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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:

UEI:

\* Street1:

Street2:

\* City:  County:

\* State:

Province:

\* Country:

\* ZIP / Postal Code:  \* Project/ Performance Site Congressional District:

**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:

UEI:

\* Street1:

Street2:

\* City:  County:

\* State:

Province:

\* Country:

\* ZIP / Postal Code:  \* Project/ Performance Site Congressional District:

**Additional Location(s)**

**Application for Federal Assistance SF-424**

* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify): <input type="text"/>
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* 3. Date Received: <input type="text" value="04/06/2023"/>	4. Applicant Identifier: <input type="text"/>
--	--

5a. Federal Entity Identifier: <input type="text"/>	5b. Federal Award Identifier: <input type="text"/>
--	---

**State Use Only:**

6. Date Received by State: <input type="text"/>	7. State Application Identifier: <input type="text"/>
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**8. APPLICANT INFORMATION:**

* a. Legal Name: <input type="text" value="Southern Maryland Electric"/>	
* b. Employer/Taxpayer Identification Number (EIN/TIN): <input type="text" value="52-0492367"/>	* c. UEI: <input type="text" value="ZY5SBCM43FN3"/>

**d. Address:**

* Street1: <input type="text" value="14950 Cooperative Place"/>
Street2: <input type="text"/>
* City: <input type="text" value="Hughesville"/>
County/Parish: <input type="text"/>
* State: <input type="text" value="MD: Maryland"/>
Province: <input type="text"/>
* Country: <input type="text" value="USA: UNITED STATES"/>
* Zip / Postal Code: <input type="text" value="20637-2499"/>

**e. Organizational Unit:**

Department Name: <input type="text"/>	Division Name: <input type="text"/>
---------------------------------------	-------------------------------------

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

Prefix: <input type="text"/>	* First Name: <input type="text" value="Ryan"/>
Middle Name: <input type="text"/>	
* Last Name: <input type="text" value="Edge"/>	
Suffix: <input type="text"/>	

Title: <input type="text"/>
-----------------------------

Organizational Affiliation: <input type="text"/>
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* Telephone Number: <input type="text" value="240-890-3213"/>	Fax Number: <input type="text"/>
---	----------------------------------

* Email: <input type="text" value="ryan.edge@smeco.coop"/>
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**Application for Federal Assistance SF-424**

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

N: Nonprofit without 501C3 IRS Status (Other than Institution of Higher Education)

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:**

SMECO Transmission, Distribution, and Communications Resiliency Initiative

Attach supporting documents as specified in agency instructions.

Add Attachments

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View Attachments

**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.

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**17. Proposed Project:**

\* a. Start Date:

\* b. End Date:

**18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="33,567,016.00"/>
* b. Applicant	<input type="text" value="15,642,000.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="49,209,016.00"/>

**\* 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

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**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:

**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. Transmission		\$	\$	\$ 8,777,000.00	\$ 4,323,000.00	\$ 13,100,000.00
2. Distribution				21,775,016.00	9,834,000.00	31,609,016.00
3. Communications				3,015,000.00	1,485,000.00	4,500,000.00
4.						
<b>5. Totals</b>		\$	\$	\$ 33,567,016.00	\$ 15,642,000.00	\$ 49,209,016.00

**SECTION B - BUDGET CATEGORIES**

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1) Transmission	(2) Distribution	(3) Communications	(4)	
<b>a. Personnel</b>	\$	\$ 1,809,016.00	\$	\$	\$ 1,809,016.00
<b>b. Fringe Benefits</b>					
<b>c. Travel</b>					
<b>d. Equipment</b>	3,512,500.00		3,512,500.00		7,025,000.00
<b>e. Supplies</b>					
<b>f. Contractual</b>	375,000.00	29,800,000.00	375,000.00		30,550,000.00
<b>g. Construction</b>	4,712,500.00		4,712,500.00		9,425,000.00
<b>h. Other</b>					
<b>i. Total Direct Charges (sum of 6a-6h)</b>	8,600,000.00	31,609,016.00	8,600,000.00		\$ 48,809,016.00
<b>j. Indirect Charges</b>					\$
<b>k. TOTALS (sum of 6i and 6j)</b>	\$ 8,600,000.00	\$ 31,609,016.00	\$ 8,600,000.00	\$	\$ 48,809,016.00
<b>7. Program Income</b>	\$	\$	\$	\$	\$

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**SECTION C - NON-FEDERAL RESOURCES**

(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	Transmission	\$ 4,323,000.00	\$	\$	\$ 4,323,000.00
9.	Distribution	9,834,000.00			9,834,000.00
10.	Communications	1,485,000.00			1,485,000.00
11.					
12. TOTAL (sum of lines 8-11)		\$ 15,642,000.00	\$	\$	\$ 15,642,000.00

**SECTION D - FORECASTED CASH NEEDS**

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$	\$	\$	\$	\$
14. Non-Federal	\$				
15. TOTAL (sum of lines 13 and 14)	\$	\$	\$	\$	\$

**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. Transmission	\$	\$	\$	\$
17. Distribution				
18. Communications				
19.				
20. TOTAL (sum of lines 16 - 19)	\$	\$	\$	\$

**SECTION F - OTHER BUDGET INFORMATION**

21. Direct Charges:		22. Indirect Charges:	
23. Remarks:			





**PROJECT TITLE: SMECO Transmission, Distribution, and Communications Resiliency Initiative**

**SPECIFIC TOPIC AREA: TOPIC AREA 1: GRID RESILIENCE GRANTS**

**TECHNICAL POINT OF CONTACT**

Hugh Voehl  
Transmission Engineering and Construction  
Director  
Hugh.voehl@smeco.coop  
301-274-4487

**BUSINESS POINT OF CONTACT**

Ryan Edge  
Director, Program Management Office  
ryan.edge@smeco.coop  
240-890-3213

**TEAM MEMBER ORGANIZATIONS:** South Maryland Electric Cooperative (Applicant)

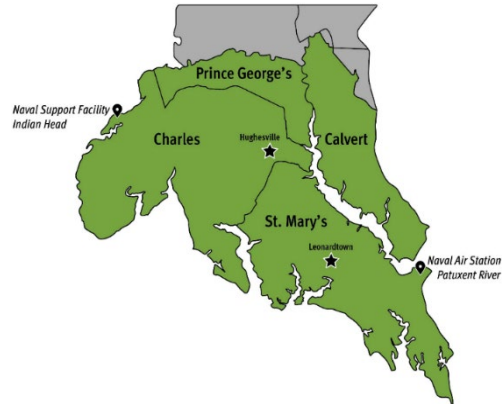
**PROJECT LOCATION(S):** Charles County, St. Mary's County, Calvert County, and Prince George's County.

**CONCEPT PAPER IDENTIFICATION:** TA1-351-E

**STATEMENT REGARDING CONFIDENTIALITY:** This proposal does not contain any confidential information.

## 1.0 Project Overview

**Executive Summary:** Southern Maryland Electric Cooperative (SMECO) seeks \$33.57 million from the Department of Energy’s Grid Resilience and Innovation Partnership (GRIP) program to fund its **Transmission, Distribution, and Communications Resiliency Initiative (TDCR)**. The TDCR Initiative implements vital components of SMECO’s overall holistic resiliency strategy, designed to fortify the grid system that serves four counties in Southern Maryland – Calvert, Prince George’s, St. Mary’s and Charles, a region that contains tribal land, Justice40 Census Tracts, and multiple disadvantaged communities (DACs). The TDCR Initiative will harden and enhance SMECO’s grid system. It is a result of SMECO’s 360-degree culture of resilience, encompassing its integrated work in planning, construction, maintenance, and customer service. System investments include:



- **Transmission** – Needed replacement of aging poles and conductors and the addition of line differential protection relays.
- **Distribution** – Strategic line upgrades and undergrounding at vulnerable locations.
- **Communications** – Expansion of forward-thinking fiber optic telecommunications capabilities that will support smart grid deployment throughout its entire grid system.

With DOE funding, SMECO will mitigate upward pressure on customer rates, implement needed upgrades on its system using a proactive and environmentally sound construction plan (the targeted transmission line is sited in protected wetland areas), and increase investment into the communities it serves. Most importantly, there is a national vested interest in these upgrades, as multiple federal agencies rely on SMECO’s grid system for their day-to-day operations.

**1.2 Project Goal:** The goal of this project is to proactively upgrade and modernize vital grid infrastructure to increase resilience, harden the grid system against known threats, including those exacerbated by the effects of climate change, provide benefits to the community, and ensure environmentally sound practices in protected wetlands. SMECO’s program includes consideration of future shifts in generation and load, including DER integration and population growth. These investments will improve reliability and resilience by upgrading aging infrastructure, hardening against climate change-related hazards, and supporting the clean energy transition in Southern Maryland. Currently,

**Targeted Improvements to SMECO’s Baseline Infrastructure:** SMECO will deploy a comprehensive suite of coordinated resiliency investments across its diverse service territory. The work aligns with the following four categories.

**(1) Targeted Improvement - Transmission: Replace and harden four 69-kV transmission lines.** Steel structures will replace deteriorated wooden H-frames (some more than 60 years old) that support the Chalk Point to Hughesville Transmission Line to significantly improve reliability, safety, and resiliency for more than 28,000 customers directly served (up to 115,000 during contingencies). This proactive measure will mitigate the risk of long-duration outages (emergency repairs could take up to four days) due to its remote location. Further, it will reduce acute harm to sensitive wetlands where the lines are sited, because the construction plans actively mitigate ecosystem impacts. This contrasts with emergency repairs in response to outages that do not allow for more proactive environmental measures.

**(2) Targeted Improvement - Distribution: Retrofit and harden the distribution system with strategic undergrounding and replacement of aging conductors and the addition of feeder tie lines.** Undergrounding and replacement of aging lines, some of which are copper, will significantly improve resiliency by reducing susceptibility to extreme weather and outages in 39 specifically targeted locations. Additionally, the installation of tie lines will allow crews to better isolate faults to fewer affected customers while restoring service more quickly by feeding from adjacent circuits.

**(3) Targeted Improvement - Communications: Install a fiber optic loop and extend connectivity to additional infrastructure.** SMECO will install high-capacity optical ground wire (OPGW) along seven transmission lines and create a fiber loop that encompasses five distinct communities. It will extend a synchronous optical network (SONET) ring to two currently unconnected substations. It will also establish new fiber optic connectivity to remote sites in a ring configuration, allowing data to travel either way to reach its destination (no single point of failure). The upgrades will expand situational awareness across SMECO's grid system to improve fault detection and management, which together translate into improved system resiliency. The fiber upgrades will support future smart grid investments, including applications that enhance DER integration.

**(4) Targeted Improvement - Community Benefits:** SMECO will invest up to \$150,000 over the grant term to advance educational and economic opportunities to community-based organizations (CBO) within the service area that align with Justice40 Initiatives. SMECO's service territory includes multiple tribal lands and DACs that will benefit from these investments by virtue of a more reliable grid, local economic development, and SMECO's enduring commitment to its region.

**Critical Success Factors:** The proposed project has several unique factors that will contribute to its success. SMECO crafted the TDCR to incorporate several unique factors that will contribute to its success by securing needed resources and mitigating potential barriers. Work locations have been determined – all work will occur in existing rights-of-way or SMECO facilities and will not require new habitat encroachments. Permitting has been or is in the process of being obtained. SMECO owns all related infrastructure. SMECO has access to a skilled workforce (including staff and local businesses) to implement the work - potential contractors have been identified and are informed of the project and potential start dates. Finally, all community benefit mechanisms are in place and will be enhanced or leveraged for the TDCR Initiative.

**Impact of DOE funding:** Funding will have a profound effect on SMECO’s system performance, rate impacts for its members, and vibrant economic activity in the region.

1. **Transmission:** Without DOE funding, these improvements could face delays, risking circuit failure and subsequent emergency repairs that could affect customer usage, safety, and disturb sensitive local wetlands.
2. **Distribution:** These investments could be delayed without DOE funding. Higher costs compared to traditional overhead distribution have naturally created hesitancy among states and local municipalities to mandate undergrounding. The DOE stated in March 2022, “Cost-effectiveness depends on (1) the age/lifespan of existing overhead infrastructure; (2) whether economies of scale can be achieved; (3) the vulnerability of locations to increasingly severe and frequent storms; and (4) the number of customers per line mile.”<sup>1</sup> Under this formula, SMECO has a proven case for DOE investment.
3. **Communication:** This component will not advance without federal funding support.
4. **Community Benefits:** Without DOE funding, economic activity, job creation, and opportunities for organized labor and diverse communities may be hindered. SMECO’s grid will benefit from the local capital infusion as well as the community at large.

**Summary of Benefits to Local Communities and DACs:** SMECO has long played a role as a leading donor in Southern Maryland. Since 2013, SMECO has awarded funds to The Wounded Warrior Project (*veterans*), Safe Harbor in Calvert County (*homelessness*), and the Southern Maryland Food Bank (*food insecurity*), among many others. DOE funding will enable SMECO to invest up to \$150,000 over the grant term in CBOs with missions that align with Justice40 initiatives. SMECO will continue to work with populations in and around its region to ensure that DACs throughout Southern Maryland can realize TDCR Initiative benefits.

**Summary of Workforce Benefits:** Investing in the future energy workforce is vital to the sustained health and growth of the nation’s grid system and will leverage several developed programs to encourage, support, and train new leaders. For example, SMECO offers a Department of Labor Registered Apprenticeship in Technical Engineering (in partnership with the College of Southern Maryland), on-site training programs, and various scholarship and mentorship programs from K-12 STEM exploration to leadership mentoring for SMECO employees.

**SMECO’s TDCR Initiative is a Matter of National Interest:** There is a vested national interest in increasing the resiliency of SMECO’s grid system. In a January 12, 2023 filing by the US Department of the Navy on behalf of all Federal Executive Agencies (FEAs), the following was stated in the record: “**FEA is one of the largest purchasers of electric services in the SMECO service territory and has a strategic and vital interest in securing reliable energy at a fair and**

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1. <sup>1</sup> “Resilient Power Grids: Strategically Undergrounding Powerlines.” Department of Energy, 22 March 2022, [Link](#).

**reasonable cost.**<sup>2</sup>Multiple Naval bases, and many federal remote workers, rely on SMECO's grid for day-to-day operations. The resiliency investments identified in the TDCR Initiative have a cumulative effect on the entirety of SMECO's grid system.

**Strategy for Sharing and Maximizing Project Benefits Across DACs:** SMECO's process fully aligns with the goals and mission of GRIP's four priority community benefits goals.

- **Supporting meaningful community and labor engagement:** SMECO will fully engage the community and related labor in developing meaningful interventions and strategies at every level of implementation. Additionally, SMECO will engage minority-owned small businesses in pre-bid qualification to increase and diversify its possible pool of suppliers. SMECO currently has an MOU with the State of Maryland that sets a goal to procure 25% of eligible spending from diverse businesses.<sup>3</sup> SMECO is recognized as a leader in DEIA integration among small businesses in the region, enhancing their ability to successfully bid on lucrative projects, increasing revenue, and bringing more local jobs.
- **Investing in the American workforce:** SMECO will seek to meet and exceed the local prevailing wage and benefits related to this program in construction and ongoing operations. SMECO supports union participation among its employees and recently renewed its collective bargaining agreement with its staff and the International Brotherhood of Electrical Workers (IBEW) Local 1718 for another five years. SMECO will leverage its longstanding relationship with the College of Southern Maryland (CSM) to advance career opportunities for people within and surrounding the service region.
- **Contributing to the goal that 40% of the overall benefits flow to disadvantaged communities:** This project has strong downstream benefits across DACs. According to the ArcGIS Mapping Tool, SMECO serves one DAC in Calvert County and another in St. Mary's County. These communities are among 246 tracts across Maryland and could benefit from investments like the TDCR Initiative. Finally, the disadvantaged communities of Nanjemoy and Waldorf in western Charles County will directly benefit from this program. Nanjemoy has been acutely affected by storms as recently as January 2022. Due to its heavily wooded areas, the community is particularly vulnerable to outages resulting from severe weather. Waldorf has a high minority population (Black – 63% as of 2020). Many overhead to underground conversion projects of the TDCR Initiative will occur in these areas, increasing safe, reliable service – and jobs - to this community.
- **Tribal Lands:** The anticipated project benefits of the TDCR Initiative will impact indigenous communities. Most notably, these include bands of the Piscataway Tribe (Chaptico, Moyaone, Nanjemoy, and Potapoco) and the Moyaone Reserve located in Accokeek, Prince George's County. The Piscataway are the first tribes to be officially recognized by Maryland and have been active in Annapolis regarding their official status. They have had a presence in Charles and St. Mary's counties for many years.

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<sup>2</sup> Case No. 9688, Maryland Public Service Commission, filed December 2, 2022. [Link](#).

<sup>3</sup> "Supplier Diversity Program – Southern Maryland Electric Cooperative." *Southern Maryland Electric Cooperative*, [Link](#).

Additionally, the Moyaone Reserve is nationally recognized for its abundant vegetation and serves as an important wildlife habitat.

**Long-Term Constraints on Natural and Cultural Resources:** This project has major site constraints that require expertise in environmentally sound implementation strategies. SMECO maintains grid assets in an environmental footprint established decades before the Environmental Protection Agency even existed. As such, SMECO strives to protect and mitigate the impact to sensitive areas while maintaining legacy infrastructure in locations suitable for the 1960s that may not meet 21<sup>st</sup> Century environmental siting constraints were the lines to be built new today. SMECO has received, or are currently seeking, regulatory approvals to conduct maintenance, repair, and upgrade work related to the TDCR Initiative. A key aspect of the transmission work will be proactively replacing infrastructure in wetland areas that will have a lesser environmental impact than emergency repair work in the event the aging infrastructure fails. The approach makes fewer touchpoints with the ecosystem for heavy equipment because planned work allows for a more delicate approach than emergency fixes.

New steel poles will replace creosote-laden wooden poles, removing a known toxic chemical from the location. Other mitigation strategies include: 1) Adhering to federal NEPA and MD permitting guidelines to ensure environmental protection against wetlands and clean water contamination; 2) Proactive, environmentally responsible upgrades using swamp/bridge matting for repairs to reduce the impact on the surrounding wetlands; and 3) Engaging with a GIS consultant to accurately assess environmental impacts and develop strategies for mitigation. SMECO relies on Best Management Practices to minimize indirect wetland and watershed impacts. This includes obtaining Sediment and Erosion Plan approval from local county agencies in compliance with state standards. These plans detail the measures taken to prevent runoff and sedimentation.

## **2.0 Technical Description, Innovation, and Impact**

### **2.1 Relevance and Outcomes: Detailed Project Description (Detail, Outcomes, and Technology Used)**

The TDCR Initiative is part of SMECO's 12-Year Electric System Plan, a fully integrated design that will strategically and systematically improve service reliability and resiliency across SMECO's service area. The components below for which SMECO seeks funding are the most vital and urgent system needs.

**Technical Transmission Component:** This component will rehabilitate an existing 69-kV line that serves more than 28,000 customers under normal configuration and potentially tens of

thousands more during contingencies. The work also includes enhanced relaying with the addition of line differential protection.

<b>Table No. 2A: SMECO Resiliency Project Components (by Number/Title and Description) - TRANSMISSION</b>
1.1 Chalk Point to Hughesville Transmission Line: Replace aging 69-kV lines and deteriorating wooden H-frame infrastructure with new lines and stronger steel structures. The existing infrastructure is sited directly in a wetland. This upgrade will harden a transmission segment that supplies nine substations, 28,000 customers, and has indirect effects on much of SMECO's service area.
1.2 Line Current Differential protection relaying scheme: This component will deploy line-differential relaying to improve circuit protection and fault detection and isolation.

**Technical Distribution Component:** This component will upgrade more than 75-line-miles of distribution feeders to improve traditional reliability metrics, increase capacity, reduce exposure to threats, and eliminate single points of failure. It includes undergrounding 24.9 miles of overhead line, replacing 37.9 miles of aging conductors (including copper), and the addition of three new feeder tie lines. Tie lines reduce outage restoration times by allowing crews to feed from adjacent circuits to restore power to customers that would have been affected by an outage. Undergrounding will reduce the vulnerability to downed trees, high winds, and similar environmental hazards. In total, this element will directly improve resiliency and reliability for at least 3,360 customers.

**Table No. 2B: SMECO Resiliency Project Components (by Number/Title and Description) - DISTRIBUTION**

2.1 Carrington OH to UG conversion PH 5: Line undergrounding, 3.5 miles
2.2 Maryland Point Road, Riverside Road: Line undergrounding, 4.2 miles, 159 customers
2.3 Hickory Ridge new 750 main line: New line installation for resiliency / redundancy to address peak winter load resiliency, 0.5 mile
2.4 Big Road and Woodbank Road: Copper wire replacement, 2.2 miles
2.5 Long View Beach: Line undergrounding, length TBD
2.6 Chaneyville Rd from Farmview Ct to Flint Hill Rd: Feeder line capacity improvement, 1.5 miles, 187 customers
2.7 Parkers Wharf Road, Patuxent Drive, Briscoe Road: Copper wire replacement, 3.2 miles, 67 customers
2.8 McMichaels Drive, Gray Drive, Sachem Drive, Overlook Drive, Iroquois Way: Copper conductor replacement, 1.2 miles, 86 customers
2.9 Bellwood Ln, St. Andrews Ln, Parkview Dr, Louis Dale Rd: Copper wire replacement, 1.1 miles, 110 customers
2.10 Ripley Road: New line installation to remove bottleneck, improve feeder tie quality, 2.2 miles, 116 customers
2.11 Adams Willet Road: Line undergrounding, 3.0 miles, 48 customers
2.12 Big Chestnut Road: Copper wire replacement and line undergrounding, 2.7 miles, 41 customers
2.13 Teagues Point Road: Line undergrounding, 2.8 miles, 224 customers
2.14 Baden Westwood Road: Line upgrade and replacement project to improve reliability, 1.4 miles, 198 customers
2.15 Tower Road and Old Indian Head Road: Copper wire replacement, 2.5 miles, 71 customers
2.16 Christ Church Road, Neck Road: Copper wire replacement and line undergrounding, 3.4 miles, 51 customers



2.17 Ferry Landing Road between Howes Road and Kaylorite Street: Line undergrounding, 0.9 mile, 132 customers
2.18 McCready Road: Copper wire replacement, 0.9 mile, 43 customers
2.19 Kings Landing Road: Copper wire replacement, 2.3 miles, 116 customers
2.20 Carrington PH 6 – Copley Ave OH removal: Line undergrounding
2.21 Hawkins Gate feeder exits: Add three new 15 kV feeder exits from an existing substation, 3,150 customers
2.22 Hunting Creek Rd from Ben Oak Dr to N.O. sw #3150 Lowery Rd: Upgrade existing line to alleviate deteriorating conditions and improve delivery, 1.4 miles, 190 customers
2.23 Ross Road: Copper wire replacement, 2.4 miles, 46 customers
2.24 Tap line serving #1855 Emmanuel Church Road: Line undergrounding, 0.8 mile, 12 customers
2.25 Rt 382 Croom Road: Remove existing line bottleneck and increase feeder capacity, 2.7 miles, 111 customers
2.26 Harbor Drive and Mill Creek Drive: Copper wire replacement, 2.5 miles, 141 customers
2.27 Poorhouse Road: Feeder quality improvements, 2.0 miles, 169 customers
2.28 Fire Tower Road: Copper wire replacement, 3.0 miles, 60 customers
2.29 Macs Hollow Road: Line undergrounding, 1.3 miles, 42 customers
2.30 Magruders Ferry Road and Peed Road: Line undergrounding, 2.3 miles, 39 customers
2.31 New St. Andrews #11 feeder to Woods at Myrtle Point: Install additional line to reduce feeder load, 1.6 miles, 650 customers
2.32 Esperanza Dr, Lake Dr: Copper wire replacement, 3.2 miles, 190 customers
2.33 Lloyd Bowen Rd: Overhead line size upgrade, 1.6 miles, 72 customers
2.34 Adkins Road: Copper wire replacement, 1.2 miles, 71 customers

2.35 Newtowne Neck Road: Copper wire replacement, 2.0 miles, 26 customers
2.36 Mitchell Road: Line replacement to alleviate existing bottleneck, 0.5 mile, 97 customers
2.37 North Ryceville Road; Dixie Lyon Road: Copper wire replacement, 2.4 miles, 46 customers
2.38 West Hatton Road, Nyce Manor Place: Copper wire replacement, 2.6 miles, 39 customers
2.39 Rt 262 Lower Marlboro Road from Briscoe Turn Road to Chaneyville Road: Bottleneck removal, 1.7 miles, 312 customers

**Technical Communications Component:** SMECO will install high-capacity optical ground wire (OPGW) to improve communications to substations and transmission infrastructure. Grid outcomes include greater threat detection and prevention and reduced outages. Additionally, SMECO’s vision of fiber optic will support more advanced smart grid and DER integration.

<b>Table No. 2C: SMECO Resiliency Project Components (by Number/Title and Description) - COMMUNICATIONS</b>
<b>3.1 Create Northern Charles County Fiber Loop:</b> Replace static wire with high-capacity optical ground wire (OPGW) on transmission lines 6720, 6721, 6728, 6622, 6715, 6710; Create a fiber loop that encompasses Hughesville, Cedarville, West Brandywine, Burches Hill, Mattawoman, and Waldorf; Establish new communications capabilities to remote sites via high-speed fiber optic cable in a redundant ring configuration
<b>3.2 Install Fiber Between Holland Cliff and Sunderland:</b> Replace static wire with high capacity OPGW on transmission line 6782; Extend the SONET ring in Calvert County to two unconnected substations

**Project Relevance to Goals and Objectives of the FOA:** The project fully aligns with the goals and objectives of the FOA. It supports activities (including updating equipment, technology, and hardening vulnerable lines) that reduce the likelihood and consequence of impacts to the electric grid due to extreme weather (including hurricanes and flooding), wildfire (burying lines reduces wildfire risk by 99%<sup>4</sup>) and natural and manmade disasters.

**2.2 Feasibility (Technical, Capacity, Prior Results, and Access)**

**Technical Feasibility:** The TDCR Initiative is technically feasible and uses best practices in grid resiliency and modernization, including the replacement of aging conductors, undergrounding of highly vulnerable lines in strategic areas, upgrade of deteriorated, toxic creosote poles to more

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<sup>4</sup>Evans, Angela K., and Jon Hurdle. “Is Burying Power Lines Fire-Prevention Magic, or Magical Thinking?” Inside Climate News, 11 July 2022, [Link](#).

environmentally friendly structures, and installation of fiber optic cables to increase communication among substations and minimize and isolate future disruptions. All proposed upgrades will rely on commercially available and proven technologies.

**Capacity to Achieve Anticipated Performance Targets:** SMECO has full access to all infrastructure, labor, equipment, and expertise necessary to complete this project. Over the past six years, SMECO has converted an average of 14.6 miles of distribution lines per year from overhead to underground. In November 2022, SMECO completed the construction of its Chaptico Substation and associated 69-kV transmission line. This is another transmission project that required working over and through protected wetlands. The new line uses SMECO's existing right-of-way for the 230-kV line that connects the Ryceville and Hewitt Road switching stations. The Chaptico substation became fully operational in Q1 2023.<sup>5</sup>

**Access to Necessary Infrastructure:** SMECO owns and operates all existing infrastructure and has full access to all project sites. A right-of-way permit has been granted or is being pursued.

**Access to Skilled Workforce:** SMECO has a network of skilled laborers with whom it contracts on similar projects. Potential subcontractors have been identified and informed of the project. Labor partners include the IBEW Local 1718.

### 2.3 Innovations and Impact

**Current State of the Art / Standard Practice:** Many rural co-op utilities still rely on the use of overhead lines for distribution, along with limited use of advanced communications technologies and systems. This puts them behind large, urban, investor-owned utilities in terms of resiliency investments, because they serve low population density areas with fewer customers per line-mile.

**Specific Innovation Targeted by the Project:** The TDCR Initiative demonstrates innovation through the efficacy of proven technologies and resilience best practices in a rural cooperative application. Undergrounding of distribution lines and the fiber optic telecommunications infrastructure proposed will prove that the cost-benefit analysis can be favorable in parts of the country where they may not have been cost-effective in the past.

**Impact of Project:** The TDCR Initiative is a fully integrated approach to improve reliability and resiliency strategically and systematically for SMECO and its members. The transmission component will address a circuit in direct need of replacement that provides a crucial link to tens of thousands of customers. Further, the retrofit will add line differential relaying to enhance operational capabilities. The distribution component will mitigate outage risks for thousands more customers by burying infrastructure out of the way of weather, vegetation, accidental or deliberate damage and ensuing disruptions, as well as eliminating some single points of failure. The communications component multiplies SMECO's capability to monitor, control, and communicate with numerous grid assets, thereby enabling greater resiliency and reliability. In

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<sup>5</sup>"Building for Reliability – Southern Maryland Electric Cooperative." Southern Maryland Electric Cooperative, [Link](#).

total, the investments will result in a more robust grid that can better withstand hazards and recover more quickly from many possible contingencies. SMECO recognizes that this project has several barriers that it has already begun to address, primarily its necessity to work in protected wetland areas. By investing in more durable materials, SMECO will avoid: 1) Higher risk of emergency maintenance and further, more destructive, wetland disruption; and 2) Less required maintenance, also allowing for fewer wetland incursions over several decades. The footprint cannot be changed, yet SMECO's replicable project takes into account key factors such as resiliency, environmental protection, and fiscal responsibility.

The investments included in this application are intended to improve SMECO's reliability metrics provided in the following table. Including or excluding the storm events substantially changes these numbers, and the resiliency improvements directly address infrastructure weaknesses leading to storm related outages. With the proposed improvements, the hardened system will better withstand severe weather in the future, improving the scores overall.

<b>Table No. 3</b>	<b>Total interruptions</b>	<b>Total Excluding Major Outage Events (i.e. major storms)</b>
SAIDI	492.8	116.5
SAIFI	1.96	1.29

**Advantages of the Proposed Technology Over Current and Emerging Technologies Impact on Advancing the State of the Art / Technical Baseline:** Outcomes of the proposed project will serve as a roadmap for future similar deployments. Many smaller rural utilities lack the resources to complete extensive engineering evaluations and comparative design studies that are required to deploy resiliency-oriented technologies, providing a roadmap for deployment of a viable system (including smart grid facilitating fiber optics and line differentials).

The investments included in this application are intended to improve SMECO's reliability metrics provided in the following table. Including or excluding the storm events substantially changes these numbers, and the resiliency improvements directly address infrastructure weaknesses leading to storm related outages. With the proposed improvements, the hardened system will better withstand severe weather in the future, improving the scores overall.

**2.4 Support for State, Local, Tribal, Regional, and National Resilience, Decarbonization, and Planning:** The Maryland Public Service Commission has expressed a strong interest in SMECO and other state utilities to vigorously pursue GRIP program funding in support of Maryland's goals for grid resilience and energy access. They directed SMECO to provide monthly written confirmation of all related efforts, and SMECO has fully complied with this directive. This TDCR Initiative also fully aligns with the goals, programs, and initiatives of the Maryland Energy Administration (MEA). Building upon its 2012 Task Force recommendations, the MEA has several programs that demonstrate alignment with SMECO's GRIP goals and provide potential sustainability and maintenance funding for SMECO's technical components beyond the grant term. This includes the Resilient Maryland Program, a comprehensive distributed energy resource (DER) system development and installation incentive program that provides funds to offset the costs of

planning, designing, and constructing microgrids, resilient facility power systems and resiliency hubs.<sup>6</sup> SMECO envisions working closely with the MEA to obtain future funding for more advanced DER integration strategies that will be made possible through fiber optic upgrades to the system.

**2.5 Project Impact on Perceived Risk, Further Deployments, and Private Sector Investments:**

This TDCR Initiative embodies SMECO’s culture of resilience throughout its work, including all levels of grid planning and operations. Further deployments will align with the work described in this application as SMECO perennially seeks a more reliable, resilient, and cost-efficient grid.

Risks to the TDCR Initiative are well understood and anticipated, and the risk of not making these investments may be greater than acting. Climate change is known to exacerbate severe weather, and that is a significant driver of grid outages that the detailed investments would directly address. The approach is proven and demonstrably effective.

**2.6 Topic Area 1 Specific Considerations:** The TDCR Initiative will generate the greatest community benefits on a regional and interregional level. These resiliency strategies will decrease the likelihood of outages in four Southern Maryland including DACs. The federal government workforce is another key beneficiary of the investment as SMECO’s grid powers several federal agencies sited in and their staff who live and work in the region. It will support SMECO’s continued engagement with local CBOs and partners to ensure ongoing, well-paying jobs in the area, including organized labor and minority-, woman-, and veteran-owned businesses. Communication upgrades including fiber optic cable will enable smart grid functions that will allow for more remote maintenance and troubleshooting, as well as increased communication among substations, allowing for more proactive grid maintenance and corrective action in the event of a contingency, and fewer truck rolls.

**Grant funding provided by this program would result in proposed activities that go beyond and are additional to efforts that would have been undertaken but-for the funding and will generate the greatest community or regional resilience benefit in reducing the likelihood and consequences of disruptive events.** Fiber optic communications investments that will result in increased resiliency, smart grid capabilities, and support future DER integration are reliant upon DOE funding.

**3.0 Workplan**

**3.1 Project Objectives.** For a summary of project goals, refer to Section 1.2. To achieve the outlined Objectives/Targeted Performance Goals, SMECO will implement the following activities (see table below):

**Table No. 4: Proposed Activities to Achieve Project Objectives**

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<sup>6</sup> “Expanding Resilient Power in Maryland - Clean Energy States Alliance.” Clean Energy States Alliance (CESA), 6 December 2022, [Link](#).

Complete all final engineering and design activities needed to support execution of the proposed transmission, distribution, and communication/control elements of the project
Complete all environmental compliance and environmental and local permitting required to enable the initiation of construction for distribution and communication elements, and for project operation
Construct / Install new/replacement transmission lines to targeted locations in SMECO's service area
Construct / Install new/replacement distribution lines in SMECO's service area, to support undergrounding and distribution system hardening
Construct / Install the proposed fiber optic communication lines for the Northern Charles County Loop and the Holland Cliff / Sunderland area
Complete installation of all advanced controls systems proposed under the project
Verify and validate the operation of all installed equipment and facilities
Minimize environmental impact during installation by adhering to applicable avoidance and mitigation measures
Improve system reliability for the target facilities to match reliability for other undergrounded lines and previously hardened systems within SMECO's service area
Improve system resilience for target facilities to match system resilience for other undergrounded lines and previously hardened systems within SMECO's service area
Execute and verify all community benefits
Complete all DOE-required reporting and information sharing

**3.2 Technical Scope Summary:** SMECO will execute the project during [4] budget periods (BP) as follows, with community benefits executed throughout all BPs:

**BP 1: Engineering, design, permitting, and BP 1 Construction.** SMECO will initiate engineering, design, and permitting for all BP 1 components (see Section [3.7]) of the project. Briefly, SMECO will retain a qualified engineer to complete all final engineering and construction level drawings, as applicable, assemble procurement lists, and drive the environmental compliance and permitting process. SMECO will then complete all material procurement and contract the installation of the proposed facilities and equipment. Once the equipment is installed, SMECO will complete all testing/validation of the equipment and initiate the operation. These facets will be completed for all BP 1 targeted components. Concurrently, SMECO will complete all targeted hiring, ensure that contracts meet disadvantaged business status targets, and plan and

execute all other community benefit elements. SMECO will also complete all data collection and reporting to DOE as required.

**BP 2: Engineering, design, permitting, and BP 2 Construction.** SMECO will follow the same engineering, design, permitting, procurement, construction, and verification processes identified for BP 1, but will focus on BP2 components. SMECO will also continue to plan, execute, and monitor/track all targeted community benefits, track all project data and outcomes, and report to DOE.

**BP 3: Engineering, design, permitting, and BP 3 Construction.** SMECO will follow the same engineering, design, permitting, procurement, construction, and verification processes identified for BP 2, but will focus on BP3 components. SMECO will also continue to plan, execute, and monitor/track all targeted community benefits, track all project data and outcomes, and report to DOE. This BP will also include the finalization of the last projects and provide a small amount of additional calendar time to account for any delays during BP 1 to 2.

**3.3 Work Breakdown Structure and Task Description Summary:** The following Work Breakdown Structure summarizes the proposed tasks by budget period.

**BP 1. Engineering, Design, Permitting, and BP 1 Construction:** Task 1. Administration and Management (M1-M18). SMECO will complete all project administration and management. SMECO will solicit (per DOE requirements), select, and issue contracts to all contractors required for the project. SMECO's experienced administration team will oversee all aspects of the grant, including coordination with DOE, financial oversight, invoicing, project tracking, schedule tracking, budget tracking, performance tracking against objectives, implementation of all project management elements, and quality assurance/quality control.

Task 2. BP 1 Engineering, Design, Permitting, and Procurement (M1-M18). Once retained, SMECO will oversee the work of its engineer to complete engineering and design, to 100% / construction ready design, for all BP 1 project components in parallel, then provide design cover sheets to DOE to verify completion. Once the design is complete, the engineer will assemble procurement lists, and SMECO will initiate the procurement process. SMECO will concurrently oversee the completion of all required environmental compliance and permitting (NEPA plus federal, state, and local permits as required), and notify DOE as permitting elements are completed. Engineering, design, and preconstruction permitting will be completed by M6, procurement by M16, and operational permitting, validation, and construction by M18.

Task 3. BP 1 Construction and Validation / Testing (M6-M18). SMECO will complete all project construction and equipment installation for each of the BP1 components. SMECO and the engineer will manage schedule performance, and construction/installation of individual components will be completed concurrently or overlapping to the extent practicable to support schedule performance. Once installed, SMECO will complete all system validation and testing during the commissioning period, then initiate full-scale operation.

Task 4. BP 1 Targeted Hiring, Community Benefits, Data Collection, and Reporting (M1-M18). SMECO will complete all proposed hiring, and complete all committed community benefits including funds awarded, as well as related annual milestones from awarded CBOs, jobs created, and contracts entered with minority-owned businesses. On an ongoing basis, SMECO will track progress, successes, lessons learned, validation data, commissioning / initial operations verification data, and all community benefits for all BP1 tasks then will complete all BP 1 reporting required by DOE, including Go/No-Go Decision Point reporting and meetings.

**BP2. Engineering, Design, Permitting, and BP 2 Construction:** Task 5. BP 2 Administration and Management (M19-M36). SMECO will continue all project administration and management as discussed for BP 1 but continued under BP 2 for BP 2 components. SMECO reserves the right to complete new or additional contractor bids during each BP; timelines will mirror those identified for BP 1.

Task 6. BP 2 Engineering, Design, Permitting, and Procurement (M19-M36). SMECO will complete all engineering, design, permitting, and procurement as described for BP1, but continued under BP 2 for BP 2 components.

Task 7. BP 2 Construction and Validation / Testing (M24-M36). SMECO will complete all construction and validation / testing (e.g., commissioning) as described for BP1, but continued under BP 2 for BP 2 components.

Task 8. BP 2 Targeted Hiring, Community Benefits, Data Collection, and Reporting (M19-M36). SMECO will complete all proposed hiring, community benefits, data collection, tracking, and reporting as described for BP1, but continued under BP 2 for BP 2 components. SMECO will also complete all Go/No-Go Decision Point reporting and meetings.

**BP3. Engineering, Design, Permitting, and BP 3 Construction:** Task 9. BP 3 Administration and Management (M37-M48). SMECO will continue all project administration and management as discussed for BP 2 but continued under BP 3 for BP 3 components. SMECO reserves the right to complete new or additional contractor bids during each BP; timelines will mirror those identified for BP 2.

Task 10. BP 3 Engineering, Design, Permitting, and Procurement (M37-M48). SMECO will complete all engineering, design, permitting, and procurement as described for BP2, but continued under BP 3 for BP 3 components.

Task 11. BP 3 Construction and Validation / Testing (M43-M48). SMECO will complete all construction and validation / testing (e.g., commissioning) as described for BP 2, but continued under BP 3 for BP 3 components.

Task 12. BP 3 Targeted Hiring, Community Benefits, Data Collection, and Reporting (M37-M48). SMECO will complete all proposed hiring, community benefits, data collection, tracking, and reporting as described for BP2, but continued under BP 3 for BP 3 components. SMECO will also complete all final project / closeout reporting and meetings.



**3.4 Milestone Summary** The following table summarizes project milestones:

Task No.	Task Title	Milestone Type	Milestone No.	Milestone Description	Verification	Month / Quarter
Budget Period 1						
2	Engr, Permit, Procure, focus on transmission and	Milestone	1	Complete BP 1 Engineering	SMECO submits design cover sheets to DOE	M3/Q1
2	Engr, Permit, Procure	Milestone	2	Procurement List	SMECO submits procurement list to DOE	M6/Q2
2	Engr, Permit, Procure	Milestone	3	Complete preconstruction permitting	SMECO submits permit status summary to DOE	M9/Q3
2	Engr, Permit, Procure	SMART Milestone	4	Initiate construction for all BP1 components	SMECO submits construction notification initiation to DOE	M12/Q4
2	Engr, Permit, Procure	Milestone	5	Complete all procurement	SMECO submits procurement completion confirmation to DOE	M15/Q5
3	Construct / Validate	Milestone	6	Complete all Construction and Validation	SMECO submits Construction Verification and Validation Results to DOE	M18/Q6
4	Hiring, Comm Benefit	Milestone	7	Hire design engineer	SMECO submits summary of hired staff to DOE	M18/Q6

	Go/No-Go Decision 1	SMART milestone	Go/No-Go 1	SMECO completes construction and validation of all components, all hiring, and all comm benefits and reporting.	Submit required documentation to DOE along with BP 1 information. DOE reviews submitted information and makes determination re/ go/no-go.	M18/Q6
<b>Budget Period 2</b>						
6	Engr, Permit, Procure	Milestone	8	Complete BP 2 Engineering	SMECO submits design cover sheets to DOE	M21/Q7
6	Engr, Permit, Procure	Milestone	9	Procurement List	SMECO submits procurement list to DOE	M24/Q8
6	Engr, Permit, Procure	Milestone	10	Complete preconstruction permitting	SMECO submits permit status summary to DOE	M27/Q9
6	Engr, Permit, Procure	SMART Milestone	11	Initiate construction for all BP2 components	SMECO submits construction notification initiation to DOE	M30/Q110
6	Engr, Permit, Procure	Milestone	12	Complete all procurement	SMECO submits procurement completion confirmation to DOE	M33/Q11
7	Construct / Validate	Milestone	13	Complete all Construction and Validation	SMECO submits Construction Verification and Validation Results to DOE	M36/Q12
	Go/No-Go Decision 2	SMART milestone	Go/No-Go 2	SMECO completes construction	Submit required documentation to DOE along with BP 2	M36/Q12

				and validation of all components, all hiring, and all comm benefits and reporting	information. DOE reviews submitted information and makes determination re/ go/no-go.	
<b>Budget Period 3</b>						
10	Engr, Permit, Procure	Milestone	15	Complete BP 3 Engineering	SMECO submits design cover sheets to DOE	M39/Q13
10	Engr, Permit, Procure	Milestone	16	Procurement List	SMECO submits procurement list to DOE	M42/Q14
10	Engr, Permit, Procure	Milestone	17	Complete preconstruction permitting	SMECO submits permit status summary to DOE	M45/Q15
11	Construct / Validate	Milestone	18	Complete all Construction and Validation	SMECO submits Construction Verification and Validation Results to DOE	M48/Q16
12	Hiring, Comm Benefit	Milestone	18	Hire members of the community	SMECO submits summary of hired staff to DOE	M48/Q16
	End of Project Milestone	SMART milestone				M48/Q16

**3.5 Go/No-Go Decision Points.** Go/No-Go Decision Point 1. SMECO will complete all engineering, design, permitting, procurement, construction, validation / testing, hiring, community benefits, data collection, and reporting, including all deliverables, for each of the BP 1 components identified. All relevant components will be validated as operational prior to the end of BP 1. DOE will verify completion / success based on review of deliverables provided and based on reporting provided for the Go/No-Go Decision Point 1 meeting. Go/No-Go Decision Point 2. SMECO will complete all engineering, design, permitting, procurement, construction,

validation / testing, hiring, community benefits, data collection, and reporting, including all deliverables, for each of the BP 2 components identified. All relevant components will be validated as operational prior to the end of BP 2. DOE will verify completion / success based on review of deliverables provided and based on reporting provided for the Go/No-Go Decision Point 2 meeting. Go/No-Go Decision Point 3. SMECO will complete all engineering, design, permitting, procurement, construction, validation / testing, hiring, community benefits, data collection, and reporting, including all deliverables, for each of the BP 3 components identified. All relevant components will be validated as operational prior to the end of BP 3, DOE will verify completion / success based on review of deliverables provided and based on reporting provided for the Go/No-Go Decision Point 3 meeting.

**3.6 End of Project Goal:** SMECO will finalize all components, including any residual elements requiring completion from the prior BP, if applicable. SMECO will demonstrate completion of all engineering, design, permitting, procurement, construction, validation / testing, hiring, community benefits, data collection, and reporting, including all deliverables, for each of the BP 3 components and any other remaining components identified. All relevant components will be validated as operational prior to the end of BP 4. SMECO will also provide data and where applicable estimates of improvements to reliability and resilience including and will validate the achievement of all other goals and objectives. DOE will verify completion / success based on review of deliverables provided and based on reporting provided for the End of Project Goal / final meeting.

**3.7 Project Schedule:** SMECO will adhere to the following project schedule:

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	
1. Admin & Management																					
2. Engineering, Design, Permitting, Procurement																					
3. Construction, Validation																					
4. Hiring, Comm Benefits																					
Go/No-Go 1							X														
5. Admin & Management																					
6. Engineering, Design, Permitting, Procurement																					
7. Construction, Validation																					
8. Hiring, Comm Benefits																					
Go/No-Go 2													X								
9. Admin & Management																					
10. Engineering, Design, Permitting, Procurement																					
11. Construction, Validation																					
12. Hiring, Comm Benefits																					
Go/No-Go 3																				X	
13. Admin & Management																					
14. Engineering, Design, Permitting, Procurement																					
15. Construction, Validation																					
16. Hiring, Comm Benefits																					
End of Project																					X

**3.8 Buy America Requirements:** All project procurement and purchasing will wholly adhere to Buy America Requirements, as required by DOE.

**3.9 Project Management: Overall Project Management Approach:** SMECO utilizes a bottom-up approach to Project Management for large capital projects. Detailed estimates are created for project costs based upon planning requirements. Milestone schedules are created based upon the overall scope of the project to allow time for permitting and engineering, which often occur simultaneously, followed by procurement, construction, and finally closeouts. A single project manager oversees the project to ensure the involvement of all affected departments and the allotment of adequate design time to allow for the implementation of best practices.

**Team Member Roles:** The proposed project will be under the supervision of two project managers who will be responsible for project oversight and provide a single point of contact for the respective project components. The project managers will create schedules and manage contracts for construction and procurement, as well as project accounting and closeouts. The project will utilize ROW and permitting agents when required. There will be additional roles within the project for construction supervision, operations, commissioning, and SMECO planning personnel, who will identify and provide justification for projects.

**Critical Handoffs and Interdependencies:** Critical handoffs for the project will be managed by the project manager based upon the completion of specified project milestones. The status of each of these milestones will be assessed through the use of regular conferences and status meetings held with all affected parties throughout the duration of the project, beginning with concept and following through construction to closeout.

**Technical and Management Aspects:** SMECO will gather input from a wide range of parties to include unique expertise at each stage of the project. For example, engineering personnel will

be involved in the early planning stages to support realistic designs and experienced field construction personnel will identify hazards and create realistic construction schedules.

**Risk Management and Workforce Management Planning:** As discussed directly above, input from various departments will be sought at each stage of the project to identify potential risks and implement Business Management Practices (BMPs) to reduce risk to the greatest extent possible. Additionally, market conditions and construction lead times will be consistently monitored to adjust procurement scheduling if necessary.

**Management of Project Changes:** The project managers will track all justified project changes through the use of a tracking filing system unique to each project. Unit-based contracts are used to negotiate costs associated with changes in the project.

**Quality Assurance / Quality Control:** There will be a detailed review of the project and all processes during the engineering and design stages as well as thorough testing and commissioning to ensure the project is built to the highest design standards. This will be supervised and monitored by on-site SMECO supervision during all stages of construction.

**Project Team Communications.** The project will use standard BMPs (i.e., phone calls, virtual and in-person meetings, emails, etc.), which will all be appropriately documented, routinely distributed, and maintained with the project files.

#### 4.0 Technical Qualifications and Resources

**4.1 Project Team Qualifications and Expertise:** SMECO has assembled a core team of veteran highly experienced professionals to ensure project execution. The **key team members** will include the following (See Table #5) below:

Team Member	Role/Qualifications
<b>Hugh Voehl, Transmission Engineering and Construction Director</b>	Hugh Voehl III will serve as the Project Manager for all transmission elements of the project, and is responsible for engineering, permitting, procurement, and construction for substation and transmission projects 69-kV and above. Voehl has managed multiple projects, including the construction of two new substations, several transformer replacements, substation upgrades, and construction of a new seven-mile 69-kV transmission line in existing right-of-way alongside existing 230-kV transmission lines. He has over 20 years of experience in the utility industry, including 18 years with SMECO performing engineering and project management. Voehl holds a Bachelor of Science in mechanical engineering from Johns Hopkins University
<b>Christopher (Ryan)</b>	Ryan Schlotterbeck will serve as the Distribution Upgrade Manager for the project, overseeing all distribution component upgrades. He oversees execution of the

<p><b>Schlotterbeck, PE, Distribution Contractor Operations Director</b></p>	<p>cooperative’s distribution construction work plan, vegetation management, and locating. He has served as a project manager, overseeing all engineering and construction activities for new and rebuilt transmission facilities, switching stations, substations, large distribution projects, and special projects as assigned from concept to completion. Schlotterbeck has nearly 15 years of experience in the construction and engineering industry, including experience in civil site design, construction management, and in electric utility design and construction. He has completed multiple projects of varying size and complexity in his eight years with SMECO and has extensive experience working across cross-functional teams throughout the organization to develop and execute projects throughout their project life cycle. Schlotterbeck holds a Bachelor of Science in civil engineering from the University of Maryland and is a registered Professional Engineer in Maryland.</p>
<p><b>Ryan Edge, Program Management Office Director</b></p>	<p>Ryan Edge will serve as the lead administrator for the project, overseeing all business aspects of the project, as well as vendors, invoicing, and other administration elements. Ryan supports the cooperative by aligning project activities with the five-year strategic plan, standardizing project management processes, coordinating among discrete projects, and reporting to executive leadership. Edge has nine years of experience in the Southern Maryland Electric Cooperative and 19 years in the electric utility industry, including an internship at Portland General Electric in Portland, Oregon researching advanced solar inverter functionality. He has worked with the Smart Electric Power Alliance in Washington, D.C., researching DERs and their implications on the way utilities do business. As a member of the Booz Allen Hamilton Defense Energy Team, Edge consulted with the Pentagon on energy resilience planning, policy, and project development. Edge holds a Master of Public Administration with a concentration in energy policy from Portland State University and a Bachelor of Interdisciplinary Studies degree from Western Kentucky University.</p>
<p><b>Beth Kennedy, Senior Vice President of Financial Services and Chief Financial Officer</b></p>	<p>Beth Kennedy will serve as financial officer to support the project. She is responsible for all aspects of SMECO’s accounting and financial operations, including general accounting, financial reporting, budgeting, finance, treasury, and billing functions. Kennedy has 23 years of experience with SMECO, where she manages and directs risk and energy procurement, payroll, accounts payable, billing, long-range financial planning, and fixed asset accounting. She has also served as the project manager for the SMECO Solar project. Kennedy holds a Bachelor of Science in accounting and a Master’s in international management from University of Maryland University College. She is a Certified Public Accountant licensed in Maryland</p>
<p><b>Kyle Rappe, Communications Engineer</b></p>	<p>Kyle Rappe will serve as the Communication System Technical Lead, responsible for maintaining and improving SMECO’s substation communication network, including management of the fiber optic backbone network. He designs redundant SONET networks for station operations communications, deploys wireless point-to-point and point-to-multipoint systems, and assists in maintaining a territory-wide mobile radio system for direct field-to-operations-center communications. Rappe has 16</p>

	years of experience in electrical engineering, including experience in RF and radar systems design. He holds a Bachelor of Science in electrical engineering and in space sciences from the Florida Institute of Technology.
<b>John Bredekamp, Vice President of Transmission, Engineering, &amp; Operations</b>	John Bredekamp is responsible for the engineering, construction, operations, maintenance, control, protection, and communications of SMECO’s transmission electric system, which includes 69-kV and 230-kV substations and almost 500 miles of transmission lines. Bredekamp has over 35 years of electric utility experience, including 17 years with SMECO. He has experience in all aspects of project execution, including permitting, creating detailed engineering and design plans, procurement, and construction. His responsibilities include coordination with the Potomac Electric Power Company and ensuring compliance with reliability standards. Bredekamp holds Southern Maryland Electric Cooperative Bachelor of Science in electrical engineering from the University of Missouri and is a registered Professional Engineer in Missouri and Maryland.

**4.2 Existing Equipment and Facilities To Be Leveraged; New Equipment Justification:** SMECO has full access to all areas necessary to execute the proposed tasks. Several distribution system-related tasks within the proposal could require additional underground right-of-way. Authority to initiate construction within the protected environmental habitat for the Chalk Point to Hughesville Transmission Line component is pending federal and state level environmental review and permitting, and associated evaluation and approval. SMECO owns and operates all physical equipment and facilities necessary for all other tasks within this proposal.

**4.3 Relevant Previous Work Efforts / Experience:**

SMECO has managed and implemented electric grid resiliency and upgrading projects for years. SMECO provides reliable, affordable power to Southern Maryland by owning, operating, maintaining, and modernizing large overhead and underground transmission and distribution plants. SMECO proactively improves its electric system through planning, design, installation, operation, and maintenance. The 12-Year Electric System Plan guides cooperative capital improvement projects. The Southern Maryland Reliability Project (SMRP) was the completion of a 230-kV loop through SMECO’s service territory to meet system demand and provide reliability. The SMRP was the largest project ever executed at SMECO with a cost of over \$135m over eight years -- delivered under budget and ahead of schedule for all project requirements. Based on the feedback received from outside agencies, consultants, contractors, and other utility personnel, the SMRP was one of the best-planned, engineered, and constructed projects in the industry. Federal grant financing is advancing the implementation of several such initiatives in this plan. SMECO has administered federal grants and service contracts including a \$9 million solar and clean energy implementation project. The Patuxent River Naval Air Station receives utilities privatization services from SMECO under a long-term federal contract. Both parties are compliant with this contract. Key relevant and recent upgrades similar in nature to those identified by the project have included resiliency improvements through line undergrounding. Over recent years, SMECO has successfully completed extensive line undergrounding, averaging 14.6 miles per year, to date. The project will build on this



experience to implement effective, coordinated execution for all underground components of the project. SMECO completed the Lexington Park substation upgrade to expand its capacity (2022). SMECO successfully replaced the substation’s two large transformers, and installed a new 69-kV circuit breaker, new switches, and new reclosers. In October 2022, SMECO initiated replacement of additional infrastructure including a new control house, powered by two new service transformers. All elements completed to date were successfully executed on time and within budget. New Substation & Transmission Line in St. Mary’s County (2022). SMECO recently completed successful construction of a new substation in Chaptico. The facility adds capacity to SMECO’s existing system in the northern part of St. Mary’s County, absorbing some of the load from four other substations in the area. To supply electricity to the Chaptico substation, SMECO installed seven miles of 69-kV transmission line from the Ryceville substation. The new line uses SMECO’s existing right-of-way for the 230-kV line that connects the Ryceville and Hewitt Road switching stations. Construction on the new 69-kV line began in March 2022 and was successfully completed in October 2022, on time and within budget.

**4.4 Time Commitment of Key Team Members:** The following chart summarizes time commitments over the duration of the project, for key team members to support the project/

Name and Organization	Role	Annual % FTE)
Ryan Edge	Project Manager and Program Management Office Director	20%
Hugh Voehl III	Transmission Engineering and Construction Director	75%
Christopher (Ryan) Schlotterbeck, PE	Distribution Contractor Operations Director	50%
Beth Kennedy	Senior Vice President of Financial Services and Chief Financial Officer:	10%
Kyle Rappe	Communications Engineer	10%
Roger E. Schneider	Senior Vice President of Engineering & Operations and Chief Operating Officer	20%
John Bredenkamp	Vice President of Transmission, Engineering & Operations	25%
Andrew Yeskie	Senior Protection Engineer	10%

**4.5 Technical Services Provided by DOE / NNSA FFRDCs:** The project will not rely on any technical services or support from DOE national labs or other FFRDCs.











April 4, 2023

Department of Energy  
Grid Deployment Office  
1000 Independence Ave SW  
Washington, DC 20585

RE: DOE's Grid Resilience and Innovation Partnership (GRIP) – Topic 1, Letter of Support

On behalf of the College of Southern Maryland School of Continuing Education & Workforce Development (CSM), I am writing to confirm support for Southern Maryland Electric Cooperative's (SMECO) application to Department of Energy (DOE) for Grid Resilience and Innovation Partnership Topic 1 funding to improve grid resilience and reliability across SMECO's service territory.

SMECO is a respected industry partner and a leading organization in the energy and utilities industry. The College of Southern Maryland has collaborated with SMECO for over a decade on initiatives to engage and educate the future workforce in these diverse and growing industries. Together we created an electrical lineman apprenticeship which supports 40 hours of field practicum as well as safety, combined space, evacuation, flagger and core trades construction skills. This pathway has provided career advancing high wage opportunities for those completing the program. CSM also offers an Associates of Applied Sciences degree for Electrical Power Technicians providing a stackable career pathway. SMECO has and continues to make significant investment in regional infrastructure that harnesses and supports natural energy and resources, preserves the environment, and integrates state of the art technologies to advance the industry's workforce.

The College of Southern Maryland is a public, regional community college with a far-reaching goal—to help our students and community meet the challenges of individual, social, and global changes. Our mission is to enhance lives and strengthen the economic vitality of our diverse and changing region by providing affordable postsecondary education, workforce development, and cultural and personal enrichment opportunities. The expansion of industry engagement through work-based learning activities to include apprenticeship are a critical component to student success and post-graduation outcomes. We are committed to this work and our efforts in the community to engage k-12, workforce and industry partners will prove to advance these outcomes.

We recognize the vast potential of youth and underrepresented communities providing a wealth of talent and believe in the value provided by early career exploration. We support the creation of an ecosystem that promotes viable career opportunities for students, especially in high growth. Our partnership with SMECO is an important step in contributing to the future of the energy industry.

Sincerely,

*Ellen Flowers-Fields*

Ellen Flowers-Fields  
Associate Vice President  
Continuing Education & Workforce Development

## 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
<b>Budget Period 1</b>		\$9,023,936	\$4,276,800			\$13,300,736	32.15%	August 2023-August 2024
<b>Budget Period 2</b>		\$8,866,659	\$4,194,300			\$13,060,959	32.11%	August 2024-August 2025
<b>Budget Period 3</b>		\$6,934,187	\$3,237,300			\$10,171,487	31.83%	August 2025-August 2026
<b>Budget Period 4</b>		\$4,365,532	\$1,966,800			\$6,332,332	31.06%	August 2026-August 2027
<b>Budget Period 5</b>		\$4,376,702	\$1,966,800			\$6,343,502	31.00%	August 2027-August 2028
<b>Total</b>		\$33,567,016	\$15,642,000			\$49,209,016	31.79%	
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)
<b>a. Personnel</b>	\$340,736	\$350,959	\$361,487	\$372,332	\$383,502	\$1,809,016	3.68%	
<b>b. Fringe Benefits</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
<b>c. Travel</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
<b>d. Equipment</b>	\$5,200,000	\$2,225,000	\$0	\$0	\$0	\$7,425,000	15.09%	
<b>e. Supplies</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
<b>f. Contractual</b>								
<b>Sub-recipient</b>	\$6,260,000	\$6,260,000	\$6,110,000	\$5,960,000	\$5,960,000	\$30,550,000	62.08%	
<b>Vendor</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
<b>FFRDC</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
<b>Total Contractual</b>	\$6,260,000	\$6,260,000	\$6,110,000	\$5,960,000	\$5,960,000	\$30,550,000	62.08%	
<b>g. Construction</b>	\$1,500,000	\$4,225,000	\$3,700,000	\$0	\$0	\$9,425,000	19.15%	
<b>h. Other Direct Costs</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
<b>Total Direct Costs</b>	\$13,300,736	\$13,060,959	\$10,171,487	\$6,332,332	\$6,343,502	\$49,209,016	100.00%	
<b>i. Indirect Charges</b>	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
<b>Total Costs</b>	\$13,300,736	\$13,060,959	\$10,171,487	\$6,332,332	\$6,343,502	\$49,209,016	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	
			\$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
<b>Total:</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>		<b>\$0</b>	<b>\$0</b>

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
	<b>Domestic Travel</b>	<b>Budget Period 1</b>									
										\$0	
										\$0	
										\$0	
										\$0	
	<b>International Travel</b>									\$0	
										\$0	
	<b>Budget Period 1 Total</b>									<b>\$0</b>	
	<b>Domestic Travel</b>	<b>Budget Period 2</b>									
										\$0	
										\$0	
										\$0	
										\$0	
	<b>International Travel</b>									\$0	
										\$0	
	<b>Budget Period 2 Total</b>									<b>\$0</b>	
	<b>Domestic Travel</b>	<b>Budget Period 3</b>									
										\$0	
										\$0	
										\$0	
										\$0	
	<b>International Travel</b>									\$0	
										\$0	
	<b>Budget Period 3 Total</b>									<b>\$0</b>	
	<b>Domestic Travel</b>	<b>Budget Period 4</b>									
										\$0	
										\$0	
										\$0	
										\$0	
	<b>International Travel</b>									\$0	
										\$0	
	<b>Budget Period 4 Total</b>									<b>\$0</b>	
	<b>Domestic Travel</b>	<b>Budget Period 5</b>									
										\$0	
										\$0	
										\$0	
										\$0	
	<b>International Travel</b>									\$0	
										\$0	
	<b>Budget Period 5 Total</b>									<b>\$0</b>	
	<b>PROJECT TOTAL</b>									<b>\$0</b>	

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
<b>Budget Period 1</b>						
1,3	Poles, Conductor & Line Hardware	1	\$5,200,000	\$5,200,000	Engineering Estimate	Material, poles and conductor, to rebuild lines
				\$0		
				\$0		
				\$0		
				\$0		
<b>Budget Period 1 Total</b>				\$5,200,000		
<b>Budget Period 2</b>						
3	Fiber, Substation Relays & Communication Equipment	1	\$2,225,000	\$2,225,000	Engineering Estimate	Equipment needed at the substations for installing fiber
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
<b>Budget Period 2 Total</b>				\$2,225,000		
<b>Budget Period 3</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
<b>Budget Period 3 Total</b>				\$0		
<b>Budget Period 4</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
<b>Budget Period 4 Total</b>				\$0		
<b>Budget Period 5</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
<b>Budget Period 5 Total</b>				\$0		
<b>PROJECT TOTAL</b>				<b>\$7,425,000</b>		

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
<b>Budget Period 1</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
<b>Budget Period 1 Total</b>				<b>\$0</b>		
<b>Budget Period 2</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
<b>Budget Period 2 Total</b>				<b>\$0</b>		
<b>Budget Period 3</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
<b>Budget Period 3 Total</b>				<b>\$0</b>		
<b>Budget Period 4</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
<b>Budget Period 4 Total</b>				<b>\$0</b>		
<b>Budget Period 5</b>						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
<b>Budget Period 5 Total</b>				<b>\$0</b>		
<b>PROJECT TOTAL</b>				<b>\$0</b>		

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
1,3	TBD	Engineering design and support	\$300,000	\$300,000	\$150,000			\$750,000
2	TBD	SMECO distribution project components	\$5,960,000	\$5,960,000	\$5,960,000	\$5,960,000	\$5,960,000	\$29,800,000
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$6,260,000	\$6,260,000	\$6,110,000	\$5,960,000	\$5,960,000	\$30,550,000

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

	<b>Total Contractual</b>		\$6,260,000	\$6,260,000	\$6,110,000	\$5,960,000	\$5,960,000	\$30,550,000
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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
<b>Budget Period 1</b>				
1,3	Transmission Line Construction & Fiber Installation	\$1,500,000	Engineering estimate	Construction of new transmission lines, fiber installation & access roads
	<b>Budget Period 1 Total</b>	<b>\$1,500,000</b>		
<b>Budget Period 2</b>				
1,3	Transmission Line Construction & Fiber Installation	\$3,725,000		Construction of new transmission lines, fiber installation & access roads
3	Substation Upgrades	\$500,000		Installation of equipment for high speed communications
	<b>Budget Period 2 Total</b>	<b>\$4,225,000</b>		
<b>Budget Period 3</b>				
1,3	Transmission Line Construction & Fiber Installation	\$3,200,000		Construction of new transmission lines, fiber installation & access roads
3	Substation Upgrades	\$500,000		Installation of equipment for high speed communications
	<b>Budget Period 3 Total</b>	<b>\$3,700,000</b>		
<b>Budget Period 4</b>				
	<b>Budget Period 4 Total</b>	<b>\$0</b>		
<b>Budget Period 5</b>				
	<b>Budget Period 5 Total</b>	<b>\$0</b>		
	<b>PROJECT TOTAL</b>	<b>\$9,425,000</b>		

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
<b>Budget Period 1</b>				
<b>Budget Period 1 Total</b>		\$0		
<b>Budget Period 2</b>				
<b>Budget Period 2 Total</b>		\$0		
<b>Budget Period 3</b>				
<b>Budget Period 3 Total</b>		\$0		
<b>Budget Period 4</b>				
<b>Budget Period 4 Total</b>		\$0		
<b>Budget Period 5</b>				
<b>Budget Period 5 Total</b>		\$0		
<b>PROJECT TOTAL</b>		<b>\$0</b>		

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
<b>Provide ONLY Applicable Rates:</b>							
Overhead Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
General & Administrative (G&A)	0.00%	0.00%	0.00%	0.00%	0.00%		
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
<b>Indirect Costs (As Applicable):</b>							
Overhead Costs						\$0	
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
<b>Total indirect costs requested:</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

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).



## Cost Share

**PLEASE READ!!!**

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.**

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company <b>EXAMPLE!!!</b>	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
SMECO	Cash	Distribution, transmission, and communications	\$4,276,800	\$4,194,300	\$3,237,300	\$1,966,800	\$1,966,800	\$15,642,000
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
		<b>Totals</b>	\$4,276,800	\$4,194,300	\$3,237,300	\$1,966,800	\$1,966,800	\$15,642,000

**Total Project Cost: \$49,209,016**

**Cost Share Percent of Award:**

**31.8%**

Additional Explanation (as needed):

Applicant Name: 0

Award Number: 0

**Budget Information - Non Construction Programs**

OMB Approval No. 0348-0044

<b>Section A - Budget Summary</b>							
Grant Program Function or Activity  (a)	Catalog of Federal Domestic Assistance Number  (b)	Estimated Unobligated Funds		New or Revised Budget			Total  (g)
		Federal  (c)	Non-Federal  (d)	Federal  (e)	Non-Federal  (f)		
1. Budget Period 1				\$9,023,936	\$4,276,800		\$13,300,736
2. Budget Period 2				\$8,866,659	\$4,194,300		\$13,060,959
3. Budget Period 3				\$6,934,187	\$3,237,300		\$10,171,487
4. Budget Period 4				\$4,365,532	\$1,966,800		\$6,332,332
5. Budget Period 5				\$4,376,702	\$1,966,800		\$6,343,502
6. Totals				\$33,567,016	\$15,642,000		\$49,209,016
<b>Section B - Budget Categories</b>							
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	\$340,736	\$350,959	\$361,487	\$372,332	\$383,502	\$1,809,016	
b. Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	
d. Equipment	\$5,200,000	\$2,225,000	\$0	\$0	\$0	\$7,425,000	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	
f. Contractual	\$6,260,000	\$6,260,000	\$6,110,000	\$5,960,000	\$5,960,000	\$30,550,000	
g. Construction	\$1,500,000	\$4,225,000	\$3,700,000	\$0	\$0	\$9,425,000	
h. Other	\$0	\$0	\$0	\$0	\$0	\$0	
i. Total Direct Charges (sum of 6a-6h)	\$13,300,736	\$13,060,959	\$10,171,487	\$6,332,332	\$6,343,502	\$49,209,016	
j. Indirect Charges	\$0	\$0	\$0	\$0	\$0	\$0	
k. Totals (sum of 6i-6j)	\$13,300,736	\$13,060,959	\$10,171,487	\$6,332,332	\$6,343,502	\$49,209,016	
7. Program Income						\$0	

U.S. DEPARTMENT OF ENERGY

**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: DOE-FOA-002740\_\_\_\_ Proposer: Southern Maryland Electric Cooperative \_\_\_\_\_
2. This Environmental Questionnaire pertains to a:  Recipient or Prime Contractor  Sub-recipient or Subcontractor
3. Principal Investigator: Ryan Edge \_\_\_\_\_ Telephone Number: 240-890-3213\_\_\_\_\_
4. Project Title: Transmission, Distribution, and Communications Resiliency Initiative \_\_\_\_\_
5. Expected Project Duration: 2023-2028\_\_\_\_\_
6. Location of Activities covered by **this** Environmental Questionnaire: (City/Township, County, State):

Hughesville, Charles County, Maryland  
 Cedarville, Prince George’s County, Maryland  
 West Brandywine, Prince George’s County, Maryland  
 Waldorf, Maryland, Charles County, Maryland.  
 Calvert County, Maryland

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
  - Replace static wire with high-capacity optical ground wire (OPGW) on transmission lines 6720, 6721, 6728, 6622, 6715, 6710; Create a fiber loop that encompasses Hughesville, Cedarville, West Brandywine, Burches Hill, Mattawoman, and Waldorf; Establish new communications capabilities to remote sites via high speed fiber optic cable in a redundant ring configuration
  - Replace static wire with high capacity OPGW on transmission line 6782; Extend the SONET ring in Calvert County to two unconnected substations
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

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

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## ENVIRONMENTAL QUESTIONNAIRE

### 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

- X 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.  
N/A

### C. PROJECT LOCATION

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

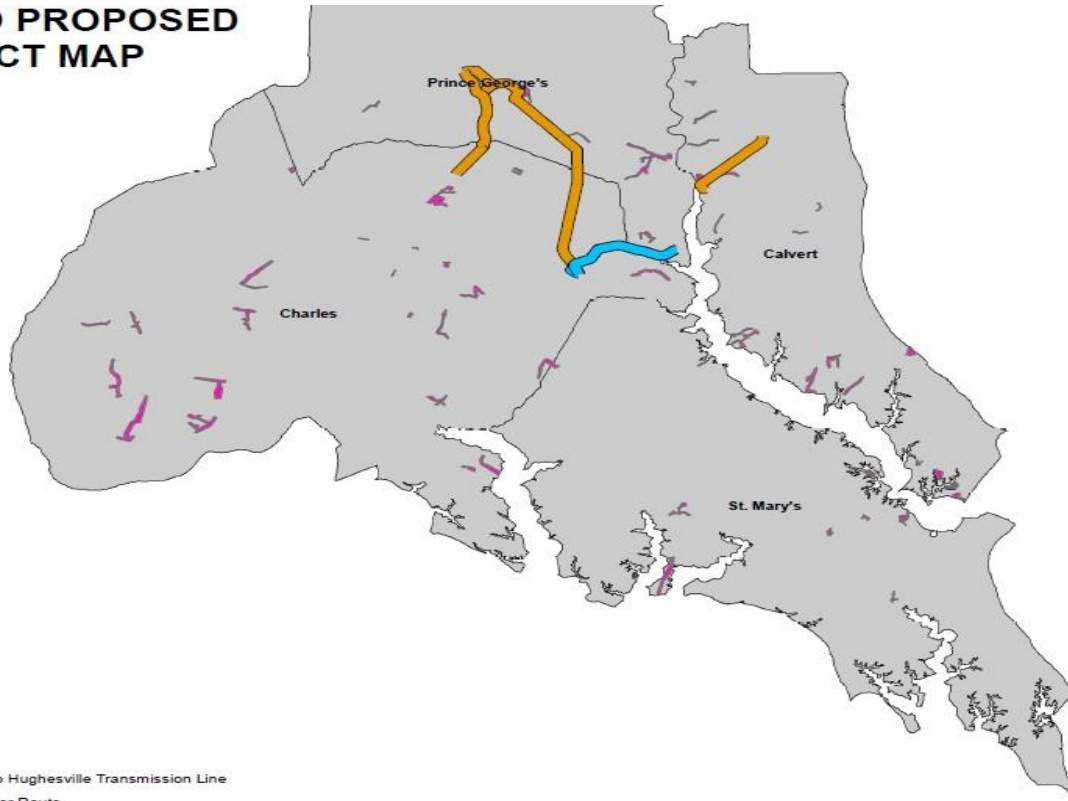
The communication projects are located in northern Charles County and northern Calvert County in rural and residential communities.

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ENVIRONMENTAL QUESTIONNAIRE

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

**SMECO PROPOSED PROJECT MAP**



**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 checked="" type="checkbox"/> Rural  | <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input 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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**ENVIRONMENTAL QUESTIONNAIRE**

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

SMECO will utilize existing farm roads. Additionally, SMECO will construct access roads as needed.

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

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

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

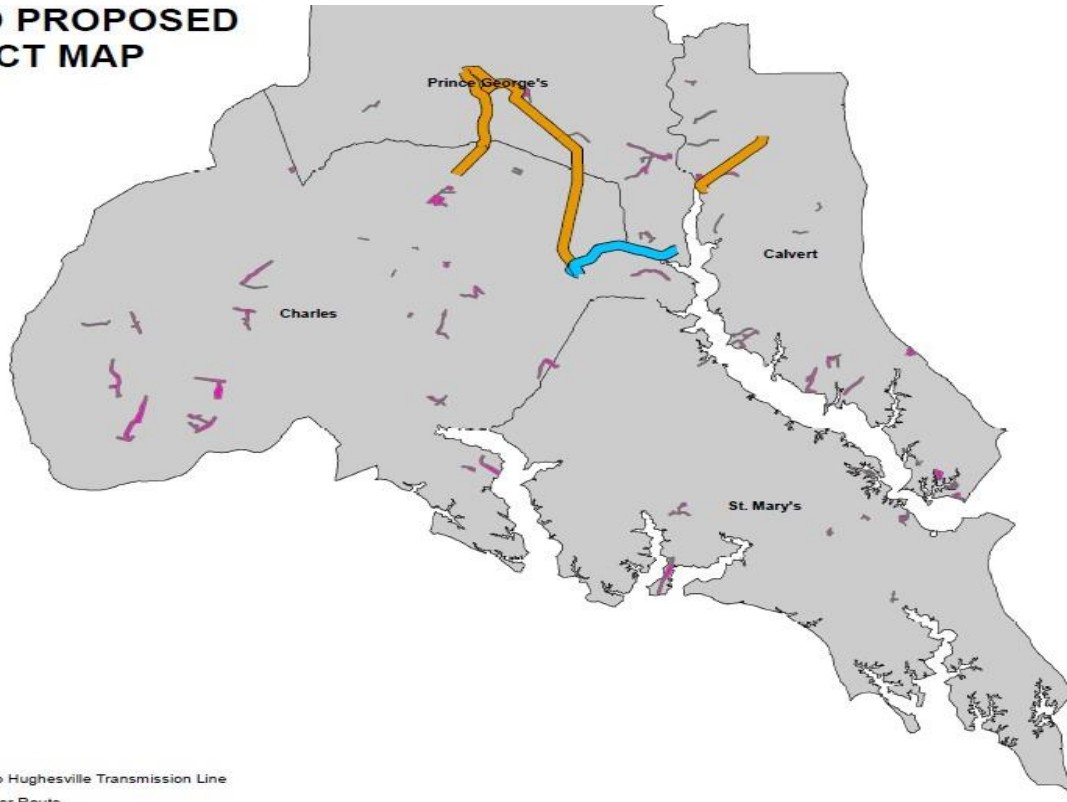
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands?  No  Yes (describe)

**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

## ENVIRONMENTAL QUESTIONNAIRE

### SMECO PROPOSED PROJECT MAP



#### Legend

-  Chalk Point to Hughesville Transmission Line
-  Proposed Fiber Route
-  Proposed Distribution Projects

- 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)
- 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)

SMECO anticipates that only marginal runoff will occur which is unavoidable.

- 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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ENVIRONMENTAL QUESTIONNAIRE

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)
- 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.

N/A

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 <sub>3</sub> - 1 Hour	X	<input type="checkbox"/>
O <sub>3</sub> - 8 Hour	X	<input type="checkbox"/>
SO <sub>x</sub>	X	<input type="checkbox"/>
PM - 2.5	X	<input type="checkbox"/>
PM - 10	X	<input type="checkbox"/>
CO	X	<input type="checkbox"/>
NO <sub>2</sub>	X	<input type="checkbox"/>
Lead	X	<input 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.

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**ENVIRONMENTAL QUESTIONNAIRE**

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 <sub>x</sub>		
<input type="checkbox"/> NO <sub>x</sub>		
<input type="checkbox"/> PM - 2.5		
<input type="checkbox"/> PM - 10		
<input type="checkbox"/> CO		
<input type="checkbox"/> CO <sub>2</sub>		
<input type="checkbox"/> Lead		
<input type="checkbox"/> H <sub>2</sub> S		
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List:		
<input type="checkbox"/> Hazardous air pollutants -- List:		
<input type="checkbox"/> Other -- List:		
<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?

N/A

**7. Hydrologic Conditions/Water Quality**

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

N/A

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

N/A

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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		
<input type="checkbox"/> Process water		
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Other -- describe:		
<input checked="" type="checkbox"/> 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)

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

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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**

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"/> <b>Municipal solid waste (e.g., paper, plastic, etc.)</b>	
<input type="checkbox"/> <b>Coal or coal by-products</b>	
<input type="checkbox"/> <b>Other -- Identify:</b>	
<input type="checkbox"/> <b>Hazardous waste – Identify: creosote laden polesX80</b>	
<input checked="" type="checkbox"/> <b>None</b>	

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)

SMECO will dispose of waste offsite at an approved facility.

d. How would wastes for disposal be transported?  
 Waste for disposal will be transported via truck to a local approved landfill.

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  
 Creosote laden poles

f. How would hazardous or toxic waste be collected and stored?     None used or produced

Poles will be removed and transported by truck to an approved facility/landfill.

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- 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.  
x 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.  
x None
- c. Would there be any special physical hazards or health risks associated with the project?    x No     Yes (describe)
- d. Does a worker safety program exist at the location of the proposed project?       No       Yes (describe)
- SMECO will fall standard organizational safety protocols and follow all local, state, and federal regulations for the proposed project.
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?  
x No       Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.  
 None       Increase in ambient noise level (describe)
- g. Would project construction result in the removal of natural or other barriers that act as noise screens?  
X No construction planned     No     Yes (describe)
- h. Would hearing protection be required for workers?    XNo       Yes (describe)

10. Environmental Restoration and/or Waste Management

- a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?  
x No       Yes (describe)

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- 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  
Describe:
  
  - 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:

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- i. [Floodplains and Wetlands Regulations](#):  None  New Required  Modification Required  
Describe:
- j. Fish and Wildlife Coordination Act (FWCA):  None  New Required  Modification Required  
Describe:
- k. National Historic Preservation Act (NHPA):  None  New Required  Modification Required  
Describe:
- l. Coastal Zone Management Act (CZMA):  None  New Required  Modification Required  
Describe:

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.

SMECO will follow local and county permitting process and regulations.

- 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)

- H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.**

None (provide supporting detail)  Significant impacts (describe)

Many rural electric co-op utilities still rely on the use of overhead lines for distribution, along with limited to negligible use of advanced communications technologies and systems. Many rural co-op utilities are thereby behind much larger scale and urban-focused utilities in terms of resiliency, with key barriers focusing on cost and financial viability in low-population density areas.

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**ENVIRONMENTAL QUESTIONNAIRE**

**I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.**

All waste materials will be disposed of at local and approved landfills.

**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: Joseph Ryan Edge Date (mm/dd/yyyy): 4/06/2023

Typed Name: Ryan Edge

Title: Director, Program Management Office

Organization: SMECO

**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

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: DOE-FOA-002740\_\_\_\_ Proposer: Southern Maryland Electric Cooperative \_\_\_\_\_
2. This Environmental Questionnaire pertains to a: X Recipient or Prime Contractor     Sub-recipient or Subcontractor
3. Principal Investigator: Ryan Edge \_\_\_\_\_ Telephone Number: 240-890-3213 \_\_\_\_\_
4. Project Title: Transmission, Distribution, and Communications Resiliency Initiative \_\_\_\_\_
5. Expected Project Duration: 2023-2028 \_\_\_\_\_
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):

Charles County, Maryland  
 Prince George’s County, Maryland  
 Calvert County, Maryland  
 St. Mary’s County.

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).

Table #2B: SMECO Resiliency Project Components (by Number/Title and Description)	
Component Number and Title	Description
<b>Project Details 2.0: DISTRIBUTION</b>	
2.1 Carrington OH to UG conversion PH 5:	Line undergrounding, 3.5 miles
2.2 Maryland Point Road, Riverside Road:	Line undergrounding, 4.2 miles, 159 customers
2.3 Hickory Ridge new 750 main line:	New line installation for resiliency / redundancy to address peak winter load resiliency, 0.5 mile
2.4 Big Road and Woodbank Road:	Copper wire replacement, 2.2 miles
2.5 Long View Beach:	Line undergrounding, length TBD
2.6 Chaneyville Rd from Farmview Ct to Flint Hill Rd:	Feeder line capacity improvement, 1.5 miles, 187 customers
2.7 Parkers Wharf Road, Patuxent Drive, Briscoe Road:	Copper wire replacement, 3.2 miles, 67 customers

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2.8 McMichaels Drive, Gray Drive, Sachem Drive, Overlook Drive, Iroquois Way: Copper conductor replacement, 1.2 miles, 86 customers
2.9 Bellwood Ln, St. Andrews Ln, Parkview Dr, Louis Dale Rd: Copper wire replacement, 1.1 miles, 110 customers
2.10 Ripley Road: New line installation to remove bottleneck, improve feeder tie quality, 2.2 miles, 116 customers
2.11 Adams Willet Road: Line undergrounding, 3.0 miles, 48 customers
2.12 Big Chestnut Road: Copper wire replacement and line undergrounding, 2.7 miles, 41 customers
2.13 Teagues Point Road: Line undergrounding, 2.8 miles, 224 customers
2.14 Baden Westwood Road: Line upgrade and replacement project to improve reliability, 1.4 miles, 198 customers
2.15 Tower Road and Old Indian Head Road: Copper wire replacement, 2.5 miles, 71 customers
2.16 Christ Church Road, Neck Road: Copper wire replacement and line undergrounding, 3.4 miles, 51 customers
2.17 Ferry Landing Road between Howes Road and Kaylorite Street: Line undergrounding, 0.9 mile, 132 customers
2.18 McCready Road: Copper wire replacement, 0.9 mile, 43 customers
2.19 Kings Landing Road: Copper wire replacement, 2.3 miles, 116 customers
2.20 Carrington PH 6 – Copley Ave OH removal: Line undergrounding
2.21 Hawkins Gate feeder exits: Add three new 15 kV feeder exits from an existing substation, 3,150 customers
2.22 Hunting Creek Rd from Ben Oak Dr to N.O. sw #3150 Lowery Rd: Upgrade existing line to alleviate deteriorating conditions and improve delivery, 1.4 miles, 190 customers
2.23 Ross Road: Copper wire replacement, 2.4 miles, 46 customers
2.24 Tap line serving #1855 Emmanuel Church Road: Line undergrounding, 0.8 mile, 12 customers
2.25 Rt 382 Croom Road: Remove existing line bottleneck and increase feeder capacity, 2.7 miles, 111 customers
2.26 Harbor Drive and Mill Creek Drive: Copper wire replacement, 2.5 miles, 141 customers
2.27 Poorhouse Road: Feeder quality improvements, 2.0 miles, 169 customers
2.28 Fire Tower Road: Copper wire replacement, 3.0 miles, 60 customers
2.29 Macs Hollow Road: Line undergrounding, 1.3 miles, 42 customers
2.30 Magruders Ferry Road and Peed Road: Line undergrounding, 2.3 miles, 39 customers
2.31 New St. Andrews #11 feeder to Woods at Myrtle Point: Install additional line to reduce feeder load, 1.6 miles, 650 customers
2.32 Esperanza Dr, Lake Dr: Copper wire replacement, 3.2 miles, 190 customers

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2.33 Lloyd Bowen Rd: Overhead line size upgrade, 1.6 miles, 72 customers
2.34 Adkins Road: Copper wire replacement, 1.2 miles, 71 customers
2.35 Newtowne Neck Road: Copper wire replacement, 2.0 miles, 26 customers
2.36 Mitchell Road: Line replacement to alleviate existing bottleneck, 0.5 mile, 97 customers
2.37 North Ryceville Road; Dixie Lyon Road: Copper wire replacement, 2.4 miles, 46 customers
2.38 West Hatton Road, Nyce Manor Place: Copper wire replacement, 2.6 miles, 39 customers
2.39 Rt 262 Lower Marlboro Road from Briscoe Turn Road to Chaneyville Road: Bottleneck removal, 1.7 miles, 312 customers

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

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.**

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## ENVIRONMENTAL 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

- X 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.

N/A

### C. PROJECT LOCATION

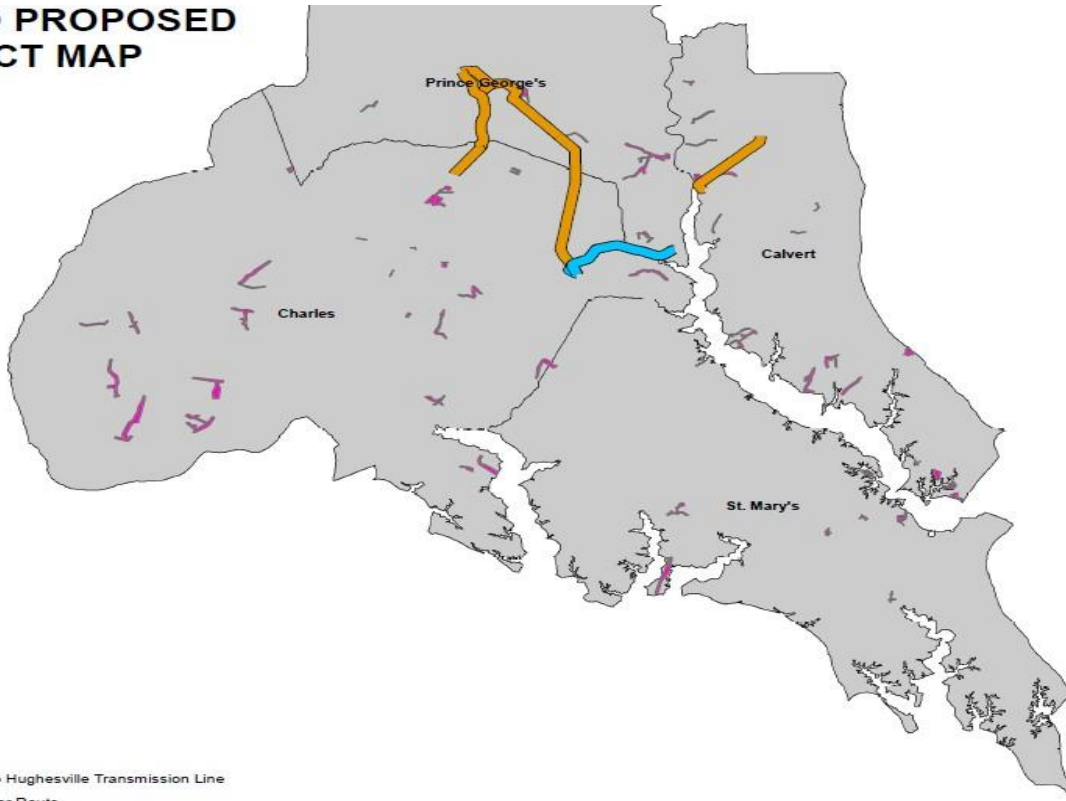
1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

Projects are located within Charles, Calvert, St. Mary's and Prince Georges Counties in rural residential areas. See attached map for individual project locations and more detailed site information.

# ENVIRONMENTAL QUESTIONNAIRE

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

## SMECO PROPOSED PROJECT MAP



**Legend**

- Chalk Point to Hughesville Transmission Line
- Proposed Fiber Route
- Proposed Distribution Projects

### 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 checked="" type="checkbox"/> Rural  | <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> Research Facilities |
| <input 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.

This project includes undergrounding 24.9 miles of overhead line, the replacement of 37.9 miles of aging conductors (primarily copper), and the addition of three new feeder tie lines.

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**ENVIRONMENTAL QUESTIONNAIRE**

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.

SMECO will utilize existing farm roads. Additionally, SMECO will construct access roads as needed.

d. Describe how land use would be affected by operational activities associated with the proposed project.

X No land areas would be affected.

e. Describe any plans to reclaim areas that would be affected by the proposed project.

x No land areas would be affected.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

x No  Yes (describe)

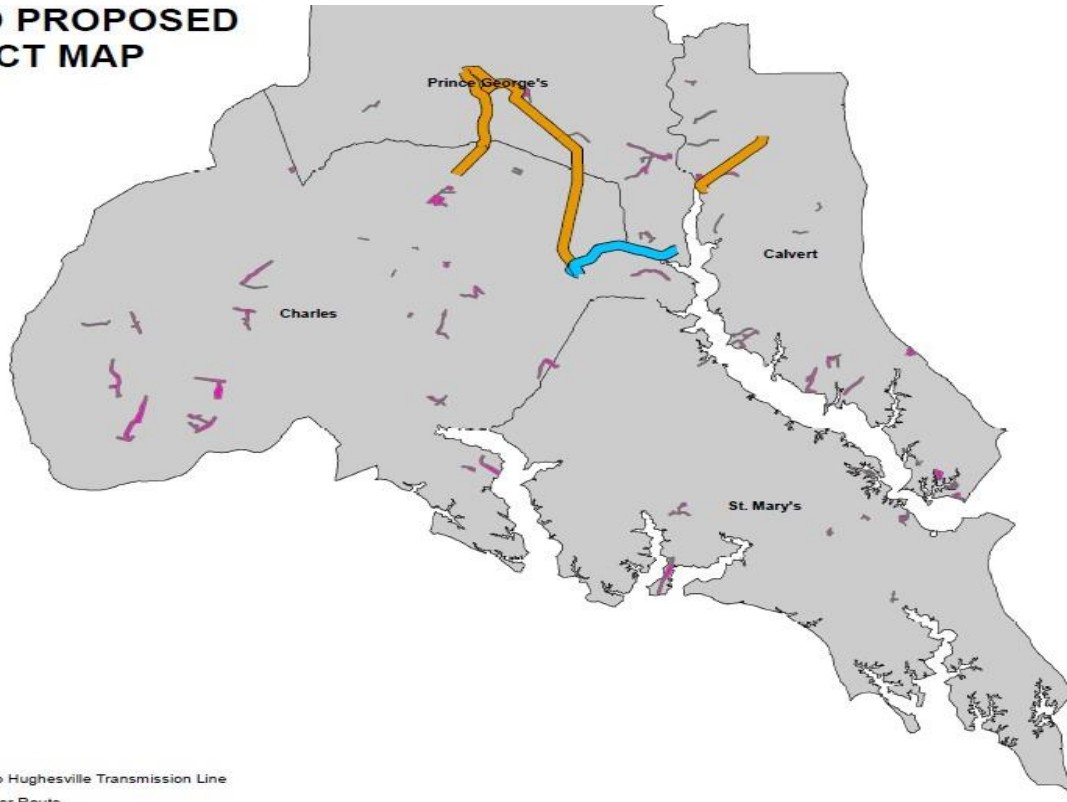
g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? x No  Yes (describe)

**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

# ENVIRONMENTAL QUESTIONNAIRE

## SMECO PROPOSED PROJECT MAP



**Legend**

- Chalk Point to Hughesville Transmission Line
- Proposed Fiber Route
- Proposed Distribution Projects

- 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)
- 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)

SMECO anticipates that only marginal runoff will occur twhichis unavoidable.

- 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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ENVIRONMENTAL QUESTIONNAIRE

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)
- 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.

N/A

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 <sub>3</sub> - 1 Hour	X	<input type="checkbox"/>
O <sub>3</sub> - 8 Hour	X	<input type="checkbox"/>
SO <sub>x</sub>	X	<input type="checkbox"/>
PM - 2.5	X	<input type="checkbox"/>
PM - 10	X	<input type="checkbox"/>
CO	X	<input type="checkbox"/>
NO <sub>2</sub>	X	<input type="checkbox"/>
Lead	X	<input 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.

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**ENVIRONMENTAL QUESTIONNAIRE**

d. Would the proposed project be classified as either a New Source or a major modification to an existing source?  
 X 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 <sub>x</sub>		
<input type="checkbox"/> NO <sub>x</sub>		
<input type="checkbox"/> PM - 2.5		
<input type="checkbox"/> PM - 10		
<input type="checkbox"/> CO		
<input type="checkbox"/> CO <sub>2</sub>		
<input type="checkbox"/> Lead		
<input type="checkbox"/> H <sub>2</sub> S		
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List:		
<input type="checkbox"/> Hazardous air pollutants -- List:		
<input type="checkbox"/> Other -- List:		
<input checked="" type="checkbox"/> None		

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

g. How would emissions be vented?

N/A

**7. Hydrologic Conditions/Water Quality**

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

N/A

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

N/A

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ENVIRONMENTAL QUESTIONNAIRE

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

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water		
<input type="checkbox"/> Process water		
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Other -- describe:		
<input checked="" type="checkbox"/> 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)

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

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ENVIRONMENTAL QUESTIONNAIRE

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

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	2 tons during construction only will be disposed at an approved landfill
<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)

Waste will be disposed of at an approved facility.

d. How would wastes for disposal be transported?  
 Waste for disposal will be transported via truck to a local approved landfill.

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  
 Creosote laden poles

f. How would hazardous or toxic waste be collected and stored?       None used or produced

All poles are transported by box truck to the Zwicky processing facility in PA.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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)

SMECO will fall standard organizational safety protocols and follow all local, state, and federal regulations for the proposed project.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
- No       Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
- None       Increase in ambient noise level (describe)

Only during construction

- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
- No construction planned     No     Yes (describe)
- h. Would hearing protection be required for workers?     No       Yes (describe)

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)

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ENVIRONMENTAL QUESTIONNAIRE

- 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  
Describe:
- SMECO will be required to receive wetland authorization from Maryland Department of the Environment and the Army Corps of Engineers
- 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:

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h. Endangered Species Act (ESA):  None  New Required  Modification Required  
Describe:

i. [Floodplains and Wetlands Regulations](#):  None  New Required  Modification Required  
Describe:

See answer above

j. Fish and Wildlife Coordination Act (FWCA):  None  New Required  Modification Required  
Describe:

k. National Historic Preservation Act (NHPA):  None  New Required  Modification Required  
Describe:

l. Coastal Zone Management Act (CZMA):  None  New Required  Modification Required  
Describe:

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.

Local/county permitting process ...development services permit

**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)

**H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.**

None (provide supporting detail)  Significant impacts (describe)

In total, this element will directly improve service resiliency and reliability for at least 3,360 customers directly affected by the relevant lines.

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**ENVIRONMENTAL QUESTIONNAIRE**

**I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.**

All waste materials will be disposed of at local and approved landfills.

**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: Joseph Ryan Edge Date (mm/dd/yyyy): 04/06/2023

Typed Name: Joseph Ryan Edge

Title: Director, Program Management Office

Organization: Southern Maryland Electric Cooperative

**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**

**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: DOE-FOA-002740\_\_\_\_ Proposer: Southern Maryland Electric Cooperative \_\_\_\_\_
2. This Environmental Questionnaire pertains to a:  Recipient or Prime Contractor     Sub-recipient or Subcontractor
3. Principal Investigator: Ryan Edge \_\_\_\_\_ Telephone Number: 240-890-3213\_\_\_\_\_
4. Project Title: Transmission, Distribution, and Communications Resiliency Initiative \_\_\_\_\_
5. Expected Project Duration: 2023-2028\_\_\_\_\_
6. Location of Activities covered by **this** Environmental Questionnaire: (City/Township, County, State):

Hughesville, Charles County, Maryland  
 Cedarsville, Prince George’s County, Maryland  
 West Brandywine, Prince George’s County, Maryland  
 Waldorf, Maryland, Charles County, Maryland.  
 Calvert County, Maryland

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
  - Replace static wire with high-capacity optical ground wire (OPGW) on transmission lines 6720, 6721, 6728, 6622, 6715, 6710; Create a fiber loop that encompasses Hughesville, Cedarville, West Brandywine, Burches Hill, Mattawoman, and Waldorf; Establish new communications capabilities to remote sites via high speed fiber optic cable in a redundant ring configuration
  - Replace static wire with high capacity OPGW on transmission line 6782; Extend the SONET ring in Calvert County to two unconnected substations
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

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

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## ENVIRONMENTAL QUESTIONNAIRE

### 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

- X 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.  
N/A

### C. PROJECT LOCATION

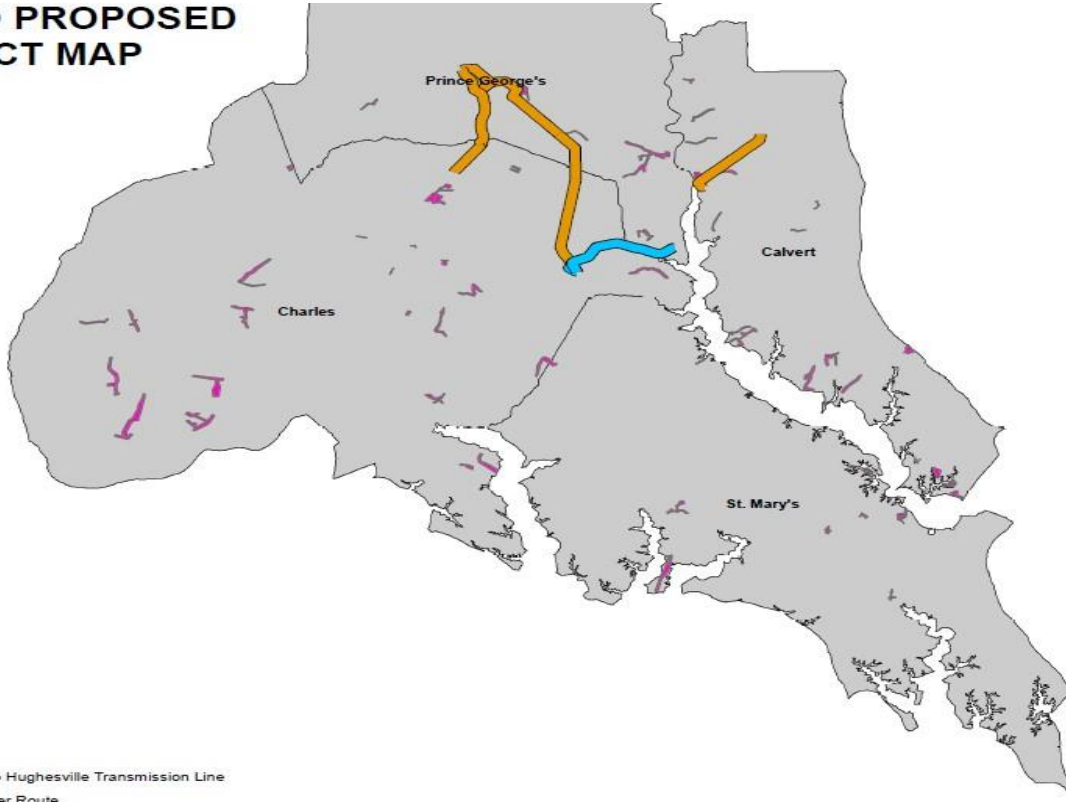
1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The existing equipment is in unavoidable wetland area and the upgrade will harden a transmission that supplies 9 substations, 28,000 customers, and has indirect effects on much of SMECO's service area.

## ENVIRONMENTAL QUESTIONNAIRE

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

### SMECO PROPOSED PROJECT MAP



#### Legend

- Chalk Point to Hughesville Transmission Line
- Proposed Fiber Route
- Proposed Distribution Projects

### 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 checked="" type="checkbox"/> Rural  | <input type="checkbox"/> Residential  | <input type="checkbox"/> Research Facilities |
| <input 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.

Construction will occur along an approximately 7-mile corridor where easements are 150 feet wide. The entire corridor will be utilized.

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**ENVIRONMENTAL QUESTIONNAIRE**

- 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.

SMECO will utilize existing farm roads. Additionally, SMECO will construct access roads as needed.

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

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

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

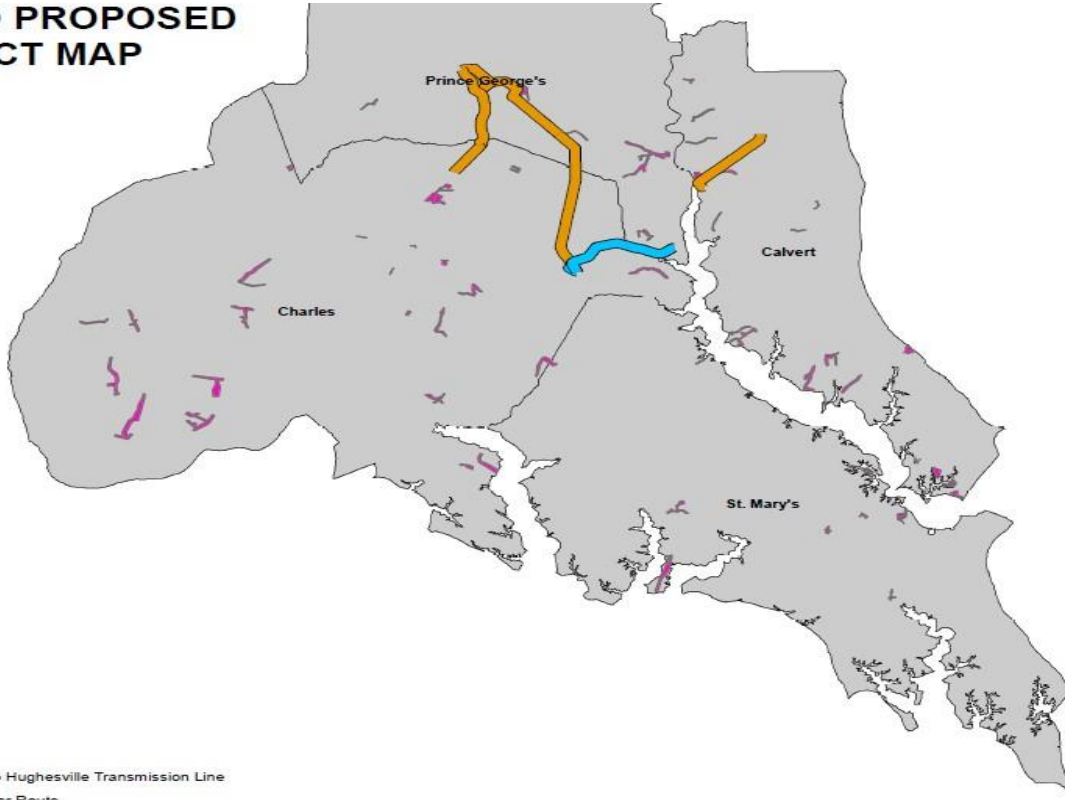
- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? x No  Yes (describe)

**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

## ENVIRONMENTAL QUESTIONNAIRE

### SMECO PROPOSED PROJECT MAP



#### Legend

-  Chalk Point to Hughesville Transmission Line
-  Proposed Fiber Route
-  Proposed Distribution Projects

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)

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

The proposed project will temporarily take place in a floodplain and wetlands for access.

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

SMECO anticipates that only marginal run off will occur that is unavoidable. All sediment and erosion controls will be strictly monitored to avoid and minimize runoff.

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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ENVIRONMENTAL QUESTIONNAIRE

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)
- 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.

N/A

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 <sub>3</sub> - 1 Hour	X	<input type="checkbox"/>
O <sub>3</sub> - 8 Hour	X	<input type="checkbox"/>
SO <sub>x</sub>	X	<input type="checkbox"/>
PM - 2.5	X	<input type="checkbox"/>
PM - 10	X	<input type="checkbox"/>
CO	X	<input type="checkbox"/>
NO <sub>2</sub>	X	<input type="checkbox"/>
Lead	X	<input 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.

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**ENVIRONMENTAL QUESTIONNAIRE**

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 <sub>x</sub>		
<input type="checkbox"/> NO <sub>x</sub>		
<input type="checkbox"/> PM - 2.5		
<input type="checkbox"/> PM - 10		
<input type="checkbox"/> CO		
<input type="checkbox"/> CO <sub>2</sub>		
<input type="checkbox"/> Lead		
<input type="checkbox"/> H <sub>2</sub> S		
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List:		
<input type="checkbox"/> Hazardous air pollutants -- List:		
<input type="checkbox"/> Other -- List:		
<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?

N/A

**7. Hydrologic Conditions/Water Quality**

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

Swanson Creek is the nearest body of water that could be affected by the proposed project.

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

N/A



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ENVIRONMENTAL QUESTIONNAIRE

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

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water		
<input type="checkbox"/> Process water		
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Other -- describe:		
<input checked="" type="checkbox"/> 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)

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

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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**

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"/> <b>Municipal solid waste (e.g., paper, plastic, etc.)</b>	
<input type="checkbox"/> <b>Coal or coal by-products</b>	
<input type="checkbox"/> <b>Other -- Identify:</b>	
<input type="checkbox"/> <b>Hazardous waste – Identify: creosote laden polesX80</b>	<b>240 tons during construction only will be disposed at an approved landfill</b>
<input type="checkbox"/> <b>None</b>	

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)

Bridgewell Resources picks up the used poles by box truck and delivers them to Zwicky Recycling and Processing where the treated poles are ground down into mulch/dust. This mulch/dust is then sent to approved landfills and used as compactible cover.

d. How would wastes for disposal be transported?  
 Waste for disposal will be transported via truck to a local approved landfill.

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  
 Creosote laden poles

f. How would hazardous or toxic waste be collected and stored?                       None used or produced

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Poles will be removed, and transported by truck to approved facility/landfill.

Bridgewell Resources picks up the used poles by box truck and delivers them to Zwicky Recycling and Processing where the treated poles are ground down into mulch/dust. This mulch/dust is then sent to approved landfills and used as compactible cover.

- 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)

SMECO will fall standard organizational safety protocols and follow all local, state, and federal regulations for the proposed project.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
- No                       Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
- None                       Increase in ambient noise level (describe)

Noise levels from construction activity is expected to be under 70 decibels.

- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
- No construction planned     No     Yes (describe)

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h. Would hearing protection be required for workers?  No  Yes (describe)

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  
Describe:

SMECO will be required to receive wetland authorization from the Maryland Department of the Environment and the Army Corps of Engineers .

e. Underground Storage Tank Control Program (UST):  None  New Required  Modification Required  
Describe:

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- 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:
- i. [Floodplains and Wetlands Regulations](#):  None  New Required  Modification Required  
Describe:

SMECO will be required to receive wetland authorization from the Maryland Department of the Environment and the Army Corps of Engineers .

- j. Fish and Wildlife Coordination Act (FWCA):  None  New Required  Modification Required  
Describe:
- k. National Historic Preservation Act (NHPA):  None  New Required  Modification Required  
Describe:
- l. Coastal Zone Management Act (CZMA):  None  New Required  Modification Required  
Describe:

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.

Local/county permitting process ...development services permit

**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)

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**H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.**

- None (provide supporting detail)       Significant impacts (describe)

Replace Four (4), aged 69-kV transmission lines. H-frames along the Chalk Point to Hughesville Transmission Line corridor will be replaced with new steel structures will to significantly improve line reliability, safety, and resiliency for more than 28,000 customers (up to at least 115,000 during contingencies) affected SMECO customers. This proactive measure will mitigate long-duration service interruptions (repairs can take up to six weeks ) due to its remote location.

**I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.**

All waste materials will be disposed of at local and approved landfills.

**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: Joseph Ryan Edge      Date (mm/dd/yyyy): 04/06/2023

Typed Name: Joseph Ryan Edge

Title: Director, Program Management Office

Organization: Southern Maryland Electric Cooperative

**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: \_\_\_\_\_

# APPENDIX F – PROJECT DESCRIPTION AND ASSURANCES DOCUMENT TEMPLATE (PDAD)

Project title: SMECO Transmission, Distribution, and Communications Resiliency Initiative

Applicant Name: Southern Maryland Electric Cooperative (SMECO)

Applicant Address: 14950 Cooperative Place, Hughesville, MD 20637

Names of all team member organizations (if applicable): SMECO

Principal Investigator (Name, Address if different than Applicant's, Phone Number, E-mail): Ryan Edge,  
[ryan.edge@smeco.coop](mailto:ryan.edge@smeco.coop), 240-890-3213

Business Point of Contact (Name, Address if different than Applicant's, Phone Number, E-mail): Ryan Edge,  
[ryan.edge@smeco.coop](mailto:ryan.edge@smeco.coop), 240-890-3213

Include any statements regarding confidentiality.

Federal Share: \$\$33,567,016

Cost Share: \$15,642,000

Total Estimated Project Cost: \$49,209,016

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)

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-0002740) that has been spent for the previous 3 years. Please also provide the time period utilized for calculation of this amount.**

Total Amount: 35,581,271, 2020-2022

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 IJA 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



\_\_\_\_\_X\_\_\_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 e-mail address for the authorized agent to bind the entity

Beth Kennedy, [beth.kennedy@smeco.coop](mailto:beth.kennedy@smeco.coop), (301) 274-4328

Authorized Organizational Representative (AOR): Name:

Address: Phone: E-mail:

Item 8: Signature of Authorized Organizational Representative (AOR)

 \_\_\_\_\_

## **Report on Resiliency Investments**

### **1.0 Historic Resiliency Investments (2019 to Present)**

SMECO has successfully completed the following resiliency investment projects:

**Oakville 24 – 219.201 (2019-2020)**, \$412,293: Convert 1PH #6 ACWD to 3PH 1/0 AL URG along Cat Creek Rd to address tree related outages, outcome = completed in 2020 / within budget.

**Oakville 24 – 219.202 (2019-2020)**, \$162,416: Convert 1PH #6 ACWD to 0.9 miles of 1PH 1/0 AL URD on Woodland Rd to address tree related outage concerns and aging poles/hardware, outcome = completed in 2020/ within budget.

**Leonardtown 13 – 319.201 (2019-2020)**, \$658,077: Convert 1PH #4 & #6 ACWD and #6 HDDB to 1PH #2 ACSR along Society Hill Rd to address load balance, capacity, and reliability concerns, outcome = completed in 2020 / within budget.

**Leonardtown 22/23 – 319.202 (2019-2020)**, \$579,042: Convert 1PH and 3PH #4 & #6 ACWD to 1PH & 3PH #2 ACSR along Leonardtown Town, outcome = completed in 2020 / within budget.

**Milestown 2 – 319.203 (2019-2020)**, \$1,544,061: Upgrade 1PH #6 ACWD, #6 HDDB, and #4 ACSR OH conductor to 1PH #2 to improve capacity, outage reliability, end-of-line voltage on Pleasant Dr and Longview Blvd, outcome = completed in 2020 / within budget.

**Oakville 24 – 319.204 (2019-2020)**, \$377,331: Convert 1PH #6 ACWD to 1PH #2 ACSR on Ridge Rd, Allison Dr, Manor Dr, and Cape St Mary's Dr to address tree related outages and aging poles/hardware, outcome = completed in 2020 / within budget.

**Ridge 3 – 319.206 (2019-2020)**, \$436,359: Copper replacement project to upgrade 1PH #6 HDDB to 1PH #2 ACSR conductor Curley's Road, outcome = completed in 2020 / within budget.

**Mason Springs 12, Grayton 2 – 319.402 (2019-2020)**, \$1,077,062: Upgrade 3PH #1/0 ACSR to 3PH 336.4 MCM ACSR OH line project to improve capacity and outage reliability on Mason Springs Road, outcome = completed in 2020 / within budget.

**Mattawoman 22, West Brandywine 13 – 319.403 (2019-2020)**, \$927,100: Upgrade 3PH #2 ACSR to 3PH 336.4 MCM ACSR on McKendre Rd to improve capacity, outage reliability, and feeder quality tie line, outcome = completed in 2020 / within budget.

**Piscataway 24 – 319.406 (2019-2020)**, \$242,644: Convert 1PH #6 HDDB conductor to 3PH 1/0 AL UG on Pine Lane to create loop feed, outcome = completed in 2020 / within budget.

**Tompkinsville 3 – 319.407 (2019-2020)**, \$484,131: Upgrade 3PH 2/0 ACSR to 3PH 336 ACSR and 750 AL UG on Cobb Island Rd to avoid end of line voltage drop, outcome = completed in 2020 / within budget.

**Tompkinsville 3 – 319.408 (2019-2020)**, \$274,848: Convert 1PH #6 ACWD to 0.3 miles 2PH ACSR, 0.6 miles 1PH #2 ACSR, and 0.6 miles 1PH AL URD on Rock Point Rd to improve area reliability, outcome = completed in 2020 / within budget.

**Leonardtown 23 – 220.200 (2020)**, \$431,300: Install new 3PH 750 AL UG tie line between Mechanicsville 11 and Ryceville 3, outcome = completed on time / within budget.

**Mechanicsville 11 – 220.201 (2020)**, \$228,900: Install new 3PH 750 AL UG tie line between Leonardtown 11 & 23, install a new 3PH 1/0 AL UG tie, and reconfigure local area service feeds along Leonardtown Rd North, outcome = completed on time / within budget.

**Saint Andrews 22 – 220.202 (2020)**, \$394,100: Install new 3PH 750 AL UG tie line between Saint Andrew 22 and 24, outcome = completed on time / within budget.

**Independence 11 – 220.400 (2020)**, \$338,500: Install new 3PH 1000 MCM AL UG feeder exit along Livingston Rd, Independence Rd, and Indian Head Hwy S to relieve heavily loaded substations, outcome = completed on time / within budget.

**Independence 12/13 – 220.401 (2020)**, \$601,600: Install new 3PH 750 MCM AL UG tie line and two 600-amp 3&2 pad mount switches in North Indian Head Estates, outcome = completed on time / within budget.

**Farmington Exits – 220.403 (2020)**, \$340,000: Address unexpected Piscataway #2 transformer failure, retire existing substation 15 kV feeder exits and create new Farmington 15 kV feeder exits, outcome = completed on time / within budget.

**Hollywood 13 – 320.200 (2020)**, \$588,300: Convert #6 ACWD and #6 HDBC conductor to 1/0 AL UG along Forest Landing Rd, Three Coves Rd, Riva Lane, and White Swan Rd to balance a large 1PH load, outcome = completed on time / within budget.

**Hollywood 21 – 320.201 (2020)**, \$632,700: Convert all area tap lines in the Jones Wharf Rd area to 1/0 AL UG, outcome = completed on time / within budget.

**Leonardtown 14 – 320.202 (2020)**, \$185,500: Convert Bayside Rd 1PH #6 ACWD to 1PH 1/0 AL UG due to tree related outages/access issues, outcome = completed on time / within budget.

**Oakville 24 – 320.203 (2020)**, \$162,200: Convert Holly Lane 1PH #6 ACWD to 1PH 1/0 AL UG along Holly Lane and Maple Dr to address tree related outage and access issues, outcome = completed on time / within budget.

**Redgate 13 – 320.204 (2020)**, \$208,400: Convert Camp Cosoma Rd 1PH #6 ACWD to 1PH 1/0 AL UG to address tree related outage concerns, outcome = completed on time / within budget.

**Ridge 3 – 320.205 (2020)**, \$1,058,200: Upgrade 50 L line recloser #2466 to a 3PH 200-amp VersaTech line recloser set, 1PH #6 HDBC, 3PH #2 ACSR and #6 ACWD to 1PH #2 ACSR and 1PH 1/0 AL UG along Fresh Pond Neck Rd, Hays Beach Rd, Murray Rd, Long Neck Rd, Bradburn Lane, South Point Lane, Gray Goose Lane, Fenwick Pride Lane, Bay Ave, and Holly Dr to eliminate area water crossings and address line access issues, outcome = completed on time / within budget.

**Ryceville 14 – 320.206 (2020)**, \$645,400: Replace 1PH 1/0 AL UG lines with 2PH & 3PH 1/0 AL UG to address extreme phase imbalance on main trunk, prevent fuse-links from melting under heavy peak load, and avoid areas where opposing phases meet at 1PH 1/0 AL UG vault normal-open point in Wicomico Shores, outcome = completed on time / within budget.

**Solomons 24 – 320.208 (2020)**, \$335,200: Convert Deer Dr and Johnson Dr 1PH #6 ACWD to 3PH 1/0 AL UG to address large single phase load balance and tree related outage concerns, outcome = completed on time / within budget.

**Hollywood 24 – 320.209 (2020)**, \$276,700: Convert 1PH #6 ACWD Sandy Bottom Rd to 3PH 1/0 AL UG to provide capacity to Airport View Rd, outcome = completed on time / within budget.

**Saint Charles 12 – 320.400 (2020)**, \$1,150,200: Phase 1 of area conversion project to address aging OH and relocate facilities along the street due to access issues along Barksdale Ave, Copley Ave, Sloan Ave, and Belfast Rd, outcome = completed on time / within budget.

**Faulkner 2 – 320.401 (2020)**, \$424,400: Convert 1PH #6 ACWD to 3PH 1/0 AL UG along Lomax Rd, Diggs Rd, and Pluto Lane to address load balancing and tree related outage concerns, outcome = completed on time / within budget.

**Forest Park 21 – 320.402 (2020)**, \$489,700: Upgrade 1PH #6 ACWD to 1PH #2 ACSR, add new 3PH 1/0 AL UG on Leonardtown Rd, upgrade 1PH #6 ACWD to 3PH #2 ACSR on Marion Lane, and 1PH #6 ACWD to 1PH #2 ACSR along Forest Park Dr, Randolph Dr, and Middleton Farm Rd, outcome = completed on time / within budget.

**Mason Springs 12 – 320.405 (2020)**, \$709,100: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR project to complete feeder quality tie between Mason Springs 12 and 14 along Bicknell Rd, outcome = completed on time / within budget.

**Mason Springs 14 – 320.406 (2020)**, \$332,400: Upgrade 1PH #6 ACWD to 3PH 336.4 MCM ACSR on Sweetman Rd, outcome = completed on time / within budget.

**Piscataway 14 – 320.407 (2020)**, \$179,500: Replace all 1PH #6 HDDB OH with 1PH #2 ACSR and 1PH 1/0 AL UG along Airport Lane and Schall Rd to address tree related outage and access issues, outcome = completed on time / within budget.

**Hollywood 23 – 221.200 (2021)**, \$760,200: Add new Hollywood 23 main feeder 1000 MCM AL UG exit cable from substation to Hollywood Rd., outcome = completed on time / within budget.

**Bolton 23 – 221.400 (2021)**, \$875,700: Add new 3PH 750 MCM UG tie line along Route 228 Berry Rd to create a feeder quality tie and improve capacity and load balance concerns, outcome = completed on time / within budget.

**Dorchester 13 – 221.401 (2021)**, \$158,500: Install dedicated feeder to serve Heritage Green Development by adding a new Dorchester 13 1000 AL UG main feeder exit cable along Dorchester Ave and Caroline Dr, outcome = completed on time / within budget.

**Mount Victoria Exits – 221.402 (2021)**, \$890,200: Create four new 1000 MCM AL UG Mount Victoria substation 15 kV feeder exits to support Mount Victoria substation construction, outcome = completed on time / within budget.

**Hollywood 13/21 – 321.200 (2021)**, \$563,200: Convert 1PH #2 ACSR to 3PH 1/0 AL UG on Vista Rd, Ferguson Rd, and Hemming Way outcome = completed on time / within budget.

**Mechanicsville 12 – 321.201 (2021)**, \$558,500: Convert 1PH #6 HDDB to 1PH 1/0 AL UG on Lockes Crossing Rd, outcome = completed on time / within budget.

**Mechanicsville 12 – 321.202 (2021)**, \$579,200: Replace 1PH #6 HDDB and #6 ACWD to 1PH #2 ACSR and 1PH, 2PH, and 3PH 1/0 AL UG along Old Route 5 Old Village Rd, Saint Mary's St, and Lockes Hill Rd, outcome = completed on time / within budget.

**Mechanicsville 13 – 321.203 (2021)**, \$391,300: Upgrade existing 3PH 2/0 ACSR to 3PH 750 MCM AL UG and 3PH 336.4 MCM ACSR along New Market Turner Rd to create a feeder quality tie between Mechanicsville 13 and Oakville 23, outcome = completed on time / within budget.

**Oakville 23 – 321.204 (2021)**, \$466,600: Convert existing 1PH #6 ACWD, #6 HDDB and #2 ACSR to 1PH and 3PH 1/0 AL UG along Laurel Grove Rd, Pink Hill Lane, and Mary Dixon Rd to address large load issues, outcome = completed on time / within budget.

**Saint James 11 – 321.205 (2021)**, \$404,100: Convert 3PH #2 and #4 ACWD to 3PH 1/0 AL UG and replace existing 1PH #4A with 1PH #2 ACSR along Poplar Ridge Rd, Hillside Rd, Springhill Rd, and Ridge Rd, outcome = completed on time / within budget.

**Saint James 12 – 321.206 (2021)**, \$471,900: Convert 1PH #6 HDBC and #6 ACWD to 2PH and 1PH 1/0 UG and add two upstream 300-amp LB SBD N.C. switches on Saint Jeromes Neck Rd, outcome = completed on time / within budget.

**Bannister 22 – 321.400 (2021)**, \$787,300: Convert aging OH and relocate along Barksdale Ave, Melrose Ct, Cutler Ct, Bedford Ct, Rivermont Dr, Fowler Ct, Barrington Dr, Stone Ave, and McCoy Dr to address restricted access issues, outcome = completed on time / within budget.

**Independence 12/13 – 321.401 (2021)**, \$1,531,600: Convert and relocate difficult to access 1PH and 3PH #2 ACSR, #4 ACSR, and #6 ACWD to 1PH and 3PH 1/0 AL UG in North Indian Head Estates, outcome = completed on time / within budget.

**Dunkirk 21 – 321.403 (2021)**, \$199,800: Replace 1PH #6 ACWD & #4 ACSR with 3PH, 1PH 1/0 AL UG on Palisades Dr, Steven Ln, and Patuxent Ct, outcome = completed on time / within budget.

**La Plata 11 – 321.404 (2021)**, \$53,500: Create 3PH loop feed by replacing existing 1PH and 2PH 1/0 AL UG with 3PH 1/0 AL UG along East Quail Lane, Tanager Ct, and Pheasant Lane, outcome = completed on time / within budget.

**Mason Springs 22 – 321.405 (2021)**, \$191,200: Convert 1PH #6 ACWD and #6 HDBC to 3PH, 2PH, 1PH 1/0 AL UG along Strauss Ave, Davis Dr, Prospect Ave, and Kenneth St to address load and access issues, outcome = completed on time / within budget.

**Mason Springs 22 – 321.406 (2021)**, \$196,100: Replace 1PH #6 HDBC and #6 ACWD OH conductor with 1PH #2 ACSR OH conductor and convert 3PH #6 HDBC to 1PH #2 ACSR conductor in Potomac Heights development, outcome = completed on time / within budget.

**Mason Springs 22 – 321.407 (2021)**, \$108,100: Create 1PH loop feed and a new 1/0 AL UG N.O. point at Oak Rd transformer 5 by converting Poplar Ln 2PH #6 HDBC and 1PH #6 ACWD to 1PH #2 ACSR, and 200ft 1/0 AL UG tie line, outcome = completed on time / within budget.

**Mutual 23 – 321.408 (2021)**, \$397,800: Convert existing 1PH #6 ACWD OH to 1PH, 2PH, and 3PH 1/0 AL UG and replace 1PH 1/0 AL UG with 3PH 1/0 AL UG along Hance Rd to address large load and tree related outage concerns, outcome = completed on time / within budget.

**Saint Charles 12 – 321.409 (2021)**, \$379,400: Convert 3PH 336.4 ACSR to 3PH 750 MCM AL UG from St. Charles substation to Garner Ave, outcome = completed on time / within budget.

**Saint James 13 – 222.200 (2022)**, \$317,200: Install new 3PH 750 AL UG tie line between Saint James 13 and Ridge 1 to address maintenance needs and contingency situations on substation loads, outcome = completed on time / within budget.

**Bannister 11 – 222.400 (2022)**, \$150,500: Install 3PH 750 MCM UG tie line between Bannister 11, Bannister 12, Saint Charles 15, and Saint Charles 24 feeders to create contingency ties, outcome = completed on time / within budget.

**Bannister 12 – 222.401 (2022)**, \$443,700: Create new 3PH 750 MCM UG tie line between Bannister 12 and Forest Park feeder 21 to create a loop feed for Fieldside and Southern Villages residential developments, outcome = completed on time / within budget.

**Piscataway 15 – 222.402 (2022)**, \$1,321,000: Install new 750 UG feeder tie line and 3PH 219-amp line regulator set along Floral Park Rd to provide alternative source feed to Preserves at Piscataway development, outcome = completed on time / within budget.

**Bolton 22 – 222.403 (2022)**, \$66,900: Add new Bolton #22 1000 AL UG main feeder exit cable from substation to Killenney Place, outcome = completed on time / within budget.

**Hollywood 13 – 322.200 (2022)**, \$510,300: Convert 1PH #6 ACWD to 2PH, & 1PH 1/0 AL UG and a new 3PH 140-amp VersaTech line recloser on Ingleside Dr, Smiths Nursery Rd, and Twin Oaks Way, outcome = completed on time / within budget.

**Leonardtown 24 – 322.201 (2022)**, \$804,500: Upgrade existing 3PH #4 ACWD to 3PH 336.4 MCM ACSR and 1PH #6 ACWD to a mix of 1PH 1/0 AL UG and #2 ACSR to address load balance needs, outcome = completed on time / within budget.

**Mechanicsville 14 – 322.202 (2022)**, \$237,400: Convert 1PH #6 HDBC and #6 ACWD OH to 3PH/2PH/1PH 1/0 AL UG on Harpers Corner Rd, Bohle Rd, and Sandy Acres Ln, outcome = completed on time / within budget.

**Oakville 23 – 322.203 (2022)**, \$358,900: Convert 1PH #6 ACWD OH to 1PH/2PH/3PH 1/0 AL UG on Old Horse Landing Rd to address large load, outcome = completed on time / within budget.

**Redgate 13 – 322.204 (2022)**, \$395,700: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR OH line to address bottleneck on Chingville Rd, outcome = completed on time / within budget.

**Ridge 3 – 322.205 (2022)**, \$588,500: Replace 1PH #6 ACWD and HDBC conductor with 3PH and 1PH #2 ACSR to balance load on Airedale Rd, outcome = completed on time / within budget.

**Valley Lee 3 – 322.206 (2022)**, \$717,500: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR OH line to eliminate bottleneck on Flat Iron Rd, outcome = completed on time / within budget.

**Oakville 23 – 322.207 (2022)**, \$862,200: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR main feeder on New Market Turner Rd, outcome = completed on time / within budget.

**Saint James 11 – 322.208 (2022)**, \$480,400: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR OH line to address bottleneck on Park Hall Rd, outcome = completed on time / within budget.

**Saint Charles 12 – 322.400 (2022)**, \$429,700: Phase 3 of area conversion project to convert and relocate aging OH facilities to UG to address access issues along Barrington Dr, Copley Ave, Post Office Rd, and Kenyon Ave, outcome = completed on time / within budget.

**Dukes Inn 21 – 322.401 (2022)**, \$196,800: Convert 1PH #6 ACWD conductor to 1PH/2PH 1/0 AL UG on Maurice I Bowen Rd to balance 1PH load, outcome = completed on time / within budget.

**Golden Beach 11 – 322.402 (2022)**, \$461,100: Convert 1PH #6 ACWD and #6 HDBC to 3PH, 2PH, & 1PH 1/0 AL UG along Mount Wolf Rd, Mount Wolf Way, and Crooked Creek Lane, outcome = completed on time / within budget.

**Huntingtown 14 – 322.403 (2022)**, \$244,400: Convert 1PH #6 ACWD to 1PH 1/0 AL UG and 3PH #6 ACWD to 3PH 1/0 AL UG along Walton Rd and Calverton School Rd, outcome = completed on time / within budget.

**Hughesville 12 – 322.404 (2022)**, \$334,500: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR OH to address bottleneck on Oaks Rd, outcome = completed on time / within budget.

**Mount Harmony 24 – 322.405 (2022)**, \$413,700: Convert 3PH 2/0 ACSR to 3PH 1/0 AL UG on Howes Rd, Old Jones Rd, and 1PH #6 ACWD to 1PH 1/0 AL UG on Howes Rd, outcome = completed on time / within budget.

**Marshall's Corner 2 – 322.406 (2022)**, \$559,100: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR to address bottleneck in main feeder tie between Marshall Corner 2 and La Plata 11, outcome = completed on time / within budget.

## 2.0 Ongoing / Current Resiliency Investments (as of Q2 2023)

SMECO is currently in the process of completing the following resiliency investment projects:

**Cedarville 14 – 223.400 (2023)**, \$2,052,800: Add main feeder exit cable from the substation to Cedarville Road to provide capacity for heavily loaded Cedarville feeder #12 and reduce significant exposure area for existing feeder #12.

**Farmington 11 – 223.401 (2023)**, \$1,449,600: Add main feeder exit cable from substation to Pepco #69055 ROW to replace high exposure Farmington #12 feed to Preserves at Piscataway.

**Saint Charles 12 – 223.402 (2023)**, \$1,085,000: Add 3PH 750 MCM UG tie line to create a main feeder quality tie and eliminate several local 1/0 ties in Industrial Park area.

**Hollywood 12 – 323.200 (2023)**, \$689,900: Convert 2PH #2 ACSR and #8 ACWD to 3PH, 2PH and 1PH 1/0 AL UG to balance load along Nats Creek Rd, Christman Rd, Paradise Ln, and Tippett Rd.

**Saint Andrews 21 – 323.201 (2023)**, \$634,700: Convert 1PH #6 ACWD to 3PH, 2PH, & 1PH 1/0 AL UG in Woodland Acres neighborhood.

**Forest Park 22 – 323.400 (2023)**, \$373,600: Convert existing 1PH #2 and #4 ACSR OH to 1/0 AL UG along Holly Spring Dr, Havensbrook Dr, and Forest Cross Dr to address tree related outages.

**Grayton 3 – 323.401 (2023)**, \$476,100: Convert existing OH to 1/0 AL UG along Greenleek Hill Rd and Sandy Point Rd to balance a large 1PH load and address tree related outage issues.

**Grayton 3 – 323.402 (2023)**, \$614,200: Convert #6 ACWD and #6 HDBC facilities to 1PH 1/0 AL UG on Gilroy Rd and Devane Place to address area tree related outage concerns.

**Grayton 5 – 323.403 (2023)**, \$796,300: Convert aging #6 ACWD to 1PH 1/0 AL UG with a 1PH 1/0 AL UG tie on Rt. 6 Port Tobacco, Dowes, and Burges Farm roads to address tree related outage, access, and water crossing concerns.

**Grayton 5 – 323.404 (2023)**, \$987,800: Convert aging #6 ACWD and #6 HDBC OH facilities to #2 ACSR OH and 1PH 1/0 AL on Tayloes Neck Rd and Bluff Point Rd to address tree related outage, access, and water crossing concerns.

**Hughesville 11 – 323.405 (2023)**, \$468,900: Convert aging #6 ACWD to #2 ACSR and 1/0 AL UG on Grosstown Rd, Helen Fowlers Pl, and Welch Farm Rd to address tree related outage and access issues.

**Independence 12 – 323.406 (2023)**, \$460,400: Convert aging OH facilities to UG and relocate along Edgewood Rd, Thomas Rd, Gabriel Dr, and Elena Dr to improve access.

**Mechanicsville 13 – 323.407 (2023)**, \$205,800: Convert 1PH #6A OH to 1/0 AL UG on Cremona Road to address tree related outages.

**Mount Victoria 12 – 323.408 (2023)**, \$601,600: Convert aging #6 ACWD and #6 HDBC OH to #2 ACSR OH and 1/0 AL UG along Allens Fresh Road.

**Mutual 24 – 323.409 (2023)**, \$758,700: Convert Sheridan Point Road 2PH #6 ACWD to 2PH and 1PH 1/0 AL UG and Dennis Monnett Rd from 1PH #6 ACWD to 1PH 1/0 AL UG.

**Newtown 21 – 323.410 (2023)**, \$278,200: This copper replacement project will address tree related outage concerns by converting Estevez Rd 1PH #6 ACWD OH to 1PH 1/0 AL UG.

### 3.0 Future Planned Resiliency Investments (Q3 2023 to 2026)

SMECO is currently planning to complete the following future resiliency investment projects; note that this list includes all projects that are dependent on / sponsored by the proposed grant application, as discussed in the Technical Volume.

**Newtown 24 – 323.411 (2023)**, \$514,200: This copper replacement project will improve reliability by converting Cooksey Rd 1PH #6 ACWD OH to 3PH 1/0 AL UG.

**Newtown 27 – 323.412 (2023)**, \$283,800: Convert aging #6A OH to UG and relocate facilities along Bel Alton, Newtown Rd, White Stag Rd, Bethany Lane, Wicker Lane, and Village Dr to increase access to currently severely restricted due to topography and easements.

**Prince Frederick 23 – 323.413 (2023)**, \$290,800: Convert V-phase #2 OH to 1PH 1/0 AL UG along Clay Hammond Rd to address tree related outages and UG customer tap lines.

**Saint Andrews 12 – 323.414 (2023)**, \$1,801,900: Phase 4 of 6 area conversion projects to convert aging OH to UG and relocate facilities along Garner Avenue, Copley Avenue, and adjacent streets where they will be more accessible to SMECO.

**La Plata 21 – 224.400 (2024)**, \$661,300: Add new 3PH 750 MCM UG tie line along Hickory Lane, Hickory Circle, Cottonwood Dr, and Savanna Court to serve the Hickory Ridge community and address recent outages due to overloading.

**Bertha 11 – 324.200 (2024)**, \$660,600: Replace deteriorating OH line sections along St. John Creek Rd, Big Rd and Woodbank Rd from #6 ACWD to 1/0 AL UG to eliminate area tree related outage concerns and access issues.

**Lexington Park 11 – 324.201 (2024)**, \$922,800: Convert Esperanza Dr 3PH/1PH #6 ACWD and #2 ACSR OH to 3PH/1PH 1/0 AL UG and replace unjacketed 1/0 AL UG on Lake Dr to address tree related outage and unjacketed cable failure concerns.

**Solomons 24 – 324.202 (2024)**, \$440,200: Convert 1PH #6 ACWD to 1PH 1/0 AL UG on McMichaels Dr, Gray Dr, Sachem Dr, Overlook Dr, and Iroquois Way to address tree related outage concerns.

**Saint Andrews 24 – 324.203 (2024)**, \$359,400: Upgrade aging 1PH #6 ACWD OH conductor to 1PH #2 ACSR along St. Andrews Ln, Parkview Cir, Bellwood Ln, Louis Dale Rd, and Parkview Dr.

**Solomons 24 – 324.204 (2024)**, \$1,043,200: Convert 3PH, 2PH, and 1PH #2 ACSR and #6 ACWD to 3PH & 1PH 1/0 AL UG to address tree related outage concerns on Harbor Dr, Mill Creek Dr, Marine Terrace, Ships Way, Leason Cove Dr, and Cove Dr.

**Leonardtown 14 – 324.205 (2024)**, \$704,100: Convert aging 1PH #6 ACWD to 3PH and 1PH 1/0 AL UG along Big Chestnut Rd and Heavens Way to address tree related outages and deteriorating condition due to aging poles and hardware.

**Sollers Wharf 11 – 324.206 (2024)**, \$284,900: Convert #6 HDBC OH to 1PH 1/0 AL UG and 1PH #2 ACSR OH to address tree related outage concerns.

**Bannister 22 – 324.400 (2024)**, \$2,344,400: Phase 5 of 6 area conversion projects to convert aging OH electric facilities to underground and relocate along Garner Avenue, Copley Avenue, and adjacent streets where they will be more accessible to SMECO.

**Grayton 5 – 324.401 (2024)**, \$1,362,500: Convert 3PH #2 ACSR OH to 3PH 1/0 AL UG along Maryland Point Rd and Riverside Rd and convert 1PH #6a to 1PH #2 ACSR along Riverside Rd to address reliability and frequently torn down OH lines in a heavy tree area.

**Saint Leonard 13 – 324.402 (2024)**, \$424,400: Convert Long Beach Dr 3PH #2 ACSR OH to 3PH 1/0 AL UG and 1PH #6 ACWD and HDBC tap lines to 1PH 1/0 AL UG to address tree related outage concerns and improve service to the Beaches Water Company.

**Mutual 23 – 324.403 (2024)**, \$1,002,100: Upgrade 1PH #6 ACWD to 1PH #2 ACSR on Parkers Wharf Road and convert Briscoe Rd 1PH #6 ACWD to 1PH 1/0 AL UG to address tree related outage concerns.



**Grayton 3 – 324.404 (2024)**, \$892,500: Convert deteriorating OH line to UG on Adams Willet Rd. from 1PH #4 ACSR OH to 1PH 1/0 AL URD and Hancock Run Rd. from 1PH #2 ACSR OH to 1/0 AL URD due to tree related outages.

**Hughesville 24 – 324.405 (2024)**, \$1,102,000: Convert 3PH 2/0 ACSR OH to 3PH 1/0 AL URD on Teagues Point Road to improve area reliability and tree related outages.

**Cedarville 12 – 324.406 (2024)**, \$640,000: Upgrade 3PH 4/0 ACSR to 3PH 336.4 MCM ACSR OH line along Baden Westwood Road to complete feeder quality tie between Cedarville 12 and 14.

**Cedarville 13 – 324.407 (2024)**, \$694,400: Convert 1PH #6 ACWD and #4 ACSR to 1PH #2 ACSR OH and 1/0 AL UG along Tower Road and Old Indianhead Road.

**Hughesville 13 – 324.408 (2024)**, \$617,800: Convert 1PH #6 ACWD and #6 HDDB to 1PH #2 ACSR OH and 1/0 AL UG along Christ Church Rd and Neck Rd to address fraying lines and deteriorating poles and hardware.

**Mount Harmony 24 – 324.409 (2024)**, \$373,100: Upgrade 3PH 2/0 ACSR OH to 3PH 1/0 AL URD on Ferry Landing Road to address tree related outages and improve reliability.

**Sunderland 11 – 324.410 (2024)**, \$790,600: Convert 3PH & 2PH #6A and #2 ACSR to mix of 3PH, 2PH, and 1PH 1/0 AL UG to address tree related outage/access concerns on Kings Landing Rd.

**Saint Charles 12 – 025.400 (2025)**, \$150,000: Phase 6 of 6 area conversion projects to convert aging OH electric facilities to underground and relocate the facilities along Garner Avenue, Copley Avenue, and adjacent streets where they will be more accessible to SMECO.

**Hawkins Gate Feeder Exits – 225.401 (2025)**, \$578,800: Create three new 1000 MCM AL UG Hawkins Gate substation 15 kV feeder exits to support new Hawkins Gate substation construction for new residential subdivisions with over 20 MVA of peak demand.

**Wooded Glen 14 – 225.402 (2025)**, \$272,800: Add 1000 MCM AL UG Wooden Glen 14 main feeder exit cable to the proposed Parkland Subdivision Rd to provide necessary capacity to serve the approximate 1,095 lot subdivision development.

**McConchie 23/24 – 225.402 (2025)**, \$1,178,000: Upgrade of 1450 ft of #2 ACSR to 3PH 336.4 MCM ACSR and 1PH #6A and #2 ACSR to 1PH 1/0 AL UG with new 3PH 750 MCM AL UG tie line along Poorhouse Rd and Gorman Lane to strengthen feeder tie at McConchie substation.

**Leonardtwn 24 – 325.200 (2025)**, \$652,900: Copper replacement project to eliminate OH exposure area by replacing all 1PH #6 ACWD with 1PH #2 ACSR OH on Newtowne Neck Road.

**Patuxent Park 14 – 325.201 (2025)**, \$424,400: Copper replacement/load balancing conversion of 1PH #6 ACWD to 3PH & 1PH 1/0 AL UG on Adkins Rd, Langley Park Way, and Charles Way.

**Ryceville 14 – 325.202 (2025)**, \$657,000: Convert 1PH #6 ACWD to 1PH 1/0 AL UG on N Ryceville and Dixie Lyon roads to address tree related outage concerns.

**Saint Andrews 11 – 325.203 (2025)**, \$1,886,900: New main 1000 MCM AL UG feeder exit cable from substation to Three Notch Rd to better serve existing and future high density commercial and residential load growth areas and reduce loading on Saint Andrews #13 feeder.

**Cedarville 12 – 325.400 (2025)**, \$745,000: Convert deteriorating OH line to UG within a heavy tree area on Magruders Ferry Road and Peed Road due to tree related outages.

**Cedarville 12/14 – 325.401 (2025)**, \$1,145,200: Upgrade 1PH #2 ACSR to 3PH 336.4 MCM ACSR to remove bottleneck in main feeder tie between Cedarville #12 and #14 along Croom Road.

**Huntingtown 11 – 325.402 (2025)**, \$249,600: Convert tap line serving #1855 Emmanuel Church Rd from 1PH #6 ACWD OH to 1PH 1/0 AL URD to address tree related outages and deteriorating condition due to aging poles and hardware.

**Huntingtown 14 – 325.403 (2025)**, \$592,900: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR OH to address deteriorating conditions due to aging poles and hardware.

**Marshall Corner 1 – 325.404 (2025)**, \$1,028,600: Eliminate main feeder 2/0 ACSR bottleneck and strengthen feed tie to McConchie substation by upgrading 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR and converting 1,000 ft of conductor to 3PH 750 MCM AL UG.

**McConchie 24 – 325.406 (2025)**, \$868,200: This proactive deteriorated copper replacement project to upgrade 1PH #6 ACWD and #6 HDBC to 1PH #2 ACSR along Fire Tower Road.

**Mount Harmony 22 – 325.407 (2025)**, \$667,800: Upgrade 3PH #2 ACSR to 3PH 336.4 MCM ACSR OH on Chaneyville Road to eliminate main feeder tie bottleneck between Mount Harmony #22 and Sunderland #22 and increase overall feeder capacity and quality.

**Mutual 21 – 325.408 (2025)**, \$593,900: Upgrade 1PH #6 ACWD and 1PH #2 ACSR line to 3PH, 2PH and 1PH 1/0 AL UG on Ross Road to improve outage reliability.

**Mutual 24 – 325.409 (2025)**, \$420,000: Convert 1PH #6 ACWD OH to 1PH 1/0 AL URD on Macs Hollow Road to address tree related outages and improve reliability.

**Saint Charles 14 – 325.410 (2025)**, \$246,900: Upgrade 3PH 2/0 AACSR OH to 3PH 1/336.4 MCM ACSR conductor on Mitchell Rd to eliminate the main feeder bottleneck and strengthen tie.

**Saint Leonard 12 – 325.411 (2025)**, \$656,800: Upgrade 1PH #2 ACSR to 3PH 336.4 MCM ACSR OH along Lloyd Bowen Rd to improve load balancing.

**Mount Victoria 11 – 325.412 (2025)**, \$741,900: Convert 1PH #6 ACWD OH to 1PH 1/0 AL UG along West Hatton Rd and Nyce Manor Place.

**Sunderland 22 – 325.413 (2025)**, \$758,200: Upgrade 3PH #2 ACSR to 3PH 336.4 MCM ACSR OH line to remove the bottleneck created by the main feeder on Lower Marlboro Rd.



<b>Applicant</b>	Southern Maryland Electric Cooperative (SMECO)
<b>Project Manager</b>	Ryan Edge
<b>Project Title</b>	Transmission, Distribution, and Communications Resiliency (TDCR) Initiative

**Project Description:** SMECO, a rural electric cooperative in Southern Maryland serving approximately 172,000 member-customers, seeks funding from the Department of Energy (DOE) to support its holistic, comprehensive resilience strategy called the Transmission, Distribution, and Communications Resiliency (TDCR) Initiative. The goal of the TDCR Initiative is to proactively upgrade and replace aging infrastructure to increase resilience, harden the grid system against known risks, including those exacerbated by the effects of climate change, and modernize the grid system. The proposed project consists of three key elements: modernizing key areas of the transmission and distribution systems, deploying advanced communication technologies, and enhancing grid resiliency.

**Methods Employed:** The TDCR Initiative involves the deployment of both traditional investments in grid hardening and reliability as well as smart grid-enabling fiber optic telecommunications across SMECO's service territory, including:

- Modernizing the transmission and distribution system: SMECO will replace aging transmission lines, upgrade substation equipment, and install line differential protection.
- Deploying advanced communication technologies: SMECO will implement a fiber optic network in a ring configuration to enable fast and reliable communication among field devices and the control center.
- Enhancing grid resiliency: SMECO's investments will support future deployments of distributed energy resources (DERs) and even more robust smart grid investments.

**Potential Impact:** The TDCR Initiative will have a significant impact on SMECO's ability to provide reliable and resilient power to its members. The project outcomes include reduced outage times, improved service quality, and enhanced system-wide resiliency. Additionally, the TDCR initiative will create job opportunities, foster economic growth, and promote equity and inclusion in Southern Maryland.

**Major Participants:** SMECO's partners in the TDCR initiative include the College of Southern Maryland, SMECO Charitable Foundation, local k-12 schools, IBEW Local 1718, state workforce development boards, and more. The project will also involve collaboration with local community groups, schools, and workforce development organizations to ensure equitable access to job opportunities and training programs.

## Statement of Project Objectives

### A. OBJECTIVES

***Targeted Improvement No. 1: (Transmission): Replace Four (4) 69-kV transmission lines.*** H-frames along the Chalk Point to Hughesville Transmission Line corridor will be replaced with new steel structures to significantly improve reliability, safety, and resiliency for more than 28,000 customers (up to 115,000 during contingencies):

***Targeted Improvement No. 2 (Distribution): Install 39 targeted distribution system resiliency components that include replacing aging conductors, feeder tie lines, and strategically undergrounding vulnerable lines.*** SMECO is targeting replacement of its oldest and least reliable existing overhead lines for this initiative.

***Targeted Improvement No. 3 (Communications): SMECO will improve reliability by 1) Installing high-capacity optical ground wire (OPGW) at 7 identified transmission lines; 2) Creating a fiber loop that encompasses 5 distinct communities; 3) Extending a synchronous optical network (SONET) ring to 2 unconnected substations; and 4) Establishing new communications capabilities to remote sites using high speed fiber optic cable in a ring configuration, allowing data to travel either way to reach its destination.***

***Targeted Improvement No. 4 (Community Benefits): SMECO will invest up to \$150,000 within the grant term to advance educational and economic opportunities to community-based organizations within the service area that align with Justice40 Initiatives.***

### B. SCOPE OF WORK

To achieve the outlined Objectives/Targeted Performance Goals, SMECO will implement the following activities (see table below)

<b>Table #3: Proposed Activities to Achieve Project Objectives</b>
Complete all final engineering and design activities needed to support execution of the proposed transmission, distribution, and communication/control elements of the project (TI #1-4)
Complete all environmental compliance and environmental and local permitting required to enable the initiation of construction for distribution and communication elements, and for project operation (TI #2,3)
Construct / Install new/replacement transmission lines to targeted locations in SMECO's service area (TI #1)
Construct / Install new/replacement distribution lines in SMECO's service area, to support undergrounding and distribution system hardening (TI #2)
Construct / Install the proposed fiberoptic communication lines for the Northern Charles County Loop and the Holland Cliff / Sunderland area (TI #3)
Complete installation of all advanced controls systems proposed under the project (TI #1-3)
Verify and validate operation of all installed equipment and facilities (TI #1-3)
Minimize environmental impact during installation by adhering to applicable avoidance and mitigation measures (TI #1-3)

Improve system reliability for the target facilities to match reliability for other undergrounded lines and previously hardened systems within SMECO's service area (TI #2)
Improve system resilience for target facilities to match system resilience for other undergrounded lines and previously hardened systems within SMECO's service area (TI #2)
Execute and verify all community benefits (TI #4)
Complete all DOE-required reporting and information sharing (TI #1-4)

### C. TASKS TO BE PERFORMED

SMECO will execute the project during designated budget periods (BP) as follows, with community benefits executed throughout all BPs:

**BP 1. Engineering, Design, Permitting, and BP 1 Construction:** Task 1. Administration and Management (M1-M18). SMECO will complete all project administration and management. SMECO will solicit (per DOE requirements), select, and issue contracts to all contractors required for project. SMECO's experienced administration team will oversee all aspects of the grant, including coordination with DOE, financial oversight, invoicing, project tracking, schedule tracking, budget tracking, performance tracking against objectives, implementation of all project management elements, and quality assurance / quality control. Task 2. BP 1 Engineering, Design, Permitting, and Procurement (M1-M18). Once retained, SMECO will oversee the work of its engineer to complete engineering and design, to 100% / construction ready design, for all BP 1 project components in parallel, then provide design cover sheets to DOE to verify completion. Once design is complete, the engineer will assemble procurement lists, and SMECO will initiate / complete the procurement process. SMECO will concurrently oversee completion of all required environmental compliance and permitting (NEPA plus federal, state, and local permits as required), and notify DOE as permitting elements are completed. Engineering, design, and preconstruction permitting will be completed by M6, procurement by M16, and operational permitting, validation, and construction by M18. Task 3. BP 1 Construction and Validation / Testing (M6-M18). SMECO will complete all project construction and equipment installation for each of the BP1 components. SMECO and the engineer will schedule performance, and construction / installation of individual components will be completed concurrently or overlapping to the extent practicable to support schedule performance. Once installed, SMECO will complete all system validation and testing during commissioning period, then initiate full scale operation. Once installed, SMECO will complete all system validation and testing during the commissioning period, then initiate full scale operation. Task 4. BP 1 Targeted Hiring, Community Benefits, Data Collection, and Reporting (M1-M18). SMECO will complete all proposed hiring and complete all committed community benefits including funds awarded, as well as related annual milestones from awarded CBOs, jobs created, and contracts entered with minority owned- businesses. On an ongoing basis, SMECO will track progress, successes, lessons learned, validation data, commissioning / initial operations verification data, and all community benefits for all BP1 tasks, then will complete all BP 1 reporting required by DOE, including Go/No-Go Decision Point reporting and meetings.

**BP2. Engineering, Design, Permitting, and BP 2 Construction:** Task 5. BP 2 Administration and Management (M19-M36). SMECO will continue all project administration and management as

discussed for BP 1, but continued under BP 2 for BP 2 components. SMECO reserves the right to complete new or additional contractor bids during each BP; timelines will mirror those identified for BP 1. Task 6. BP 2 Engineering, Design, Permitting, and Procurement (M19-M36). SMECO will complete all engineering, design, permitting, and procurement as described for BP1, but continued under BP 2 for BP 2 components. Task 7. BP 2 Construction and Validation / Testing (M24-M36). SMECO will complete all construction and validation / testing (e.g., commissioning) as described for BP1, but continued under BP 2 for BP 2 components. Task 8. BP 2 Targeted Hiring, Community Benefits, Data Collection, and Reporting (M19-M36). SMECO will complete all proposed hiring, community benefits, data collection, tracking, and reporting as described for BP1, but continued under BP 2 for BP 2 components. SMECO will also complete all Go/No-Go Decision Point reporting and meetings.

**BP3. Engineering, Design, Permitting, and BP 3 Construction:** Task 9. BP 3 Administration and Management. SMECO will continue all project administration and management as discussed for BP 2, but continued under BP 3 for BP 3 components. SMECO reserves the right to complete new or additional contractor bids during each BP; timelines will mirror those identified for BP 2. Task 10. BP 3 Engineering, Design, Permitting, and Procurement (M37-M484). SMECO will complete all engineering, design, permitting, and procurement as described for BP2, but continued under BP 3 for BP 3 components. Task 11. BP 3 Construction and Validation / Testing (M43-M484). SMECO will complete all construction and validation / testing (e.g., commissioning) as described for BP 2, but continued under BP 3 for BP 3 components. Task 12. BP 3 Targeted Hiring, Community Benefits, Data Collection, and Reporting (M37-M484). SMECO will complete all proposed hiring, community benefits, data collection, tracking, and reporting as described for BP2, but continued under BP 3 for BP 3 components. SMECO will also complete all final project / closeout reporting and meetings.

#### D. DELIVERABLES

The following table summarizes project deliverables by BP and Task:

Task No.	Task Title	Deliverable	Month / Quarter
2	Engr, Permit, Procure, focus on transmission and	SMECO submits design cover sheets to DOE	M3/Q1
2	Engr, Permit, Procure	SMECO submits procurement list to DOE	M6/Q2
2	Engr, Permit, Procure	SMECO submits permit status summary to DOE	M9/Q3
2	Engr, Permit, Procure	SMECO submits construction notification initiation to DOE	M12/Q4
2	Engr, Permit, Procure	SMECO submits procurement completion confirmation to DOE	M15/Q5
3	Construct / Validate	SMECO submits Construction Verification and Validation Results to DOE	M18/Q6
4	Hiring, Comm Benefit	SMECO submits summary of hired staff to DOE	M18/Q6

	Go/No-Go Decision 1	Submit required documentation to DOE along with BP 1 information. DOE reviews submitted information and makes determination re/ go/no-go.	M18/Q6
6	Engr, Permit, Procure	SMECO submits design cover sheets to DOE	M21/Q7
6	Engr, Permit, Procure	SMECO submits procurement list to DOE	M24/Q8
6	Engr, Permit, Procure	SMECO submits permit status summary to DOE	M27/Q9
6	Engr, Permit, Procure	SMECO submits construction notification initiation to DOE	M30/Q110
6	Engr, Permit, Procure	SMECO submits procurement completion confirmation to DOE	M33/Q11
7	Construct / Validate	SMECO submits Construction Verification and Validation Results to DOE	M36/Q12
8	Hiring, Comm Benefit	SMECO submits summary of hired staff to DOE	M36/Q12
	Go/No-Go Decision 2	Submit required documentation to DOE along with BP 2 information. DOE reviews submitted information and makes determination re/ go/no-go.	M36/Q12
10	Engr, Permit, Procure	SMECO submits design cover sheets to DOE	M39/Q13
10	Engr, Permit, Procure	SMECO submits procurement list to DOE	M42/Q14
10	Engr, Permit, Procure	SMECO submits permit status summary to DOE	M45/Q15
11	Construct / Validate	SMECO submits Construction Verification and Validation Results to DOE	M484/Q16
12	Hiring, Comm Benefit	SMECO submits summary of hired staff to DOE	M484/Q16

#### E. BRIEFINGS/TECHNICAL PRESENTATIONS

The 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 the 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, the 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** – The Recipient shall prepare and present technical, financial, and/or administrative briefings as requested by the DOE. Additionally, the DOE may require Recipients to make technical presentations at national and/or industry conferences.



## Project Information

**Project Title:** Transmission, Distribution, Communications, and Resiliency (TDCR) Initiative

**Prime Recipient:** Southern Maryland Electric Cooperative (SMECO)

**Total Project Cost:** \$49,209,016

**DOE Grant Request:** \$33,567,016

**Match Commitment:** \$15,642,000

### Project Summary

The TDCR Initiative is a comprehensive grid resiliency investment of interrelated transmission, distribution, and communications infrastructure.

- Transmission - Harden and modernize a critical 69-kV line in a sensitive wetland habitat
- Distribution – Strategic undergrounding, retrofits, and add new tie lines to key feeders
- Communications – Install fiber optic connections to substations and other key infrastructure to enhance monitoring and control capabilities

Key Personnel	
Ryan Edge	Director, Program Management Office
Hugh Voehl	Transmission Engineering and Construction Director
Ryan Schlotterbeck	Distribution Contractor Operations Director
Beth Kennedy	Chief Financial Officer
Kyle Rappe	Communications Engineer
Herb Reigel	VP, System Planning and Distribution Engineering
Roger Schneider	Chief Operating Officer
John Bredenkamp	VP, Transmission, Engineering, and Operations
Andrew Yeskie	Senior Protection Engineer

## Technology Summary

The TDCR Initiative involves the deployment of both traditional investments in grid hardening and reliability as well as smart grid-enabling fiber optic telecommunications across SMECO's service territory, including:

- Modernizing the transmission and distribution system: SMECO will replace aging lines and poles, upgrade substation equipment, and install line differential protection.
- Deploying advanced communication technologies: SMECO will implement a fiber optic network in a ring configuration to enable fast and reliable communication among field devices and the control center.
- Enhancing grid resiliency: SMECO's investments will support future deployments of distributed energy resources (DERs) and even more robust smart grid investments.

## Technology Impact / Grid Outcomes

The TDCR Initiative will have a significant impact on SMECO's ability to provide reliable and resilient power to its members. The project outcomes include reduced outage times, improved service quality, and enhanced system-wide resiliency. Additionally, the TDCR initiative will create job opportunities, foster economic growth, and promote equity and inclusion in Southern Maryland.

## Project Goal

The goal of this project is to proactively upgrade and modernize vital grid infrastructure to increase resilience, harden the grid system against known threats, including those exacerbated by the effects of climate change, provide benefits to the community, and ensure environmentally sound practices in protected wetlands. SMECO's program includes consideration of future shifts in generation and load, including DER integration and population growth. These investments will improve reliability and resilience by upgrading aging infrastructure, harden against climate change-related hazards, and support the clean energy transition in Southern Maryland.

- Objective #1: Replace and harden four 69-kV transmission lines.
- Objective #2: Retrofit and harden the distribution feeders with strategic undergrounding, replacement of aging conductors, and the addition of feeder tie lines.
- Objective #3: Install a fiber optic loop and extend connectivity to additional infrastructure.
- Objective #4: SMECO will invest up to \$150,000 over the grant term to advance educational and economic opportunities to community-based organizations within the service area.

### **Community Benefits Plan**

SMECO will leverage and enhance its current community engagement activities to ensure that all social benefits derived from its GRIP program fully align with DOE's four priorities in power sector investments: (1) community and labor engagement; (2) investing in the American workforce; (3) advancing diversity, equity, inclusion, and accessibility (DEIA); and (4) the Justice40 Initiative. As will be further stated below, SMECO has a longstanding history of collaboration, investment, and commitment to the communities it serves, and this grant award will magnify and expand those efforts.

### **Community and Labor Engagement**

**Community engagement:** SMECO's commitment to its communities is rooted in its core values and evidenced by its dedication to creating and supporting opportunities for engagement, career exploration, development, and advancement within its communities. Its vision includes facilitating a cradle-to-career strategy of engagement to encourage future leaders to study and support Southern Maryland's improved energy future. As an infusion of support into its communities and a showing of its commitment to the work being done therein, **SMECO commits to donating up to \$150,000 within the grant term to local community-based organizations whose missions align with GRIP priorities, including workforce development and a focus on DACs (*Objective/Targeted Improvement No. 4*)**. All activities and enhancements listed below are fully leveraged resources that are already integrated into SMECO's business operations and require no additional investment from DOE to implement. Key examples of SMECO's past and present community engagement and involvement are:

- ***SMECO Charitable Foundation:*** SMECO is deeply supportive of the work being done in its communities by various non-profit organizations and going further than traditional organizational support, SMECO established the SMECO Charitable Foundation, a 501(c)(3) organization providing members of the community an opportunity to have their contributions be tax-deductible. These efforts, devoted to a particular organization each year, encourage community engagement and multiply SMECO's fundraising efforts. ***Future plans of engagement:*** SMECO will refine its funding criteria for recipients of Charitable Foundation funding to fully align with both GRIP and Justice40 Initiative goals and priorities. This includes investment in organizations that tackle housing, workforce development and training. SMECO anticipates investing up to \$150,000 over the grant term. All funding recipients will be required to submit a final report within their 1-year funding cycle that outlines how the money was spent and participant outcomes achieved, including number of people served, services provided, and related outcomes.
- ***Members Helping Members:*** SMECO customers are able to participate in the Members Helping Members program, which helps alleviate electricity costs for struggling customers. Members can choose to donate \$1, \$5, or \$10 each month through their electric bill. Donations go to Southern Maryland Tri-County Community Action Committee, which will give the money to customer-members who seek aid and meet

the qualifications. Future plans of engagement: Members Helping Members will continue throughout the grant term, and SMECO will leverage local publicity related to the awarding of GRIP funding to promote this program to increase future donations.

- **Local K-12 school engagement**: SMECO will continue its engagement within local K-12 schools<sup>1</sup> as their commitment to communities encompasses all members, with a particular eye on the future workforce and community members and leaders of tomorrow. SMECO maintains a deep engagement with students in their targeted Southern Maryland communities through programs such as the annual Youth Tour, individual scholarships, MATHCOUNTS, and Outstanding Teacher Awards. Future plans of engagement: SMECO will continue its K-12 educational activities throughout the grant term and leverage programming to strengthen and expand its pipeline of pre-apprenticeship activities (see below) to engage, train, and foster the next generation of energy leadership in Southern Maryland. K-12 STEAM and career exploration activities will include:
  - Youth Tour: SMECO facilitates the inclusion of four high school students from their service area to attend the annual Youth Tour hosted by The National Rural Electric Cooperative Association (NRECA) for students from across the nation to visit Washington, D.C. Over its history, more than 50,000 students have participated in the NRECA Youth Tour, and SMECO's incorporation of local youth provides the opportunity for them to join other cooperatives from around the nation in meeting members of Congress and learning the key role of electric cooperatives across the country.
  - Scholarships: As of 2022, SMECO has awarded scholarships to 120 students since its scholarship program's inception. During each year of the grant term, SMECO will award four \$2,500 scholarships to high school seniors who live in the Co-op's service area and show promise in their chosen field of study. Scholarships are based on the applicants' scholastic achievement, financial need, and school and community involvement.
  - MATHCOUNTS: During the grant term, SMECO will continue its sponsorship of MATHCOUNTS, an annual competition aimed at boosting student interest in mathematics as it recognizes how critical a foundation this provides for success in science, technology, and engineering.
  - SMECO Outstanding Teachers Award: Over the past 31 years, SMECO has recognized more than 450 local math and science teachers through their Outstanding Teacher awards, which honor local educators for their leadership in the fields of science, technology, engineering, and mathematics, including career and technology education. In collaboration with the local school systems of Calvert, Charles, and St. Mary's counties, as well as with schools in SMECO's service territory in Prince George's County, SMECO acknowledges teachers for

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<sup>1</sup> Calvert County Public Schools, Prince George County Public Schools, Fort Zumwalt School District, Francis Howell School District, Orchard Farm School District, St. Charles School District, Washington School District, Wentzville School District, and St. Mary's County Public Schools

their outstanding performance in nurturing creativity, developing a rapport with students, exuding enthusiasm for teaching, exemplifying professionalism, and utilizing innovative teaching methods.

**Labor Engagement:** SMECO will continue and leverage its current labor and workforce engagement activities throughout the grant term. This includes:

- **Unions:** SMECO is dedicated to, and encourages, fair practices and union participation among its employees. It will continue and reinforce its relationship and collective bargaining agreement with its operational staff and the International Brotherhood of Electrical Workers (IBEW) Local 1718 during and well past the grant term.
- **Workforce:** SMECO will continue and expand its partnerships and relationship with local workforce organizations to infuse the program with these organizations' unique insights into the community and its needs, as well as to leverage these relationships for the benefit of the targeted communities and their workforces. Some of the workforce partners involved will be:
  - **College of Southern Maryland:** SMECO will utilize its longstanding and highly successful partnership with College of Southern Maryland (CSM) to provide upskilling and job training to current and future SMECO employees. SMECO sits on CSM's Board of Trustees and Foundation Board, and the relationship between the two has compounded the benefits provided to local communities (e.g., CSM provides classroom instruction for SMECO's Electric Power Technician DOL registered apprenticeship program).
  - **State-Based Workforce Development Boards:** SMECO will continue its work for workforce development in its communities, as well as its support of small business and minority enterprises. For example, SMECO is a member of the Washington Minority Companies Association (WMCA), which advocates for minority business participation in utility contracts and other initiatives. The particularly stellar aspect of this partnership is that it allows for small business growth to be considered as a metric for success and maintains active economic development relationships and contacts that contribute to small business growth. SMECO, in its commitment to increasing minority-based businesses within its communities, promotes and amplifies these efforts through its participation on the National Minority Supplier Development Council (NMSDC), and also works closely with a number of different state-based workforce development organizations, such as: the Governor's Office of Small, Minority & Women Business Affairs; the Maryland Chamber of Commerce ; and the Maryland Department of Transportation's Minority Business Enterprise, which requires specific contracting provisions be met in order to qualify as a minority business enterprise (MBE).
  - **Regional Workforce Development Boards:** SMECO will continue its efforts to engage with regional workforce development in a meaningful and impactful way. Through their work with regional workforce development organizations such as the Capital Region Minority Supplier Development Council (CRMSDC), Southern Maryland

Minority Chamber of Commerce, Women’s Business Enterprise National Council (WBENC), Women President’s Education Organization, DC Chapter (WPEO-DC), and Maryland LGTB Chamber of Commerce, SMECO has and will continue to foster economic growth opportunities through mentorship programs, the use of public contracts, and to providing support to other organization initiatives. SMECO’s Director of Diversity and Inclusion was recognized at a banquet honoring those making significant contributions to the advancement of diversity within the community.

- **Utility Industry Group:** SMECO has a close relationship with the Utility Industry Group (UIG), part of the MD-DC Utilities Association; SMECO employee currently sits on the environmental subcommittee within UIG. This subcommittee plans to strategically approach changes in law and regulation issued by the Army Corps of Engineers, as well as other state and local environmental regulatory agencies, with the potential to affect SMECO's operations, as well as to provide opportunities for interaction with, and among, utility leaders from across the country. These networking and informational exchange opportunities provide a place for peers to share their knowledge and experiences through projects, success stories, and failure narratives, allowing the dissemination and proliferation of successful strategies that will benefit communities around the country. SMECO will leverage this long-standing relationship to effectively disseminate lessons learned from this GRIP project.

### **Investing in the American Workforce**

**Skilled Workforce:** SMECO will attract, train, and retain a skilled workforce for both construction and ongoing operations through the following processes, initiatives, and policies:

- **Employee wages and benefits:** SMECO is deeply committed to attracting and retaining a qualified and skilled workforce by actively developing programs that address diversity and inclusiveness, maintaining a competitive benefits package, and providing value-added services that attract and retain talented individuals. In terms of the current project, SMECO will exceed the local prevailing wage and benefits in jobs related to this program and encourage fair practices and union membership, and continue to provide employees with predictable schedules, assurances that workers will have a free and fair chance to join or form a union, as well as opportunities for upskilling/advancement with a constant eye on worker satisfaction and safety. Recognizing a shifting need among their workforce, SMECO has sustained its telework policy past COVID-19 shutdowns allowing eligible employees to work from home two days a week, and eliminating 151,200 vehicle miles traveled by its employees, allowing them (and the local environment) to reap the savings of nearly 6,300 gallons of gasoline.
- **Workforce education and training:** SMECO, in its commitment to retaining its employees, has a keen focus on upskilling existing employees, thereby increasing retention and providing advancement opportunities. In partnership with the College of Southern Maryland (CSM), SMECO provides multiple programs and opportunities, and personally invests in helping their employees manage the financial burden of additional education and training. These include, but are not limited to:

- *Post-Secondary Education*: The importance of a post-secondary education in today's workforce and economy cannot be overstated and as such, SMECO provides its employees the opportunity to attain postsecondary education by compensating qualified employees for two hours per week of class and study time. In addition, SMECO has created a donation program with the dedicated purpose of providing a college education to a pre-apprentice participant every year. These efforts are in recognition of, and with the goal of, not only providing educational opportunities, but strengthening the advancement pipeline within SMECO and infusing the knowledge and skill gathered back into SMECO and its employee atmosphere.
- *Mentorship*: In the same vein of creating a culture of opportunity and advancement, SMECO recognizes that guidance and support for their employees is crucial for success. To provide their employees a compelling career path and to help them evolve and advance within the organization, robust mentorship programs facilitate networking between departments and employees of all levels, creating an internal pathway connecting junior and senior staff as they build relationships and hone their skills. Through these opportunities, SMECO's leaders are working together to foster creativity, accountability and growth throughout the organization while retaining talent and allowing growth for employees to find their way to positions which enable them to feel valuable while simultaneously also offering the greatest value to the company.
- *Linemen Apprenticeship Program*: SMECO, through its Department of Labor (DOL) Registered Apprenticeship Program (RAP), provides the opportunity to become a lineman, a career that boasts stellar wages as well as job growth and security. The Bureau of Labor Statistics predicts a 6% continued growth in the field over the next decade, and lists the average salary at \$74,530<sup>2</sup>, a number which Maryland, where the proposed project is located, eclipses with their average lineman salary of \$82,800.<sup>3</sup> This program provides a stand-alone skill set and knowledge base, as well as the opportunity to advance with an Electric Power Technician degree from the College of Southern Maryland (CSM), for which SMECO provides a scholarship. SMECO encourages Apprentices to continue their careers at SMECO, ensuring that these newly acquired skills remain within the community it serves.
- **Workforce safety**: SMECO prides itself on providing a safe and healthy working environment for its employees and being a leader in upholding OSHA standards. Their efforts are clearly effective – SMECO employees reached the goal of working one million continuous hours without loss of time due to an accident or injury<sup>4</sup>, on August 1, 2012. To ensure consistent progress and success in regard to safety, SMECO holds monthly safety meetings in each office which all employees are

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<sup>2</sup> "Line Installers and Repairers: Occupational Outlook Handbook: : U.S." *Bureau of Labor Statistics*, 8 September 2022, [Link](#).

<sup>3</sup> "Lineman Pay by State | Pay & Job Information." *Lineman Central*, [Link](#).

<sup>4</sup> <http://somd.com/news/headlines/2012/15787.php>



encouraged to attend. These meetings cover a wide range of safety education topics including working in confined spaces, safe driving, excavation, fall protection, and electrical arc flashes. Through an effective safety and health program, made readily available to employees, SMECO ensures that employees are engaged in the execution of OSHA standards, and due to a strict set of policies within SMECO protecting against retaliation, are actively encouraged to provide meaningful input and report any safety or health concerns they witness. The co-op documents its safe work practices, and the National Rural Electric Cooperative Association evaluates cooperatives' safety initiatives through its Rural Electric Safety Achievement Program.

- **Violations:** Within the past two years, SMECO has not been in violation under 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

### **Job Retention and/or Transition Opportunities**

**Lineman workforce pipeline:** To simultaneously create a pipeline of trained workers able to maintain the electrical grid and address workforce needs within its communities, SMECO, in partnership with the College of Southern Maryland, has created, and will continue to maintain, the **Pre-Apprenticeship Program** to provide practical electrical utility worker training.<sup>5</sup> The creation of this program was in direct response to community needs evidenced by the response of each of SMECO's training class announcements for apprentice lineman, which while enthusiastic and robust, was often lacking in individuals possessing the requisite skills to benefit from such a class. SMECO's creation of the pre-apprenticeship program provides eager members of the community workforce with the requisite basic skills necessary to pursue a career as a lineman or electric utility worker.

- **Pre-apprentice program support:** In addition to the creation of the program, SMECO is eager to ensure that its communities reap the benefits of its efforts and to that end, offers two scholarships for this program to promising students who demonstrate financial need and are from an underserved population. Additionally, upon completion of the program, participants receive **hiring preference** from SMECO, keeping the community gained knowledge within the community for its benefit. To ensure the most value to participants, students will also have access to an electrical utility practicum offered on site free of charge, as a community service benefit from SMECO.

### **Diversity, Equity, Inclusion and Accessibility**

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<sup>5</sup> "CSM lines up with SMECO to better prepare students aiming for utility career." *The BayNet*, 2 August 2017, [Link](#).

SMECO, in line with its history and record of commitment to addressing DEIA challenges, will take steps to ensure the inclusion of, and benefit to, diversity vendors and suppliers in this program. Since signing a Memorandum of Understanding (“MOU”) with the Maryland Public Service Commission, SMECO has steadily worked toward increasing the Cooperative’s total spend to qualified diverse vendors. Emblematic of that goal is their express intention in this project to provide at least 25% of the total project expenditures to qualified diverse and minority-owned vendors. SMECO’s record in DEIA initiatives and progress is exemplary and was highlighted by the NRECA, America’s electric cooperatives trade association, as embodying the type of DEI standards electric cooperatives should strive toward.<sup>6</sup>

**Additional Key DEIA initiatives and actions include:**

- **Supplier Diversity Program**: SMECO will leverage its **Supplier Diversity Program** to achieve an increased base of quality diverse vendors to engage for Tier 1 and Tier 2 spending by (1) using a standardized process for evaluating the business rationale for utilizing diverse suppliers, (2) focusing on both short- and long-term diverse spending strategies, and (3) ensuring transparency throughout the process.
- **Community networking**: SMECO will continue its membership in diverse business associations and networking groups, such as the Southern Maryland Minority Chamber of Commerce, as well as increasing outreach efforts to diverse suppliers by actively participating in several diverse business advocacy organizations and chambers, such as the Capital Region Minority Supplier Development Council (CRMSDC) and the Edison Electric Institute (EEI) Business Diversity Conference.
- **Fostering diverse contract negotiations**: SMECO will create mentorship and feedback opportunities for development of suppliers’ pre and post bid opportunities, thereby assisting in the development and growth of minority held businesses. SMECO will also facilitate strategic planning for diverse spending in contract negotiations by requiring supporting documentation outlining the engaged diverse vendors, and the business-related justifications for unawarded diverse bids.

**Justice40 Initiative Benefits to DACs:**

SMECO’s project area includes Prince George County, which has 48 designated DACs and a poverty rate exceeding the state average. SMECO is committed to supporting Justice40 communities and GRIP initiatives that will strengthen the electric grid and the communities it serves. The communities included in this project will see the following benefits within the grant term:

- **An increase in energy resiliency**: As explained in the Technical Volume, grid resiliency will be greatly increased because of the project. Underground lines have been shown to have significantly better capabilities to withstand extreme weather, fires, and other disturbances to the grid. The needs of the project area are especially critical as it is a coastal area prone to hurricanes, and their resulting high winds and flooding. The community of Nanjemoy in Charles County is an example of that need as it, and its

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• <sup>6</sup> “Cooperative DEI Approaches.” *Cooperative.com*, [Link](#).

electrical capabilities, have been seriously affected by extreme weather, which has been on the rise in recent years. Additionally, the influx of new residents into the target areas has both strained the capacity of the existing system and laid bare the dire need for a more efficient one. The undergrounding of power lines, which perform significantly better during severe weather events and fires, will provide a much-needed boost in energy resiliency to the area

- **A decrease in environmental exposure/burden**: The current state of the electrical infrastructure in the included areas is unacceptable and a potential hazard to the local environment and residents. The existing poles are laden with creosote, which has been designated as a toxic substance by the EPA. Without immediate attention, this infrastructure will continue to decay, causing environmental harm, additional outages, and disruptions to the preserved land caused by frequent repair needs. SMECO has been a steward of sound environmental practices as evidenced by Maryland's continued faith in their ability to maintain and repair their system in preserved lands and will continue that record of care and safety during this project.
- **Increased job opportunities and training for DACs**: In addition to the jobs directly created by the project, SMECO's commitment to its communities will reap significant benefits to the DACs included in the target areas, most specifically to their workforce and minority owned and operated businesses. SMECO will be creating opportunities for individuals from these communities to receive education and job-related training through **four college scholarships**. SMECO awards members of their communities, their **annual apprenticeship scholarships**, their free **electrical utility practicums at multiple county school districts**, and their **pre-apprenticeship program**, which provides not only valuable training to pursue a career as a lineman or in other electric-related fields, but also comes with a hiring preference from SMECO. Minority owned and/or operated businesses in the target communities will receive the benefit of SMECO's mentorships and their goal of up to **25% of supplier and vendor contracts, bids, etc. to minority and diverse owned businesses**, as well as their participation on minority involved workforce organizations which help to advance the interests of diverse local businesses. In addition to the benefits provided directly by SMECO, SMECO is also investing \$150,000 during the grant term to local CBOs focused on, among other things, fair and affordable housing, and workforce development, thereby expanding the reach and benefit they provide to DACs in the project area.

**DACs:** The TDCR Initiative aims to benefit various DACs within the Southern Maryland region, specifically those in Calvert, Prince George's, St. Mary's, and Charles counties. These areas are home to both tribal land and at least 1 Justice40 Census Tract.

- **Additional DACs**: Multiple DACs have also been identified by the ArcGIS Mapping Tool, one in Calvert County, one in Charles County, and another in St. Mary's County. Among all DACs identified in SMECO's service region, all have identified "Workforce Development and Training" as a leading issue. This project will directly benefit 51 DACs, or over 20% of all the 246 disadvantaged tracts in the entire state of Maryland.

- **Tribal Lands**: The anticipated project benefits of the TDCR Initiative will flow to several DACs, including those of tribal heritage. Most notably, these include the Piscataway Tribe and its bands (the Chaptico, Moyaone, Nanjemoy and Potapoco), as well as the Moyaone Reserve located in Accokeek, Prince George's County. The Piscataway are the first tribes to be officially recognized by Maryland and have been active in Annapolis regarding their official status. They have also had a presence in Charles and St. Mary's counties for many years. Additionally, the Moyaone Reserve is nationally recognized for its abundant vegetation and serves as an important habitat for many species of wildlife. These communities would benefit from access to resources that could help sustain and promote tribal self-sufficiency. The TDCR Initiative will provide these communities with the support they need to both preserve their history and continue to build a better future. Ultimately, this initiative is a way of ensuring that these DACs are given the support they need to thrive.

**Anticipated Negative and Cumulative Environmental Impacts to DACs:** Despite the Initiative's requirement to work on protected wetlands to fulfill resiliency goals, this project will have a net positive impact on the local environment. In fact, DOE funding will exponentially mitigate any environmental disruption caused by resiliency upgrades – SMECO's limited capital will force resiliency upgrades to be done on a far longer timeline, increasing the risk of catastrophic grid failure and infrastructure deterioration. This will require emergency maintenance on protected lands. An analysis of ESJ Screening Tool reports shows that all counties SMECO serves are lower than or meet the national standards for all ESJ Index components. However, two components – Lead paint and Wastewater discharge – exceed national averages in all counties. While the Initiative will not directly affect outcomes regarding these two environmental components, it should be noted that, within the service region, there are 11 wastewater plants and facilities (Calvert County – 5; Charles County – 1; St. Mary's County – 1; and Prince George's County – 4). Additionally, the College of Southern Maryland has installed its own wastewater facility for its campus. Power resilience for wastewater facilities is a recognized threat according to the EPA – not only does a lack of services affect sewage, but can also negatively affect emergency services, particularly fire departments<sup>7</sup>. As discussed in detail within the Technical Volume, much of the work area is on preserved land and/or wetlands. While this presents its own unique challenges, SMECO's familiarity and experience working under such conditions will mitigate any inevitable disturbance to the land. SMECO will be replacing creosote poles to minimize existing environmental toxicity, will be strictly adhering to all federal NEPA and MD permitting guidelines, and taking all other necessary steps to best protect the wetlands and surrounding waterways.

**How and when Anticipated Benefits Are Expected to Flow to DACs:** The community related benefits stemming from this project will begin flowing to DACs almost immediately. Job training programs and educational opportunities provided by SMECO are ongoing and the public

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<sup>7</sup> "Power Resilience: Guide for Water and Wastewater Utilities." *Environmental Protection Agency*, [Link](#).

announcement of the grant award will allow SMECO an opportunity to inform all community residents of the benefits available to them. Additionally, SMECO's financial investment of \$150,000 in DACs and GRIP related activities will be felt by these communities throughout the duration of the grant period as awards are issued to various CBOs. The increased energy resiliency to the communities will be realized as the project is implemented. Once infrastructure has been upgraded, increased energy resiliency will be felt by these communities in their day to day lives, but most critically during extreme weather events, which is when such resiliency is truly tested.

**SCHEDULE 1. IDENTIFICATION**

**SURVEY CONTACTS:** Persons to contact with question about this form

**RESPONSE DUE DATE: Please submit by April 30th following the close of calendar year**

**Contact** Belinda Anderson  
Title: Accounting & Budgeting Director

REPORT FOR: Southern Maryland Elec Coop Inc 17637

REPORTING PERIOD: 2021

Phone: (240) 528-9746 FAX: (301) 274-9286 Email: belinda.anderson@smeco.coop

Logged By / Date:

**Supervisor** Angela Verras  
Title: Accounting and Budgeting Director

Logged In:  Receipt Date (mm/dd/yyyy):

Phone: (240) 528-9811 FAX: (301) 274-9286 Email: angela.verras@smeco.coop

1	Legal Name of Industry Participant	Southern Maryland Elec Coop Inc	<b>Submission Status/Date:</b>	<input type="text" value="Submitted"/>	<input type="text" value="05/06/2022"/>
2	Current Address of Principal Business Office	14950 Cooperative Place  Hughesville MD 20637 0000			
3	Preparer's Legal Name Operator (if different than line 1)				
4	Current Address of Preparer's Office (if different than line 2)				
5	Respondent Type (Check One)	<input type="checkbox"/> Federal <input type="checkbox"/> Political Subdivision <input type="checkbox"/> Municipal Marketing Authority <input checked="" type="checkbox"/> Cooperative <input type="checkbox"/> Independent Power Producer or Qualifying Facility	<input type="checkbox"/> State <input type="checkbox"/> Municipal <input type="checkbox"/> Investor-Owned <input type="checkbox"/> Retail Power Marketer (or Energy Service Provider) <input type="checkbox"/> Community Choice Aggregator	<input type="checkbox"/> Transmission <input type="checkbox"/> Behind the Meter <input type="checkbox"/> Wholesale Power Marketer <input type="checkbox"/> DSM Administrator	

For questions or additional information about the Form EIA-861 contact the Survey Manager: Fax: (202) 287 - 1938 Email: EIA-861@eia.gov  
**Stephen Scott** Phone: (202) 586-5140 Email: stephen.scott@eia.gov

REPORT FOR: Southern Maryland Elec Coop Inc 17637  
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**SCHEDULE 2. PART A. GENERAL INFORMATION**

LINE NO.			
1	Regional North American Electric Reliability Council (Not applicable for power marketers)	<input type="checkbox"/> TRE (formerly ERCOT) <input type="checkbox"/> FRCC <input type="checkbox"/> MRO	<input type="checkbox"/> NPCC <input checked="" type="checkbox"/> RFC (formerly ECAR, MAIN. MAAC) <input type="checkbox"/> SERC
2	Name of RTO or ISO	<input type="checkbox"/> California ISO <input type="checkbox"/> Electric Reliability Council of Texas <input checked="" type="checkbox"/> PJM Interconnection <input type="checkbox"/> New York ISO	<input type="checkbox"/> Southwest Power Pool <input type="checkbox"/> Midwest ISO <input type="checkbox"/> ISO New England <input type="checkbox"/> None
3	(For EIA Use Only) Identify the North American Electric Reliability Council where you are physically located	RFC	
4	Did Your Company Operate Generating Plants(s)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5	Identify The Activities Your Company Was Engaged In During The Year (Check appropriate activities)	<input type="checkbox"/> Generation from company owned plant <input checked="" type="checkbox"/> Transmission <input type="checkbox"/> Buying transmission services on other electrical system <input checked="" type="checkbox"/> Distribution using owned/leased electric wires	<input type="checkbox"/> Buying distribution on other electrical system <input type="checkbox"/> Wholesale power marketing <input type="checkbox"/> Retail power marketing <input type="checkbox"/> Bundled Services (electricity plus other services such as gas, water, etc. in addition to electric service))
6	Highest Hourly Electrical Peak System Demand	Summer (Megawatts)      795.5      Prior Year      803.3 Winter (Megawatts)      710.7      Prior Year      725.3	
7	Did Your Company Operate Alternative-Fueled Vehicles During the Year? Does Your Company Plan to Operate Such Vehicles During the Coming Year?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	If "Yes", Please Provide Additional Contact Information	Name: Steve Montgomery Title: Transportation Director Telephone: 301 - 274 - 4432      Fax: 301 - 274 - 4367      Email: steve.montgomery@smeco.coop	

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**SCHEDULE 2. PART B. ENERGY SOURCES AND DISPOSITION**

	SOURCE OF ENERGY	MEGAWATTHOURS		DISPOSITION OF ENERGY	MEGAWATTHOURS
1	Net Generation		11	Sales to Ultimate Consumers	3,385,595
2	Purchases from Electricity Suppliers	1,892,692	12	Sales For Resale	
3	Exchanged Received (In)	1,588,526	13	Energy Furnished Without Charge	
4	Exchanged Delivered (Out)	17,447	14	Energy Consumed By Respondent Without Charge	8,783
5	Exchanged Net	1,571,079			
6	Wheeled Received (In)				
7	Wheeled Delivered (Out)		15	Total Energy Losses (positive number)	69,393
8	Wheeled Net				
9	Transmission by Others Losses (Negative Number)				
10	Total Sources (sum of lines 1, 2, 5, 8 & 9)	3,463,771	16	Total Disposition (sum of lines 11, 12, 13, 14, & 15)	3,463,771



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**SCHEDULE 2. PART C. ELECTRIC OPERATING REVENUE**

LINE NO.	TYPE OF OPERATING REVENUE	(THOUSAND DOLLARS to the nearest 0.1)
1	Electrical Operating Revenue From Sales to Ultimate Customers (Schedule 4: Parts A, B, and D) \$	392,578.4
2	Revenue From Unbundled (Delivery) Customers (Schedule 4: Part C) \$	4,115.4
3	Electric Operating Revenue from Sales for Resale \$	
4	Electric Credits/Other Adjustments \$	-3,152.9
5	Revenue from Transmission \$	
6	Other Electric Operating Revenue \$	48,347.0
7	Total Electric Operating Revenue (sum of lines 1, 2, 3, 4, 5 and 6) \$	441,887.9

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REPORT PERIOD ENDING: 2021

**SCHEDULE 3. PART A.  
 DISTRIBUTION SYSTEM RELIABILITY DATA**

INSTRUCTIONS: For the purpose of this schedule, a distribution circuit is any circuit with a voltage of 34kV or below that emanate from a substation and that serves end use customers.

**State/Territory MD**

1	Total Number of Distribution Circuits	247.0
2	Number of Distribution Circuits that employ voltage/VAR optimization (VVO)	.0

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**SCHEDULE 3. PART B.  
DISTRIBUTION SYSTEM RELIABILITY DATA**

**Who is required to complete this schedule?**

This schedule collects System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI) statistics. If your organization does not compute these indexes, answer 'no' to Question 1 and then skip to Schedule 4A. You do not have to complete any other part of this schedule 3B or 3C.

**Should you complete Part B or Part C?**

If your organization computes the SAIFI and SAIDI indexes and determines Major Event Days using the IEEE 1366-2003 or the IEEE 1366-2012 standard, answer 'YES' to Questions 1 and 2, and complete Part B. Then skip to Schedule 4A. (You do not complete Schedule 3, Part C.)

If your organization does not use the IEEE 1366-2003 or the IEEE 1366-2012 standard but calculates SAIDI and SAIFI indexes via other method, answer 'yes' to question 1 and 'no' to question 2 and complete Part C. Then go to Schedule 4A.

- 1 Do you calculate SAIDI and SAIFI by any method? If Yes, go to Question 2. If No, go to Schedule 4, Part A.  Yes  No
- 2 Do you calculate SAIDI and SAIFI and determine Major Event Days using the IEEE1366-2003 standard or IEEE-2012 standard? If Yes, complete Part B. If No, go to complete Part C.  Yes  No

**Part B: SAIDI and SAIFI in accordance with IEEE 1366-2003 standard or IEEE 1366-2012 standard**

	State	MD
3a. SAIDI value including Major Event days		162.200
3b. SAIDI value excluding Major Event days		120.000
4 SAIDI value including Major Event days minus loss of supply		161.100
5a. SAIFI value including Major Event days		1.560
5b. SAIFI value excluding Major Event days		1.300
6. SAIFI value including Major Event days minus loss of supply		1.500
7. Total number of customers used in these calculations		169,190.0
8. What is the highest voltage that you consider part of the distribution system, as opposed to the supply system? (kV)		12.5
9. Do you receive information about a customer outage in advance of a customer reporting it?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Thank You for completing this part. Skip Part C and go directly to Schedule 4 Part A.

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**Part C: SAIDI and SAIFI calculated by other methods**

State

MD

10a. SAIDI value including Major Events

10b. SAIDI value excluding Major Events

11a. SAIFI value including Major Events

11b. SAIFI value excluding Major Events

12. Total number of customers used in these calculations

13. Do you include inactive accounts?

Yes

No

14. How do you define momentary interruptions

Less than 1 min.

Less than 5 min.

Other

15. What is the highest voltage that you consider part of the distribution system, as opposed to the supply system?

kv

16. Is information about customer outages recorded automatically?

Yes

No

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**SCHEDULE 4. PART A. SALES TO ULTIMATE CUSTOMERS. FULL SERVICE - ENERGY AND DELIVERY SERVICE (BUNDLED)**

	RESIDENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)
<b>State</b> MD <b>Balancing Authority</b>	14725				
Revenue (thousand dollars)	262,535.3	130,043.1			392,578.4
Megawatthours	2,168,818	1,216,777			3,385,595
Number of Customers	150,840	15,432			166,272
Are your rates decoupled?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If the answer is YES, is the revenue adjustment automatic or does it require a rate-making proceeding?	<input type="checkbox"/> N automatic	<input type="checkbox"/> N automatic	<input type="checkbox"/> N automatic	<input type="checkbox"/> N automatic	
	<input type="checkbox"/> N proceeding	<input type="checkbox"/> N proceeding	<input type="checkbox"/> N proceeding	<input type="checkbox"/> N proceeding	
Cents/Kwh	12.105	10.688			11.596

**State**

Revenue (thousand dollars)					
Megawatthours					
Number of Customers					
Are your rates decoupled?					
If the answer is YES, is the revenue adjustment automatic or does it require a rate-making proceeding?					
Cents/Kwh					

**Total**

Revenue (thousand dollars)	262,535.3	130,043.1			392,578.4
Megawatthours	2,168,818	1,216,777			3,385,595
Number of Customers	150,840	15,432			166,272

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**SCHEDULE 4. PART B. SALES TO ULTIMATE CUSTOMERS. ENERGY -- ONLY SERVICE (WITHOUT DELIVERY SERVICE )**

	RESIDENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)
<b>State</b>	<b>Balancing Authority</b>				
Revenue (thousand dollars)					
Megawatthours					
Number of Customers					
Cents/Kwh					
<b>State</b>					
Revenue (thousand dollars)					
Megawatthours					
Number of Customers					
Cents/Kwh					

<b>Total</b>
Revenue (thousand dollars)
Megawatthours
Number of Customers

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**SCHEDULE 4. PART C. SALES TO ULTIMATE CUSTOMERS. DELIVERY -- ONLY SERVICE (AND OTHER RELATED CHARGES)**

	RESIDENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)
<b>State</b>	<b>MD</b>	<b>Balancing Authority</b>	14725		
Revenue (thousand dollars)	2,930.5	1,184.9			4,115.4
Megawatthours	56,853	36,410			93,263
Number of Customers	4,701	473			5,174
Cents/Kwh	5.155	3.254			4.413
<b>State</b>					
Revenue (thousand dollars)					
Megawatthours					
Number of Customers					
Cents/Kwh					

<b>Total</b>					
Revenue (thousand dollars)	2,930.5	1,184.9			4,115.4
Megawatthours	56,853	36,410			93,263
Number of Customers	4,701	473			5,174

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**SCHEDULE 4. PART D. BUNDLED SERVICE BY RETAIL ENERGY PROVIDERS AND POWER MARKETERS**

	RESIDENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)
<b>State</b>	<b>Balancing Authority</b>				
Revenue (thousand dollars)					
Megawatthours					
Number of Customers					
Cents/Kwh					
<b>State</b>					
Revenue (thousand dollars)					
Megawatthours					
Number of Customers					
Cents/Kwh					

<b>Total</b>
Revenue (thousand dollars)
Megawatthours
Number of Customers



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**SCHEDULE 5. MERGERS and/or ACQUISITIONS**

**Mergers and/or acquisitions during the reporting month**

**If Yes, Provide:**

**Date of Merger or Acquisition**

**Company merged with or acquired**

**Name of new parent company**

**Address**

**City**

**State, Zip**

**New Contact Name**

**Telephone No.**

**Email address**

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**SCHEDULE 6. PART A. ENERGY EFFICIENCY PROGRAMS**  
**Adjusted Gross Energy and Demand Savings -- Energy Efficiency**

If you have a non utility DSM administrator that reports your DSM activity for you please select them from the list

State/Territory	MD	Balancing Authority				Total
		RESIDENTIAL	COMMERCIAL	INDUSTRIAL	TRANS	
		(a)	(b)	(c)	(d)	(e)
<b>Reporting Year Incremental Annual Savings</b>						
1	Energy Savings (MWh)	52,781.000	16,542.000			69,323.000
2	Peak Demand Savings (MW)	8.400	2.900			11.300
<b>Increment Life Cycle Savings</b>						
3	Energy Savings (MWh)	319152.000	224,573.000			543,725.000
4	Peake Demand Savings (MW)	8.400	2.900			11.300
<b>Reporting Year Incremental Costs</b>						
5	Customer Incentives	6,073.000	4,190.000			10,263.000
6	All other costs	5,207.000	1,797.000			7,004.000
<b>Incremental Life Cycle Costs</b>						
7	Customer Incentives	6,073.000	4,190.000			10,263.000
8	All other costs	31,763.000	24,439.000			56,202.000
<b>Weighted Average Life for Portfolio (Years) - Use Spreadsheet to Calculate</b>						
9	Weighted Average Life	6.100	13.600			20.000

Please provide website address to your energy efficiency program reports:

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**SCHEDULE 6. PART A. ENERGY EFFICIENCY PROGRAMS**

DMS Administration only. List all utilities that you provide service for.

State

Utility Name

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**Schedule 6. Part B. Yearly Energy and Demand Savings - Demand Response**

**Reporting Year Savings**

State/Territory	MD	Balancing Authority	14725	(a) Residential	(b) Commercial	(c) Industrial	(d) Transportation	(e) Total
1		Number of Customers Enrolled		38,432	94			38,526
2		Energy Savings (Mwh)		0.000	0.000			0.000
3		Potential Peak Demand Savings (MW)		38.000	14.000			52.000
4		Actual Peak Demand Savings (MW)		38.000	14.000			52.000

**Schedule 6. Part B. Program Cost -- Demand Response (Thousand Dollars)**

**Reporting Year Costs**

5		Customer Incentives		1,709.000	177.000			1,886.000
6		All other costs		2,725.000	910.000			3,635.000

7 If you have a demand side management (DMS) program for grid-interactive water heaters (as defined by DOE), how many grid interactive water heaters were added to your program this year?

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**SCHEDULE 6. PART C. DYNAMIC PRICING PROGRAMS**

**Number of Customers**

INSTRUCTIONS: Report the number of customers participating in dynamic pricing programs, e.g. Time-of-Use-Pricing, Real-Time-Pricing, Variable Peak Pricing, Critical Peak Pricing Programs.

**State/Territory**

**Balancing Authority**

Residential  
(a)

Commercial  
(b)

Industrial  
(c)

Transportatio  
(d)

Total  
(e)

1 Number of Customers enrolled in dynamic pricing programs, by customer class

**Types of Dynamic Pricing Programs**

INSTRUCTIONS: For each customer class, mark the types of dynamic pricing programs in which the customers are participating.

Residential  
(a)

Commercial  
(b)

Industrial  
(c)

Transportatio  
(d)

2 Time-of-Use Pricing

Yes  No

Yes  No

Yes  No

Yes  No

3 Real-Time Pricing

Yes  No

Yes  No

Yes  No

Yes  No

4 Variable Peak Pricing

Yes  No

Yes  No

Yes  No

Yes  No

5 Critical Peak Pricing

Yes  No

Yes  No

Yes  No

Yes  No

6 Critical Peak Rebate

Yes  No

Yes  No

Yes  No

Yes  No

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**SCHEDULE 6. PART D. ADVANCED METERING**

Only customers from schedule 4A and 4C need to be reported on this schedule.  
 AMR- data transmitted one-way, to the utility.  
 AMI- data transmitted in both directions, to the utility and customer

State	MD	Balancing Authority	14725				
			Residential (a)	Commercial (b)	Industrial (c)	Transportation (d)	Total (e)
1		Number of AMR Meters	201	0			201
2		Number of AMI Meters	155,068	15,642			170,710
3		Number of AMI Meters with home area network (HAN) gateway enabled					
4		Number of non AMR/AMI Meters	145	160			305
5		Total Number of Meters (All Types), line 1+2+4	155,414	15,802			171,216
6		Energy Served Through AMI	2,220,715	962,085			3,182,800
7		Number of Customers able to access daily energy usage through a webportal or other electronic means					
8		Number of customers with direct load control					

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**SCHEDULE 7. PART A. NET METERING**

**Net Metering** programs allow customers to sell excess power they generated back to the electrical grid to offset consumption. Provide the information about programs by State balancing authority, customer class, and technology for all net metering applications.

State	MD	Balancing Authority	14725	Residential (a)	Commercial (b)	Industrial (c)	Transportation (d)	Total (e)
		Net Metering Installed Capacity (MW)		62.626	4.744	0.000	0.000	67.370
		Net Metering Installations		7,054	58	0	0	7,112
		Storage Installed Capacity (MW)		0.000	0.000	0.000	0.000	0.000
		Storage Installations		0		0	0	0
<b>Photovoltaic</b>		Virtual NM Installed Capacity (1 MW and greater)		0.000	0.000	0.000	0.000	0.000
		Virtual NM Customers (1 MW and greater)		0	0	0	0	0
		Virtual NM Installed Capacity (less than 1MW)		0.000	0.000	0.000	0.000	0.000
		Virtual NM Customers (less than 1MW)		0	0	0	0	0
		If Available, Enter the Electric Energy Sold Back to the Utility (MWh)		37,649.175	1,790.666	0.000	0.000	39,439.841
<b>Wind</b>		Installed Net Metering Capacity (MW)		0.020	0.016	0.000	0.000	0.036
		Number of Net Metering Customers		3	3	0	0	6
		If Available, Enter the Electric Energy Sold Back to the Utility (MWh)		9.313	3.000	0.000	0.000	12.313
<b>Other</b>		Installed Net Metering Capacity (MW)		0.000	0.320	0.000	0.000	0.320
		Number of Net Metering Customers		0	1	0	0	1
		If Available, Enter the Electric Energy Sold Back to the Utility (MWh)		0.000	0.000	0.000	0.000	0.000
<b>Total</b>		Installed Net Metering Capacity (MW)		62.646	5.080	0.000	0.000	67.726
		Number of Net Metering Customers		7,057	62	0	0	7,119
		If Available, Enter the Electric Energy Sold Back to the Utility (MWh)		37,658.488	1,793.666	0.000	0.000	39,452.154
<b>Grand Total All States</b>		<b>Net Metering Installed Capacity (MW)</b>		62.646	5.08	0	0	67.726
		<b>Net Metering Installations/customers</b>		7057	62	0	0	7119
		<b>If Available, Enter the Electric Energy Sold Back to the Utility (MWh)</b>		37658.488	1793.666	0	0	39452.154

REPORT FOR Southern Maryland Elec Coop Inc

REPORT PERIOD ENDING:

**SCHEDULE 7. PART B. NON NET-METERED DISTRIBUTED GENERATORS**

If your company owns and/or operates a distribution system, please report information on known distributed generation (grid connected/synchronized) capacity on the system. Such capacity must be utility or customer-owned

**NUMBER AND CAPACITY**

State	Balancing Authority	< 1MW
-------	---------------------	-------

- |                                 |  |
|---------------------------------|--|
| 1. Number of generators         | 3. Capacity that consists of backup-only units |
| 2. Total combined capacity (MW) | 4. Capacity owned by respondent                |

**Capacity by Technology and Sector (MW)**

	Residential	Commercial	Industrial	Transportation	Direct Connected	Total
5. Internal combustion						
6. Combustion turbine(s)						
7. Steam turbine(s)						
8. Fuel Cell(s)						
9. Hydroelectric						
10. Photovoltaic						
11. Storage						
12. Wind turbine(s)						
13. Other						
14. Total						



REPORT FOR: Southern Maryland Elec Coop Inc

17637

REPORT PERIOD ENDING: 2021

**SCHEDULE 8. DISTRIBUTION SYSTEM INFORMATION**

**If your company owns a distribution system, please identify the names of the counties (parish, etc.) by State in which the electric wire/equipment are located.**

LINE NO.	STATE (US Postal Abbreviation) (a)	COUNTY (Parish, Etc.) (b)	LINE NO.	STATE (US Postal Abbreviation) (a)	COUNTY (Parish, Etc.) (b)
1	MD - Calvert				
2	MD - Charles				
3	MD - Prince Georges				
4	MD - St Marys				

REPORT FOR: Southern Maryland Elec Coop Inc

17637

REPORT PERIOD ENDING: 2021

**SCHEDULE 9. COMMENTS**

SCHEDULE	PART	LINE NO.	COLUMN	NOTES
(a)	(b)	(c)	(d)	(e)

REPORT FOR: Southern Maryland Elec Coop Inc

17637

REPORT PERIOD ENDING: 2021

**EIA861 ERROR LOG**

Part	State	BA ID	Error No.	Error Description/Override Comment	Type	Override	
6	A	MD	14725	634	Residential Incremental Life Cycle costs (Line 7 + Line 8) should be reported in thousand dollars. The calculated costs/kWh should be below the industry average of 4 cents/kWh. Please provide corrected data or an explanation.  Per independent conversations with EIA staff, we have multiplied Line 5 by the Weighted Average Life to calculate Line 7. Additionally, we have multiplied Line 6 by the Weighted Average Life to calculate Line 8.	W	
6	A	MD	14725	635	Commercial Incremental Life Cycle costs (Line 7 + Line 8) should be reported in thousand dollars. The calculated costs/kWh should be below the industry average of 4 cents/kWh. Please provide corrected data or an explanation.  Per independent conversations with EIA staff, we have multiplied Line 5 by the Weighted Average Life to calculate Line 7. Additionally, we have multiplied Line 6 by the Weighted Average Life to calculate Line 8.	W	



# ANDREW RAYMOND YESKIE P.E

(b) (6)

## EDUCATION

(b) (6)

**B.S. ELECTRICAL AND COMPUTER ENGINEERING, THE VIRGINIA MILITARY INSTITUTE**  
FOCUS IN MICROELECTRONIC AND SEMICONDUCTOR FABICATION

## EXPERIENCE

### FEBURARY 2022 – PRESENT

**SENIOR ENGINEER TRANSMISSION AND SUBSTATION OPERATIONS, SOUTHERN MARYLAND ELECTRIC COOP.**

Provide oversight for the engineers developing and technical assistance in the major functions of design, installation, testing and maintenance of the following areas Supervisory Control and Data Acquisition (SCADA) system, 230kV transmission, 69kV sub-transmission, substation, and 13kV distribution protective relaying systems. Oversees investigation of highly complex control system malfunctions and determines required corrective actions and/or system modifications. Maintains information exchange with the Potomac Electric Power Company, PJM, and Reliability First to insure SMECO's compliance with applicable regulations as well as to ensure continuity of protective relaying systems

### MARCH 2011 – FEBURARY 2022

**SYSTEM PROTECTION ENGINEER TRANSMISSION AND SUBSTATION OPERATIONS, SOUTHERN MARYLAND ELECTRIC COOP.**

Provided technical assistance in the major functions of design, installation, testing and maintenance of the following areas Supervisory Control and Data Acquisition (SCADA) system, 230kV transmission, 69kV sub-transmission, substation, and 13kV distribution protective relaying systems. Prepares and checks settings for directional and non-directional over-current, impedance, differential, under-frequency, over and under-voltage, and reverse power protective relaying devices associated with SMECO's transmission, substation, and distribution systems. Prepares specifications for microprocessor based protective devices and controls for utilization in the electric system including LTC, protective relay, and VAR controllers.

### MARCH 2007 – APRIL 2011

**SENIOR ASSOCIATE ENGINEER – TRANSMISSION & SUBSTATION APPARATUS, SOUTHERN MARYLAND ELECTRIC COOP.**

Provides technical assistance in the maintenance and testing of distribution line equipment consisting of reclosers, padmount switch, capacitor controls, and line regulators. Assists with the troubleshooting, maintenance, and testing of sub/switching station equipment at the 230kV, 69kV, and 13kV voltage levels including, record retrieval, Event analysis, relay programing, and developing relay settings.



## **HARDWARE AND SOFTWARE FAMILIARITY**

- Novatech Orion LX RTU
- Novatech Orion I/O
- GE Multilin Relays
- SEL relays
- Basler Relays
- ABB relays
- Televent/Schneider electric RTUs
- Doble Protection Suite
- Reinhausen MR suite
- Bechwidth Taptalk
- Microsoft Office
- Easypower Load Flow/ Fault study Modeling software
- AutoCAD
- GE Enervista UR
- SEL AcSelerator
- ABB PCM 600
- Basler Bestcoms
- Hubel Versatechs
- S&C intelilink/Intelirupters

## **ACHEIVEMENTS**

Maryland Professional Engineer #52772  
PADI MSDT #418008

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Beth A. Kennedy, CPA

(b) (6)

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## WORK EXPERIENCE

### **1999 - PRESENT: SOUTHERN MARYLAND ELECTRIC COOPERATIVE, INC. (SMECO), HUGHESVILLE, MD**

#### *Senior Vice President and Chief Financial Officer 2020-Present*

- Oversee the financial activities and performance of the company, including internal and external reporting, cash management, procedure and policy compliance
- Work with other Senior Staff on the planning, implementation and oversight of the organization's strategic vision and corporate objectives
- Develop financial strategies using financial forecast data and trend analysis
- Prepare regulatory filings and testimony with the Maryland Public Service Commission, including issuance of long term debt and requests for changes distribution rate

#### *Controller 2014 - 2020*

- Supervise the Treasury & Accounting Division, to include Payroll, Accounts Payable, Accounts Receivable, Capital Credits, Fixed Assets, Treasury, and Budget
- Monitor financial ratios and prepare or direct quarterly and annual compliance filings and reporting for various agencies
- Analyze and interpret accounting facts and circumstances relative to general, subsidiary and tax accounting matters
- Supervise the preparation of workpapers for the annual audit and ensure the integrity of the fiscal data
- Direct the preparation of financial, statistical, and tax reports and data requests as issued by regulatory agencies, including the Maryland Public Service Commission
- Supervise the preparation of daily cash flow worksheets and related Treasury functions

#### *Energy Procurement Manager 2007-2014*

- Assisted with the development/maintenance of an annual power portfolio hedge plan and monitored compliance; ensured proper approvals and execution of hedges
- Developed power supply budget and revenue forecasts
- Compiled Standard Offer Service rate case filings
- Developed presentations and provided updates relative to power supply issues to Internal Risk Oversight Committee and Board Risk Oversight Committee

- Worked with ACES and National Renewables Cooperative Organization (NRCO) on ensuring compliance with state RPS requirements, including execution of long term contracts for wind and solar energy. Served on the Board of Directors for NRCO

*Energy Accounting & Credit Manager 2004-2007*

- Developed accounting worksheets and related processes during initial transition to power supply portfolio
- Reviewed and negotiated EEI and ISDA contracts/terms with power supply counterparties; monitored credit thresholds and ensured compliance with contract and credit terms with counterparties, including PJM
- Prepared monthly Purchased Power Cost Adjustment (PPCA) Factor and power supply related journal entries; testified at Maryland Public Service Commission PPCA hearing
- Filed annual Renewable Portfolio Standard reporting with Maryland Public Service Commission

*Chief Accounting Clerk – Remittance Processing 2001-2004*

*Customer Service/Cashier/Capital Credits 1999-2004*

**1995 – 1999: SUNTRUST BANK, LEXINGTON PARK, MD**

*Teller/Head Teller/Customer Service*

**EDUCATION / TRAINING**

- NRECA Management Internship Program, (b) (6)
- NRECA/CFC Cooperative Financial Professional Certification, (b) (6)
- Leadership Maryland, (b) (6)
- CPA, Maryland Certified Public Accountant, (b) (6) License Number 38971
- Master of International Management, (b) (6) University of Maryland University College
- BS Accounting, (b) (6) University of Maryland University College

**HIGHLIGHTS**

**SMECO Solar LLC project manager** – Worked with NRCO and SunEdison to permit and build a 5.5 MW solar project in SMECO service territory. Prepared data for documentation filed for 1603 tax grant funding of over \$5MM, and ensured compliance with “safe harbor” and “Buy American” provisions. The project fully powers ~500 homes annually, and provides over 8,000 Solar Renewable Energy Credits for compliance each year.

**SMECO Charitable Foundation** - Assisted with establishment of SMECO Charitable Foundation and SMECO Foundation Properties, and oversee ongoing operations, including organizational, legal and tax filings.



# JOHN T. BREDEKAMP

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(b) (6)

## CAREER PROFILE

April 3, 2023

### **Over 35 years of Electric Utility experience in Transmission System Operations and Project Execution.**

System Operations includes the Engineering, Construction, Operations, Maintenance, Control, Protection, and Communications of SMECO's Transmission electric system, which includes the 69 kV and 230 kV Substations and Transmission Lines. His responsibilities also include coordinating Interconnections with the Potomac Electric Power Company and insuring compliance with PSC, PJM, and NERC reliability standards.

Project Execution experience includes permitting, engineering, material procurement, construction, project management, construction management, and business development for power delivery projects in voltages ranging from 12kv through 230kv. Experienced in all aspects of project execution from permitting, detailed engineering and design, through procurement and construction, including contracting requirements. Proficient in use of MS Office, MS Project, and Estimating Tools.

## EDUCATION

B.S. Electrical Engineering, University of Missouri – Rolla, (b) (6)  
Registered Professional Engineer, Missouri and Maryland

## PROFESSIONAL EXPERIENCE

### **Southern Maryland Electric Cooperative (SMECO)**

2005 to Present

#### **Vice President Transmission Engineering and Operations**

2021 to Present

Responsibilities include the engineering and construction of the SMECO transmission system, which include the 230kv and 69kv transmission lines and substation facilities. Manage all activities and staff for new and rebuilt transmission lines, switching stations, substations, and communication projects from planning through completion to ensure scope, schedule, and budget compliance.

In addition, assigned the Operation and Maintenances of the Transmission System including the control center. He manages all activities and staff for the daily operation and maintenance of about 75 stations and 500 miles of lines. This includes system protection and control, protective relaying and equipment testing, planned and emergency upgrades, daily operation and switching, and 24/7 operation of the transmission control center.

#### **Project Management Services Managing Director**

2005 to 2021

Responsibilities include the engineering and construction of the SMECO transmission system, which include the 230kv and 69kv transmission lines and substation facilities. Manage all activities and staff for new and rebuilt transmission lines, switching stations, substations, and fiber optic projects from planning through completion to ensure budget, schedule, engineering and construction compliance, and standardization with all corporate and regulatory specifications, policies, and procedures.

Responsibilities includes coordinating internal planning, engineering, procurement, right of way, operations, and construction resources to define project scope, deliverables, create schedules, and

# JOHN T. BREDEKAMP

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providing estimates of necessary budget, effort, and total duration. Responsible for the preparation and development of the contract specifications and documents used during project execution.

By managing outside consultants, contract employees, suppliers, and contractors, the project management staff's strength is leveraged. Over the past 14 years, the small staff has managed almost \$300 million dollars' worth of project work with as many as 35 engineering consultants and over 100 construction craft personnel on site. Projects are consistently within budget and project milestones delivered on time.

## **The Southern Maryland Reliability Project (SMRP):**

The Southern Maryland Reliability Project (SMRP) was the completion of a 230kv loop through SMECO's service territory to meet system demand and provide reliability. The SMRP was the largest project ever executed at SMECO with a cost of over \$135m over eight years. The project was very successful because project costs were under budget and milestones were delivered ahead of schedule while delivering high quality and maintaining favorable public perception and permitting agency approvals through superior communications. Based on the feedback received from outside agencies, consultants, contractors, and other utility personnel, the SMRP was one of the best-planned, engineered, and constructed projects in the industry.

The Aquasco to Holland Cliff project segment included a new Aquasco 230kv interconnect with Pepco, Modifications to the 4 mile existing 230kv line between Aquasco and Holland Cliff, new Holland Cliff 230/69kV switching station, and two new 300MVA XFMR's installed at the existing Hewitt Road switching station,

The Holland Cliff to Hewitt Road project segment received Maryland CPCN approval and included a new 28-mile quad circuit dual 230kV and dual 69kV transmission line, a new Sollers Wharf 230/69kV Switching Station, a new 2-mile underground 230kV circuit crossing the Patuxent River, two new 300MVA XFMRs installed at the existing Hawkins Gate switching station, and a new 230kV line terminal added to the existing Hewitt Road switching station.

## **69kv Substation:**

Placed into service about 36 new or rebuilt substation projects worth over \$60 million dollars of new capital investment.

## **69kv Transmission Lines:**

Placed into service about 44 miles worth over \$45 million dollars of new or rebuilt transmission lines including under built distribution.

## **Fiber Optic Cable Installation:**

Installed over 145 miles or about \$20 million dollars of fiber optic cable to support SMECO's communications, relaying protection, and Scada requirements. The fiber optic cable was installed overhead on existing transmission and distribution facilities as well as some underground along our right of way.

## **Black & Veatch Power Delivery Division**

1987 to 2005

Over 17 years of experience with Black & Veatch with various positions of increasing responsibility in the Electric Utility business. I was the Regional General Manager responsible for the business development

## JOHN T. BREDEKAMP

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of the Power Delivery Division in the Northeast, United States, for eight years. Duties include developing and maintain Client relationships and securing substation and transmission, overhead and underground, engineering and construction projects to support the Power Delivery staff. Developed the Northeast business into the most profitable region for the Power Delivery Division in four of the last five years including the honor of top salesperson.

As the Substation Project Manager managed new substation projects as well as modification to existing substations with voltages ranging from 12kv through 230kv for various clients. Responsible for the complete project execution starting with developing and managing the project scope, budget, and schedule, through conceptual engineering and detail design, with procurement and construction contracting, as well as construction management and commissioning.

As the Electrical Substation Engineer performed various substation electrical design and engineering assignments for numerous clients on many new substation projects and modification to existing substations.

# Ryan Edge M.P.A., P.M.P.

(b) (6)

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## WORK EXPERIENCE

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### Southern Maryland Electric Cooperative

*Director, Program Management Office*

**Hughesville, MD**

*November 2022 – Present*

- Established the cooperative's first stand-alone strategic program management office
- Developed new products and services, both regulated and unregulated, to enhance customer value and diversify revenue
- Initiated enterprise wide, cross-functional working groups to improve collaboration, efficiency, and innovation.

### Booz Allen Hamilton

*Associate, Defense Energy Team*

**Arlington, VA**

*March 2019 – March 2022*

- Managed resilience planning for energy and water utility systems at Army installations
- Authored distributed energy resources (DER) policy guidance at the Department of Defense
- Developed energy resilience projects for Army installations by leveraging electric and gas utility partnerships
- Led multi-disciplinary teams comprised of engineering, finance, cybersecurity, data scientists, and legal experts

### Smart Electric Power Alliance

*Program Manager*

**Washington, D.C.**

*September 2017 – February 2019*

- Developed and implemented the organizational strategy for solar power, electric vehicles, microgrids, and energy storage for industry conferences and professional education events in 10 regional markets
- Led multi-disciplinary teams representing sales, marketing, logistics, and communications functions
- Developed an electric vehicle education program integrating technical and programmatic best practices
- Served as the organization's primary liaison to its joint venture with the Solar Energy Industries Association

*Research Analyst*

*January 2014 – September 2017*

- Served as project manager and primary author for numerous research reports detailing innovative utility business models, such as community solar programs, energy market analysis, and the technologies and policies driving grid modernization
- Served as project manager for an annual survey of more than 300 electric utilities that collected comprehensive primary data of their solar interconnections and programmatic activities
- Presented research at Solar Power International, utility industry conferences, and industry webinars

### Portland General Electric

*Smart Inverter Researcher*

**Portland, OR**

*September 2013 – December 2013*

- Researched advanced capabilities of solar power inverters to support grid reliability
- Authored a white paper on smart inverter capabilities that curated institutional knowledge and informed the utility's strategy for distributed solar power

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## EDUCATION

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### Portland State University

*Master of Public Administration, Energy Policy concentration*

(b) (6)

*Portland, OR*

- Strong emphasis on smart grid technologies and energy policy
- Interned in the Office of U.S. Senator Ron Wyden supporting veterans' affairs casework

### Western Kentucky University

*Bachelor of Interdisciplinary Studies*

(b) (6)

*Bowling Green, KY*

- Advanced coursework in economics, business, journalism, and history

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## CERTIFICATIONS, SKILLS & INTERESTS

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- **Certification:** Project Management Professional
- **Specialized training:** 40-hour, NARUC-endorsed utility ratemaking course at New Mexico State University
- **Skills:** utility strategy and innovation; experienced facilitator of diverse stakeholders; program and policy analysis for strategy and decision making; accomplished public speaker; numerous utility industry publications
- **Interests:** Taekwondo (3rd Dan Black Belt and instructor); distance running

(b) (6)

## Electric Utility Experience

- System Studies
  - Power Flow
  - Short Circuit
  - Motor Start
  - Flicker
  - Loss
  - Construction Work Plan
  - Long-Range Plan
  - Outage contingency
  - T&D system planning
  - Interconnection
- Software
  - DNV Synergi Electric
  - Siemens PSS/e
  - Aspen One Liner
  - Launch Pad
  - Work Manager / Ellipse
  - Infor
  - CC&B
  - ESRI GIS
  - OSI OMS
  - MS Office Suite
- Distribution
  - Layout & Design
  - Equipment specification
  - Construction Standards
  - Protection
  - Power Quality & RFI
  - Sectionalizing
  - Metering
  - Switching
  - Reliability
  - Photovoltaics
- Transmission Planning
- NEC and NESC
- Energy Efficiency
- Reactive Power
- System Improvements
- Basic Substation Design
- PSC / Regulatory
- Electric Operations
- Project Management
- Device Coordination
- Load Forecasting
- PJM / NERC Compliance
- Budgets
- Storm Restoration
- Customer / Employee Relations

## Professional Qualifications

- Develop and implement processes and procedures necessary to study and manage third party interconnection requests to the local area electric system.
- Developed all conceptual distribution engineering design necessary to convert the privatized Patuxent River Naval Air Station 4.16 kV electric system to 13.8 kV.
- Develop, manage, and recommend short- and long-range system studies, construction work plans, specific project concept designs, and operational procedures necessary to support the continued growth and reliability of the local electric system.
- Establish cost-effective uniform engineering standards, material and equipment specifications, and line construction practices used to design, build, and maintain the local utility electric system.
- Acquire, analyze, and disseminate varying types of electrical system load information and prepare technical documents for internal and external departmental review relating to: distribution and transmission circuits, substation and switching station supply capabilities, reactive power compensation, electric system reliability indices, overall electric system performance, electric system maintenance, determination of available system fault current values, line conductor characteristics, and optimal system configurations.

- Technical resource and customer relations contact for investigating and resolving all types of power quality disturbances and customer complaints relating to electric service performance and reliability related issues.
- Develop, maintain, update, and distribute electric distribution and transmission power flow and short-circuit software models to allow utility Engineering and Operations personnel and external regulatory entities to simulate the performance of existing and proposed improvements to the local utility electric system.
- Technical resource regarding the design, test, and installation of various electric meter configurations.
- Marketed and educated customer members on the benefits and technical implementation of the local utility's original Demand Side Management and energy efficiency programs.

## **Employment History**

**Southern Maryland Electric Cooperative, Inc. (SMECO)**  
**15035 Burnt Store Road**  
**P.O. Box 1937**  
**Hughesville, Maryland 20637-1937**  
**[www.smeco.coop](http://www.smeco.coop)**

VP System Planning and Distribution Engineering  
February 2022 – Present

System Planning and Reliability Director  
May 2012 – February 2022

System Planning and Standards Director  
June 2006 – May 2012

System Planning Engineer  
June 2001 - June 2006

Assistant Engineer - Meter Operations  
November 1995 - June 2001

Marketing and Energy Services Representative  
August 1993 – November 1995

## **Education and Professional Affiliations**

University of Pittsburgh at Johnstown  
Johnstown, PA  
B.S. in Electrical Engineering Technology

Professional Engineer – State of Pennsylvania, License # PE-052898-E

Professional Engineer – State of Maryland, License #0029538

Association of Energy Engineers Certified Energy Manager (CEM), License # 004497

Member Institute of Electrical and Electronics Engineers (IEEE)

(b) (6)

## QUALIFICATIONS

- Field experience
- Adaptability
- Computer skills
- Supervisory skills
- Planning
- Motivation
- Initiative
- Independence
- Organizational skills

## EXPERIENCE

### **Southern Maryland Electric Cooperative (SMECO) – 2004 - Current**

#### ***Transmission Engineering & Construction Director***

- Serve as engineering and project manager for SMECO capital projects involving new transmission lines, new substations and substation upgrades at 69kV and 230kV. Responsibilities include but are not limited to scope, schedule, budget and closeouts. Also served as Engineering Manager for SMECO's 230kV Southern Maryland Reliability Project and the Project Manager for expansion in Charles County, which included eight miles of 69kV transmission and two new substations. Responsibilities included project budget, schedules for outage coordination and contract negotiations.
- Supervise and coordinate consultants obtained by SMECO to support engineering projects, permitting, long range planning and construction. Serve as expert witness in SMECO court cases when third parties damage our facilities. Review and approve SMECO standards for transmission and substation materials and construction, to include reviewing of new and emerging products for SMECO implementation.

#### ***Transmission and Substation Engineer***

2007-2010

- Support Project Management by helping with contract and product specifications, construction deadlines and on site supervision of projects in construction for both 69KV and 230KV projects. Design electrical transmission lines for bulk power distribution using PLS-CADD. Also served as construction supervisor SMECO's 69kV Independence and West Brandywine substations that utilized low profile and box structure designs. Was responsible for receiving materials, on site direction and conflict resolution, county permitting, maintaining storm water management logs and, outage coordination and job closeouts.

#### ***Energy Analyst***

2004-2007

- Analyzed both residential and commercial accounts through historical data and computer modeling to indicate potential causes of higher usage/consumption. Perform on site audits to determine source of problem(s) when necessary and to provide guidance on ways to help reduce/conserve usage.

**Ray Sears and Sons Contractors, Inc., Davidsonville, MD.**

***Field Worker, Crew Leader Assistant***

2004-2004

- Executed Verizon utility relocations for Hughesville, Maryland bypass. Responsible for Verizon cable and conduit installation in Southern Maryland; Installation of lite spans and power pedestals, maintenance digs for cable faults, manhole placements and manhole maintenance. Responsible for job site preparation, verification of blueprints, site restoration, working with inspectors, excavation supervision and job site safety.

**J. Fletcher Creamer, Beltsville, MD.**

***Inspector Liaison, Field Worker***

2003-2004

- Completed water line restoration, valve installation and street restoration in Washington, D.C. in accordance with local regulations. Responsibilities included; Verizon conduit installation in Southern Maryland: Installation of Verizon Lite-spans and power Pedestals, and Manhole installation for Pepco in Prince George's County, Maryland; provided support for Pepco during Hurricane Isabel.

**B. Frank Joy, Bladensburg, MD.**

***Crew Leader Assistant, Field Worker***

2000-2002

- Responsible for Verizon, Pepco and SMECO underground utility installation in Prince George's County and Southern Maryland. Responsibilities included; job site preparation, coordination of work with Verizon inspectors and city/county/state regulators, reading blueprints, excavation supervision, restoration of job sites including roadways and sidewalks, handling supplies to and from the job site and job site safety.

## **EDUCATION**

**(b) (6)** **Johns Hopkins University** Baltimore, MD

- Bachelor's Degrees in Mechanical Engineering

**(b) (6)** **University of North Carolina Charlotte** Charlotte, NC

- One year of Engineering, focus on Mechanical.
- Earned membership into National Golden Key Honor Society.

**(b) (6)** **College of Southern Md.** La Plata, MD

- A.A. Engineering, focus on Electrical and Mechanical.



# Kyle H Rappe

## **Engineer Communications, Engineering & Operations**

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Communications Engineer with over 14 years of professional experience holding positions of increasing responsibility. Experienced in Electrical Engineering Communications in support of SMECO Transmission Reliability and Service, also experienced in avionics systems design, development, testing and integration in support of NASA and DoD contracts, interfacing with clients, suppliers and management, creating and maintaining schedules, identifying and tracking project risks and working in a team environment. Demonstrated skills include:

- Create detailed test plans and procedures and use test data for performance verification
- Proficient with electrical test equipment, including oscilloscopes, spectrum analyzers and signal generators
- Experience designing and troubleshooting Radio Frequency (RF) components and systems, customized computer hardware and automated test equipment
- Communicate work progress, deliverable status, schedule impacts and risk analysis to team members and multiple levels of management
- Analyze requirements and systems in the process of creating valid system specifications
- Solve complex problems, create and implement troubleshooting plans that deliver effective solutions
- Participate and present in technical interchange meetings, configuration control boards and program reviews with engineering and management from multiple organizations

## **Professional Experience**

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Jan. 2018 – Current

SMECO

Hughesville, MD

### **Engineer Communications, Engineering & Operations**

- Provides technical assistance in the major functions of design, installation, testing and maintenance of the following areas (1) microwave based communication system and associated multiplexing equipment, (2) Licensed 900 MHz multiple address system (MAS) for substation communications, (3) licensed VHF mobile radio system consisting of 120 remote and 6 base stations, and (4) Fiber optic communication equipment and associated SONET Network equipment
- Prepare specifications for communication equipment, devices, and controls for utilization in the cooperative's SCADA, protective relaying, and LAN traffic
- Develops and oversees the overall functions of design, installation, testing, and maintenance of essential fiber optic, microwave, land mobile radio, and SCADA (multiple address radio communication systems)
- Maintains the SONET network configuration and maintenance software. Assists in the investigation of malfunctions and recommends required corrective actions and/or system modifications
- Oversees the overall maintenance of telemetry and audio tone channel equipment, microwave, and land mobile radio communication systems in accordance with federal regulations
- Maintains records to ensure compliance with FCC regulations
- Support SMECO's NERC & CIP Compliance Program. Maintains the required evidence and ensures system compliance
- Designs and updates Fiber Network configuration changes for new lines/substations as new communication needs arise
- Maintains SMECO Fiber Network
- Prepares plans and oversees the development of secure primary and alternate communication routes for protective relaying transfer trip schemes, line differential relaying, and distribution automation schemes

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June 2012 – Dec. 2017

WMATA

Washington, D.C

### **Systems Engineer, Automatic Fare Collection**

- Systems engineer in the Automatic Fare Collection Engineering department, tasked with providing design and troubleshooting support for fare collection devices in the Washington DC Metro system
  - Lead systems integration engineer for major regional farebox upgrade program
  - Provided engineering and maintenance support for Garage Data Management System (GDMS), a server system that collects and distributes data to bus fareboxes used in the region. Efforts included setup and installation of new/replacement units at WMATA and regional bus garages, troubleshooting GDMS performance issues and implementing a Periodic Maintenance Initiative (PMI) program with the goal of minimizing future system errors
  - Collected and analyzed device and transaction data from central Oracle database by creating custom SQL queries
-

(b) (6)

## Kyle H Rappe

- Analyzed and commented on technical requirements for the New Electronic Payment Program (NEPP) and contributed engineering guidance to the program
  - Created integrated fare charge configurations for WMATA Bus and all regional partner bus operators using contractor supplied database tools and direct database entry
  - Interfaced with all regional bus operations stake holders to design, create and test new fare products and policies for customer use
- 

March 2007 - July 2011

United Space Alliance

Titusville, FL

### Electrical Engineer Staff II

- Lead for technical working group tasked with the development of the C-Band Radar Beacon Tracking System for NASA's Ares 1 First Stage rocket. This working group included a diverse team of technicians, engineers, program managers, clients and suppliers
  - Developed system requirements documents for Ares program, including tailoring requirements with Air Force 45<sup>th</sup> Space Wing Eastern Range
  - Supported Space Shuttle launch countdowns by monitoring system health telemetry data, providing analysis for any telemetry anomalies and supporting launch go/no-go decisions
  - Provided analysis and lead effort to update telemetry limits when testing revealed inadequacies in existing telemetry limits, preventing future unnecessary launch delays
  - Designed, developed and implemented radar transponder test set upgrade, replacing custom, obsolete and expensive equipment with commercial of-the-shelf test equipment, cutting costs of future maintenance and upgrades
  - Developed testing programs for program hardware, including writing test plans and procedures based on program level electrical and environmental requirements, to ensure design meets system requirements
  - Provided test plans, test procedures, and fault analysis for component and system performance anomalies
- 

Feb. 2006 - Feb. 2007

DRS Tactical Systems

Melbourne, FL

### Electrical Engineer I

- Electrical design engineer in the design and manufacturing of rugged military computer systems. Computers included features such as Bluetooth, fiber optic communications, touch screens and custom circuit boards
  - Tested, updated and repaired software and hardware on engineering units for the 18" Thin Client computer product line
  - Developed and executed test plan designed to monitor touch screen accuracy drift over operational temperature range
  - Supported environmental and Electromagnetic Interference testing for the developmental units
  - Created detail engineering drawings and assembled parts lists in configuration management system
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### Other Experience

- Employed with Booz Allen Hamilton in temporary consulting position
  - Active in community theater with positions including stage manager, director, producer and board member
  - Associate Professor of university introductory class for freshman at Florida Institute of Technology
  - Training in RF Microwave Systems design from Besser Institutes
  - Previously certified in LabView and NASA High Reliability Soldering
  - Experience with C++, BASIC, Programmable IC's, Matlab
  - Received WMATA Employee of the Month "Extraordinary In The Ordinary" award December 2012
  - Proficient in Microsoft Office tools, including Project and Visio
  - Trained and experience working in an Earned Value Management System (EVMS)
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### Education

(b) (6)

Florida Institute of Technology

Melbourne, FL

#### Bachelor of Science: Electrical Engineering

(b) (6)

Florida Institute of Technology

Melbourne, FL

#### Bachelor of Science: Space Sciences

## ROGER E. SCHNEIDER

(b) (6)

### PROFESSIONAL EXPERIENCE

**1997 - Present: SOUTHERN MARYLAND ELECTRIC COOPERATIVE;** Hughesville, MD

1/21 – Present: **Sr. Vice President Engineering & Operations and Chief Operating Officer**

- Manage the resources of the Engineering and Operations Department to provide quality member service through transmission and distribution plant planning, design, operations and maintenance to meet existing and projected electric system requirements.
- Ensure the power delivery system is constructed and performs in compliance with federal and state regulations, national codes and applicable standards.
- Understands, anticipates, and responds to both internal and external customer needs.
- Actively participates in, supports, and oversees team efforts. Creates a positive working atmosphere fostering teamwork and communication skills between all employees. Encourages employees to come up with creative ideas to improve efficiency and effectiveness. Challenges current practices or procedures in promotion of innovative ideas and solutions.
- Promotes teamwork and cooperation, focuses on achieving results in an effective and timely manner; trains, coaches and develops employees.

3/19 – 1/21: **Managing Director - System Engineering & Construction**

Directed the resources of the System Engineering & Construction Division. Areas of responsibility included: Transmission, Substation & Distribution Engineering, Project Management, System Planning & Reliability, Standards & Workflow and Vegetation Management

- Directed the planning, design and construction of transmission, distribution, substation, and interconnection facilities to ensure SMECO's ability to safely and reliably serve anticipated loads and meet operating requirements.
- Directed the development and maintenance of the 10-year Plant Improvement Plan (PIP) and 3-year Construction Work Plans (CWP) to meet COMAR reliability standards including SAIDI and SAIFI.
- Represented SMECO at utility based, local, state and regulatory meetings, work groups and hearings.
- Directed vegetation and right-of-way maintenance activities to ensure limited impact to system reliability, in compliance with NERC and MD PSC requirements.
- Ensured compliance with applicable NERC & PJM Standards and Requirements.
- Developed and implemented processes to drive efficiency and improve design quality.

4/09 - 3/19: **System Operations & Automation Director**

Directed the resources of the System Operations Division. Areas of responsibility included Transmission & Distribution System Operations, Meter Operations, Fleet Services, Supply Chain (Purchasing & Stores) and Regional Services.

- Directed the safe and reliable operation of SMECO's transmission & distribution systems.
- Ensured compliance with applicable NERC & PJM Standards and Requirements.
  - Oversaw successful registration as a NERC Transmission Owner.
- Provided strategic planning and proactive leadership in the development, implementation and operation of SMECO's AMI initiative.
- Directed implementation and operation of a new Energy Management System (EMS), including a new Supervisory Control and Data Acquisition (SCADA) System.
- Established SMECO Emergency Response levels and coordinated SMECO storm/event response.

6/06 - 4/09: **Project Manager**

Managed the implementation of new and rebuilt transmission facilities, switching stations, substations, and other special projects from concept to completion. Responsibilities included engineering, contract administration, material procurement and construction. Ensured standardization and compliance with all regulatory (RUS, NESC, etc.) specifications, policies and procedures. Projects included:

- New 69/13kV Distribution Substations and associated 69kV Transmission Lines
- Fiber Optic Network Build Out Projects
- Successful implementation of a new Mobile Workforce Management System

**PROFESSIONAL EXPERIENCE (Continued)****10/03 - 6/06: System Operations Manager**

Managed the resources of the System Operations Division, which included the Transmission and Distribution Operations, Apparatus, Forestry and Meter Operations Departments. Directed participation in PJM activities in the areas of Energy, Capacity, Operations and Reliability.

- Project Manager of successful implementation of a new Outage Management System (OMS).
- Managed Transition to Centralized Distribution Operations.
- Project Manager of Replacement of failed Submarine Transmission Cable.
- Served on the SMECO Internal Risk Oversight Committee, responsible for risk mitigation and controls related to wholesale power procurement.

**12/01 - 10/03: Energy Operations Director**

Managed the resources of the Energy Operations Division to reliably operate SMECO's substation, transmission, and distribution systems. Directed participation in PJM activities in the areas of Energy, Capacity, Operations and Reliability. Directed the development and support of alternate retail supplier relationships.

- Served on the SMECO Power Supply Committee for the negotiation of wholesale power supply agreements.
- Served as SMECO Voting Representative on PJM Members Committee and Chaired the SMECO PJM Committee.

**4/01 - 12/01: Acting System Control Supervisor / Engineer-Distribution**

Managed the resources of the Control Center to reliably operate SMECO's substation, transmission and distribution systems while continuing to perform the duties of Engineer-Distribution.

- Actively participated in the SMECO Retail Choice Implementation Project primarily in the areas of Electronic Data Interchange, Customer Enrollment and Supplier Support to prepare SMECO for customer choice.

**4/99 - 4/01: Engineer-Distribution**

Provided engineering support and direction to regional engineering and design personnel. Assisted with preparation of annual construction work plans. Responsibilities included: Feeder coordination studies, URD subdivision design and layout, equipment failure investigations, and commercial service specifications.

**10/97 - 4/99: Transmission System Operator**

Performed real time operation of SMECO's transmission and substation facilities to ensure quality, reliable electric service to members. Monitored system conditions, via SCADA, and took appropriate action in response to changing conditions, sometimes in stressful situations. Developed and maintained SCADA custom displays and databases. Prepared and issued switching orders.

**1995 - 1997: SIEMENS ENERGY & AUTOMATION; Landover, MD****Application Engineer / Project Manager**

Managed and supported large commercial and industrial electrical construction projects. Supported electrical distributors and contractors through technical support and marketing assistance. Prepared quotations for various construction projects, based on analysis and interpretation of project plans and specifications.

**1988 - 1995: POTOMAC ELECTRIC POWER COMPANY; Washington, DC****Substation Engineer - I, II & III**

Designed and managed transmission and distribution substation construction projects. Specified and procured all major substation equipment including large power transformers and metal-clad switchgear. Planned, prepared and managed project budgets and schedules. Developed and maintained material specifications and standards.

- Major Projects:
  - Design and Construction of a New 80 MVA, 69/13kV Distribution Substation
  - Various Substation Capacitor Bank Additions and PCB Replacements (69, 34.5 and 13.8kV)
  - Managed EPRI Advanced Power Transformer Demonstration Project
  - Designed and Managed Cogeneration Facility (PANDA) Interconnection to 69kV Grid

**EDUCATION****The Pennsylvania State University; University Park, PA**

- Bachelor of Science - Electrical Engineering, (b) (6)
- Minor – Economics, (b) (6)

**C. Ryan Schlotterbeck, P.E., LEED AP**  
(United States Citizen)

(b) (6)

**Professional Profile:**

- Utility Construction
- Project Management
- Scheduling
- Cost Control
- Risk Management
- Change Management
- Negotiations
- Contracting
- RFP Development
- Procurement
- Cost Estimating
- Permitting
- Transmission Design
- Site Work/Earthwork
- Stormwater Management
- Utility Location
- Utility Privatization
- Project Closeout

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**Professional Experience:**

**Distribution Contractor Operations Director, SMECO, Hughesville, MD (2022 – Present)**

- Provide management and oversight as required for execution of SMECO's Distribution Construction Work Plan (CWP), primary distribution reliability projects, and State Highway Administration relocation projects from conception through engineering, material delivery, construction, and closeout. Responsible for resource allocation, project budgets, and project schedules associated with the aforementioned distribution projects. Ensure all work is completed in accordance with regulatory specifications, SMECO technical standards, and in accordance with SMECO's Tariffs.
- Provide management and oversight of the contractor selection process through development and issuance of Requests for Proposals (RFPs), bid evaluations, and construction Contract award. Responsible for execution and management of all Distribution Construction Service Contracts and Task Orders with external resources for project work as well as storm emergency support.
- Provide management and oversight of SMECO's Vegetation Management team. Responsible for executing construction Service Contracts and Task Orders with external resources for Vegetation Management services and emergency storm response.
- Provide management and oversight of SMECO's locating services, acting as the liaison between SMECO and Maryland's One-Call Center and the Maryland Damage Prevention Committee regarding all Miss Utility related issues and/or training throughout SMECO's service territory.
- Responsible for securing external construction resources during emergency response events including coordination of contract crews, accommodations, crew leader assignments, and updating available contractor resources within SMECO's resource management software ARCOS.
- Support distribution construction projects through internal communications with planning, right-of-way, engineering, and operations. Provide external communications with customer-members, contractors, community and civic organizations, and federal and state government agencies as required to execute distribution construction projects. Respond to inquiries and resolve concerns and complaints from customers associated with distribution project work and vegetation management maintenance activities.

**Project Engineer/Project Manager, SMECO, Hughesville, MD (2014 – 2022)**

- Provide full life cycle project management including management of scope, schedule, and budget for execution and delivery of facilities, transmission, substation site work, distribution, and communications projects.
- Successfully executed multiple transmission, distribution, substation, and communications projects of varying complexities through design, construction, and project closeout. Responsible for permitting, right-of-way coordination, material procurement, contractor selection, and overall project execution.

- Served as the Owner's Representative and Project Manager through design and construction of SMECO's new 75,000 square foot state of the art Southern Region Office building. The project included construction of new office space, truck bays, a warehouse, a data center, backup operations and call centers, a health suite, a gym, a fuel station, demolition of the existing Regional Office, and various site improvements. Responsibilities included management of the scope, schedule, and budget from design, through construction, and project closeout. Managed a cross functional team including multiple engineering consultants, construction contractors, and internal resources to develop the scope, select a contractor, construct the facility, and transition operations into the new facility.

**Assistant Project Manager, Forrester Construction Company, Rockville, MD (2011-2014)**

- Provided day-to-day management of high profile complicated construction projects as a member of the company's operations group. Projects ranged in value from 2 million to 12 million dollars.
- Key responsibilities included client management, document control, cost control/financial management, subcontractor procurement, schedule management, LEED tracking, review of plans and specifications, coordination with owners, architects, and engineers for timely resolution of construction issues, and subcontractor management.
- Directly managed subcontractors on projects requiring 30-40 subcontractors with 60-80 construction workers on site daily.

**Civil Engineer II, The Louis Berger Group, Washington, DC (2009-2011)**

- Provided civil engineering consulting services including civil site design, engineering during construction, construction administration, development of engineering plans and computations, qa/qc review of construction documents, and writing RFP's for federal government agencies including the National Park Service (NPS), United States Army Core of Engineers (USACE), the Air Force Center for Engineering and the Environment (AFCEE), and Oversees Building Operations (OBO).

**Civil Engineer, Soltesz, Waldorf, MD (2004-2009)**

- Successfully completed various civil site design tasks for commercial, industrial, mixed use, and residential development projects. Provided preliminary, conceptual, and final engineering for roads, drainage systems, water and sewer systems, stormwater management plans, sediment and erosion control plans, and site grading plans. Developed engineering reports and calculations to support the design. Coordinated with, local and state government agencies, to obtain construction permits.

**Education:**

- Bachelor of Science in Civil Engineering, December  
[REDACTED] University of Maryland, College Park, MD  
Chi Epsilon Honors Society

**Professional Accreditations:**

- Professional Engineer registered in the state of Maryland (P.E.)
- LEED Accredited Professional (LEED AP)
- Maryland Sediment and Erosion Control Certification (Green Card)
- OSHA-30 Certified
- USACE/NAVFAC Construction Quality Management Certification

**Community Service:**

- Charlotte Hall Rotary Club, Member and Past President (2018-Present)
- St. Mary's County Chamber of Commerce Board Member (2018-Present)

## **Report on Resiliency Investments**

### **1.0 Historic Resiliency Investments (2019 to Present)**

SMECO has successfully completed the following resiliency investment projects:

**Oakville 24 – 219.201 (2019-2020)**, \$412,293: Convert 1PH #6 ACWD to 3PH 1/0 AL URG along Cat Creek Rd to address tree related outages, outcome = completed in 2020 / within budget.

**Oakville 24 – 219.202 (2019-2020)**, \$162,416: Convert 1PH #6 ACWD to 0.9 miles of 1PH 1/0 AL URD on Woodland Rd to address tree related outage concerns and aging poles/hardware, outcome = completed in 2020/ within budget.

**Leonardtown 13 – 319.201 (2019-2020)**, \$658,077: Convert 1PH #4 & #6 ACWD and #6 HDBC to 1PH #2 ACSR along Society Hill Rd to address load balance, capacity, and reliability concerns, outcome = completed in 2020 / within budget.

**Leonardtown 22/23 – 319.202 (2019-2020)**, \$579,042: Convert 1PH and 3PH #4 & #6 ACWD to 1PH & 3PH #2 ACSR along Leonardtown Town, outcome = completed in 2020 / within budget.

**Milestown 2 – 319.203 (2019-2020)**, \$1,544,061: Upgrade 1PH #6 ACWD, #6 HDBC, and #4 ACSR OH conductor to 1PH #2 to improve capacity, outage reliability, end-of-line voltage on Pleasant Dr and Longview Blvd, outcome = completed in 2020 / within budget.

**Oakville 24 – 319.204 (2019-2020)**, \$377,331: Convert 1PH #6 ACWD to 1PH #2 ACSR on Ridge Rd, Allison Dr, Manor Dr, and Cape St Mary's Dr to address tree related outages and aging poles/hardware, outcome = completed in 2020 / within budget.

**Ridge 3 – 319.206 (2019-2020)**, \$436,359: Copper replacement project to upgrade 1PH #6 HDBC to 1PH #2 ACSR conductor Curley's Road, outcome = completed in 2020 / within budget.

**Mason Springs 12, Grayton 2 – 319.402 (2019-2020)**, \$1,077,062: Upgrade 3PH #1/0 ACSR to 3PH 336.4 MCM ACSR OH line project to improve capacity and outage reliability on Mason Springs Road, outcome = completed in 2020 / within budget.

**Mattawoman 22, West Brandywine 13 – 319.403 (2019-2020)**, \$927,100: Upgrade 3PH #2 ACSR to 3PH 336.4 MCM ACSR on McKendre Rd to improve capacity, outage reliability, and feeder quality tie line, outcome = completed in 2020 / within budget.

**Piscataway 24 – 319.406 (2019-2020)**, \$242,644: Convert 1PH #6 HDBC conductor to 3PH 1/0 AL UG on Pine Lane to create loop feed, outcome = completed in 2020 / within budget.

**Tompkinsville 3 – 319.407 (2019-2020)**, \$484,131: Upgrade 3PH 2/0 ACSR to 3PH 336 ACSR and 750 AL UG on Cobb Island Rd to avoid end of line voltage drop, outcome = completed in 2020 / within budget.

**Tompkinsville 3 – 319.408 (2019-2020)**, \$274,848: Convert 1PH #6 ACWD to 0.3 miles 2PH ACSR, 0.6 miles 1PH #2 ACSR, and 0.6 miles 1PH AL URD on Rock Point Rd to improve area reliability, outcome = completed in 2020 / within budget.

**Leonardtown 23 – 220.200 (2020)**, \$431,300: Install new 3PH 750 AL UG tie line between Mechanicsville 11 and Ryceville 3, outcome = completed on time / within budget.

**Mechanicsville 11 – 220.201 (2020)**, \$228,900: Install new 3PH 750 AL UG tie line between Leonardtown 11 & 23, install a new 3PH 1/0 AL UG tie, and reconfigure local area service feeds along Leonardtown Rd North, outcome = completed on time / within budget.

**Saint Andrews 22 – 220.202 (2020)**, \$394,100: Install new 3PH 750 AL UG tie line between Saint Andrew 22 and 24, outcome = completed on time / within budget.

**Independence 11 – 220.400 (2020)**, \$338,500: Install new 3PH 1000 MCM AL UG feeder exit along Livingston Rd, Independence Rd, and Indian Head Hwy S to relieve heavily loaded substations, outcome = completed on time / within budget.

**Independence 12/13 – 220.401 (2020)**, \$601,600: Install new 3PH 750 MCM AL UG tie line and two 600-amp 3&2 pad mount switches in North Indian Head Estates, outcome = completed on time / within budget.

**Farmington Exits – 220.403 (2020)**, \$340,000: Address unexpected Piscataway #2 transformer failure, retire existing substation 15 kV feeder exits and create new Farmington 15 kV feeder exits, outcome = completed on time / within budget.

**Hollywood 13 – 320.200 (2020)**, \$588,300: Convert #6 ACWD and #6 HDBC conductor to 1/0 AL UG along Forest Landing Rd, Three Coves Rd, Riva Lane, and White Swan Rd to balance a large 1PH load, outcome = completed on time / within budget.

**Hollywood 21 – 320.201 (2020)**, \$632,700: Convert all area tap lines in the Jones Wharf Rd area to 1/0 AL UG, outcome = completed on time / within budget.

**Leonardtown 14 – 320.202 (2020)**, \$185,500: Convert Bayside Rd 1PH #6 ACWD to 1PH 1/0 AL UG due to tree related outages/access issues, outcome = completed on time / within budget.

**Oakville 24 – 320.203 (2020)**, \$162,200: Convert Holly Lane 1PH #6 ACWD to 1PH 1/0 AL UG along Holly Lane and Maple Dr to address tree related outage and access issues, outcome = completed on time / within budget.

**Redgate 13 – 320.204 (2020)**, \$208,400: Convert Camp Cosoma Rd 1PH #6 ACWD to 1PH 1/0 AL UG to address tree related outage concerns, outcome = completed on time / within budget.

**Ridge 3 – 320.205 (2020)**, \$1,058,200: Upgrade 50 L line recloser #2466 to a 3PH 200-amp VersaTech line recloser set, 1PH #6 HDBC, 3PH #2 ACSR and #6 ACWD to 1PH #2 ACSR and 1PH 1/0 AL UG along Fresh Pond Neck Rd, Hays Beach Rd, Murray Rd, Long Neck Rd, Bradburn Lane, South Point Lane, Gray Goose Lane, Fenwick Pride Lane, Bay Ave, and Holly Dr to eliminate area water crossings and address line access issues, outcome = completed on time / within budget.

**Ryceville 14 – 320.206 (2020)**, \$645,400: Replace 1PH 1/0 AL UG lines with 2PH & 3PH 1/0 AL UG to address extreme phase imbalance on main trunk, prevent fuse-links from melting under heavy peak load, and avoid areas where opposing phases meet at 1PH 1/0 AL UG vault normal-open point in Wicomico Shores, outcome = completed on time / within budget.

**Solomons 24 – 320.208 (2020)**, \$335,200: Convert Deer Dr and Johnson Dr 1PH #6 ACWD to 3PH 1/0 AL UG to address large single phase load balance and tree related outage concerns, outcome = completed on time / within budget.

**Hollywood 24 – 320.209 (2020)**, \$276,700: Convert 1PH #6 ACWD Sandy Bottom Rd to 3PH 1/0 AL UG to provide capacity to Airport View Rd, outcome = completed on time / within budget.

**Saint Charles 12 – 320.400 (2020)**, \$1,150,200: Phase 1 of area conversion project to address aging OH and relocate facilities along the street due to access issues along Barksdale Ave, Copley Ave, Sloan Ave, and Belfast Rd, outcome = completed on time / within budget.

**Faulkner 2 – 320.401 (2020)**, \$424,400: Convert 1PH #6 ACWD to 3PH 1/0 AL UG along Lomax Rd, Diggs Rd, and Pluto Lane to address load balancing and tree related outage concerns, outcome = completed on time / within budget.

**Forest Park 21 – 320.402 (2020)**, \$489,700: Upgrade 1PH #6 ACWD to 1PH #2 ACSR, add new 3PH 1/0 AL UG on Leonardtown Rd, upgrade 1PH #6 ACWD to 3PH #2 ACSR on Marion Lane, and 1PH



#6 ACWD to 1PH #2 ACSR along Forest Park Dr, Randolph Dr, and Middleton Farm Rd, outcome = completed on time / within budget.

**Mason Springs 12 – 320.405 (2020)**, \$709,100: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR project to complete feeder quality tie between Mason Springs 12 and 14 along Bicknell Rd, outcome = completed on time / within budget.

**Mason Springs 14 – 320.406 (2020)**, \$332,400: Upgrade 1PH #6 ACWD to 3PH 336.4 MCM ACSR on Sweetman Rd, outcome = completed on time / within budget.

**Piscataway 14 – 320.407 (2020)**, \$179,500: Replace all 1PH #6 HDDB OH with 1PH #2 ACSR and 1PH 1/0 AL UG along Airport Lane and Schall Rd to address tree related outage and access issues, outcome = completed on time / within budget.

**Hollywood 23 – 221.200 (2021)**, \$760,200: Add new Hollywood 23 main feeder 1000 MCM AL UG exit cable from substation to Hollywood Rd., outcome = completed on time / within budget.

**Bolton 23 – 221.400 (2021)**, \$875,700: Add new 3PH 750 MCM UG tie line along Route 228 Berry Rd to create a feeder quality tie and improve capacity and load balance concerns, outcome = completed on time / within budget.

**Dorchester 13 – 221.401 (2021)**, \$158,500: Install dedicated feeder to serve Heritage Green Development by adding a new Dorchester 13 1000 AL UG main feeder exit cable along Dorchester Ave and Caroline Dr, outcome = completed on time / within budget.

**Mount Victoria Exits – 221.402 (2021)**, \$890,200: Create four new 1000 MCM AL UG Mount Victoria substation 15 kV feeder exits to support Mount Victoria substation construction, outcome = completed on time / within budget.

**Hollywood 13/21 – 321.200 (2021)**, \$563,200: Convert 1PH #2 ACSR to 3PH 1/0 AL UG on Vista Rd, Ferguson Rd, and Hemming Way outcome = completed on time / within budget.

**Mechanicsville 12 – 321.201 (2021)**, \$558,500: Convert 1PH #6 HDDB to 1PH 1/0 AL UG on Lockes Crossing Rd, outcome = completed on time / within budget.

**Mechanicsville 12 – 321.202 (2021)**, \$579,200: Replace 1PH #6 HDDB and #6 ACWD to 1PH #2 ACSR and 1PH, 2PH, and 3PH 1/0 AL UG along Old Route 5 Old Village Rd, Saint Mary's St, and Lockes Hill Rd, outcome = completed on time / within budget.

**Mechanicsville 13 – 321.203 (2021)**, \$391,300: Upgrade existing 3PH 2/0 ACSR to 3PH 750 MCM AL UG and 3PH 336.4 MCM ACSR along New Market Turner Rd to create a feeder quality tie between Mechanicsville 13 and Oakville 23, outcome = completed on time / within budget.

**Oakville 23 – 321.204 (2021)**, \$466,600: Convert existing 1PH #6 ACWD, #6 HDDB and #2 ACSR to 1PH and 3PH 1/0 AL UG along Laurel Grove Rd, Pink Hill Lane, and Mary Dixon Rd to address large load issues, outcome = completed on time / within budget.

**Saint James 11 – 321.205 (2021)**, \$404,100: Convert 3PH #2 and #4 ACWD to 3PH 1/0 AL UG and replace existing 1PH #4A with 1PH #2 ACSR along Poplar Ridge Rd, Hillside Rd, Springhill Rd, and Ridge Rd, outcome = completed on time / within budget.

**Saint James 12 – 321.206 (2021)**, \$471,900: Convert 1PH #6 HDDB and #6 ACWD to 2PH and 1PH 1/0 UG and add two upstream 300-amp LB SBD N.C. switches on Saint Jeromes Neck Rd, outcome = completed on time / within budget.

**Bannister 22 – 321.400 (2021)**, \$787,300: Convert aging OH and relocate along Barksdale Ave, Melrose Ct, Cutler Ct, Bedford Ct, Rivermont Dr, Fowler Ct, Barrington Dr, Stone Ave, and McCoy Dr to address restricted access issues, outcome = completed on time / within budget.

**Independence 12/13 – 321.401 (2021)**, \$1,531,600: Convert and relocate difficult to access 1PH and 3PH #2 ACSR, #4 ACSR, and #6 ACWD to 1PH and 3PH 1/0 AL UG in North Indian Head Estates, outcome = completed on time / within budget.

**Dunkirk 21 – 321.403 (2021)**, \$199,800: Replace 1PH #6 ACWD & #4 ACSR with 3PH, 1PH 1/0 AL UG on Palisades Dr, Steven Ln, and Patuxent Ct, outcome = completed on time / within budget.

**La Plata 11 – 321.404 (2021)**, \$53,500: Create 3PH loop feed by replacing existing 1PH and 2PH 1/0 AL UG with 3PH 1/0 AL UG along East Quail Lane, Tanager Ct, and Pheasant Lane, outcome = completed on time / within budget.

**Mason Springs 22 – 321.405 (2021)**, \$191,200: Convert 1PH #6 ACWD and #6 HDDB to 3PH, 2PH, 1PH 1/0 AL UG along Strauss Ave, Davis Dr, Prospect Ave, and Kenneth St to address load and access issues, outcome = completed on time / within budget.

**Mason Springs 22 – 321.406 (2021)**, \$196,100: Replace 1PH #6 HDDB and #6 ACWD OH conductor with 1PH #2 ACSR OH conductor and convert 3PH #6 HDDB to 1PH #2 ACSR conductor in Potomac Heights development, outcome = completed on time / within budget.

**Mason Springs 22 – 321.407 (2021)**, \$108,100: Create 1PH loop feed and a new 1/0 AL UG N.O. point at Oak Rd transformer 5 by converting Poplar Ln 2PH #6 HDDB and 1PH #6 ACWD to 1PH #2 ACSR, and 200ft 1/0 AL UG tie line, outcome = completed on time / within budget.

**Mutual 23 – 321.408 (2021)**, \$397,800: Convert existing 1PH #6 ACWD OH to 1PH, 2PH, and 3PH 1/0 AL UG and replace 1PH 1/0 AL UG with 3PH 1/0 AL UG along Hance Rd to address large load and tree related outage concerns, outcome = completed on time / within budget.

**Saint Charles 12 – 321.409 (2021)**, \$379,400: Convert 3PH 336.4 ACSR to 3PH 750 MCM AL UG from St. Charles substation to Garner Ave, outcome = completed on time / within budget.

**Saint James 13 – 222.200 (2022)**, \$317,200: Install new 3PH 750 AL UG tie line between Saint James 13 and Ridge 1 to address maintenance needs and contingency situations on substation loads, outcome = completed on time / within budget.

**Bannister 11 – 222.400 (2022)**, \$150,500: Install 3PH 750 MCM UG tie line between Bannister 11, Bannister 12, Saint Charles 15, and Saint Charles 24 feeders to create contingency ties, outcome = completed on time / within budget.

**Bannister 12 – 222.401 (2022)**, \$443,700: Create new 3PH 750 MCM UG tie line between Bannister 12 and Forest Park feeder 21 to create a loop feed for Fieldside and Southern Villages residential developments, outcome = completed on time / within budget.

**Piscataway 15 – 222.402 (2022)**, \$1,321,000: Install new 750 UG feeder tie line and 3PH 219-amp line regulator set along Floral Park Rd to provide alternative source feed to Preserves at Piscataway development, outcome = completed on time / within budget.

**Bolton 22 – 222.403 (2022)**, \$66,900: Add new Bolton #22 1000 AL UG main feeder exit cable from substation to Killenney Place, outcome = completed on time / within budget.

**Hollywood 13 – 322.200 (2022)**, \$510,300: Convert 1PH #6 ACWD to 2PH, & 1PH 1/0 AL UG and a new 3PH 140-amp VersaTech line recloser on Ingleside Dr, Smiths Nursery Rd, and Twin Oaks Way, outcome = completed on time / within budget.

**Leonardtwn 24 – 322.201 (2022)**, \$804,500: Upgrade existing 3PH #4 ACWD to 3PH 336.4 MCM ACSR and 1PH #6 ACWD to a mix of 1PH 1/0 AL UG and #2 ACSR to address load balance needs, outcome = completed on time / within budget.

**Mechanicsville 14 – 322.202 (2022)**, \$237,400: Convert 1PH #6 HDBC and #6 ACWD OH to 3PH/2PH/1PH 1/0 AL UG on Harpers Corner Rd, Bohle Rd, and Sandy Acres Ln, outcome = completed on time / within budget.

**Oakville 23 – 322.203 (2022)**, \$358,900: Convert 1PH #6 ACWD OH to 1PH/2PH/3PH 1/0 AL UG on Old Horse Landing Rd to address large load, outcome = completed on time / within budget.

**Redgate 13 – 322.204 (2022)**, \$395,700: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR OH line to address bottleneck on Chingville Rd, outcome = completed on time / within budget.

**Ridge 3 – 322.205 (2022)**, \$588,500: Replace 1PH #6 ACWD and HDBC conductor with 3PH and 1PH #2 ACSR to balance load on Airedale Rd, outcome = completed on time / within budget.

**Valley Lee 3 – 322.206 (2022)**, \$717,500: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR OH line to eliminate bottleneck on Flat Iron Rd, outcome = completed on time / within budget.

**Oakville 23 – 322.207 (2022)**, \$862,200: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR main feeder on New Market Turner Rd, outcome = completed on time / within budget.

**Saint James 11 – 322.208 (2022)**, \$480,400: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR OH line to address bottleneck on Park Hall Rd, outcome = completed on time / within budget.

**Saint Charles 12 – 322.400 (2022)**, \$429,700: Phase 3 of area conversion project to convert and relocate aging OH facilities to UG to address access issues along Barrington Dr, Copley Ave, Post Office Rd, and Kenyon Ave, outcome = completed on time / within budget.

**Dukes Inn 21 – 322.401 (2022)**, \$196,800: Convert 1PH #6 ACWD conductor to 1PH/2PH 1/0 AL UG on Maurice I Bowen Rd to balance 1PH load, outcome = completed on time / within budget.

**Golden Beach 11 – 322.402 (2022)**, \$461,100: Convert 1PH #6 ACWD and #6 HDBC to 3PH, 2PH, & 1PH 1/0 AL UG along Mount Wolf Rd, Mount Wolf Way, and Crooked Creek Lane, outcome = completed on time / within budget.

**Huntingtown 14 – 322.403 (2022)**, \$244,400: Convert 1PH #6 ACWD to 1PH 1/0 AL UG and 3PH #6 ACWD to 3PH 1/0 AL UG along Walton Rd and Calverton School Rd, outcome = completed on time / within budget.

**Hughesville 12 – 322.404 (2022)**, \$334,500: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR OH to address bottleneck on Oaks Rd, outcome = completed on time / within budget.

**Mount Harmony 24 – 322.405 (2022)**, \$413,700: Convert 3PH 2/0 ACSR to 3PH 1/0 AL UG on Howes Rd, Old Jones Rd, and 1PH #6 ACWD to 1PH 1/0 AL UG on Howes Rd, outcome = completed on time / within budget.

**Marshall's Corner 2 – 322.406 (2022)**, \$559,100: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR to address bottleneck in main feeder tie between Marshall Corner 2 and La Plata 11, outcome = completed on time / within budget.

## 2.0 Ongoing / Current Resiliency Investments (as of Q2 2023)

SMECO is currently in the process of completing the following resiliency investment projects:

**Cedarville 14 – 223.400 (2023)**, \$2,052,800: Add main feeder exit cable from the substation to Cedarville Road to provide capacity for heavily loaded Cedarville feeder #12 and reduce significant exposure area for existing feeder #12.

**Farmington 11 – 223.401 (2023)**, \$1,449,600: Add main feeder exit cable from substation to Pepco #69055 ROW to replace high exposure Farmington #12 feed to Preserves at Piscataway.

**Saint Charles 12 – 223.402 (2023)**, \$1,085,000: Add 3PH 750 MCM UG tie line to create a main feeder quality tie and eliminate several local 1/0 ties in Industrial Park area.

**Hollywood 12 – 323.200 (2023)**, \$689,900: Convert 2PH #2 ACSR and #8 ACWD to 3PH, 2PH and 1PH 1/0 AL UG to balance load along Nats Creek Rd, Christman Rd, Paradise Ln, and Tippett Rd.

**Saint Andrews 21 – 323.201 (2023)**, \$634,700: Convert 1PH #6 ACWD to 3PH, 2PH, & 1PH 1/0 AL UG in Woodland Acres neighborhood.

**Forest Park 22 – 323.400 (2023)**, \$373,600: Convert existing 1PH #2 and #4 ACSR OH to 1/0 AL UG along Holly Spring Dr, Havensbrook Dr, and Forest Cross Dr to address tree related outages.

**Grayton 3 – 323.401 (2023)**, \$476,100: Convert existing OH to 1/0 AL UG along Greenleek Hill Rd and Sandy Point Rd to balance a large 1PH load and address tree related outage issues.

**Grayton 3 – 323.402 (2023)**, \$614,200: Convert #6 ACWD and #6 HDBC facilities to 1PH 1/0 AL UG on Gilroy Rd and Devane Place to address area tree related outage concerns.

**Grayton 5 – 323.403 (2023)**, \$796,300: Convert aging #6 ACWD to 1PH 1/0 AL UG with a 1PH 1/0 AL UG tie on Rt. 6 Port Tobacco, Dowes, and Burges Farm roads to address tree related outage, access, and water crossing concerns.

**Grayton 5 – 323.404 (2023)**, \$987,800: Convert aging #6 ACWD and #6 HDBC OH facilities to #2 ACSR OH and 1PH 1/0 AL on Tayloes Neck Rd and Bluff Point Rd to address tree related outage, access, and water crossing concerns.

**Hughesville 11 – 323.405 (2023)**, \$468,900: Convert aging #6 ACWD to #2 ACSR and 1/0 AL UG on Grosstown Rd, Helen Fowlers Pl, and Welch Farm Rd to address tree related outage and access issues.

**Independence 12 – 323.406 (2023)**, \$460,400: Convert aging OH facilities to UG and relocate along Edgewood Rd, Thomas Rd, Gabriel Dr, and Elena Dr to improve access.

**Mechanicsville 13 – 323.407 (2023)**, \$205,800: Convert 1PH #6A OH to 1/0 AL UG on Cremona Road to address tree related outages.

**Mount Victoria 12 – 323.408 (2023)**, \$601,600: Convert aging #6 ACWD and #6 HDBC OH to #2 ACSR OH and 1/0 AL UG along Allens Fresh Road.

**Mutual 24 – 323.409 (2023)**, \$758,700: Convert Sheridan Point Road 2PH #6 ACWD to 2PH and 1PH 1/0 AL UG and Dennis Monnett Rd from 1PH #6 ACWD to 1PH 1/0 AL UG.

**Newtown 21 – 323.410 (2023)**, \$278,200: This copper replacement project will address tree related outage concerns by converting Estevez Rd 1PH #6 ACWD OH to 1PH 1/0 AL UG.

### 3.0 Future Planned Resiliency Investments (Q3 2023 to 2026)

SMECO is currently planning to complete the following future resiliency investment projects; note that this list includes all projects that are dependent on / sponsored by the proposed grant application, as discussed in the Technical Volume.

**Newtown 24 – 323.411 (2023)**, \$514,200: This copper replacement project will improve reliability by converting Cooksey Rd 1PH #6 ACWD OH to 3PH 1/0 AL UG.

**Newtown 27 – 323.412 (2023)**, \$283,800: Convert aging #6A OH to UG and relocate facilities along Bel Alton, Newtown Rd, White Stag Rd, Bethany Lane, Wicker Lane, and Village Dr to increase access to currently severely restricted due to topography and easements.

**Prince Frederick 23 – 323.413 (2023)**, \$290,800: Convert V-phase #2 OH to 1PH 1/0 AL UG along Clay Hammond Rd to address tree related outages and UG customer tap lines.

**Saint Andrews 12 – 323.414 (2023)**, \$1,801,900: Phase 4 of 6 area conversion projects to convert aging OH to UG and relocate facilities along Garner Avenue, Copley Avenue, and adjacent streets where they will be more accessible to SMECO.

**La Plata 21 – 224.400 (2024)**, \$661,300: Add new 3PH 750 MCM UG tie line along Hickory Lane, Hickory Circle, Cottonwood Dr, and Savanna Court to serve the Hickory Ridge community and address recent outages due to overloading.

**Bertha 11 – 324.200 (2024)**, \$660,600: Replace deteriorating OH line sections along St. John Creek Rd, Big Rd and Woodbank Rd from #6 ACWD to 1/0 AL UG to eliminate area tree related outage concerns and access issues.

**Lexington Park 11 – 324.201 (2024)**, \$922,800: Convert Esperanza Dr 3PH/1PH #6 ACWD and #2 ACSR OH to 3PH/1PH 1/0 AL UG and replace unjacketed 1/0 AL UG on Lake Dr to address tree related outage and unjacketed cable failure concerns.

**Solomons 24 – 324.202 (2024)**, \$440,200: Convert 1PH #6 ACWD to 1PH 1/0 AL UG on McMichaels Dr, Gray Dr, Sachem Dr, Overlook Dr, and Iroquois Way to address tree related outage concerns.

**Saint Andrews 24 – 324.203 (2024)**, \$359,400: Upgrade aging 1PH #6 ACWD OH conductor to 1PH #2 ACSR along St. Andrews Ln, Parkview Cir, Bellwood Ln, Louis Dale Rd, and Parkview Dr.

**Solomons 24 – 324.204 (2024)**, \$1,043,200: Convert 3PH, 2PH, and 1PH #2 ACSR and #6 ACWD to 3PH & 1PH 1/0 AL UG to address tree related outage concerns on Harbor Dr, Mill Creek Dr, Marine Terrace, Ships Way, Leason Cove Dr, and Cove Dr.

**Leonardtown 14 – 324.205 (2024)**, \$704,100: Convert aging 1PH #6 ACWD to 3PH and 1PH 1/0 AL UG along Big Chestnut Rd and Heavens Way to address tree related outages and deteriorating condition due to aging poles and hardware.

**Sollers Wharf 11 – 324.206 (2024)**, \$284,900: Convert #6 HDBC OH to 1PH 1/0 AL UG and 1PH #2 ACSR OH to address tree related outage concerns.

**Bannister 22 – 324.400 (2024)**, \$2,344,400: Phase 5 of 6 area conversion projects to convert aging OH electric facilities to underground and relocate along Garner Avenue, Copley Avenue, and adjacent streets where they will be more accessible to SMECO.

**Grayton 5 – 324.401 (2024)**, \$1,362,500: Convert 3PH #2 ACSR OH to 3PH 1/0 AL UG along Maryland Point Rd and Riverside Rd and convert 1PH #6a to 1PH #2 ACSR along Riverside Rd to address reliability and frequently torn down OH lines in a heavy tree area.

**Saint Leonard 13 – 324.402 (2024)**, \$424,400: Convert Long Beach Dr 3PH #2 ACSR OH to 3PH 1/0 AL UG and 1PH #6 ACWD and HDBC tap lines to 1PH 1/0 AL UG to address tree related outage concerns and improve service to the Beaches Water Company.

**Mutual 23 – 324.403 (2024)**, \$1,002,100: Upgrade 1PH #6 ACWD to 1PH #2 ACSR on Parkers Wharf Road and convert Briscoe Rd 1PH #6 ACWD to 1PH 1/0 AL UG to address tree related outage concerns.

**Grayton 3 – 324.404 (2024)**, \$892,500: Convert deteriorating OH line to UG on Adams Willet Rd. from 1PH #4 ACSR OH to 1PH 1/0 AL URD and Hancock Run Rd. from 1PH #2 ACSR OH to 1/0 AL URD due to tree related outages.

**Hughesville 24 – 324.405 (2024)**, \$1,102,000: Convert 3PH 2/0 ACSR OH to 3PH 1/0 AL URD on Teagues Point Road to improve area reliability and tree related outages.

**Cedarville 12 – 324.406 (2024)**, \$640,000: Upgrade 3PH 4/0 ACSR to 3PH 336.4 MCM ACSR OH line along Baden Westwood Road to complete feeder quality tie between Cedarville 12 and 14.

**Cedarville 13 – 324.407 (2024)**, \$694,400: Convert 1PH #6 ACWD and #4 ACSR to 1PH #2 ACSR OH and 1/0 AL UG along Tower Road and Old Indianhead Road.

**Hughesville 13 – 324.408 (2024)**, \$617,800: Convert 1PH #6 ACWD and #6 HDBC to 1PH #2 ACSR OH and 1/0 AL UG along Christ Church Rd and Neck Rd to address fraying lines and deteriorating poles and hardware.

**Mount Harmony 24 – 324.409 (2024)**, \$373,100: Upgrade 3PH 2/0 ACSR OH to 3PH 1/0 AL URD on Ferry Landing Road to address tree related outages and improve reliability.

**Sunderland 11 – 324.410 (2024)**, \$790,600: Convert 3PH & 2PH #6A and #2 ACSR to mix of 3PH, 2PH, and 1PH 1/0 AL UG to address tree related outage/access concerns on Kings Landing Rd.

**Saint Charles 12 – 025.400 (2025)**, \$150,000: Phase 6 of 6 area conversion projects to convert aging OH electric facilities to underground and relocate the facilities along Garner Avenue, Copley Avenue, and adjacent streets where they will be more accessible to SMECO.

**Hawkins Gate Feeder Exits – 225.401 (2025)**, \$578,800: Create three new 1000 MCM AL UG Hawkins Gate substation 15 kV feeder exits to support new Hawkins Gate substation construction for new residential subdivisions with over 20 MVA of peak demand.

**Wooded Glen 14 – 225.402 (2025)**, \$272,800: Add 1000 MCM AL UG Wooden Glen 14 main feeder exit cable to the proposed Parkland Subdivision Rd to provide necessary capacity to serve the approximate 1,095 lot subdivision development.

**McConchie 23/24 – 225.402 (2025)**, \$1,178,000: Upgrade of 1450 ft of #2 ACSR to 3PH 336.4 MCM ACSR and 1PH #6A and #2 ACSR to 1PH 1/0 AL UG with new 3PH 750 MCM AL UG tie line along Poorhouse Rd and Gorman Lane to strengthen feeder tie at McConchie substation.

**Leonardtown 24 – 325.200 (2025)**, \$652,900: Copper replacement project to eliminate OH exposure area by replacing all 1PH #6 ACWD with 1PH #2 ACSR OH on Newtowne Neck Road.

**Patuxent Park 14 – 325.201 (2025)**, \$424,400: Copper replacement/load balancing conversion of 1PH #6 ACWD to 3PH & 1PH 1/0 AL UG on Adkins Rd, Langley Park Way, and Charles Way.

**Ryceville 14 – 325.202 (2025)**, \$657,000: Convert 1PH #6 ACWD to 1PH 1/0 AL UG on N Ryceville and Dixie Lyon roads to address tree related outage concerns.

**Saint Andrews 11 – 325.203 (2025)**, \$1,886,900: New main 1000 MCM AL UG feeder exit cable from substation to Three Notch Rd to better serve existing and future high density commercial and residential load growth areas and reduce loading on Saint Andrews #13 feeder.

**Cedarville 12 – 325.400 (2025)**, \$745,000: Convert deteriorating OH line to UG within a heavy tree area on Magruders Ferry Road and Peed Road due to tree related outages.

**Cedarville 12/14 – 325.401 (2025)**, \$1,145,200: Upgrade 1PH #2 ACSR to 3PH 336.4 MCM ACSR to remove bottleneck in main feeder tie between Cedarville #12 and #14 along Croom Road.

**Huntingtown 11 – 325.402 (2025)**, \$249,600: Convert tap line serving #1855 Emmanuel Church Rd from 1PH #6 ACWD OH to 1PH 1/0 AL URD to address tree related outages and deteriorating condition due to aging poles and hardware.

**Huntingtown 14 – 325.403 (2025)**, \$592,900: Upgrade 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR OH to address deteriorating conditions due to aging poles and hardware.

**Marshall Corner 1 – 325.404 (2025)**, \$1,028,600: Eliminate main feeder 2/0 ACSR bottleneck and strengthen feed tie to McConchie substation by upgrading 3PH 2/0 ACSR to 3PH 336.4 MCM ACSR and converting 1,000 ft of conductor to 3PH 750 MCM AL UG.

**McConchie 24 – 325.406 (2025)**, \$868,200: This proactive deteriorated copper replacement project to upgrade 1PH #6 ACWD and #6 HDBC to 1PH #2 ACSR along Fire Tower Road.

**Mount Harmony 22 – 325.407 (2025)**, \$667,800: Upgrade 3PH #2 ACSR to 3PH 336.4 MCM ACSR OH on Chaneyville Road to eliminate main feeder tie bottleneck between Mount Harmony #22 and Sunderland #22 and increase overall feeder capacity and quality.

**Mutual 21 – 325.408 (2025)**, \$593,900: Upgrade 1PH #6 ACWD and 1PH #2 ACSR line to 3PH, 2PH and 1PH 1/0 AL UG on Ross Road to improve outage reliability.

**Mutual 24 – 325.409 (2025)**, \$420,000: Convert 1PH #6 ACWD OH to 1PH 1/0 AL URD on Macs Hollow Road to address tree related outages and improve reliability.

**Saint Charles 14 – 325.410 (2025)**, \$246,900: Upgrade 3PH 2/0 AACSR OH to 3PH 1/336.4 MCM ACSR conductor on Mitchell Rd to eliminate the main feeder bottleneck and strengthen tie.

**Saint Leonard 12 – 325.411 (2025)**, \$656,800: Upgrade 1PH #2 ACSR to 3PH 336.4 MCM ACSR OH along Lloyd Bowen Rd to improve load balancing.

**Mount Victoria 11 – 325.412 (2025)**, \$741,900: Convert 1PH #6 ACWD OH to 1PH 1/0 AL UG along West Hatton Rd and Nyce Manor Place.

**Sunderland 22 – 325.413 (2025)**, \$758,200: Upgrade 3PH #2 ACSR to 3PH 336.4 MCM ACSR OH line to remove the bottleneck created by the main feeder on Lower Marlboro Rd.