stabilize the right-of-way, erect each structure using cranes, string conductor, and terminate each end into the existing substations. Some structures may require concrete foundations, but most angled structures will use guys for stability.

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Most agricultural land will have minimal affects except for fields utilizing center field irrigation. These are identified during routing and efforts are made to avoid or minimize impacts to these features.

Forested areas within the right-of-way will be cleared, including naturally occurring forests, planted pine, pecan trees, and yard trees. Many land uses may continue within the right-of-way, but most man-made structures are not allowed within the maintained right-of-way. Generally, vegetation or structures exceeding 15' in height are not compatible with the operation of transmission lines.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

Areas cleared of trees will be seeded for stabilization. With approval from Georgia Environmental Protection Division, GTC will likely use shredded material created from the on-site woody material to apply to the right-of-way. GTC has found the application of the large, shredded material creates good stabilization by interlocking and amends the soil to create good herbaceous and grass cover over time, ideal right-of-way conditions.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
- ☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None
- See maps appended to the end of the questionnaire.

A route for the proposed transmission line has not been selected to date. GTC's project team will select a preferred route after considering existing land use patterns, the natural environment, existing corridors, and engineering practices. GTC will also hold public information meetings to garner public input that that may affect the final alignment. Based on the project scope, GTC anticipates erecting approximately (b) (4) mono-pole structures and would require (b) (4) acres of transmission line rights-of-way.

- b. Would the proposed project require the construction of waste pits or settling ponds?
- ☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

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- c. Would the proposed project affect any existing body of water? ☐ No ☒ Yes (describe)

There are not large lakes or reservoirs in the project area. However, when building a linear facility, it is unlikely that hydrologic features can be avoided. When crossing these features, GTC may considered placing vehicular crossings (culverts or rock crossings) is smaller streams and acquire a section 404 general (nationwide) permit. Large streams will be crossed aerially with conductor (wire) but will not be crossed with construction equipment. However, the trees within the stream buffers will need to be removed using 'Non-Land Disturbing' techniques. GTC is exempted by the Georgia Environmental Protection Division from acquiring stream buffer variances in these situations when streams are crossed perpendicularly. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands that would require a Section 404 Individual Permit or hydrologic features that are suitable habitat for federally protected species.

Therefore, GTC does not anticipate significant impacts to bodies of water.

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

When building a linear facility, it is unlikely floodplain or wetland features can be avoided. USDA Rural Utilities Service has determined that single-pole structures will not significantly impact the flood handling capability of the floodplain or change the pattern or magnitude of the flood flow. Most wetlands can be aerially spanned without fill needing to occur in the wetland. GTC will use techniques that would minimize rutting and mucking within wetlands, likely working off of mats. If fill from access roads or mono-pole structure placement is required within a wetland, GTC will apply a Section 404 general (nationwide) permit. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands that would require a Section 404 Individual Permit or hydrologic features that are suitable habitat for federally protected species.

Therefore, GTC does not anticipate significant impacts to floodplains or wetlands.

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Tree clearing and some minor grading and blading of access paths will be needed to develop a transmission line corridor for the proposed transmission line. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?

☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- No □ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- Odorless Bayberry (*Morella inodora*) – state threatened
- Greenfly Orchid (*Epidendrum conopseum*) – state unusual

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Wood Stork (*Mycteria americana*) – federally threatened
- Alligator Snapping Turtle (*Macrochelys temminckii*) – proposed federally threatened
- Eastern Indigo Snake (*Drymarchon couperi*) – federally threatened
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- Fringed Campion (*Silene polypetala*) – federally endangered
- Florida Torreya (*Torreya taxifolia*) – federally endangered

GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species along the project corridor.

- b. Would any designated critical habitat be affected by the proposed project? ■ No □ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- No planned construction □ No habitats ■ None □ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ■ No □ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ■ No □ Yes (describe)

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? □ No ■ Yes (describe)

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This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the corridor temporarily during construction. After initial, the facility will not generate additional amounts of traffic.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☐ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO to develop plans to avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)

Tree clearing a transmission line corridor may alter the present landscape on a small scale. However, no designated scenic views or vista are known at this time outside the historic resource noted above. No adverse impacts are anticipated.

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

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- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oagps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		
<input type="checkbox"/> Other -- List: N/A		
<input checked="" type="checkbox"/> None		

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- f. Would any types of emission control or particulate collection devices be used?
- ☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

Stream systems within the project area are unnamed tributaries associated with (b) (4) as well as tributaries associated with the (b) (4) including (b) (4). Impacts to water bodies will be minimized and permitted under a Section 404 (nationwide) general permit if need. Stringent BMPs will be installed and maintained to prevent sedimentation issues.

- b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

■ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ■ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

■ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

■ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ■ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)

m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

■ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None
- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☒ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☒ None ☐ Hazardous or toxic materials that would be used (identify):
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☒ None
- c. Would there be any special physical hazards or health risks associated with the project? ☒ No ☐ Yes (describe)
- d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

GTC will develop a HIS (Hazard Information Sheet) and hold safety briefings specifically for this project with all workers.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

Workers that are required to come within 20 feet of energized, electrical equipment are required to take special training.

- f. Describe any increases in ambient noise levels to the public from construction and operational activities.

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- ☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

- ☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this corridor. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☒ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

- ☒ No ☐ Yes (describe)

It is not anticipated. However, on occasion GTC has discovered materials that may be hazardous along the project corridor that will need to be removed. If needed, GTC will use qualified contractors to dispose of materials per regulatory requirements.

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

- ☒ No ☐ Yes (describe)

However, the NDPES permit will require stormwater monitoring until a 'Notice of Termination' is filed with the Georgia EPD.

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☐ None ☒ New Required ☐ Modification Required
Describe:

GTC will contract with an ecological consultant to identify and delineate streams and wetlands along the project corridor. Section 404 general (nationwide) permits are expected due to the linear infrastructure facility. However, stream buffer variances or Section 404 individual permits are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

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- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: A take permit is not anticipated. GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: When building a linear facility, it is unlikely floodplain or wetland features can be avoided. USDA Rural Utilities Service has determined that single-pole structures will not significantly impact the flood handling capability of the floodplain or change the pattern or magnitude of the flood flow. Most wetlands can be aerially spanned without fill needing to occur in the wetland. GTC will use techniques that would minimize rutting and mucking within wetlands, likely working off of mats. If fill from access roads or mono-pole structure placement is required within a wetland, GTC will apply a Section 404 general (nationwide) permit. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands.

See answer above

- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: Any impacts would be temporary and minor. Transmission line rights-of-way can provide valuable habitat for many types of wildlife.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. GTC will study alternatives that avoid or minimize impacts to cultural resources. GTC will consult with Georgia SHPO to develop mitigation strategies as needed.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within one of Georgia's six coastal counties or five 'inland tier' counties. Therefore, this project will not impact coastal resources are require compliance with the CZMA.
2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

None are known at this time. However, during GTC public outreach and public meeting processes, public concerns are often heard, acknowledged, and modifications made to the proposed project to avoid public controversy.

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

- ☒ No ☐ Yes (describe)

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H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

- ☒ None (provide supporting detail) ☐ Significant impacts (describe)

Significant impacts are not anticipated. GTC will make every effort to study alternatives, survey for sensitive resources, and consult with agencies to avoid significant impacts. GTC is committed to developing mitigation strategies to minimize impacts if needed.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

It is unlikely. However, if required, GTC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: _____

Date (mm/dd/yyyy): 05/18/2023

Typed Name: _____

Title: _____

Organization: _____

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____

Date (mm/dd/yyyy): _____

Typed Name: _____

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(b) (4)



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(b) (4)



Subcontractor or sub-recipient	Location of activities for this project
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	

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Georgia Transmission Corporation
Georgia Transmission Corporation
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4) site. The site is located within (b) (4) County, Georgia approximately (b) (4) miles northeast of the city of (b) (4). The site is at the intersection of (b) (4) and (b) (4). In addition to the existing substation site and associated transmission line rights-of-way, the surrounding area consists of planted pine plantations, cultivated fields, naturally occurring forests, and rural residential areas. The surrounding area is known for agriculture.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require (b) (4) acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

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Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None
A site layout or plan has not been developed for this project site to date. The facility will be located on the existing (b) (4) property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately 2 to 3 acres, dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)
- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)
- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- ☐ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- ☐ None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- The GDNR Biodiversity Portal did not identify any state species within this quarter-quad with a Georgia protection status.

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Eastern Indigo Snake (*Drymarchon couperi*) – federally threatened
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- Harperella (*Ptilimnium nodosum*) – federally endangered
- Canby's Dropwort (*Oxypolis canbyi*) – federally endangered
- Relict Trillium (*Trillium reliquum*) – federally endangered

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely withing the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ☐ No ☐ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- ☐ No planned construction ☐ No habitats ☐ None ☐ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☐ No ☐ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☐ No ☐ Yes (describe)

IPAC lists an experimental/non-essential population of Whooping Crane. This project's interaction with this species is highly unlikely and would have no effect to this species.

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

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4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)
This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.
- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)
There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.
- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)
- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)
None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.
GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.
- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)
- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

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6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		
<input type="checkbox"/> Other -- List: N/A		
<input checked="" type="checkbox"/> None		

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f. Would any types of emission control or particulate collection devices be used?

- ☒ No ☐ Yes (describe, including collection efficiencies)

g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

This project is approximately (b) (4) feet from an (b) (4) a tributary of (b) (4) is a tributary of (b) (4) and the (b) (4). Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

b. What sources would supply potable and process water for the proposed project?

Not needed.

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- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced
- e. Identify the local treatment facility that would receive wastewater from the proposed project.
■ No discharges to local treatment facility
- f. Describe how wastewater would be collected and treated. ■ No wastewater produced
- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)
- h. Would project require issuance of new or modified water permits to perform project work or site development activities?
■ No ☐ Yes (describe)
- i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced
- j. Would the proposed project be permitted to discharge effluents into an existing body of water?
■ No ☐ Yes (describe water use and effluent impact)
- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?
☐ No ■ Yes (describe)
- If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.
- l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)
- m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?
■ No ☐ Yes (describe)
- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?
■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) facility will use (b) (4). It has not been determined the type of (b) (4) for this project. GTC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
GTC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable actives under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS (b) (4) GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4) Therefore, this project will not impact coastal resources are require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b) (4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

(b) (4)

(b) (4)

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I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number (b) (4) Proposer: Georgia Transmission Corporation
2. This Environmental Questionnaire pertains to a: ☐ Recipient or Prime Contractor ☒ Sub-recipient or Subcontractor
3. Principal Investigator: Camron Carden Telephone Number: 770-270-7724
4. Project Title: (b) (4)
5. Expected Project Duration: (b) (4) months
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):

The project site is located at (b) (4) within (b) (4), Georgia, and approximately (b) (4) southwest of the city of (b) (4). The project is located within the (b) (4) Quadrangle.

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).

This project involves building a (b) (4) facility and connecting to an adjacent existing substation.

8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	

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Georgia Transmission Corporation
Georgia Transmission Corporation
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work **DOES NOT** involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4) Substation site. The site is located within (b) (4) Georgia approximately (b) (4) southwest of the city of (b) (4). The site is on (b) (4) the (b) (4). In addition to the existing substation site and associated transmission line rights-of-way, the surrounding area consists of naturally occurring forests and rural residential areas. The area is known for the logging industry, and the area to the north is known for recreation activities (b) (4). Some of the land south of (b) (4) is USFS property (b) (4). The site is approximately (b) (4) of USFS property.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require 2 to 3 acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.

- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

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- ☐ No land areas would be affected.

Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent (b) (4) site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)

The (b) (4) Property is near a unit of the (b) (4) The USFS property is approximately (b) (4) feet to the south of the project site. (b) (4) separate the USFS property and the project property. No adverse effects are expected to the (b) (4) from this proposed project.

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing substation property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately 2 to 3 acres, dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- No □ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quadrant that the project site is within:

- American Lily-of-the-valley (*Convallaria majuscula*) – state listed as rare
- Bald Eagle (*Haliaeetus leucocephalus*) – state listed as threatened
- Carolina Bog Laurel (*Kalmia Carolina*) – state listed as threatened
- Mountain Purple Pitcherplant (*Sarracenia purpurea* var. *montana*) – state listed as endangered

USFWS Information for Planning and Consultation (IPaC) website lists the Monarch Butterfly (*Danaus plexippus*) as a federal candidate species, the Gray Bat (*Myotis grisescens*) and the Northern Long-eared Bat (*Myotis septentrionalis*) as federally endangered bat species, and the Bog Turtle (*Glyptemys muhlenbergii*) as federally threatened for having a similar appearance to a turtle species that is federally listed. There are three federally endangered plant species: Small Whorled Pogonia (*Isotria medeoloides*), Swamp Pink (*Helonias bullata*), and White Fringeless Orchid (*Platanthera integrilabia*). There is also one federally endangered lichen species, Rock Gnome Lichen (*Gymnoderma lineare*).

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely within the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

If trees are required to be cleared on the substation site for the proposed project, tree clearing will likely be restricted outside of the 'pup' seasons for the protected bats.

- b. Would any designated critical habitat be affected by the proposed project? ■ No □ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- No planned construction □ No habitats ■ None □ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ■ No □ Yes (describe)
- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ■ No □ Yes (describe)

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop

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guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)
This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.
- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)
There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.
- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)
- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)

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- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		

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<input type="checkbox"/> Other -- List: N/A
<input checked="" type="checkbox"/> None

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

This project is approximately (b) (4) from and across (b) (4) road from the (b) (4). The site is approximately (b) (4) feet from (b) (4). Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

- b. What sources would supply potable and process water for the proposed project?

Not needed.

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- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced
- e. Identify the local treatment facility that would receive wastewater from the proposed project.
■ No discharges to local treatment facility
- f. Describe how wastewater would be collected and treated. ■ No wastewater produced
- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)
- h. Would project require issuance of new or modified water permits to perform project work or site development activities?
■ No ☐ Yes (describe)
- i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced
- j. Would the proposed project be permitted to discharge effluents into an existing body of water?
■ No ☐ Yes (describe water use and effluent impact)
- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?
☐ No ■ Yes (describe)
- If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.
- l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)
- m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?
■ No ☐ Yes (describe)
- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?
■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) will use (b) (4). It has not been determined the type of (b) (4) for this project. GTC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
GTC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable actives under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4) Therefore, this project will not impact coastal resources are require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b)(4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

(b) (4)

(b) (4)

[illegible]

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Georgia Transmission Corporation (GTC)
Georgia Transmission Corporation (GTC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4) site. The site is located within unincorporated (b) (4) County, Georgia just outside the (b) (4). The site is on (b) (4) feet south of the intersection with (b) (4). In addition to the existing substation site, and associated transmission line rights-of-way, the surrounding area consists of rural residential development, and naturally occurring forests.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require (b) (4) acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

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Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing substation property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately 2 to 3 acres, dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)
- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)
- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. OPC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- ☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- ☐ None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- The GDNR Biodiversity Portal did not identify any state species within this quarter-quad with a Georgia protection status.

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely within the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- ☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

IPAC lists an experimental/non-essential population of Whooping Crane. This project's interaction with this species is highly unlikely and would have no effect to this species.

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)
- This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

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- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)

- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

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- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oagps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		
<input type="checkbox"/> Other -- List: N/A		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?

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- ☒ No ☐ Yes (describe, including collection efficiencies)

g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

This project is in (b) (4) area (b) (4) tributaries of (b) (4). The tributary in closest proximity is (b) (4) to the east. (b) (4) a tributary of (b) (4) (not the same (b) (4) associated with the (b) (4) project). (b) (4) is a tributary of the (b) (4). Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

■ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ■ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

■ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

■ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ■ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)

m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?

■ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) facility will use (b) (4). It has not been determined the type of (b) (4) for this project. OPC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
OPC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable actives under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within one of Georgia's six coastal counties or five 'inland tier' counties. Therefore, this project will not impact coastal resources are require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b) (4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

(b) (4)

[illegible]

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Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Oglethorpe Power Corporation (OPC)	
Oglethorpe Power Corporation (OPC)	
Oglethorpe Power Corporation (OPC)	

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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In 2003, Georgia Transmission Corporation (GTC) partnered with the Electric Power Research Institute (EPRI) to develop the EPRI/GTC Electric Overhead Transmission Line Siting Methodology. The research projects' goals were to develop a methodology that was objective, quantitative, consistent, and defensible; while also creating an approach that incorporated stakeholder input and was flexible enough to produce several alternatives instead of just a computer generated "best" route. The Methodology developed uses geographic information system (GIS) model building techniques and algorithms to narrow down preferable areas with connectivity between the project's start and end locations. Data layers (maps) are divided into four perspectives to analysis potential alternative corridors: The Built Environment, The Natural Environment, Exiting Corridors, and Engineering Concerns. The Methodology also incorporates expert judgment to determine constructible alternative routes, evaluate risk, and determine the most preferable solution for the project by the GTC multi-disciplinary project team.

More information on the Siting Methodology can be found at:

<https://www.epri.com/research/products/000000003002017601>

<https://www.epri.com/research/products/000000000001013080>

GTC plans to utilize this methodology to develop and evaluate route alternatives between (b) (4)

GTC does not anticipate that this proposed project will have extraordinary circumstances that would indicate a significant or adverse effect to protected resources, which would require the consideration of alternatives to avoid those potential impacts. Based on the scope of the project and the assumption a preferred route will be develop that avoids extraordinary circumstances, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.54 of USDA Rural Development Environmental Policies and Procedures requiring an Environmental Report and not an Environmental Assessment.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project area is located in (b) (4) Counties, Georgia. The city of (b) (4) is to the southwest and the city of (b) (4) is to the south of the project area. The straight-line distance between the two substations is (b) (4) miles. However, a preferred route of (b) (4) miles is likely. The project area roughly parallels (b) (4) and encompasses the unincorporated communities of (b) (4). The surrounding area is primarily agricultural with naturally occurring forest within stream systems and wetlands.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|--|--|--------------------------------------|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input checked="" type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input checked="" type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input type="checkbox"/> Other: | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

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The likely distance of the preferred route for this proposed transmission line project will likely be (b) (4) miles. The proposed right-of-way width required is 100'. In segments where the route is able to parallel roadways, a variable right-of-way width will be required depending on the curvature of the road. On average, roadside sections will be (b) (4) in width. Based on the length and assuming approximately half of the proposed corridor will be roadside, GTC anticipates requiring (b) (4) of right-of-way. GTC will need to place a (concrete or steel mono-pole) structure every (b) (4) on average. Based on the average span length, the project would require approximately (b) (4) structures. Structures will be (b) (4) in height based on engineering requirements and site conditions. Modifications at the (b) (4) will be needed to create this transmission line facility.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

☐ No construction would be anticipated for this project.

GTC will need to clear trees within the proposed right-of-way, develop access paths to reach each structure, install BMPs to stabilize the right-of-way, erect each structure using cranes, string conductor, and terminate each end into the existing substations. Some structures may require concrete foundations, but most angled structures will use guys for stability.

- d. Describe how land use would be affected by operational activities associated with the proposed project.

☐ No land areas would be affected.

Most agricultural land will have minimal affects except for fields utilizing center field irrigation. These are identified during routing and efforts are made to avoid or minimize impacts to these features.

Forested areas within the right-of-way will be cleared, including naturally occurring forests, planted pine, pecan trees, and yard trees. Many land uses may continue within the right-of-way, but most man-made structures are not allowed within the maintained right-of-way. Generally, vegetation or structures exceeding 15' in height are not compatible with the operation of transmission lines.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

☐ No land areas would be affected.

Areas cleared of trees will be seeded for stabilization. With approval from Georgia Environmental Protection Division, GTC will likely use shredded material created from the on-site woody material to apply to the right-of-way. GTC has found the application of the large, shredded material creates good stabilization by interlocking and amends the soil to create good herbaceous and grass cover over time, ideal right-of-way conditions.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A route for the proposed transmission line has not been selected to date. GTC's project team will select a preferred route after considering existing land use patterns, the natural environment, existing corridors, and engineering practices. GTC will also hold public information meetings to garner public input that that may affect the final alignment. Based on the project scope, GTC anticipates erecting approximately (b) (4) mono-pole structures and would require (b) (4) acres of transmission line rights-of-way.

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- b. Would the proposed project require the construction of waste pits or settling ponds?
☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

- c. Would the proposed project affect any existing body of water? ☐ No ☒ Yes (describe)

Several large, named ponds are in the project area, which include (b) (4) are also in the project area. It is unlikely that route alternatives would be considered across these features. However, when building a linear facility, it is unlikely that hydrologic features can be avoided. When crossing these features, GTC may consider placing vehicular crossings (culverts or rock crossings) is smaller streams and acquire a section 404 general (nationwide) permit. Large streams will be crossed aerially with conductor (wire) but will not be crossed with construction equipment. However, the trees within the stream buffers will need to be removed using 'Non-Land Disturbing' techniques. GTC is exempted by the Georgia Environmental Protection Division from acquiring stream buffer variances in these situations when streams are crossed perpendicularly. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands that would require a Section 404 Individual Permit or hydrologic features that are suitable habitat for federally protected species.

Therefore, GTC does not anticipate significant impacts to bodies of water.

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

When building a linear facility, it is unlikely floodplain or wetland features can be avoided. USDA Rural Utilities Service has determined that single-pole structures will not significantly impact the flood handling capability of the floodplain or change the pattern or magnitude of the flood flow. Most wetlands can be aerially spanned without fill needing to occur in the wetland. GTC will use techniques that would minimize rutting and mucking within wetlands, likely working off of mats. If fill from access roads or mono-pole structure placement is required within a wetland, GTC will apply a Section 404 general (nationwide) permit. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands that would require a Section 404 Individual Permit or hydrologic features that are suitable habitat for federally protected species.

Therefore, GTC does not anticipate significant impacts to floodplains or wetlands.

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Tree clearing and some minor grading and blading of access paths will be needed to develop a transmission line corridor for the proposed transmission line. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- No □ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- Lax Water-milfoil (*Myriophyllum laxum*) – state rare
- Narrowleaf Naiad (*Najas filifolia*) – state endangered
- Velvet Sedge (*Carex dasycarpa*) – state rare
- Purple Bankclimber (*Elliptioideus sloatianus*) – state threatened
- Gopher Tortoise (*Gopherus polyphemus*) – state threatened
- Barbour's Map Turtle (*Graptemys barbouri*) – state threatened
- Gulf Moccasinshell (*Medionidus penicillatus*) – state endangered
- Oval Pigtoe (*Pleurobema pyriforme*) – state endangered

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Wood Stork (*Mycteria americana*) – federally threatened
- Alligator Snapping Turtle (*Macrochelys temminckii*) – proposed federally threatened
- Eastern Indigo Snake (*Drymarchon couperi*) – federally threatened
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- Fat Threeridge (mussel) (*Amblema neislerii*) – federally endangered
- Cooley's Meadowrue (*Thalictrum cooleyi*) – federally endangered
- Fringed Campion (*Silene polypetala*) – federally endangered
- Florida Torreya (*Torreya taxifolia*) – federally endangered
- Pondberry (*Lindera melissifolia*) – federally endangered
- American Chaffseed (*Schwalbea americana*) – federally endangered

GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species along the project corridor.

- b. Would any designated critical habitat be affected by the proposed project? ■ No □ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- No planned construction □ No habitats ■ None □ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ■ No □ Yes (describe)

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- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)

This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the corridor temporarily during construction. After initial, the facility will not generate additional amounts of traffic.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☐ None

Several historic structures were noted in the project area from a 1998 survey (b) (4) conducted for the (b) (4) Commission.

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO to develop plans to avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)

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- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☐ No ☐ Yes (describe)

Tree clearing a transmission line corridor may alter the present landscape on a small scale. However, no designated scenic views or vista are known at this time outside the historic resource noted above. No adverse impacts are anticipated.

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
 If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A

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<input type="checkbox"/>	H ₂ S	N/A	N/A
<input type="checkbox"/>	Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/>	Hazardous air pollutants -- List: N/A		
<input type="checkbox"/>	Other -- List: N/A		
<input checked="" type="checkbox"/>	None		

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

Several large, named ponds are in the project area, which include (b) (4). (b) (4) is also in the project area. Stream systems within the project area are unnamed tributaries associated with the (b) (4). The (b) (4) forms channels in sections and flows into the (b) (4). Impacts to water bodies will be minimized and permitted under a Section 404 (nationwide) general permit if need. Stringent BMPs will be installed and maintained to prevent sedimentation issues.

- b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

■ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ■ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

■ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

■ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ■ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)

m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?

■ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None
- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☒ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☒ None ☐ Hazardous or toxic materials that would be used (identify):
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☒ None
- c. Would there be any special physical hazards or health risks associated with the project? ☒ No ☐ Yes (describe)
- d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

GTC will develop a HIS (Hazard Information Sheet) and hold safety briefings specifically for this project with all workers.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

Workers that are required to come within 20 feet of energized, electrical equipment are required to take special training.

- f. Describe any increases in ambient noise levels to the public from construction and operational activities.

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- ☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

- ☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this corridor. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☒ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

- ☒ No ☐ Yes (describe)

It is not anticipated. However, on occasion GTC has discovered materials that may be hazardous along the project corridor that will need to be removed. If needed, GTC will use qualified contractors to dispose of materials per regulatory requirements.

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

- ☒ No ☐ Yes (describe)

However, the NDPES permit will require stormwater monitoring until a 'Notice of Termination' is filed with the Georgia EPD.

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☐ None ☒ New Required ☐ Modification Required
Describe:

GTC will contract with an ecological consultant to identify and delineate streams and wetlands along the project corridor. Section 404 general (nationwide) permits are expected due to the linear infrastructure facility. However, stream buffer variances or Section 404 individual permits are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

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- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: A take permit is not anticipated. GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: When building a linear facility, it is unlikely floodplain or wetland features can be avoided. USDA Rural Utilities Service has determined that single-pole structures will not significantly impact the flood handling capability of the floodplain or change the pattern or magnitude of the flood flow. Most wetlands can be aerially spanned without fill needing to occur in the wetland. GTC will use techniques that would minimize rutting and mucking within wetlands, likely working off of mats. If fill from access roads or mono-pole structure placement is required within a wetland, GTC will apply a Section 404 general (nationwide) permit. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands.

See answer above

- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: Any impacts would be temporary and minor. Transmission line rights-of-way can provide valuable habitat for many types of wildlife.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. GTC will study alternatives that avoid or minimize impacts to cultural resources. GTC will consult with Georgia SHPO to develop mitigation strategies as needed.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4). Therefore, this project will not impact coastal resources are require compliance with the CZMA.
2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

None are known at this time. However, during GTC public outreach and public meeting processes, public concerns are often heard, acknowledged, and modifications made to the proposed project to avoid public controversy.

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

- ☒ No ☐ Yes (describe)

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H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

- ☒ None (provide supporting detail) ☐ Significant impacts (describe)

Significant impacts are not anticipated. GTC will make every effort to study alternatives, survey for sensitive resources, and consult with agencies to avoid significant impacts. GTC is committed to developing mitigation strategies to minimize impacts if needed.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

It is unlikely. However, if required, GTC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: _____

Date (mm/dd/yyyy): 05/18/2023

Typed Name: _____

Title: _____

Organization: _____

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____

Date (mm/dd/yyyy): _____

Typed Name: _____

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(b) (4)



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ENVIRONMENTAL QUESTIONNAIRE

(b) (4)



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I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number (b) (4). Proposer: Georgia Transmission Corporation
2. This Environmental Questionnaire pertains to a: ☐ Recipient or Prime Contractor ☒ Sub-recipient or Subcontractor
3. Principal Investigator: Camron Carden Telephone Number: 770-270-7724
4. Project Title: (b) (4)
5. Expected Project Duration: (b) (4) months
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):

The project site is located at (b) (4), within (b) (4) Georgia, and approximately (b) (4) the southside of the city of (b) (4). The project is located within the (b) (4)

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).

This project involves building a (b) (4) facility and connecting to an adjacent existing substation.

8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	

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Georgia Transmission Corporation
Georgia Transmission Corporation
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work **DOES NOT** involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4) site. The site is located within (b) (4), Georgia on the southside of the city of (b) (4), just outside the city limits. The site is off of (b) (4) Road. In addition to the existing substation site and associated transmission line rights-of-way, the surrounding area consists of cultivated fields, naturally occurring forests, and rural residential areas. The surrounding area is known for agriculture.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require (b) (4) acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

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Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing substation property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately 2 to 3 acres, dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)
- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)
- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- No □ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quadrangle that the project site is within:

- Purple Honeycomb Head (*Balduina atropurpurea*) – state listed as rare
- Gopher Tortoise (*Gopherus polyphemus*) – state listed as threatened
- Pond Spice (*Litsea aestivalis*) – state listed as rare
- Solitary Beakrush (*Rhynchospora solitaria*) – state listed as endangered
- Yellow Flytrap (*Sarracenia flava*) – state listed as unusual
- Hooded Pitcherplant (*Sarracenia minor* var. *minor*) – state listed as unusual
- Parrot Pitcherplant (*Sarracenia psittacina*) – state listed as threatened
- American Chaffseed (*Schwalbea americana*) – state listed as endangered

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Alligator Snapping Turtle (*Macrochelys temminckii*) – proposed federally threatened
- Suwannee Alligator Snapping Turtle (*Macrochelys suwanniensis*) – proposed federally threatened
- Eastern Indigo Snake (*Drymarchon couperi*) – federally threatened
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- American Chaffseed (*Schwalbea americana*) – federally endangered

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely within the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ■ No □ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- No planned construction □ No habitats ■ None □ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ■ No □ Yes (describe)
- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ■ No □ Yes (describe)

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IPAC lists an experimental/non-essential population of Whooping Crane. This project's interaction with this species is highly unlikely and would have no effect to this species.

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)
This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.
- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)
There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.
- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)
- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)

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- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☐ No ☐ Yes (describe)

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oagps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A

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<input type="checkbox"/>	Organic solvent vapors or other volatile organic compounds-- List: N/A
<input type="checkbox"/>	Hazardous air pollutants -- List: N/A
<input type="checkbox"/>	Other -- List: N/A
<input checked="" type="checkbox"/>	None

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

There is an isolated depression identified in the National Wetland Inventory on the southside of the site. This project is approximately (b) (4) from an USGS intermittent (b) (4) and associated adjacent wetlands. The intermittent stream is a tributary of (b) (4), which is a tributary of (b) (4), a tributary of the (b) (4). Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

- b. What sources would supply potable and process water for the proposed project?

Not needed.

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- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced
- e. Identify the local treatment facility that would receive wastewater from the proposed project.
■ No discharges to local treatment facility
- f. Describe how wastewater would be collected and treated. ■ No wastewater produced
- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)
- h. Would project require issuance of new or modified water permits to perform project work or site development activities?
■ No ☐ Yes (describe)
- i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced
- j. Would the proposed project be permitted to discharge effluents into an existing body of water?
■ No ☐ Yes (describe water use and effluent impact)
- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?
☐ No ■ Yes (describe)
- If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.
- l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)
- m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?
■ No ☐ Yes (describe)
- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?
■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) facility will use (b) (4). It has not been determined the type of (b) (4) for this project. GTC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
GTC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable activities under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4). Therefore, this project will not impact coastal resources and require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b) (4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

(b) (4)

(b) (4)

Subcontractor or sub-recipient	Location of activities for this project
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	

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Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Oglethorpe Power Corporation (OPC)	
Oglethorpe Power Corporation (OPC)	
Oglethorpe Power Corporation (OPC)	

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4). The site is located within (b) (4) County, Georgia and with the city of (b) (4). The site is on (b) (4). In addition to the existing substation site and associated transmission line rights-of-way, the surrounding area consists of rural residential, commercial, and institutional (places of worship) areas. The surrounding area is known for the logging industry.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require (b) (4) of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

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Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing substation property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately 2 to 3 acres, dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)
- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)
- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- ☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- ☐ None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- Rafinesque's Big-eared Bat (*Corynorhinus rafinesquii*) – state listed as rare
- Eastern Indigo Snake (*Drymarchon couperi*) – state listed as threatened
- Blackbanded Sunfish (*Enneacanthus chaetodon*) – state listed as endangered
- Suwanee Alligator Snapping Turtle (*Macrochelys suwanniensis*) – state listed as threatened

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Alligator Snapping Turtle (*Macrochelys temminckii*) – proposed federally threatened
- Eastern Indigo Snake (*Drymarchon couperi*) – federally threatened
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely withing the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- ☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

IPaC lists an experimental/non-essential population of Whooping Crane. This project's interaction with this species is highly unlikely and would have no effect to this species.

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

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4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)

This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?

☒ No ☐ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.

☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)

- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?

☒ No ☐ Yes (describe)

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- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		

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<input type="checkbox"/> Other -- List: N/A
<input checked="" type="checkbox"/> None

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

g. How would emissions be vented?
All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

This project is approximately (b) (4) feet from the (b) (4). Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

- b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

■ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ■ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

■ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

■ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ■ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)

m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?

■ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) facility will use (b) (4). It has not been determined the type of (b) (4) for this project. GTC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
GTC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable actives under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4). Therefore, this project will not impact coastal resources are require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b) (4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden

Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____

Date (mm/dd/yyyy): _____

Typed Name: _____

(b) (4)

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ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: (b) (4) Proposer: Georgia Transmission Corporation
2. This Environmental Questionnaire pertains to a: ☐ Recipient or Prime Contractor ☒ Sub-recipient or Subcontractor
3. Principal Investigator: Camron Carden Telephone Number: 770-270-7724
4. Project Title: (b) (4)
5. Expected Project Duration: (b) (4) months
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):

The project site is located at (b) (4), within (b) (4), Georgia, and approximately (b) (4) miles south of the city of (b) (4). The project is located within the (b) (4) Minute Quadrangle.

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).

This project involves building a (b) (4) and connecting to an adjacent existing substation.

8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	

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Georgia Transmission Corporation
Georgia Transmission Corporation
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4) site. The site is located within (b) (4) County, Georgia approximately (b) (4) south of the city of (b) (4). The site is on (b) (4) Road. In addition to the existing substation site and associated transmission line rights-of-way, the surrounding area consists of rural residential areas associated with the city of (b) (4). Cultivated fields (b) (4) and managed (b) (4) are also within the area. The surrounding area is known for agricultural activities.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require (b) (4) acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

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Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing substation property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately 2 to 3 acres, dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)
- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)
- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- No □ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quadrant that the project site is within:

- Gopher Tortoise Bat (*Gopherus polyphemus*) – state listed as threatened
- Southen Hognose Snake (*Heterodon simus*) – state listed as threatened

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Alligator Snapping Turtle (*Macrochelys temminckii*) – Proposed federally threatened
- Eastern Indigo Snake (*Drymarchon couperi*) – federally threatened
- Reticulated Flatwoods Salamander (*Ambystoma bishop*) – federally endangered
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- American Chaffseed (*Schwalbea americana*) – federally endangered
- Canby's Dropwort (*Oxypolis canbyi*) – federally endangered
- Cooley's Meadowrue (*Thalictrum cooleyi*) – federally endangered
- Pondberry (*Lindera melissifolia*) – federally endangered
- Relict Trillium (*Trillium reliquum*) – federally endangered

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely within the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ■ No □ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- No planned construction □ No habitats ■ None □ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ■ No □ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ■ No □ Yes (describe)

IPAC lists an experimental/non-essential population of Whooping Crane. This project's interaction with this species is highly unlikely and would have no effect to this species.

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop

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guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)
This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.
- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)
There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.
- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)
- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)

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- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		

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<input type="checkbox"/> Other -- List: N/A
<input checked="" type="checkbox"/> None

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

The project is within a broad plain between the (b) (4). The plain has some (b) (4) geology with isolated (b) (4) in the area. None of these features are within close proximity to the project site. The site is approximately (b) (4) miles east of the (b) (4) and 4 miles west of the (b) (4) is a tributary of the (b) (4). Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

- b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

■ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ■ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

■ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

■ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ■ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)

m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

■ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) storage facility will use (b) (4). It has not been determined the type of (b) (4) for this project. GTC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
GTC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable actives under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4) Therefore, this project will not impact coastal resources are require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b) (4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

[illegible]

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Georgia Transmission Corporation
Georgia Transmission Corporation
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work **DOES NOT** involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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In 2003, Georgia Transmission Corporation (GTC) partnered with the Electric Power Research Institute (EPRI) to develop the EPRI/GTC Electric Overhead Transmission Line Siting Methodology. The research projects' goals were to develop a methodology that was objective, quantitative, consistent, and defensible; while also creating an approach that incorporated stakeholder input and was flexible enough to produce several alternatives instead of just a computer generated "best" route. The Methodology developed uses geographic information system (GIS) model building techniques and algorithms to narrow down preferable areas with connectivity between the project's start and end locations. Data layers (maps) are divided into four perspectives to analysis potential alternative corridors: The Built Environment, The Natural Environment, Exiting Corridors, and Engineering Concerns. The Methodology also incorporates expert judgment to determine constructible alternative routes, evaluate risk, and determine the most preferable solution for the project by the GTC multi-disciplinary project team.

More information on the Siting Methodology can be found at:

<https://www.epri.com/research/products/000000003002017601>

<https://www.epri.com/research/products/000000000001013080>

GTC plans to utilize this methodology to develop and evaluate route alternatives between Arlington Primary and East Colquitt Substations.

GTC does not anticipate that this proposed project will have extraordinary circumstances that would indicate a significant or adverse effect to protected resources, which would require the consideration of alternatives to avoid those potential impacts. Based on the scope of the project and the assumption a preferred route will be develop that avoids extraordinary circumstances, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.54 of USDA Rural Development Environmental Policies and Procedures requiring an Environmental Report and not an Environmental Assessment.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project area is in (b) (4) Counties, Georgia. The city of (b) (4) is just to the west. The straight-line distance between the two substations is (b) (4). However, a preferred route of (b) (4) is likely. The project area roughly parallels (b) (4). The surrounding area is primarily suburban residential with naturally occurring forest and a large reservoir.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|--|--|--------------------------------------|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input checked="" type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input checked="" type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input type="checkbox"/> Other: | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

The likely distance of the preferred route for this proposed transmission line project will likely be (b) (4) miles. The proposed right-of-way width required is 100'. In segments where the route is able to parallel roadways, a variable right-of-way width will be

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required depending on the curvature of the road. On average, roadside sections will be 35' in width. Based on the length and assuming approximately half of the proposed corridor will be roadside, GTC anticipates requiring (b) (4) of right-of-way. GTC will need to place a (concrete or steel mono-pole) structure every 600' on average. Based on the average span length, the project would require approximately (b) (4) structures. Structures will be 85' to 110' in height based on engineering requirements and site conditions.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

GTC will need to clear trees within the proposed right-of-way, develop access paths to reach each structure, install BMPs to stabilize the right-of-way, erect each structure using cranes, sting conductor, and terminate each end into the existing substations. Some structures may require concrete foundations, but most angled structures will use guys for stability.

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Most agricultural land will have minimal affects except for fields utilizing center field irrigation. These are identified during routing and efforts are made to avoid or minimize impacts to these features.

Forested areas within the right-of-way will be cleared, including naturally occurring forests, planted pine, pecan trees, and yard trees. Many land uses may continue within the right-of-way, but most man-made structures are not allowed within the maintained right-of-way. Generally, vegetation or structures exceeding 15' in height are not compatible with the operation of transmission lines.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

Areas cleared of trees will be seeded for stabilization. With approval from Georgia Environmental Protection Division, GTC will likely use shredded material created from the on-site woody material to apply to the right-of-way. GTC has found the application of the large, shredded material creates good stabilization by interlocking and amends the soil to create good herbaceous and grass cover over time, ideal right-of-way conditions.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
- ☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A route for the proposed transmission line has not been selected to date. GTC's project team will select a preferred route after considering existing land use patterns, the natural environment, existing corridors, and engineering practices. GTC will also hold public information meetings to garner public input that that may affect the final alignment. Based on the project scope, GTC anticipates erecting approximately (b) (4) mono-pole structures and would require (b) (4) of transmission line rights-of-way.

- b. Would the proposed project require the construction of waste pits or settling ponds?

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- ☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

c. Would the proposed project affect any existing body of water? ☐ No ☒ Yes (describe)

The proposed transmission line will likely need to span fingers of the (b) (4) a drinking water reservoir.

When building a linear facility, it is unlikely that hydrologic features can be avoided. When crossing these features, GTC may consider placing vehicular crossings (culverts or rock crossings) is smaller streams and acquire a section 404 general (nationwide) permit. Large streams will be crossed aerially with conductor (wire) but will not be crossed with construction equipment. However, the trees within the stream buffers will need to be removed using 'Non-Land Disturbing' techniques. GTC is exempted by the Georgia Environmental Protection Division from acquiring stream buffer variances in these situations when streams are crossed perpendicularly. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands that would require a Section 404 Individual Permit or hydrologic features that are suitable habitat for federally protected species.

Therefore, GTC does not anticipate significant impacts to bodies of water.

d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

When building a linear facility, it is unlikely floodplain or wetland features can be avoided. USDA Rural Utilities Service has determined that single-pole structures will not significantly impact the flood handling capability of the floodplain or change the pattern or magnitude of the flood flow. Most wetlands can be aerially spanned without fill needing to occur in the wetland. GTC will use techniques that would minimize rutting and mucking within wetlands, likely working off of mats. If fill from access roads or mono-pole structure placement is required within a wetland, GTC will apply a Section 404 general (nationwide) permit. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands that would require a Section 404 Individual Permit or hydrologic features that are suitable habitat for federally protected species.

Therefore, GTC does not anticipate significant impacts to floodplains or wetlands.

e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Tree clearing and some minor grading and blading of access paths will be needed to develop a transmission line corridor for the proposed transmission line. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur.

f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?

- ☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- No □ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- Altamaha Shiner (*Cyprinella xaenura*) – state threatened
- Pool Sprite, Snorkelwort (*Amphianthus pusillus*) – state threatened
- Bald Eagle (*Haliaeetus leucocephalus*) – state threatened
- Black-spored Quillwort (*Isoetes melanospora*) – state endangered

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- Little Amphianthus (*Amphianthus pusillus*) – federally threatened
- Relict Trillium (*Trillium reliquum*) – federally endangered
- Black Spored Quillwort (*Isoetes melanospora*) – federally endangered

GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species along the project corridor.

- b. Would any designated critical habitat be affected by the proposed project? ■ No □ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- No planned construction □ No habitats ■ None □ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ■ No □ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ■ No □ Yes (describe)

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? □ No ■ Yes (describe)

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This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the corridor temporarily during construction. After initial, the facility will not generate additional amounts of traffic.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☐ None

Several historic structures from a 2006 survey are within the project area.

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO to develop plans to avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)

- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)

Tree clearing a transmission line corridor may alter the present landscape on a small scale. However, no designated scenic views or vista are known at this time outside the historic resource noted above. No adverse impacts are anticipated.

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

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6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
 If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		
<input type="checkbox"/> Other -- List: N/A		
<input checked="" type="checkbox"/> None		

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f. Would any types of emission control or particulate collection devices be used?

- ☒ No ☐ Yes (describe, including collection efficiencies)

g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

The proposed transmission line will likely need to span fingers of the (b) (4) which was created by the damming of the (b) (4). Several named and unnamed tributaries of the (b) (4) flow through the project area including (b) (4) where the confluence of these water bodies forms the (b) (4)

b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ☒ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

☒ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ☒ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ☒ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

☒ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ☒ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

☒ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ☒ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ☒ No ☐ Yes (describe)

m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

☒ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

☒ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None
- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☒ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☒ None ☐ Hazardous or toxic materials that would be used (identify):
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☒ None
- c. Would there be any special physical hazards or health risks associated with the project? ☒ No ☐ Yes (describe)
- d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

GTC will develop a HIS (Hazard Information Sheet) and hold safety briefings specifically for this project with all workers.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

Workers that are required to come within 20 feet of energized, electrical equipment are required to take special training.

- f. Describe any increases in ambient noise levels to the public from construction and operational activities.

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- ☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

- ☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this corridor. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☒ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

- ☒ No ☐ Yes (describe)

It is not anticipated. However, on occasion GTC has discovered materials that may be hazardous along the project corridor that will need to be removed. If needed, GTC will use qualified contractors to dispose of materials per regulatory requirements.

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

- ☒ No ☐ Yes (describe)

However, the NDPES permit will require stormwater monitoring until a 'Notice of Termination' is filed with the Georgia EPD.

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☐ None ☒ New Required ☐ Modification Required
Describe:

GTC will contract with an ecological consultant to identify and delineate streams and wetlands along the project corridor. Section 404 general (nationwide) permits are expected due to the linear infrastructure facility. However, stream buffer variances or Section 404 individual permits are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

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- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: A take permit is not anticipated. GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: When building a linear facility, it is unlikely floodplain or wetland features can be avoided. USDA Rural Utilities Service has determined that single-pole structures will not significantly impact the flood handling capability of the floodplain or change the pattern or magnitude of the flood flow. Most wetlands can be aerially spanned without fill needing to occur in the wetland. GTC will use techniques that would minimize rutting and mucking within wetlands, likely working off of mats. If fill from access roads or mono-pole structure placement is required within a wetland, GTC will apply a Section 404 general (nationwide) permit. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands.

See answer above

- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: Any impacts would be temporary and minor. Transmission line rights-of-way can provide valuable habitat for many types of wildlife.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. GTC will study alternatives that avoid or minimize impacts to cultural resources. GTC will consult with Georgia SHPO to develop mitigation strategies as needed.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not (b) (4). Therefore, this project will not impact coastal resources are require compliance with the CZMA.
2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

None are known at this time. However, during GTC public outreach and public meeting processes, public concerns are often heard, acknowledged, and modifications made to the proposed project to avoid public controversy.

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

- ☒ No ☐ Yes (describe)

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H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

- ☒ None (provide supporting detail) ☐ Significant impacts (describe)

Significant impacts are not anticipated. GTC will make every effort to study alternatives, survey for sensitive resources, and consult with agencies to avoid significant impacts. GTC is committed to developing mitigation strategies to minimize impacts if needed.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

It is unlikely. However, if required, GTC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: _____

Date (mm/dd/yyyy): 05/18/2023

Typed Name: _____

Title: _____

Organization: _____

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____

Date (mm/dd/yyyy): _____

Typed Name: _____

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ENVIRONMENTAL QUESTIONNAIRE

(b) (4)



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ENVIRONMENTAL QUESTIONNAIRE

(b) (4)



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ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number (b) (4) Proposer: Oglethorpe Power Corporation
2. This Environmental Questionnaire pertains to a: ☐ Recipient or Prime Contractor ☒ Sub-recipient or Subcontractor
3. Principal Investigator: Camron Carden Telephone Number: 770-270-7724
4. Project Title: (b) (4)
5. Expected Project Duration: (b) (4) months
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):

The project site is located (b) (4), Georgia, approximately (b) (4) miles west of the cities of (b) (4). The project is located within the (b) (4) Quadrangle.

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).

This project involves building a (b) (4) facility and connecting to an adjacent existing substation.

8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
Georgia Transmission Corporation (GTC)	(b) (4)
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	
Georgia Transmission Corporation (GTC)	(b) (4)
Georgia Transmission Corporation (GTC)	

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Georgia Transmission Corporation (GTC)
Georgia Transmission Corporation (GTC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4) site. The project site in (b) (4) County, Georgia, approximately (b) (4) miles (b) (4) of the cities of (b) (4) and (b) (4). The site is on (b) (4) west of the intersection with (b) (4). In addition to the existing substation site, and associated transmission line rights-of-way, the surrounding area suburban residential development.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require (b) (4) acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

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Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing substation property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately (b) (4) dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)
- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)
- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. OPC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- No □ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- The GDNR Biodiversity Portal did not identify any state species within this quarter-quad with a Georgia protection status.

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely withing the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ■ No □ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- No planned construction □ No habitats ■ None □ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ■ No □ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ■ No □ Yes (describe)

IPAC lists an experimental/non-essential population of Whooping Crane. This project's interaction with this species is highly unlikely and would have no effect to this species.

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? □ No ■ Yes (describe)
- This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

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- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?

☒ No ☐ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.

☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)

- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?

☒ No ☐ Yes (describe)

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

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- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oagps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		
<input type="checkbox"/> Other -- List: N/A		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?

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- ☒ No ☐ Yes (describe, including collection efficiencies)

g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

This project is approximately 150 feet to the east of (b) (4) is a tributary of the (b) (4)
Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

■ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ■ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

■ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

■ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ■ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)

m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?

■ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) storage facility will use (b) (4). It has not been determined the type of (b) (4) for this project. OPC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
OPC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable actives under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. FEMA 100-year floodplains associated with Beaverdam Creek are adjacent to the site. The project will not require grading activities to occur within the designated floodplain, Therefore, no FEMA 100-year of 500-year designated floodplains will be adversely impacted.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4). Therefore, this project will not impact coastal resources are require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b) (4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

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ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number (b) (4) Proposer: Georgia Transmission Corporation
2. This Environmental Questionnaire pertains to a: ☐ Recipient or Prime Contractor ☒ Sub-recipient or Subcontractor
3. Principal Investigator: Camron Carden Telephone Number: 770-270-7724
4. Project Title: (b) (4)
5. Expected Project Duration: (b) (4) months
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):

The project site is located at (b) (4) within (b) (4) County, Georgia near the (b) (4) County line, and approximately (b) (4) miles south of the city (b) (4). The project is located within the (b) (4) Quadrangle.

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).

This project involves building a (b) (4) facility and connecting to an adjacent existing substation.

8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	

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Georgia Transmission Corporation
Georgia Transmission Corporation
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work **DOES NOT** involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4) site. The project site is located within (b) (4) County, Georgia near the (b) (4) County line, and approximately (b) (4) miles south of the city of (b) (4). The site is on (b) (4). In addition to the existing substation site and associated transmission line rights-of-way, the surrounding area consists of cultivated fields, planted pine plantations, naturally occurring forests, and rural residential areas. The surrounding area is known for agricultural activities.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require (b) (4) acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

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Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing substation property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately (b) (4) acres, dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)
- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)
- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- No □ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quadrant that the project site is within:

- American Chaffseed (*Schwalbea americana*) – state listed as endangered

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Alligator Snapping Turtle (*Macrochelys temminckii*) – Proposed federally threatened
- Eastern Indigo Snake (*Drymarchon couperi*) – federally threatened
- Reticulated Flatwoods Salamander (*Ambystoma bishop*) – federally endangered
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- American Chaffseed (*Schwalbea americana*) – federally endangered
- Pondberry (*Lindera melissifolia*) – federally endangered

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely within the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ■ No □ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- No planned construction □ No habitats ■ None □ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ■ No □ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ■ No □ Yes (describe)

IPaC lists an experimental/non-essential population of Whooping Crane. This project's interaction with this species is highly unlikely and would have no effect to this species.

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

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4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)
This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.
- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)
There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.
- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)
- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None
- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)
None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.
GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.
- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)
- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

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No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		

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<input type="checkbox"/> Other -- List: N/A
<input checked="" type="checkbox"/> None

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

This project is approximately (b) (4) to the east of wetland areas with associated intermittent streams that flow towards (b) (4) (b) (4), which flows into (b) (4). Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

- b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ☒ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

☒ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ☒ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ☒ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

☒ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ☒ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

☒ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ☒ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ☒ No ☐ Yes (describe)

m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?

☒ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

☒ No ☐ Yes (describe)

8. Solid and Hazardous Wastes

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- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) storage facility will use (b) (4). It has not been determined the type of (b) (4) for this project. GTC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
GTC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable actives under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4). Therefore, this project will not impact coastal resources are require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b) (4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

[illegible]

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Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Oglethorpe Power Corporation (OPC)	
Oglethorpe Power Corporation (OPC)	
Oglethorpe Power Corporation (OPC)	

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.

If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- ☒ Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

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1. If applicable, list any project alternatives considered to achieve the project objectives.

Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4). The site is located within (b) (4) County, Georgia and on the northside of (b) (4) Georgia. The site is on (b) (4). In addition to the existing substation site and associated transmission line rights-of-way, the surrounding area consists of naturally occurring forests rural residential areas, and light industry. The surrounding area is known for the (b) (4) industries, and the confluence of the (b) (4).

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

The project area will require (b) (4) acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.

- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

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- e. Describe any plans to reclaim areas that would be affected by the proposed project.

☐ No land areas would be affected.

Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☒ No ☐ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing substation property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?

☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately 2 to 3 acres, dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?

☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- ☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- ☐ None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quad that the project site is within:

- Georgia Indigo Bush (*Amorpha georgiana*) – state listed as endangered
- Say's Spiketail (*Cordulegaster sayi*) – state listed as threatened
- Eastern Indigo Snake (*Drymarchon couperi*) – state listed as threatened
- Georgia Plume (*Elliottia racemosa*) – state listed as threatened
- Gopher Tortoise (*Gopherus polyphemus*) – state listed as threatened
- Pineland Barbara Buttons (*Marshallia ramosa*) – state listed as rare
- Cutleaf Beardtongue (*Penstemon dissectus*) – state listed as rare
- Gopher Frog (*Lithobates capito*) – state listed as rare

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Eastern Indigo Snake (*Drymarchon couperi*) – federally threatened
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- Pondberry (*Lindera melissifolia*) – federally endangered

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely withing the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- ☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)
- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

IPAC lists an experimental/non-essential population of Whooping Crane. This project's interaction with this species is highly unlikely and would have no effect to this species.

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On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)
This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)
There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.

c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)

d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None

b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)

d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)

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- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		

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<input type="checkbox"/> Hazardous air pollutants -- List: N/A
<input type="checkbox"/> Other -- List: N/A
<input checked="" type="checkbox"/> None

f. Would any types of emission control or particulate collection devices be used?

- ☒ No ☐ Yes (describe, including collection efficiencies)

g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. **Hydrologic Conditions/Water Quality**

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

On the opposite side of (b) (4), there are a series of low-lying areas and wetlands associated with tributaries of the (b) (4). These low-lying areas are approximately 400 feet to the south of the project site. The (b) (4) 4000 feet to the east of the project site. Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

■ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ■ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

■ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

■ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ■ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)

m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

■ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) storage facility will use (b) (4). It has not been determined the type of (b) (4) for this project. GTC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
GTC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable actives under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4). Therefore, this project will not impact coastal resources are require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b) (4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

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I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: (b) (4) Proposer: Georgia Transmission Corporation
2. This Environmental Questionnaire pertains to a: ☐ Recipient or Prime Contractor ☒ Sub-recipient or Subcontractor
3. Principal Investigator: Camron Carden Telephone Number: 770-270-7724
4. Project Title: (b) (4)
5. Expected Project Duration: (b) (4) months
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):

The project site is located at (b) (4), within (b) (4) County, Georgia, and approximately (b) (4) miles west of the city of (b) (4). The project is located within the (b) (4) Quadrangle.

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).

This project involves building a (b) (4) facility and connecting to an adjacent existing substation.

8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	
Georgia Transmission Corporation	(b) (4)
Georgia Transmission Corporation	

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Georgia Transmission Corporation
Georgia Transmission Corporation
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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Other than a 'No Action' alternative, building this proposed facility on an existing site that already contains an existing electric substation will have minor impacts to the surrounding community and natural resources. Other alternatives would likely require additional electric infrastructure to be constructed in the surrounding area and would likely entail greater impacts to both the built and natural environments. This proposed project does not have extraordinary circumstances that would indicate a significant or adverse effect to protected resources that would require the consideration of alternatives to avoid those potential impacts. Also, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.53 or 1970.54 of USDA Rural Development Environmental Policies and Procedures.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project site is located on the existing (b) (4) site. The site is located within (b) (4) County, Georgia approximately (b) (4) miles west of the city of (b) (4). The site is on (b) (4) near the intersection with (b) (4). In addition to the existing substation site and associated transmission line rights-of-way, the surrounding area consists of planted pine plantations, some cultivated fields, and rural residential areas. The surrounding area is known the (b) (4) industry and highly erodible soils. The site is approximately 0.5 miles to the east of (b) (4) an example of the effects of uncontrol erosion in an agrarian area.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|-----------------------------------|--|---|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input checked="" type="checkbox"/> Other: <u>Existing Electric Substation Site</u> | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project. The project area will require (b) (4) acres of ground disturbance including a graded and graveled pad, driveway access, and underground or overhead infrastructure to connect to the adjacent substation.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

a graded and graveled pad, driveway access, and underground or overhead electric and communication infrastructure to connect to the adjacent substation

- d. Describe how land use would be affected by operational activities associated with the proposed project.

- ☐ No land areas would be affected.

Unutilized land on the existing electric substation site will be converted from forest or grassed areas to the proposed electrical facility.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

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- ☐ No land areas would be affected.

Areas not graveled will be seeded for stabilization. Some areas may be allowed to revert to a natural state, but most will be mowed to maintain a grassed area surround the facility, similarly to how the areas surrounding the adjacent substation site is maintained.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)

The (b) (4) Site is located near the (b) (4). The site is approximately 2400 feet from the eastern edge of the (b) (4). This project is not expected to have any adverse effects to the state park.

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

A site layout or plan has not been developed for this project site to date. The facility will be located on the existing substation property. A graded pad will be developed adjacent to the existing substation with electric and communication connections made to the adjacent substation. Vehicular access (a driveway) will be needed to the (b) (4) facility. The existing driveway to the substation will likely be utilized, but further survey data and civil design will be needed to determine the footprint of the construction project on the available property.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☒ Yes (describe and identify location, and estimate surface area disturbed)

Most likely, the settling ponds developed for the adjacent substation facility would be utilized, but additional ponds may be developed on the site as needed for stormwater control and secondary containment for SPCC (Spill Prevention, Control, and Countermeasure). The area of disturbance will be approximately (b) (4), dependent on terrain and site conditions.

- c. Would the proposed project affect any existing body of water? ☒ No ☐ Yes (describe)

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Mass grading will be needed to develop a level pad for the proposed facility and access to the facility. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur. A sediment basin may be incorporated into the site design or the existing sediment basin for the adjacent substation may be utilized.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- ☒ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- ☐ None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quadrant that the project site is within:

- Plume Azalea (*Rhododendron prunifolium*) – state listed as threatened

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Whooping Crane (*Grus americana*) – Experimental Population; Non-Essential
- Alligator Snapping Turtle (*Macrochelys temminckii*) – Proposed federally threatened
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species

Due to the disturbed nature of the existing substation site, habitat and occurrences of the species are unlikely within the project site. No effect to federal or state species are anticipated. However, GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species.

- b. Would any designated critical habitat be affected by the proposed project? ☒ No ☐ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- ☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

IPaC lists an experimental/non-essential population of Whooping Crane. This project's interaction with this species is highly unlikely and would have no effect to this species.

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)
- This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

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- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the site temporarily during construction. After initial, the facility will not generate a significantly larger amount of traffic and will be similar to the minor amount of traffic associated with the adjacent electric substation facility.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)

- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

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- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oagps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A
<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds-- List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		
<input type="checkbox"/> Other -- List: N/A		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?

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- ☒ No ☐ Yes (describe, including collection efficiencies)

g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

This project is approximately (b) (4). The stream is a tributary of the (b) (4), a tributary of (b) (4). Impacts to water bodies are not anticipated and stringent BMPs will be installed and maintained to prevent sedimentation issues.

b. What sources would supply potable and process water for the proposed project?

Not needed.

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- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced
- e. Identify the local treatment facility that would receive wastewater from the proposed project.
■ No discharges to local treatment facility
- f. Describe how wastewater would be collected and treated. ■ No wastewater produced
- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)
- h. Would project require issuance of new or modified water permits to perform project work or site development activities?
■ No ☐ Yes (describe)
- i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced
- j. Would the proposed project be permitted to discharge effluents into an existing body of water?
■ No ☐ Yes (describe water use and effluent impact)
- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?
☐ No ■ Yes (describe)
- If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.
- l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)
- m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?
■ No ☐ Yes (describe)
- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?
■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input checked="" type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☒ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None

The (b) (4) facility will use (b) (4). It has not been determined the type of (b) (4) for this project. GTC will use qualified contractors to dispose of materials per regulatory requirements when the need to recycle or disposal becomes necessary per EPA RCRA recommendations and guidelines.

- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
GTC and/or OPC will develop methods for storage and c this type of facility during the design of the facility.
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☒ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)
GTC will use qualified contractors to transport and dispose of materials per regulatory requirements.

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):

(b) (4)

- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None

(b) (4) that are mishandled or damaged can release gas and cause fire and explosion hazards.

- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)

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Damaged or mishandled (b) (4) can release gases, which can cause fire and explosion hazards. The proposed site is not directly adjacent to residential or commercial buildings. Although a risk to the public is not likely, a risk to workers performing interval maintenance activities within the proposed facility and the adjacent electric substation does exist.

d. Does a worker safety program exist at the location of the proposed project? ☒ No ☐ Yes (describe)

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

GTC and/or OPC will develop new safety training for this type of facility during the design of the facility.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this facility. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☐ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☒ None ☐ New Required ☐ Modification Required

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Describe: GTC environmental personnel reviewed USFWS National Wetlands Inventory (NWI) maps, US Geological Survey (USGS) 7.5 Minute Quadrangle Maps, aerial photographs, and hydric soils identified by Natural Resource Conservation Service (NRCS) Soil Surveys. These sources did not indicate hydrologic features on the project site.

GTC will contract with an ecological consultant to identify and delineate streams and wetlands within the project site. No impacts or Section 404 permitting are expected due to the project location on an existing electric substation site. Therefore, impacts to stream buffers are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of underground storage tanks are not associated with the scope of the proposed project. Therefore, the UST is not applicable to this project.
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Construction, utilization, or closure of injection wells are not associated with the scope of the proposed project. Therefore, the UIC is not applicable to this project.
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: No permittable activities under the Clean Air Act is associated with this proposed project. Therefore, a new or modified clean air permit is not required.
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. No effects to federally protected species are expected due to the project location on an existing electric substation site and the general absence of suitable habitat. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will informally consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: GTC environmental personnel reviewed Flood Insurance Rate Maps (FIRM) produced by the National Flood Insurance Program of the Federal Emergency Management Agency (FEMA) to determine if 100 Year and 500 Year Floodplains are within the project construction area. There are no FEMA 100-year or 500-year designated floodplains within the project site.
- See answer above
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: No impacts to streams or other wildlife habitat are expected due to the project location on an existing electric substation site.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. No adverse effects are expected to cultural resources due to the project location on an existing electric substation site.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4). Therefore, this project will not impact coastal resources and require compliance with the CZMA.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☒ No ☐ Yes (describe)

This project will have limited ground disturbance and is contained on property/rights-of-way owned by GTC, other Georgia Integrated Transmission System (ITS) members, affiliated electric membership corporations (member systems), or public road rights-of-way. Therefore, it is unlikely that this project will create public controversy or generate inquiries from Federal, state, local, or tribal agencies.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

Due to the proposed project location on an existing electric substation site, no significant impacts to the environment are anticipated. Some mass grading will occur to develop a level pad for the facility. Also, some tree clearing on the substation property may be required. However, this project will have minimal impacts to in a previously disturbed area. Although the presence of sensitive resources is unlikely, GTC will contract with consultants to survey for sensitive resources to ensure streams, wetlands, cultural resources, and federally protected species are avoided or impacts minimized through the site design of the proposed facility.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The facility is contained to small (b) (4) acre site. If the facility would need to be decommissioned including the demolition of the facility, OPC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden

Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____

Date (mm/dd/yyyy): _____

Typed Name: _____

(b) (4)



[illegible]

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

Georgia Transmission Corporation
Georgia Transmission Corporation
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)
Oglethorpe Power Corporation (OPC)

(b) (4)

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

***STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.***

Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

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In 2003, Georgia Transmission Corporation (GTC) partnered with the Electric Power Research Institute (EPRI) to develop the EPRI/GTC Electric Overhead Transmission Line Siting Methodology. The research projects goals were to develop a methodology that was objective, quantitative, consistent, and defensible; while also creating an approach that incorporated stakeholder input and was flexible enough to produce several alternatives instead of just a computer generated "best" route. The Methodology developed uses geographic information system (GIS) model building techniques and algorithms to narrow down preferable areas with connectivity between the project's start and end locations. Data layers (maps) are divided into four perspectives to analysis potential alternative corridors: The Built Environment, The Natural Environment, Exiting Corridors, and Engineering Concerns. The Methodology also incorporates expert judgment to determine constructible alternative routes, evaluate risk, and determine the most preferable solution for the project by the GTC multi-disciplinary project team.

More information on the Siting Methodology can be found at:

<https://www.epri.com/research/products/000000003002017601>

<https://www.epri.com/research/products/000000000001013080>

GTC plans to utilize this methodology to develop and evaluate route alternatives between Arlington Primary and East Colquitt Substations.

GTC does not anticipate that this proposed project will have extraordinary circumstances that would indicate a significant or adverse effect to protected resources, which would require the consideration of alternatives to avoid those potential impacts. Based on the scope of the project and the assumption a preferred route will be develop that avoids extraordinary circumstances, this type of project would be considered a 'categorical exclusion' under 7 CFR § 1970.54 of USDA Rural Development Environmental Policies and Procedures requiring an Environmental Report and not an Environmental Assessment.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The project area is located in (b) (4) Georgia. The cities of (b) (4) and (b) (4) are within proximity of the project area. The straight-line distance between the two substations (b) (4) miles. However, a preferred route of (b) (4) miles is likely. The project area roughly parallels Georgia Highway (b) (4) encompasses the unincorporated communities of (b) (4). The surrounding area is primarily agricultural with naturally occurring forest within stream systems and wetlands. The area around the city of (b) (4) has more dense development, but still rural in nature.

2. **Attach** a project site location map of the project work area.

See maps appended to the end of the questionnaire.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

- | | | | |
|--|--|--------------------------------------|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Agricultural |
| <input type="checkbox"/> Suburban | <input checked="" type="checkbox"/> Rural | <input type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input checked="" type="checkbox"/> Forest | <input type="checkbox"/> University Campus | <input type="checkbox"/> Other: | |

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

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The likely distance of the preferred route for this proposed transmission line project will likely be (b) (4) miles. The proposed right-of-way width required is 100'. In segments where the route is able to parallel roadways, a variable right-of-way width will be required depending on the curvature of the road. On average, roadside sections will be 35' in width. Based on the length and assuming approximately half of the proposed corridor will be roadside, GTC anticipates requiring (b) (4) acres of right-of-way. GTC will need to place a (concrete or steel mono-pole) structure every 600' on average. Based on the average span length, the project would require approximately (b) (4) structures. Structures will be 85' to 110' in height based on engineering requirements and site conditions.

Modifications are likely need to the existing (b) (4) GTC will need to construction a new (b) (4) Substation at the (b) (4) This site was purchased in the early 1990's as an 'advanced land purchase' project.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

GTC will need to clear trees within the proposed right-of-way, develop access paths to reach each structure, install BMPs to stabilize the right-of-way, erect each structure using cranes, sting conductor, and terminate each end into the existing substations. Some structures may require concrete foundations, but most angled structures will use guys for stability.

It is estimated that building (b) (4) require approximately (b) (4) of ground disturbance.

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Most agricultural land will have minimal affects except for fields utilizing center field irrigation. These are identified during routing and efforts are made to avoid or minimize impacts to these features.

Forested areas within the right-of-way will be cleared, including naturally occurring forests, planted pine, pecan trees, and yard trees. Many land uses may continue within the right-of-way, but most man-made structures are not allowed within the maintained right-of-way. Generally, vegetation or structures exceeding 15' in height are not compatible with the operation of transmission lines.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- ☐ No land areas would be affected.

Areas cleared of trees will be seeded for stabilization. With approval from Georgia Environmental Protection Division, GTC will likely use shredded material created from the on-site woody material to apply to the right-of-way. GTC has found the application of the large, shredded material creates good stabilization by interlocking and amends the soil to create good herbaceous and grass cover over time, ideal right-of-way conditions.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
- ☒ No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

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A route for the proposed transmission line has not been selected to date. GTC's project team will select a preferred route after considering existing land use patterns, the natural environment, existing corridors, and engineering practices. GTC will also hold public information meetings to garner public input that that may affect the final alignment. Based on the project scope, GTC anticipates erecting approximately (b) (4) mono-pole structures and would require (b) (4) of transmission line rights-of-way.

GTC will need to construct a new (b) (4). This site was purchased in the early 1990's as an 'advanced land purchase' project. It is estimated that this site will require approximately (b) (4) acres of site grading and ground disturbance.

- b. Would the proposed project require the construction of waste pits or settling ponds?
☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)
- c. Would the proposed project affect any existing body of water? ☐ No ☒ Yes (describe)

There are not large lakes or reservoirs in the project area. However, when building a linear facility, it is unlikely that hydrologic features can be avoided. When crossing these features, GTC may consider placing vehicular crossings (culverts or rock crossings) in smaller streams and acquire a section 404 general (nationwide) permit. Large streams will be crossed aerially with conductor (wire) but will not be crossed with construction equipment. However, the trees within the stream buffers will need to be removed using 'Non-Land Disturbing' techniques. GTC is exempted by the Georgia Environmental Protection Division from acquiring stream buffer variances in these situations when streams are crossed perpendicularly. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands that would require a Section 404 Individual Permit or hydrologic features that are suitable habitat for federally protected species.

Therefore, GTC does not anticipate significant impacts to bodies of water.

- d. Would the proposed project impact a floodplain or wetland? ☒ No ☐ Yes (describe)

When building a linear facility, it is unlikely floodplain or wetland features can be avoided. USDA Rural Utilities Service has determined that single-pole structures will not significantly impact the flood handling capability of the floodplain or change the pattern or magnitude of the flood flow. Most wetlands can be aerially spanned without fill needing to occur in the wetland. GTC will use techniques that would minimize rutting and mucking within wetlands, likely working off of mats. If fill from access roads or mono-pole structure placement is required within a wetland, GTC will apply a Section 404 general (nationwide) permit. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands that would require a Section 404 Individual Permit or hydrologic features that are suitable habitat for federally protected species.

Therefore, GTC does not anticipate significant impacts to floodplains or wetlands.

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)

Tree clearing and some minor grading and blading of access paths will be needed to develop a transmission line corridor for the proposed transmission line. GTC will incorporate and maintain stringent BMPs (Best Management Practices), such as silt fencing, check dams, and slope stabilization, to ensure no sedimentation or erosion will occur.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☒ No ☐ Yes (describe)

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- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
- ☐ No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
- ☐ None

Georgia Department of Natural Resources maintains state species information through their Biodiversity Portal. The following species are listed within the USGS 7.5-minute quarter-quadrant that the project site is within:

- Potential for wading bird colonies
- Spotted Bullhead (*Ameiurus serracanthus*) – state rare
- Pond Spice (*Litsea aestivalis*) – state rare
- Alligator Snapping Turtle (*Macrochelys temminckii*) – state threatened
- Variable-leaf Indian-plantain (*Arnoglossum diversifolium*) – state threatened
- Delicate Spike (*Elliptio arcata*) – state endangered
- Inflated Spike (*Elliptio purpurella*) – state threatened
- Greenfly Orchid (*Epidendrum conopseum*) – state unusual
- Shinyrayed Pocketbook (*Hamiota subangulata*) – state endangered
- Curtiss' Loosestrife (*Lythrum curtissii*) – state threatened
- Oval Pigtoe (*Pleurobema pyriforme*) – state endangered
- Bluenose Shiner (*Pteronotropis welaka*) – state threatened
- Swamp Buckthorn (*Sideroxylon thornei*) – state rare
- Rayed Creekshell (*Strophitus radiatus*) – state threatened

USFWS Information for Planning and Consultation (IPaC) website lists the following species:

- Northern Long-eared Bat (*Myotis septentrionalis*) – federally endangered
- Wood Stork (*Mycteria americana*) – federally threatened
- Eastern Indigo Snake (*Drymarchon couperi*) – federally threatened
- Monarch Butterfly (*Danaus plexippus*) – federal candidate species
- Canby's Dropwort (*Oxypolis canbyi*) – federally endangered
- Pondberry (*Lindera melissifolia*) – federally endangered

GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally and state protected species along the project corridor.

- b. Would any designated critical habitat be affected by the proposed project? ☐ No ☐ Yes (describe)
- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
- ☐ No planned construction ☐ No habitats ☐ None ☐ Impact (describe)
- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☐ No ☐ Yes (describe)

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- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ■ No □ Yes (describe)

On occasion, transmission facilities interact with avian species, which could result in impacts to the reliability of the transmission system and injuries or mortalities to birds. GTC's policy is to monitor avian interactions when observable and to develop guidelines and systems to address issues as they arise. GTC maintains a Special Purpose Utility Permit with the USFWS for these interactions migratory bird species protected by the Migratory Bird Treaty Act.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? □ No ■ Yes (describe)

This project will increase the electric reliability within the community and would likely have positive socio-economic impacts that are associated with a more reliability source of electricity.

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
■ No □ Yes (describe)

There will be a minor increase of construction equipment traffic entering and exiting the corridor temporarily during construction. After initial, the facility will not generate additional amounts of traffic.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
■ No □ Yes (describe)

- d. Would the proposed project create a significant increase in local energy usage? ■ No □ Yes (describe)

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. □ None

The city of (b) (4) has several document historic buildings associated with a 2007 survey.

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? □ No planned construction □ No historic sites □ Yes (describe) ■ No Impact (discuss)

None are anticipated. However, GTC will contract with archaeological and historic preservation consultants to survey the area of potential effect. If cultural resources are discovered, GTC will consult with Georgia SHPO to develop plans to avoid and mitigate impacts as necessary.

GTC developed a programmatic agreement for Section 106 of the NHPA compliance with Georgia Historic Preservation Division (Georgia SHPO), The Advisory Council on Historic Preservation, and the USDA Rural Utilities Service. A component of that agreement is to implement research projects pertaining to historic preservation. One of those projects is the FindIt! Program with the University of Georgia (UGA). Housed within Center for Community Design and Preservation at UGA, this program trains students to survey and document historic structures throughout rural communities of Georgia. This program could be used as a mitigation strategy if needed.

- c. Has the State Historic Preservation Office been contacted with regard to this project? ■ No □ Yes (describe)

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- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☐ No ☐ Yes (describe)

Tree clearing a transmission line corridor may alter the present landscape on a small scale. However, no designated scenic views or vista are known at this time outside the historic resource noted above. No adverse impacts are anticipated.

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

No tribal lands are in proximity. No tribal sensitivities are known or anticipated. If DOE requires, GTC will notified tribes of the proposed project that have an ancestral interest in this area prior to construction activities.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
- c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.
- d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)
- e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x	N/A	N/A
<input type="checkbox"/> NO _x	N/A	N/A
<input type="checkbox"/> PM - 2.5	N/A	N/A
<input type="checkbox"/> PM - 10	N/A	N/A
<input type="checkbox"/> CO	N/A	N/A
<input type="checkbox"/> CO ₂	N/A	N/A
<input type="checkbox"/> Lead	N/A	N/A

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<input type="checkbox"/> H ₂ S	N/A	N/A
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List: N/A		
<input type="checkbox"/> Hazardous air pollutants -- List: N/A		
<input type="checkbox"/> Other -- List: N/A		
<input checked="" type="checkbox"/> None		

- f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

- g. How would emissions be vented?

All emissions are temporary in nature and a result from construction equipment. No venting is necessary.

7. Hydrologic Conditions/Water Quality

- a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

The project area is located in an upland area between the (b) (4)

(b) (4)

Several unnamed streams flow through the project area that are tributaries to either

- b. What sources would supply potable and process water for the proposed project?

Not needed.

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c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water	None	None
<input type="checkbox"/> Process water	None	None
<input type="checkbox"/> Sanitary	None	None
<input type="checkbox"/> Other -- describe:	None	None
<input checked="" type="checkbox"/> x None	None	None

d. What would be the major components of each type of wastewater (e.g., coal fines)? ■ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.

■ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ■ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ■ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

■ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ■ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

■ No ☐ Yes (describe water use and effluent impact)

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ■ Yes (describe)

If the area of ground disturbance exceeds 1 acre (which is expected), GTC will submit a Notice of Intent to the Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General Permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? ■ No ☐ Yes (describe)

m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?

■ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

■ No ☐ Yes (describe)

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8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify: creosote laden polesX80, transformers to dispose of or reuse	
<input type="checkbox"/> None	

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☐ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☐ None generated
☐ On-site (identify and describe location)
☐ Off-site (identify location and describe facility and treatment)
- d. How would wastes for disposal be transported?
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☐ None
- f. How would hazardous or toxic waste be collected and stored? ☐ None used or produced
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☐ Not required ☐ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☐ Hazardous or toxic materials that would be used (identify):
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☐ None
- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☐ Yes (describe)
- d. Does a worker safety program exist at the location of the proposed project? ☐ No ☐ Yes (describe)

GTC will develop a HIS (Hazard Information Sheet) and hold safety briefings specifically for this project with all workers.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☐ Yes (describe)

Workers that are required to come within 20 feet of energized, electrical equipment are required to take special training.

- f. Describe any increases in ambient noise levels to the public from construction and operational activities.

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- ☐ None ☒ Increase in ambient noise level (describe)

Typical construction noise will be generated temporarily at the project site. Due to the rural setting and temporary nature of the construction noise, no significant impacts to the public are anticipated.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

- ☐ No construction planned ☒ No ☐ Yes (describe)

Tree clearing will need to occur to develop this corridor. However, removal of those trees will not likely have a significant increase in noise levels due to the rural setting and temporary nature of the construction noise.

h. Would hearing protection be required for workers? ☐ No ☒ Yes (describe)

GTC requires workers to wear hearing protection when construction equipment is in operations per GTC's Hearing Conservation Policy.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

- ☒ No ☐ Yes (describe)

It is not anticipated. However, on occasion GTC has discovered materials that may be hazardous along the project corridor that will need to be removed. If needed, GTC will use qualified contractors to dispose of materials per regulatory requirements.

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

- ☒ No ☐ Yes (describe)

However, the NDPES permit will require stormwater monitoring until a 'Notice of Termination' is filed with the Georgia EPD.

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe:

d. Clean Water Act (CWA): ☐ None ☒ New Required ☐ Modification Required
Describe:

GTC will contract with an ecological consultant to identify and delineate streams and wetlands along the project corridor. Section 404 general (nationwide) permits are expected due to the linear infrastructure facility. However, stream buffer variances or Section 404 individual permits are not anticipated. GTC will likely submit a Notice of Intent to Georgia Environmental Protection Division (EPD) under the State of Georgia's GAR100002 Infrastructure Construction General (NPDES) Permit.

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- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe: A take permit is not anticipated. GTC will contract with an ecological consultant to identify species occurrence and potential habitat for federally protected species. If suitable habitat or occurrences are observed from the pedestrian surveys and are unavoidable, GTC will consult with the USFWS Athens, GA Field Office.
- i. Floodplains and Wetlands Regulations: ☒ None ☐ New Required ☐ Modification Required
Describe: When building a linear facility, it is unlikely floodplain or wetland features can be avoided. USDA Rural Utilities Service has determined that single-pole structures will not significantly impact the flood handling capability of the floodplain or change the pattern or magnitude of the flood flow. Most wetlands can be aerially spanned without fill needing to occur in the wetland. GTC will use techniques that would minimize rutting and mucking within wetlands, likely working off of mats. If fill from access roads or mono-pole structure placement is required within a wetland, GTC will apply a Section 404 general (nationwide) permit. GTC will study alternatives and make every effort to avoid impacts to streams and wetlands.

See answer above

- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: Any impacts would be temporary and minor. Transmission line rights-of-way can provide valuable habitat for many types of wildlife.
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe: GTC will contract with an archaeological and historic preservation firm to conduct a literature review of the area and cultural resource surveys of the project site and area of potential effect. GTC will study alternatives that avoid or minimize impacts to cultural resources. GTC will consult with Georgia SHPO to develop mitigation strategies as needed.
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: This project is not within (b) (4). Therefore, this project will not impact coastal resources are require compliance with the CZMA.
2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
No additional permitting requirements are anticipated.

F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None

None are known at this time. However, during GTC public outreach and public meeting processes, public concerns are often heard, acknowledged, and modifications made to the proposed project to avoid public controversy.

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

- ☒ No ☐ Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

- ☒ None (provide supporting detail) ☐ Significant impacts (describe)

Significant impacts are not anticipated. GTC will make every effort to study alternatives, survey for sensitive resources, and consult with agencies to avoid significant impacts. GTC is committed to developing mitigation strategies to minimize impacts if needed.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

It is unlikely. However, if required, GTC will use qualified contractors to dispose of materials per regulatory requirements.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: J. Camron Carden Date (mm/dd/yyyy): 05/18/2023

Typed Name: J. Camron Carden

Title: VP, Transmission Projects

Organization: Georgia Transmission Corporation

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

(b) (4)



U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

(b) (4)



APPENDIX F – PROJECT DESCRIPTION AND ASSURANCES DOCUMENT TEMPLATE (PDAD)

Project title: Regional Grid Improvement Strategy to Address Resiliency and Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities

Applicant Name: Georgia Environmental Finance Authority

Applicant Address:

47 Trinity Ave SW
Fifth Floor
Atlanta, GA 30334

Names of all team member organizations (if applicable):

Georgia Environmental Finance Authority
Oglethorpe Power Corporation
Georgia Transmission Corporation
Georgia Systems Operations Corporation
Green Power EMC
Georgia Institute of Technology

Principal Investigator (Name, Address if different than Applicant's, Phone Number, E-mail):

Kristofor Anderson
Director of Energy Resources
404-584-1031

Business Point of Contact (Name, Address if different than Applicant's, Phone Number, E-mail):

Kristofor Anderson
Director of Energy Resources
404-584-1031

Include any statements regarding confidentiality.

Federal Share: \$249,129,382

Cost Share: \$258,010,362

Total Estimated Project Cost: \$507,139,743

Item 1: Specify (mark with "X") the FOA Topic Area and as applicable the Area of Interest (AOI):

_____ Topic Area 1: **Grid Resilience Grants** (BIL section 40101(c))

_____ Topic Area 2: **Smart Grid Grants** (BIL section 40107)

_____ Topic Area 3: **Grid Innovation Program** (BIL section 40103(b)) – Area of Interest 1 (**Transmission** System Applications)

_____ Topic Area 3: **Grid Innovation Program** (BIL section 40103(b)) – Area of Interest 2 (**Distribution** System Applications)

___X___ Topic Area 3: **Grid Innovation Program** (BIL section 40103(b)) – Area of Interest 3 (**Combination** System Applications)

TOPIC AREA 1 Specific Items :

Item 2: Specify (mark with "X") the entity type of the applicant organization:

_____ electric grid operator

_____ electricity storage operator

_____ electricity generator

_____ transmission owner or operator

_____ distribution provider

_____ fuel supplier

If further description is needed for the specified entity type, please provide below:

Item 3: Please provide the total amount (USD) of qualifying resilience investments (as outlined in DE-FOA-00002740) that has been spent for the previous 3 years. Please also provide the time period utilized for calculation of this amount.

Total Amount:

Time Period for Resilience Investments:

Note: Topic Area 1 applicants must submit as part of their application, a report detailing past, current, and future efforts by the eligible entity to reduce the likelihood and consequences of disruptive events. This report should include efforts over at least the previous 3 years and at least the next 3 years and any broader resilience strategy used by the applicant.

Item 4: Is the eligible entity a Small Utility as defined in DE-FOA-0002740 (sells no more than 4,000,000 MWh of electricity per year)? If NO is selected, skip to Item 7.

_____ Yes

_____ No

Note: If YES, applicant must provide their Form 861 for the last reporting year submitted to the Energy Information Administration (EIA).

Item 5: Per BIL section 40101(e)(2) (C) APPLICATION LIMITATIONS.—An eligible entity may not submit an application for a grant provided by the Secretary under subsection (c) and a grant provided by a State or Indian Tribe pursuant to subsection (d) during the same application cycle.

Therefore, is the eligible entity a Subaward/Subcontract recipient for an application submitted under IIJA Section 40101(d), ALRD 2736? If “YES”, please describe the differences between the GRIP FOA 2740 application [40101(c)] and the ALRD 2736 [40101(d)] applications in the box below:

_____ Yes

_____ No

TOPIC AREA 2 Specific

No items

TOPIC AREA 3 Specific

Item 6: Specify (mark with "X") the entity type of the applicant organization:

☒ a State

☐ a combination of 2 or more States

☐ an Indian Tribe

☐ a unit of local government

☐ a public utility commission

If further description is needed for the specified entity type, please provide below:

Item 7:

Authorized Organizational Representative (AOR): please provide name, address, phone number and email address for the authorized agent to bind the entity

Authorized Organizational Representative (AOR):

Name: Kristofor Anderson


Address:

47 Trinity Ave SW
Fifth Floor
Atlanta, GA 30334

Phone: 404-584-1031

E-mail: kanderson@gefa.ga.gov

Item 8: Signature of Authorized Organizational Representative (AOR)





Applicant	Georgia Environmental Finance Authority
Grant Project Manager	Kristofor Anderson
Project Title	Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities

Abstract

Project Description: The Georgia Environmental Finance Authority (GEFA) and the Oglethorpe Power Corporation (OPC) Family of Companies (FOC) are collaborating on a transformative project that will benefit communities across the state of Georgia. The project aims to improve resilience and clean energy development with an estimated investment of more than \$507,000,000. The comprehensive (b) (4) upgrade program includes investments in (b) (4), and grid reliability while implementing new transmission lines to link radial circuits. In addition, advanced grid control systems will improve resilience and dependability. The collaboration is anticipated to improve service reliability, reduce outage durations, and increase distributed energy resource support (DERs). This initiative will pave the way for a more resilient, sustainable, and prosperous future in Georgia's energy sector.

Methods Employed: The project will employ a variety of strategic approaches to accomplish its goals. GEFA will collaborate with key stakeholders and partners to execute the (b) (4), which include the deployment of (b) (4) MW for (b) (4) of moderate-scale (b) (4), MW at (b) (4) of large-scale (b) (4), miles of new transmission lines serving (b) (4) substations, and DER anticipated to improve resiliency and reliability.

Potential Impact: The deployment of these advanced grid infrastructure and clean energy technologies by GEFA will have significant impacts, including: Enhanced energy resilience and dependability, decreasing the frequency and duration of power outages in underserved communities.

- Increased access to clean energy sources, allowing residents to take advantage of renewable and sustainable power sources.
- Through energy efficiency measures, we can reduce the energy burden on low-income households and advance economic equity.
- Job creation and workforce development in the clean energy sector, providing employment opportunities and skill training.
- Reduces greenhouse gas emissions and promotes a cleaner and healthier community.

Major Participants. GEFA's core partners include Oglethorpe Power Corporation (OPC), Green Power EMC (GPEMC), Georgia Transmission Corporation (GTC), and Georgia System Operations Corporation (GSOC). Additionally, GEFA has received letters of commitment and support from the Technical College System of Georgia, The Georgia Rural Electric Managers Association, Clean Cities Georgia, Georgia EMC and others, that will help ensure the community benefits of the proposed project are fully realized within Disadvantaged Communities.

Project Information



GEORGIA ENVIRONMENTAL
FINANCE AUTHORITY

Project Title: Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities

Prime Recipient: Georgia Environmental Finance Authority (GEFA)

Total Project Cost:	DOE Grant Request:	Match Commitment:
\$507,139,744.00	\$249,129,382.00	\$258,010,362.00

Project Summary

The Georgia Environmental Finance Authority (GEFA) and the Family of Companies (FOC) including Oglethorpe Power Corp. (OPC), Georgia Transmission Corp. (GTC), Georgia System Operations Corp. (GSOC) and Green Power EMC (GPEMC) are collaborating on a transformative project that will benefit communities across the state of Georgia. The project aims to improve resilience and clean energy development in the state of Georgia with an estimated investment of more than \$507,000,000. The comprehensive (b) (4) infrastructure upgrade program includes investments in (b) (4) and grid reliability while implementing new transmission lines to link radial circuits. In addition, advanced grid control systems will improve resilience and dependability. The collaboration is anticipated to improve service reliability, reduce outage durations, and increase distributed energy resource support (DERs). This initiative will pave the way for a more resilient, sustainable, and prosperous future in the state of Georgia.

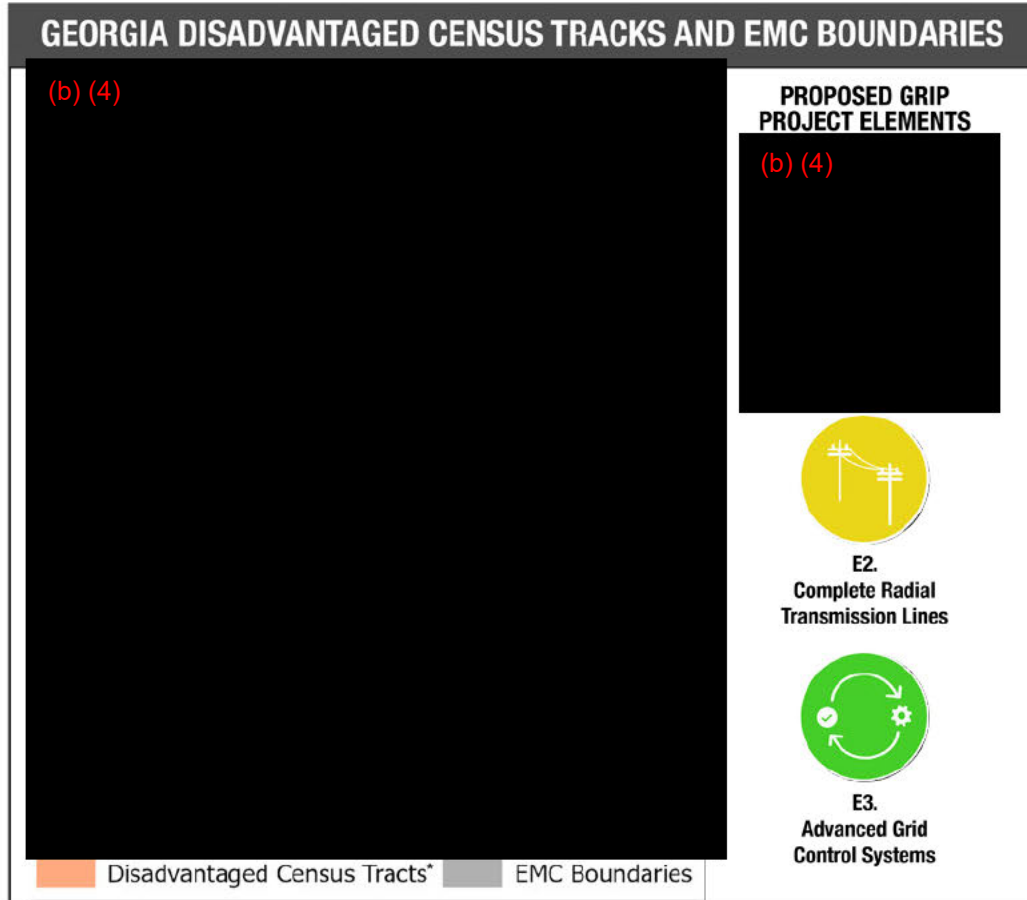
Key Personnel

Kristofor Anderson	GEFA Grant Manager
Kelly Cutts	GEFA Grant Administrator
Betsy Higgins	OPC Financial Administrator
David Sorrick	OPC Deployment Manager
Jeff Pratt	Strategic Advisor
John Raese	GTC Project Manager
Camron Carden	GTC Project Manager
Dustin Zubke	GTC Grant Administrator and Financial Manager
Joe Sowell	GTC System Planning Lead
Nathan Brown	GSOC Project Manager
David Revell	GSOC Project Manager

Technology Summary, Impact and Outcomes



GEORGIA ENVIRONMENTAL
FINANCE AUTHORITY



* Georgia Disadvantaged Census Tracts determined by the Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool, found at <https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>.

- E1.** (b) (4)

(b) (4)

1) Integrate/manage solar and IBRs; 2) Facilitate clean tech (EVs, heat pumps, etc) adoption; 3) (b) (4) resiliency and backup power

(b) (4) flexibility, services, resilience
- E2. New Transmission Lines to Connect Radial Circuits**

(b) (4) miles of new transmission lines serving (b) (4) substations: 1) Connect existing radial transmission circuits to improve reliability; 2) Prioritized to maximize benefits to Justice40 and underserved communities; 3) Targeted to rural and vulnerable suburban populations in North Georgia; 4) Connection point for new solar developments; 5) Support targeted resiliency improvements
- E3. Advanced Grid Control Systems for Resiliency and Reliability**

DER Forecasting: improved/accurate, intelligent DER generation and load forecasting; **DERMS** to improve modeling and operational control; improve resilience, reliability, economics, and DER function; **System Reliability Assessment** for new intermittent resources; **Situational Awareness, System Economic Tools:** real time/near real time system resource analysis; integrate renewables, improve delivery, manage cost

Project Goal



GEORGIA ENVIRONMENTAL
FINANCE AUTHORITY

The project led by GEFA (Georgia Environmental Finance Authority) aims to transform the energy landscape in underserved communities through a comprehensive set of goals and objectives.

The project focuses on enhancing energy resiliency, increasing access to clean energy, promoting economic development, improving energy affordability, and fostering community engagement by accomplishing the following objectives:

Enhance Energy Resiliency	Increase Access to Clean Energy	Promote Economic Development and Foster Community Engagement	Manage Energy Affordability
<ul style="list-style-type: none">• Upgrade and modernize grid infrastructure.• Implement advanced technologies to reduce power outages.• Increase grid resiliency in underserved communities	<ul style="list-style-type: none">• Promote the adoption of clean energy resources.• Integrate utility-scale solar and renewable energy storage systems.• Provide residents in underserved communities with sustainable power sources.	<ul style="list-style-type: none">• Create job opportunities in the clean energy sector.• Stimulate local economies through investments in grid infrastructure.• Foster economic equity and prosperity in underserved communities.	<ul style="list-style-type: none">• Leverage grid improvements to help manage the cost of energy with a focus on underserved communities

GEFA and the FOC will utilize DOE GRIP funding to improve electric resilience and reliability across the State of Georgia and minimize the energy burden in DACs that can least afford electric rate increases and are often most impacted by electric outages. Project leadership will oversee and monitor the implementation of GRIP-funded activities and ensure funding is utilized efficiently to maximize benefits to rural and underserved communities. The project will deploy three key integrated resiliency and grid management systems to reduce rural grid down durations by approximately (b) (4) percent, provide a foundation for future (b) (4) development, deploy renewable-based backup generation, and target direct benefits to Georgia's DACs. Per internal estimates, project grid resilience benefits will extend to (b) (4) customers and realize (b) (4) in annual savings as a result of avoided outages.

1. Community and Labor Engagement

The FOC includes four distinct companies that operate on a not-for-profit basis and are collectively owned by 38 electric cooperatives. The FOC has a polycentric structure with a distinct disposition, bylaws, and governance structure that is inclusive and aligned with the best interests of its member-owners and the residents we serve – a crucial difference from investor-owned utilities (IOUs) and other businesses that emphasize profits for investors and non-local stakeholders.

As a normal course of business, GEFA and the FOC engage county and local officials, communities and local stakeholders to educate them on projects, hold public meetings to provide information, and get feedback from the members of an impacted community. The companies within the FOC have a long history as active corporate citizens in the rural communities across Georgia where they build, own, operate and maintain energy assets. For example, Oglethorpe Power owns and/or operates 14 generation assets with 37 units in 12 rural Georgia communities. Oglethorpe invests time, talent and resources to promote vitality and growth in these rural communities. In 2022 Oglethorpe supported nine food banks benefitting approximately 6,700 citizens and eight low-income youth programs benefitting more than 1,000 children across Georgia. Oglethorpe Power also funded 16 college scholarships in 2022, awarded to students within the rural geographic footprint of its generation assets. Oglethorpe Power also made a positive impact in the lives of students in the Siha District of Tanzania in East Africa, by mentoring engineering students on a wind energy project through the Ubora Partnership. Closer to home, Oglethorpe Power donated four acres of land for the construction of a fire station adjacent to a rural generation asset in middle Georgia, and set a fundraising record for the US Army Rangers 75th Ranger Regiment located in Savannah, Georgia.

GEFA frequently meets with city council members, local chambers of commerce, and other community groups. GEFA also has a number of programs to help communities improve energy management and knowledge. For example, the Technical Assistance Program for Schools (TAPS) helps school districts (K-12) develop and implement an energy management program to improve energy efficiency to reduce energy consumption and costs, while also developing a communication plan to educate the public.

Georgia System Operations Corporation (GSOC) also supports numerous charities and community service entities. Moreover, like most cooperatives, GSOC adheres to Cooperative Principle #7: Concern for Community, through multiple outreach and support efforts, from direct community outreach to supporting employees as socially responsible community members through volunteerism. GSOC's corporate volunteer program, PowerAid, gives employees 16 hours each year for volunteering. GSOC also hosts group projects in support of its community.

Georgia Transmission Corporation (GTC) takes pride in focusing on local education as evidenced in its partnership with Tucker Middle School. Specifically, GTC assists the school in its efforts to become the first middle school in the state to achieve STEM certification. Additional activities included a routing and siting project, Haiti Sustainability Project which resulted in a diverse all-female student team named semi-finalist of the Lexus Eco-Challenge Award for Air and Water, sponsoring an 8th grade class trip to a dairy farm, organizing several career fairs with local STEM-related organizations within the community, and providing a summer internship to one of their STEM educators. In addition, the FOC regularly participates in Career Days events at various schools across the state as an industry partner and leader in awarding scholarships to students seeking a career in STEM.

Green Power EMC and its member EMCs have nearly 40 operational solar sites across Georgia, many of which are utility-scale. These provide new construction jobs and rural workforce development and contribute significant new tax revenue that supports some of Georgia's most rural economies, governments, and school systems. To date, Green Power EMC's solar projects have generated more than 5,000 temporary construction jobs in Georgia and will add another 1,000 positions to complete projects under construction over the next three years. Additionally, Green Power EMC solar sites are scheduled to contribute more than \$184 million in tax revenue, charitable contributions, and support for local development authorities in some of the state's poorest communities. In addition to sourcing renewable energy, Green Power EMC offers the SPARK Energy Education Program®, a multi-disciplinary program that provides curriculum and educational tools to teach students about energy production, conversion and efficient use. To date, the program has more than 200 participating schools, trained approximately 650 teachers and reached more than 10,000 students across Georgia. Green Power EMC also earmarks annual funding for grant opportunities for renewable energy STEAM activities for students. These programs have supported an effective partnership between EMCs and local schools and represent a positive illustration of electric cooperatives' commitment to education and concern for the community.

GEFA and the FOC understand that proactive engagement with local stakeholders leads to community trust, stronger project plans, increased transparency, and the reduction or elimination of certain associated risks. Accordingly, this project will provide meaningful community and labor engagement by coordinating with a wide range of state and local stakeholders. Partner commitments in the overall project implementation and community benefits include the following:

- Technical College System of Georgia (TCSG) will leverage existing career and technical education pathways to recruit and train labor for long term energy work in DACs.
- The Georgia Rural Electric Managers Association (GREMA) will utilize its existing education platform to engage project stakeholders about project benefits and ensure the full impacts of the project’s energy resiliency and community development benefits are realized.
- Clean Cities Georgia will provide and promote community education around EV adoption and implementation in DACs.
- Groundswell will advise the FOC and help implement a community engagement plan in each project community to gather insights on the value of energy resilience from DACs impacted by the project.
- Georgia EMC will provide opportunities for the FOC to educate its association membership on the progress of the projects and the community benefits they are providing in the designated DACs.

The following table illustrates the collaborative project investment in Community and Labor Engagement.

Community and Labor Engagement	
SMART Milestones	Measures
Hold community engagement events (forums and/or focus groups) to obtain community feedback	<ul style="list-style-type: none"> • A minimum of one community engagement event conducted per project • The number of attendees at each event
Gather community input through outreach and communications to member-owners to provide information and collect feedback on project	<ul style="list-style-type: none"> • Quarterly member communications per Budget Period • One member-owner survey per Budget Period • Number of members responding to each survey; survey data
Co-create WCAs with participation of member-owners, unions, higher education, and/or workforce development organizations	<ul style="list-style-type: none"> • The number and type of WCAs and formal agreements established and implemented
Resources: Anne Lerner, GTC Public Affairs Director (.5 FTE) will oversee the implementation of community engagement activities with cooperative member-owners serving residents in this project area, local residents, unions, and other community stakeholders. Georgia Transmission Corporation Resources dedicated to Community Engagement include \$465,000 to cover cost of facilitation and materials for public meetings and community events.	

2. Investing in the American Workforce

Skilled Workforce

GEFA’s core values and founding legislation are rooted in job growth and economic opportunity. Established in 1985, GEFA found “that the availability of adequate environmental facilities is an important element in the ability of a community to provide for the continuing economic growth and development that provide jobs for the state’s citizens,” and the work of the Authority and the Energy Resources Division have put an emphasis on improving Georgians quality of life and achieving sustainable economic growth, both of which include access to high quality jobs.

GEFA operates several programs with the goal of developing a trained workforce to fill quality jobs in the energy efficiency and utility industry. For example, GEFA provides scholarships for K-12 and higher education building maintenance operators to receive the nationally accredited

Building Operator Certification® training. Building Operator Certification® (BOC) is the leading training and certification program for building engineers and maintenance personnel.

Similarly, the FOC provides on-going job-related training, development, and educational assistance to enhance employees' skills. Associates are enabled to apply for positions throughout the FOC in an effort to support continuous opportunities, growth, and diversity within the organizations. For example, the Georgia Transmission Corporation University (GTCU) programmatic initiative is a voluntary talent development program for associates and managers. GTCU offers several programs, including Job Rotation and Management Development. The programs are designed to share knowledge that is critical to the business, develop core corporate competencies, and provide opportunities for personal and professional growth. Oglethorpe Power also offers ongoing education and development for improving career skills through EmpowerU. The program offers a variety of required and voluntary learning opportunities through traditional classroom courses, online training, on-the-job training, job shadowing, mentoring, site tours and special projects.

The FOC also recognizes the importance of pre-apprenticeship or Registered Apprenticeship programs within the scope of the industry and is a member of the state-wide Georgia Energy and Industrial Construction (GEICC). The consortium's membership consists of energy utilities, industrial construction, educators, skilled trade organizations, and other related workforce entities interested in building an energy workforce talent pipeline. The FOC is also a member of a national organization, the Center for Energy Workforce Development (CEWD) where the emphasis is building the energy talent pipeline at the national levels. Both entities support community-based workforce development organizations such as Registered Apprenticeship programs. The organization established a scholarship fund with two technical colleges to support students interested in becoming utility lineworkers.

The FOC also works closely with regional universities to identify students to participate in Co-op and Intern Programs. GTC had 9 students participate in this program in 2021 and 17 students participate in 2022, while OPC employed 4 student co-ops and 5 student interns in 2021 and 2022. The co-op and internship opportunities are targeted toward engineering, business, computer science, and finance majors. The students who are selected to participate in the program receive on-the-job training during their assigned work semester. Compensation is consistent with the education and experience level of the student. Upon graduation, the student may be offered full-time employment with the FOC, through the Co-op to Hire Program that was implemented in 2022.

The FOC employs a collaborative, diverse workforce where associates are empowered, respected and valued. For example, OPC's workforce is comprised of 19% minorities, 26% females and 21% veterans, and is guided by a seven-member executive leadership team, of which 57% is female. Likewise, GTC employs a workforce comprised of 31% minorities, 25% females, and 5.3% veterans. GTC is guided by a 9-member executive leadership team, of which 33% are female. GSOC employs a workforce composed of 40% minorities, 37% females and 36% veterans. GSOC is guided by a nine-member executive leadership team of which 22% are minorities and 11% are

female. Due in part to the aforementioned FOC training and safety programs, the companies have a low employee turnover rate of (b) (4) for OPC, (b) (4) for GTC and (b) (4) for GSOC. The average tenure of an OPC, GTC and GSOC employee is (b) (4) years, respectively.

Safety is also a top priority for the FOC. The organizations conduct monthly safety meetings to provide continuous education to all employees. There are several safety teams consisting of employees throughout the organization focusing on safety at the job site, corporate headquarters, the warehouse and training center. Jobs in safety sensitive areas receive mandatory training.

Violations

Over the past two years, none of the project leads have been found in violation of any provision of the National Labor Relations Act, Fair Labor Standards Act, Occupational Safety and Health Act, Service Contract Act, Davis-Bacon Act, or Title VII of the Civil Rights Act. The community and workforce partnerships described above will ensure a robust training-to-employment pipeline for fair project labor.

In partnership with three co-owners, Oglethorpe Power is building the first advanced commercial nuclear project in the United States in more than 30 years, Plant Vogtle Units 3 and 4. Once online, Oglethorpe's ownership in these nuclear units will add more than 600 MW of reliable, emission free energy to its' resource mix. Vogtle 3 & 4 is the largest job-producing construction project in the state of Georgia and among the largest in the nation. Throughout the Vogtle 3 & 4 project, Oglethorpe has heavily utilized and depended on a trade union workforce. The peak number of skilled craftworkers employed on site was more than 8,000 workers in 2020, and currently there are more than 2,000 skilled craftworkers actively employed on the project. According to the North America's Building Trades Union (NABTU), these craft workers installed more than 3 million feet of cable, 90,000 cubic yards of concrete, 16,000 tons of structural steel and 250,000 linear feet of pipe. The Vogtle 3 and 4 project is one of the largest union construction projects undertaken in the United States.

Job Retention and/or Transition

The State of Georgia has prioritized assistance for rural, disadvantaged communities through an aggressive approach to attract economic development opportunities outside the affluent 10-county metro Atlanta area. Since 2019, 119,963 new jobs and more than \$42.9 billion in investment have been announced in communities across Georgia. Of those announcements, 77% of the state economic development projects, 81% of investments, and 57% of these new jobs have gone to communities in rural Georgia. An estimated (b) (4) jobs will be required to complete the proposed project work. This includes a mix of professional and hourly workers who will be employed by the FOC's contractors or sub-contractors. Most of the jobs will be in the physical construction of (b) (4) transmission lines, and substation modifications. Additionally, commissioning, on-site project management and dedicated safety personnel will be utilized to ensure that each project is completed safely and on schedule.

The following table illustrates the collaborative project investment in the American Workforce.

American Workforce Investment	
SMART Milestones	Measures
Contract with local labor that offers good-paying, secure, and accessible jobs;	<ul style="list-style-type: none"> GRIP project labor contracts will be competitively bid using federal non-discriminatory practices and will use good faith provisions to hire local, MWBE, and organized labor where possible % contracts awarded to diverse contractor/suppliers during Construction Phase
Expand existing and/or create new workforce development (WFD) partnerships, prioritizing underrepresented populations and residents of rural DACs	<ul style="list-style-type: none"> Increase the number of participants in Registered Apprenticeship Program from year to year, per Budget Period Increase the number of internships for college students when possible Maintain existing WFD partnerships per Budget Period with higher education and Registered Apprenticeship partners (3 total)
Conduct outreach at K-12 schools, colleges, public job centers throughout the service area, DACs, and underrepresented populations	<ul style="list-style-type: none"> Number of outreach activities per Budget Period to attract local job candidates The number of participants reached per outreach event (attendance)
Resources: Participation in career awareness events, mock interviews, classroom visits, and events in local communities. Anne Lerner, GTC Public Affairs Director (.5 FTE) will oversee all project community engagement activities. This project will include at least two outreach activities per Budget Period and the development of workforce partnerships. The project Technical Leads include GTC's VP System Planning Joe Sowell, and Oglethorpe's VP Emerging Technologies, Jeff Pratt. Both leads will be responsible for ensuring fair labore procurement, workplace safety, and training.	

3. Diversity, Equity, Inclusion and Accessibility

As equal opportunity employers, GEFA and the FOC are committed to advancing equity for DACs and those who are underrepresented in the energy sector. DOE's investment in this project will advance equity, civil rights, racial justice, and equal opportunity by supporting member-owned cooperatives that prioritize Diversity, Equity, Inclusion, and Accessibility (DEIA) throughout internal structures, policies and practices, and employee benefits. Likewise, the FOC offers a collaborative workplace environment where diversity and talent are valued. All of the entities within the FOC adhere to federal prohibitions against federal contractors and subcontractors discriminating in employment decisions on the basis of race, color, religion, sex, sexual orientation, gender identity or national origin (i.e. Executive Order 11246) and conduct annual training with management to ensure compliance. The FOC completes an annual Affirmative Action Plan. The plan data is routinely reviewed to identify opportunities to enhance recruiting efforts in underrepresented job groups. The annual recruiting plan typically includes Historically Black Colleges and Universities (HBCU's), the Society for Women in Engineering career fair and Recruit Military career fair, to name a few.

The FOC also actively works to advance diversity and inclusion in the electric sector as part of business activities. As an example, GTC is establishing an Innovation Center in the development of a microgrid in Forsyth, Georgia. This center will enhance the knowledge of cooperatives and the communities they serve through the demonstration of green energy initiatives and distributed energy resources. To ensure that all communities are equitably impacted by the benefits of the innovation center, GTC has partnered with Fort Valley State University (FVSU) which is part of the Georgia HBCU system. Other examples include GSOC's support of local minority-owned businesses and the Celebrating Culture program which provides information

that celebrates the various cultures within the organization. GSOC also has a Diversity and Inclusion team that's established to address ways to further its culture of diversity and inclusion.

In Executive Order 07.13.22.01, Governor Kemp directed the hire of a Small Business and Supplier Diversity Manager within the Department of Administrative Services (DOAS) to facilitate communications and engagement with minority owned small businesses and help them navigate the state's contract process. To enhance diversity and inclusion in contracting, the FOC will commit to allocating at least 25% of all DOE and match funds spent on contractual agreements to MWBE/DBEs. This allocation ensures that a significant portion of the funding directly benefits these businesses. This commitment relies on the availability of qualified MWBE/DBE bidders to perform the work and a cost comparison within 15% of other qualified bidding parties. Additional preference will be given to contractors who utilize unionized crews. This step acknowledges the importance of supporting the union workforce and the expertise they bring to projects. Furthermore, the FOC will prioritize contractors who commit to hiring from Georgia disadvantaged communities.

The following table illustrates the collaborative project investment DEIA+.

DEIA	
SMART Milestones	Measures
Identify ways to increase knowledge of employee data through opportunities to self-report within applicant and employee systems; expand DEIA tracking	<ul style="list-style-type: none"> Number of women, veterans, and minorities employed
Provide anti-bias and other DEIA trainings consistently throughout the project period of performance	<ul style="list-style-type: none"> Number of DEIA trainings provided per Budget Period Participant feedback
Maintain active Employee Resource Groups (ERGs) supporting underrepresented workers	<ul style="list-style-type: none"> Number of participants in each ERG Number of ERG events per Budget Period
Conduct consistent outreach via workforce training organizations serving underrepresented individuals and those facing barriers to quality employment	<ul style="list-style-type: none"> Number and type of partnerships with workforce development agencies serving underrepresented populations Number of outreach activities per Budget Period to attract local job candidates from DACs and underrepresented populations
Continue existing Buy Local Program commitment to prioritizing classifications of diverse suppliers/contractors whenever possible	<ul style="list-style-type: none"> % of project contracts awarded to diverse contractor/suppliers per Budget Period
Provide funding for community organizations providing wraparound support services for workers with barriers	<ul style="list-style-type: none"> Dollar amounts allocated per Budget Period for local community organizations to provide specific and measurable supports in project target communities
Resources: The Corporate and Social Governance Council of each project lead entity will be responsible for ensuring the project outreach, education, and procurement activities adhere to the DEIA mandates of each respective organization and the State of Georgia.	

4. Justice40 Initiative

Disadvantaged Communities

The FOC generates, transmits, and delivers energy to 38 distribution electric cooperatives, which in turn provide electricity to approximately 95% of the 34,077 square miles of the Justice 40 Initiative census tracts in the State of Georgia (Figure 1). The FOC's service area encompasses more than 70% of the land area in the state of Georgia. As shown in Figure 1, over 40% of the FOC's service area is located within federally identified disadvantaged census tracts, including

more than 100 counties that exceed Georgia’s statewide poverty rate. Moreover, a large proportion of the disadvantaged communities served by the FOC are predominantly rural with low population densities. DOE funding of this grant proposal will benefit communities within 27 census tracts, 9 of which are DOE-designated DACs (however nearly all the proposed projects benefit DACs through project location and distribution service), by limiting rate increases otherwise required to finance resilience improvements. Because the cost of transmission improvements is generally either spread systemwide or assigned to specific EMCs that benefit from a project, often the low population densities make resilience projects disproportionately burdensome and thereby unavailable for rural ratepayers. Any federal assistance will decrease the energy burden on disadvantaged households that spend a higher proportion of income on electricity bills while simultaneously increasing the resiliency and reliability of electricity. By focusing this proposal’s resilience benefits on DACs, these communities will see improved electric reliability and infrastructure which will increase renewable energy development and other economic opportunities where they are most needed.

The projects in this grant application are a comprehensive, innovative rural- and equity-focused grid resilience project that will transform grid service in Georgia (including underserved communities) and provide a cost-effective/replicable pathway to fully integrate anticipated load and generation shifts, while helping to meet decarbonization goals. Specifically, the projects will deploy an innovative suite of grid and distributed energy resource (DER) solutions that will address critical resiliency issues, reduce outages / increase reliability in underserved rural and some urban areas, and enhance resource adequacy systemwide. Collectively, these Elements will greatly reduce service interruptions—particularly those endured by underserved rural communities and those historically affected by environmental justice considerations.

The proposed project is a bundle of (b) (4) distinct subprojects affecting (b) (4) census tracts throughout the State of Georgia, including (b) (4) DOE-designated DACs (nearly all projects benefit DACs due to project site location and distribution service) as outlined in the following table.¹ These rural communities are all characterized by multiple DOE energy justice indicators, including higher rates of socioeconomic vulnerabilities, climate hazards, unemployment, and lower rates of income, high school educational attainment, and access to jobs.

Location	DAC Score <i>Cumulative burden, sum of the percentiles across DOE’s 36 indicators</i>	State Rank <i>The rank of the DAC score for the tract as a percent of the state data</i>
(b) (4)		

¹ U.S. Dept. of Energy, Energy Justice Dashboard, accessed May 8, 2023.

(b) (4)		

Benefits to DACs

The average U.S. electricity customer experienced nearly 20 more minutes of power interruptions in 2020 than in 2017.² An Energy Information Administration (EIA) study from 2015 showed that cooperative utilities reported the most frequent and lengthy outages on average compared to municipal and investor-owned utilities.³ The economic impact of power outages is varied and can be significant. Commercial and industrial customers suffer from loss of productivity, sales, and output, resulting in direct financial losses. Residential customers experience economic losses as a result of food spoilage or lost productivity, and may also be adversely affected by indirect costs such as inconvenience, anxiety, and discomfort. The project will address the Justice40 initiative by providing outcomes and data that supports energy equity, community engagement, and energy access. Energy access and climate change concerns drive the project momentum towards more sustainable and reliable energy systems – a “just transition.”⁴

Decreasing energy burden, increasing resiliency against climate risk, and increasing parity in clean energy technology access and adoption are goals built into the proposed work strategically sited to provide benefits to surrounding DACs. When complete, the project will enable the FOC to modernize critical elements of its existing grid system and provide much-needed system and community level benefits. Specifically, the proposed project will reduce the average duration of grid down / blackout and brownout events by an estimated (b) (4) across the Project Area—which represents a significant proportion of disadvantaged / underserved communities and 65% (Figure 1) of the land area of the state of Georgia (E1). The (b) (4) storage Element will enable and greatly support future private sector investments in facility-specific resiliency and load optimization measures, while improving grid operational flexibility (E1). All three infrastructure deployment Elements (E1 to E3) will help to alleviate grid blackouts and brownouts during extreme weather events, while the proposed control system upgrades will provide the critical system management systems needed to optimize resiliency and effectively integrate the

² U.S. Energy Information Administration Annual Electric Power Industry Report, October 6, 2022.

³ D. Darling and S. Hoff, "EIA Data Show Average Frequency and Duration of Electric Power Outages," U.S. Energy Information Administration Technical Report, September 2016.

⁴ Just Transition is defined as “a vision-led, unifying and place-based set of principles, processes, and practices that build economic and political power to shift from an extractive economy to a regenerative economy” (Climate Justice Alliance, <https://jtalliance.org/what-is-just-transition/>).

proposed equipment with the FOC's existing infrastructure. Finally, the project will support critically-needed community benefits including significant capital investment in local communities, direct service improvements in rural disadvantaged areas, increased energy democracy, mitigation of historic environmental justice considerations in Justice40 communities, reliability improvements to critical community services and emergency response facilities during extreme weather events, and direct benefits to low-income households by limiting project cost impacts. Transmission and battery storage infrastructure will enable increased deployment of emission-free intermittent generation in Georgia, such as utility-scale solar.

Anticipated Negative and Cumulative Environmental Impacts to DACs

There are no anticipated negative or cumulative environmental impacts to DACs as a result of the proposed project. GEFA and the FOC will make every effort to ensure that no environmental harms result from the proposed project. The Environmental Questionnaire describes how GEFA and the FOC will engage with NEPA and community stakeholders to mitigate any adverse environmental and community impacts associated with the project. There are no Superfund sites or hazardous waste facilities in the project target communities.⁵

The proposed project will extend multiple energy and community resilience benefits to high-risk communities. Based on the FEMA National Risk Index for the 9 identified DACs (nearly all the proposed projects benefit DACs due to project site location and distribution service), there are multiple risk factors for climate and social vulnerabilities across four of these communities. Risk Index scores are calculated using an equation that combines scores for Expected Annual Loss due to natural hazards, social vulnerability, and community resilience, and are composite scores for 18 hazard types. Without the energy resiliency and climate adaptation strategies outlined in this proposal, these risks will likely increase. As evidenced by the following table, these communities are at significantly high risk in the state for climate hazards, with low community resilience or social capital to meet these shocks.

DAC Environmental Risk Indicators⁶

Location	National Percentile	Georgia Percentile	Expected Annual Loss	Social Vulnerability	Community Resilience
(b) (4)					

⁵ EPA EJSCREEN tool (2.1), accessed May 1, 2023.

⁶ FEMA National Risk Index Mapper, accessed May 8, 2023.

How and when Anticipated Benefits Are Expected to Flow to DACs

To support energy justice in the targeted DACs, the proposed project will: (1) develop the skills and support the retention of project staff as they design, procure, construct, and prepare for the ongoing maintenance of the transformative grid resilience solutions, (2) leverage existing relationships with local institutions to support technical needs and engage the next generation of energy professionals in the opportunities and challenges of the electric industry, and (3) build upon existing experience and explore workforce development partnerships to include vulnerable populations. Anticipated benefits will flow to DACs impacted by the project both during the project period and after the project is completed. The planning phase will lay the groundwork for collaborations with community, labor, and workforce development partners. During the construction phase, contracting opportunities will be increased among MWBE/DBE and union contractors. Outreach through workforce development partners, local colleges, and residents of DACs will ensure that job opportunities, including opportunities to join Registered Apprenticeship programs, are made available and accessible to underrepresented populations and workers with barriers to employment. Once the project is completed, the project service area will benefit from reduced outage time as well as cost savings from avoiding dispatchable events. The project will also advance energy democracy by returning cost savings to cooperative member-owners by reinvesting the project cost savings into future energy equity and resiliency projects.

The following table illustrates the collaborative project investment in J40 communities.

Justice40	
SMART Milestones	Measures
Decrease in energy burden. DOE funding will enable the FOC to meet its resiliency targets—even in historically underserved and rural areas—while limiting capital costs.	<ul style="list-style-type: none"> Dollar amounts saved per Budget Period by reduced outage frequency and duration throughout the life of the project
Increased high quality job creation through investment and construction in the Project Area.	<ul style="list-style-type: none"> Number or percentage of residents from DACs enrolled in Registered Apprenticeships during each Budget Period Number of workforce partnerships per Budget period with colleges & workforce training programs serving DACs and underserved populations Amount of tuition reimbursements per each Budget Period Number and percent of jobs filled by residents of DACs
Increase in clean energy contracting opportunities for minority owned and disadvantaged business enterprises. The FOC will conduct market research to establish an achievable set-aside for these businesses, for contracts released under the project.	<ul style="list-style-type: none"> Number of contracts and/or value of contracts awarded to MWBE, veteran, and/or LGBTQ+ contractors per Budget Period
Improved energy democracy wherein the FOC's co-op integrated business model strongly supports continued community	<ul style="list-style-type: none"> Number of community engagement events per Budget Period to engage with organizations and residents of DACs; Number of participants at each event The annual member-owner returns per Budget Period

Justice40	
SMART Milestones	Measures
level input and ownership of the utility and its operations.	
Increased energy resilience and reliability including significant reductions in outage frequency and duration	<ul style="list-style-type: none"> Changes per Budget Period in SAIDI, SAIFI, and CAIDI metrics showing reduced outage frequency and/or duration
Resources: GFE's Director of Energy Resources and the project Business Lead, Kristofor Anderson, will be responsible for reporting on the outcomes of this section.	

Congressional Districts Served by Regional Grid Improvements to Address Reliability in Georgia with a Focus on Remote or Hard-to-Reach Communities

(b) (4)