Contact Information:

Michael Kelly Project Business Lead / Business Point of Contact Consumers Energy	(b)(6) [redacted]

Education:

Institution	Major/Area	Degree
University of Michigan – Ann Arbor	Mechanical Engineering	Bachelor of Science (BSE)
University of Michigan – Dearborn	Mechanical Engineering	Master of Science (MSE)
University of Michigan – Ann Arbor	Finance and Strategy	Master of Business Administration (MBA)

Professional Experience:

Role	Period	Description
Executive Director of Strategy - Electric Distribution, Consumers Energy	2022-Present	Lead development of the company's long-term distribution investment plans and implement the electric distribution department's planned activities consistent with its financial plans
Director - Corporate Strategy, Consumers Energy	2018-2022	Led deployment of company's strategic planning process. Supported key initiatives such as the expansion of the voluntary renewable energy program. Negotiated rate and gained regulatory approval for special tariff for company's and state's largest single energy user
Manager – Tree Trimming Strategy and Planning, DTE Energy	2017-2018	Led customer and community outreach programs. Orchestrated 50% expansion of tree trimming program. Negotiated contracts for vegetation management of 32,000 miles distribution system.

Manager – Electric Strategy and Planning, DTE Energy	2014-2017	Managed team overseeing the company's long-term planning and corporate governance processes
Senior Strategist, DTE Energy	2012-2014	Analyzed impacts of changes in energy policy / deregulation and changes in federal regulations on generation fleet

Contact Information:

Jennifer Partlan Senior Engineer Lead Consumers Energy	(b)(6) [redacted]

Education:

Institution	Major/Area	Degree
Oakland University	Electrical Engineering	Bachelor of Science (BSEE)
University of Michigan – Dearborn	Engineering Management	Master of Science (MS)

Training:

Certification/Credential	Accrediting Body
EIT	Michigan State Board of Professional Engineers in 1998, has since expired
PMP	Project Management Professional Certified in 2016

Professional Experience:

Role	Period	Description
Electric Construction Supervisor	2013-2018	Project management for substation upgrade and build projects. Write request for bids, host bid meetings, coordinator contractors
System Engineer	2019-Present	Lead team of circuit planners, develop plans for maintaining and upgrading the Low Voltage Distribution System. Analyzing scopes for projects and balancing resources, budget and customer experience to create a workplan.

Current Appointments:

Role	Institution	Renumeration	Type

Member Project Management Institute	PMI	Renumeration: NO	Voluntary
Member Society of Women Engineers	SWE	Renumeration: NO	Voluntary

Contact Information:

Tony J. Smith Project Manger II Consumers Energy	(b)(6) [redacted]

Education:

Institution	Major/Area	Degree
Central Michigan University	Administration (Concentration on Leadership)	Master of Science
Michigan State University	Mechanical Engineering	Bachelor of Science

Training:

Certification/Credential	Accrediting Body
Project Management Professional	
Certified Energy Manager	
Lean Practitioner Certification	Consumers Energy
Six Sigma Greenbelt Certification	TRW Automotive

Professional Experience:

Role	Period	Description
Senior Product Engineer / Product Test Lab Facilitator ZF TRW Automotive	2007 – 2015	Managed on-highway product portfolio including team of 3 engineers, performance specifications, technical roadmaps, and marketing strategies. Facilitator of Product Test Lab including management of facility and equipment capital projects, scheduling, personnel, maintenance, and budget. Managed new programs with respect to Voice of the Customer metrics and communicated status to executive management.

Various Roles (Current Role: Project Manager II) Consumers Energy	2015 – Present	Lead Program Management Team for LVD Automation workplan deployment statewide with annual budget of $15 million. Ensure LVD Automation results create positive business value and deliver agreed upon scope, cost, schedule, and quality objectives. Facilitate LVD Automation flow of work and drive process improvements through problem solving and waste elimination efforts. Develop metrics, track, report and improve performance of the program. Work collaboratively with other functional areas in the development of program tasks and deliverables ensuring successful execution.

Contact Information:

Monica Flores-Antezana Humbad G Engineer 1 Consumers Energy	(b)(6) [redacted]

Education:

Institution	Major/Area	Degree
Lawrence Technological University	Electrical Engineering	Bachelor of Science (BSEE)
Michigan Technological University	Electrical Engineering	Certificate in Electric Power Engineering (CEPE)

Training:

Certification/Credential	Accrediting Body
EIT	Michigan State Board of Professional Engineers 2021

Professional Experience:

Role	Period	Description
Electrical Engineer Johnson Controls	2008-2010	Specified and designed electrical components for Li-Ion batteries. Generated schematics, wiring diagrams and assembly instructions for manufacturing and customer usage. Used Catia to design best routing for battery harnesses.
Staff Engineer DTE Energy	2010-2012	Developed power plant improvement solutions for their different electrical equipment. Analyzed system power flow using EDSA (voltage and load). Created cost estimates for power plant maintenance projects.

G Engineer 1 Consumers Energy	2021-Present	Statewide planner of distribution automation. Perform load limit evaluation, protection settings, cost/benefit analysis for the deployment of statewide low voltage distribution automation.

Current Appointments:

Role	Institution	Renumeration	Type
WAP Steering Committee member	Consumers Energy - ERG	Renumeration: NO	Voluntary
Club Officer	Toastmasters International	Renumeration: NO	Voluntary

Other Attachment File(s)

*** Mandatory Other Attachment Filename:** 1234-TechnicalVolume_TA1_CP058_E.pdf

Add Mandatory Other Attachment | Delete Mandatory Other Attachment | View Mandatory Other Attachment

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

Add Optional Other Attachment | Delete Optional Other Attachment | View Optional Other Attachment

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: Consumers Energy

UEI: MJLAKT69Z3J5

* Street1: 1 Energy Plaza

Street2:

* City: Jackson County: Jackson

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 492012357 * Project/ Performance Site Congressional District: MI-005

Project/Performance Site Location 1

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

Organization Name:

UEI:

* Street1: 173 COLLIER AVE

Street2:

* City: BATTLE CREEK County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 490371259 * Project/ Performance Site Congressional District: MI-004

Project/Performance Site Location 2

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

Organization Name:

UEI:

* Street1: 3007 MEACHEM RD

Street2:

* City: BATTLE CREEK County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 490170000 * Project/ Performance Site Congressional District: MI-002

Project/Performance Site Location(s)

Project/Performance Site Location 3

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

Organization Name:

UEI:

* Street1: 12000 ULMER RD

Street2:

* City: BIRCH RUN County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 484150000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location 4

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

Organization Name:

UEI:

* Street1: E ATHERTON RD

Street2:

* City: BURTON County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 485190000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location 5

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

Organization Name:

UEI:

* Street1: 265 SOUTH ST

Street2:

* City: CHEBOYGAN County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 497212020 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location(s)

Project/Performance Site Location 6

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

Organization Name:

UEI:

* Street1: 1307 HIGGINS DR

Street2:

* City: CHEBOYGAN County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 497211062 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location 7

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

Organization Name:

UEI:

* Street1: N/A

Street2:

* City: CLARE County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 481670000 * Project/ Performance Site Congressional District: MI-006

Project/Performance Site Location 8

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

Organization Name:

UEI:

* Street1: 602 LOCUST TRANSFORMER SITE

Street2:

* City: DEWITT County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 488200000 * Project/ Performance Site Congressional District: MI-007

Project/Performance Site Location(s)

Project/Performance Site Location 9

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

Organization Name:

UEI:

* Street1: 4147 CLIO RD

Street2:

* City: FLINT County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 485040000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location 10

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

Organization Name:

UEI:

* Street1: 901 W PASADENA AVE

Street2:

* City: FLINT County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 485040000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location 11

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

Organization Name:

UEI:

* Street1: S LINDEN RD

Street2:

* City: FLINT County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 485320000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location(s)

Project/Performance Site Location 12

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

Organization Name:

UEI:

* Street1: 925 COUTANT ST

Street2:

* City: FLUSHING County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 484330000 * Project/ Performance Site Congressional District: MI-007

Project/Performance Site Location 13

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

Organization Name:

UEI:

* Street1: W MT MORRIS RD

Street2:

* City: FLUSHING County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 484330000 * Project/ Performance Site Congressional District: MI-007

Project/Performance Site Location 14

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

Organization Name:

UEI:

* Street1: 8100 WEBSTER RD

Street2:

* City: FREELAND County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 486230000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location(s)

Project/Performance Site Location 15

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

Organization Name:

UEI:

* Street1: S BELSAY RD

Street2:

* City: GRAND BLANC County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 484390000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location 16

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

Organization Name:

UEI:

* Street1: JAMES ST

Street2:

* City: GRAYLING County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 497380000 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location 17

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

Organization Name:

UEI:

* Street1: 327 N FOURTH ST

Street2:

* City: HARRISON County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 486250000 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location(s)

Project/Performance Site Location 18

☐ 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: N/A

Street2:

* City: HARRISON County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 486250000 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location 19

☐ 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: 4042 W TYLER RD

Street2:

* City: HART County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 494200000 * Project/ Performance Site Congressional District: MI-002

Project/Performance Site Location 20

☐ 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: 2209 PALMER AVE

Street2:

* City: KALAMAZOO County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 490010000 * Project/ Performance Site Congressional District: MI-004

Project/Performance Site Location(s)

Project/Performance Site Location 21

☐ 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: 7974 CHIPPEWA HWY

Street2:

* City: KALEVA County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 496450000 * Project/ Performance Site Congressional District: MI-002

Project/Performance Site Location 22

☐ 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: W WIELAND RD VACANT

Street2:

* City: LANSING County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 489060000 * Project/ Performance Site Congressional District: MI-007

Project/Performance Site Location 23

☐ 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: N/A

Street2:

* City: MACKINAW County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 497010000 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location(s)

Project/Performance Site Location 24

☐ 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: 314 CAMBRIDGE ST

Street2:

* City: MIDLAND County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 486420000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location 25

☐ 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: 2910 E WHEELER ST

Street2:

* City: MIDLAND County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 486420000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location 26

☐ 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: E LAPORTE RD

Street2:

* City: MIDLAND County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 486400000 * Project/ Performance Site Congressional District: MI-002

Project/Performance Site Location(s)

Project/Performance Site Location 27

☐ 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: 146 W HICKORY ST

Street2:

* City: MONTROSE County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 484570000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location 28

☐ 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: N LINDEN RD

Street2:

* City: MT MORRIS County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 484580000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location 29

☐ 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: 1083 W WESTERN AVE

Street2:

* City: MUSKEGON County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 494410000 * Project/ Performance Site Congressional District: MI-003

Project/Performance Site Location(s)

Project/Performance Site Location 30

☐ 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: 2860 HENRY ST

Street2:

* City: NORTON SHORES County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 494414012 * Project/ Performance Site Congressional District: MI-003

Project/Performance Site Location 31

☐ 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: 2817 MCCRACKEN ST

Street2:

* City: NORTON SHORES County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 494413420 * Project/ Performance Site Congressional District: MI-003

Project/Performance Site Location 32

☐ 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: COOKE HYDRO PLANT

Street2:

* City: OSCODA County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 487500000 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location(s)

Project/Performance Site Location 33

☐ 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: FOOTE HYDRO PLANT

Street2:

* City: OSCODA County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 487500000 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location 34

☐ 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: 3628 MACKINAW ST

Street2:

* City: SAGINAW County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 486020000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location 35

☐ 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: 2800 N CENTER RD

Street2:

* City: SAGINAW County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 486030000 * Project/ Performance Site Congressional District: MI-008

Project/Performance Site Location(s)

Project/Performance Site Location 36

☐ 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: N/A

Street2:

* City: SAINT HELEN County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 486560000 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location 37

☐ 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: N/A

Street2:

* City: SHELBY County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 494550000 * Project/ Performance Site Congressional District: MI-002

Project/Performance Site Location 38

☐ 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: S COURT ST

Street2:

* City: STANDISH County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 486580000 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location(s)

Project/Performance Site Location 39

☐ 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: CEDAR ST

Street2:

* City: TAWAS CITY County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 487630000 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location 40

☐ 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: 1 ENERGY PLAZA DR

Street2:

* City: TURNER County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 487650000 * Project/ Performance Site Congressional District: MI-001

Project/Performance Site Location 41

☐ 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: N/A

Street2:

* City: WHITTEMORE County:

* State: MI: Michigan

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 487700000 * Project/ Performance Site Congressional District: MI-001

Additional Location(s) Add Attachment Delete Attachment View Attachment

OMB Number: 4040-0004
Expiration Date: 11/30/2025

Application for Federal Assistance SF-424

* 1. Type of Submission:
- [ ] Preapplication
- [x] Application
- [ ] Changed/Corrected Application

* 2. Type of Application:
- [x] New
- [ ] Continuation
- [ ] Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received: 04/06/2023

4. Applicant Identifier: 2867-1588

5a. Federal Entity Identifier: MJLAKT69Z3J5

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: Consumers Energy

* b. Employer/Taxpayer Identification Number (EIN/TIN): 380442310

* c. UEI: MJLAKT69Z3J5

d. Address:

* Street1: One Energy Plaza
Street2:
* City: Jackson
County/Parish: Jackson
* State: MI: Michigan
Province:
* Country: USA: UNITED STATES
* Zip / Postal Code: 492012357

e. Organizational Unit:

Department Name:

Division Name:

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

Prefix: Mr.
* First Name: Michael
Middle Name:
* Last Name: Kelly
Suffix:

Title: Executive Director of Distribution Strategy

Organizational Affiliation:

* Telephone Number: 616-638-5998
Fax Number:

* Email: michael.p.kelly@cmsenergy.com

Application for Federal Assistance SF-424

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

Q: For-Profit Organization (Other than Small Business)

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.):

1253-CongressionalDistricts.xlsx | Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: MI-005 * b. Program/Project: MI-005

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

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 01/01/2024 * b. End Date: 12/31/2028

18. Estimated Funding ($):

* a. Federal	100,000,000.00
* b. Applicant	100,310,996.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	200,310,996.00

*** 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

Add Attachment | Delete Attachment | View Attachment

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: Mr. * First Name: Michael

Middle Name:

* Last Name: Kelly

Suffix:

* Title: Executive Director of Distribution Strategy

* Telephone Number: 616-638-5998 Fax Number:

* Email: michael.p.kelly@cmsenergy.com

* Signature of Authorized Representative: Michael P Kelly * Date Signed: 04/06/2023

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. Budget Period 1		$	$	$ 22,200,749.00	$ 22,297,031.00	$ 44,497,780.00
2.						
3.						
4.						
5. Totals		$	$	$ 22,200,749.00	$ 22,297,031.00	$ 44,497,780.00

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY (1) Budget Period 1	(2) N/A	(3) N/A	(4) N/A	Total (5)
a. Personnel	$ 9,336,874.00	$ 9,659,772.00	$ 6,708,533.00	$ 8,968,616.00	$ 34,673,795.00
b. Fringe Benefits	2,520,956.00	2,608,138.00	1,811,304.00	2,418,826.00	9,359,224.00
c. Travel	0.00	0.00	0.00	0.00	0.00
d. Equipment	32,473,200.00	42,452,855.00	39,436,272.00	36,376,400.00	150,738,727.00
e. Supplies	1,750.00				1,750.00
f. Contractual	0.00	0.00	0.00	0.00	0.00
g. Construction	0.00	2,050,000.00	2,760,000.00	150,000.00	4,960,000.00
h. Other	165,000.00	122,500.00	100,000.00	200,000.00	587,500.00
i. Total Direct Charges (sum of 6a-6h)	44,497,780.00	56,893,265.00	50,816,109.00	48,113,842.00	$ 200,320,996.00
j. Indirect Charges	0.00	0.00	0.00	0.00	$ 0.00
k. TOTALS (sum of 6i and 6j)	$ 44,497,780.00	$ 56,893,265.00	$ 50,816,109.00	$ 48,113,842.00	$ 200,320,996.00
7. Program Income	$	$	$	$	$

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SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. Budget Period 1	$ 22,297,031.00	$ 0.00	$ 0.00	$ 22,297,031.00
9. Budget Period 2	28,497,568.00	0.00	0.00	28,497,568.00
10. Budget Period 3	25,425,883.00	0.00	0.00	25,425,883.00
11. Budget Period 4 and 5	24,090,514.00	0.00	0.00	24,090,514.00
12. TOTAL (sum of lines 8-11)	$ 100,310,996.00	$ 0.00	$ 0.00	$ 100,310,996.00

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$ 22,200,749.00	$ 22,200,749.00	$ 0.00	$ 0.00	$ 0.00
14. Non-Federal	$ 22,297,031.00	22,297,031.00	0.00	0.00	0.00
15. TOTAL (sum of lines 13 and 14)	$ 44,497,780.00	$ 44,497,780.00	$ 0.00	$ 0.00	$ 0.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (YEARS) (b)First	(c) Second	(d) Third	(e) Fourth
16. GRIP Topic Area 1 FOA-0002740	$ 28,359,697.00	$ 25,390,225.00	$ 12,460,988.00	$ 11,552,340.00
17.				
18.				
19.				
20. TOTAL (sum of lines 16 - 19)	$ 28,359,697.00	$ 25,390,225.00	$ 12,460,988.00	$ 11,552,340.00

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges: $200,310,996

22. Indirect Charges: $0

23. Remarks: Section E represents federal cost share by budget period. Section C represents applicant cost share by budget period. Column 4 in Section B and Row 11 under Section C combine both the 4th and 5th budget periods.

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

OMB Number: 4040-0013
Expiration Date: 02/28/2025

1. * Type of Federal Action:
- [ ] a. contract
- [x] b. grant
- [ ] c. cooperative agreement
- [ ] d. loan
- [ ] e. loan guarantee
- [ ] f. loan insurance

2. * Status of Federal Action:
- [x] a. bid/offer/application
- [ ] b. initial award
- [ ] c. post-award

3. * Report Type:
- [x] a. initial filing
- [ ] b. material change

4. Name and Address of Reporting Entity:

[x] Prime [ ] SubAwardee

** Name:* Not Applicable

** Street 1:* Not Applicable *Street 2:*

** City:* Not Applicable *State:* *Zip:*

Congressional District, if known:

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency:

National Energy Technology Laboratory

7. * Federal Program Name/Description:

Grid Infrastructure Deployment and Resilience

CFDA Number, *if applicable:* 81.254

8. Federal Action Number, *if known:*

FOA-0002740

9. Award Amount, *if known:*

$

10. a. Name and Address of Lobbying Registrant:

Prefix: ** First Name:* Not Applicable *Middle Name:*

** Last Name:* Not Applicable *Suffix:*

** Street 1:* Not Applicable *Street 2:*

** City:* Not Applicable *State:* *Zip:*

b. Individual Performing Services (including address if different from No. 10a)

Prefix: ** First Name:* Not Applicable *Middle Name:*

** Last Name:* Not Applicable *Suffix:*

** Street 1:* Not Applicable *Street 2:*

** City:* Not Applicable *State:* *Zip:*

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

*** Signature:** Michael P Kelly

***Name:** *Prefix:* ** First Name:* Not Applicable *Middle Name:*

** Last Name:* Not Applicable *Suffix:*

Title: **Telephone No.:** **Date:** 04/06/2023

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Project Title: Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities

Funding Opportunity Announcement (FOA) Number: DE-FOA-0002740

FOA Topic Area 1: Grid Resilience Grants Program

Concept Paper Identification Code: TA1-058-E

Project Locations:

- Primary Location: One Energy Plaza, Jackson, MI 49201
- Other Locations: Available in the Locations of Work (LOW) document – various locations throughout Consumers Energy service territory in Michigan

Prime Applicant: Consumers Energy

Entity Type: Distribution Provider

Sub-Recipients: • N/A	**Project Partners:** • Utility Workers Union of America (UWUA)
Technical Point of Contact: Jenny Partlan	**Email:** Jenny.Partlan@cmsenergy.com **Phone:** 616-530-4239
Business Point of Contact: Michael Kelly	**Email:** Michael.P.Kelly@cmsenergy.com **Phone:** 616-638-5998

Confidentiality Statement: ANY CONFIDENTIAL OR PROPRIETARY INFORMATION WILL BE IDENTIFIED IN THE APPLICATION BELOW. EACH PARTY ACKNOWLEDGES THE CONFIDENTIAL AND PROPRIETARY NATURE OF THE INFORMATION THAT THE OTHER PARTY HAS DISCLOSED (AND WILL DISCLOSE) AS PART OF THIS APPLICATION AND FURTHER NEGOTIATIONS BETWEEN THE PARTIES, AND AGREES THAT SUCH CONFIDENTIAL INFORMATION (I) WILL BE KEPT CONFIDENTIAL RECEIVING PARTY; (II) WILL NOT BE USED FOR ANY REASON OR PURPOSE OTHER THAN TO EVALUATE AND CONSUMMATE A TRANSACTION BETWEEN THE PARTIES AS CONTEMPLATED IN CONSUMERS ENERGY'S APPLICATION; AND (III) WITHOUT LIMITING THE FOREGOING, WILL NOT BE DISCLOSED BY THE RECEIVING PARTY TO ANY PERSON, EXCEPT IN EACH CASE AS OTHERWISE EXPRESSLY PERMITTED BY THE TERMS OF THIS APPLICATION. EACH PARTY WILL DISCLOSE THE CONFIDENTIAL INFORMATION OF THE OTHER PARTY ONLY TO ITS REPRESENTATIVESWHO REQUIRE SUCH MATERIAL FOR THE PURPOSE OF EVALUATING THE TRANSACTIONS CONTEMPLATED BY THIS APPLICATION AND ARE INFORMED BY THE RECEIVING PARTY OF THE OBLIGATIONS WITH RESPECT TO SUCH INFORMATION. EACH PARTY WILL (IV) ENFORCE THESE CONFIDENTIALITY REQUIREMENTS AS TO ITS RESPECTIVE REPRESENTATIVES; (V) TAKE SUCH ACTION TO THE EXTENT NECESSARY TO CAUSE ITS REPRESENTATIVES TO COMPLY WITH SUCH REQUIREMENTS; AND (VI) BE RESPONSIBLE AND LIABLE FOR ANY BREACH OF THESE PROVISIONS BY IT OR ITS REPRESENTATIVES.

Total Period of Performance: *5 years (2024 – 2028)*

Total DOE Funding Request: *$100M USD*	**Total Non-Federal Cost Share:** *$100.3M USD*

Project Overview

Background

Company Background & History of Success

Consumers Energy (CE) is an electric and natural gas utility headquartered in Jackson, MI. The company proudly serves 6.7 million Michiganders in the lower peninsula, employs 8,800 employees, manages 87,000 miles of electric distribution lines and 28,000 miles of natural gas distribution pipelines, and oversees 5.8 GW of generation capacity. CE is proud to be a key partner in Michigan's ambitious plans to achieve net-zero carbon emissions by 2050 – as part of the MI Healthy Climate Plan – while simultaneously bolstering the state's manufacturing prowess, revitalizing the auto industry with the transition to electric vehicles, and working to protect its robust natural resources.

CE is committed to World-Class Performance Delivering Hometown Service – ultimately creating sustainable value through the triple bottom line:

- People: Voted #1 Utility for Best Employers for Workplace Diversity by Forbes
- Planet: Historic Clean Energy Plan to exit coal in 2025 and achieve net-zero electric business by 2040
- Profit: Achieved an annual 7% earnings growth rate on average while also establishing an economic development rate that will generate economic growth in the state of Michigan

Need for Sectionalization & Circuit Improvements

The Midwest and Michigan are becoming more prone to weather related grid disruptions. Compared to 1900, Michigan is almost three degrees warmer, gets around five more inches of rain per year, and the frequency of severe weather events has more than doubled[1]. Many of Michigan's disadvantaged communities (DACs) including parts of Genesee, Saginaw, and Clare Counties (among others) have seen limited investments in grid upgrades outside of routine maintenance due to limited load growth. This has left many lateral single-phase lines un-fused and vulnerable to faults that can cause outages to upstream customers. Paired with the increasing frequency of severe weather events in Michigan – like the severe winter storm on February 23, 2023, that left 700,000+ Michiganders without power – and disproportionate effects of outages on DACs, additional investment in CE circuits is paramount.

Current Project Development Status / Project Baseline

CE is proposing a scope expansion of its existing sectionalization and circuit work to both increase the number of circuits improved in DACs and accelerate existing project timelines. This project will upgrade aging infrastructure and add system redundancy to mitigate the impacts of increasingly frequent and severe storms, with the underlying work focused on specific DACs.

[1] Frankson, R., K.E. Kunkel, S.M. Champion, and J. Runkle, 2022: Michigan State Climate Summary 2022. NOAA Technical Report NESDIS 150-MI. NOAA/NESDIS, Silver Spring, MD, 4 pp.

A baseline of historical project development can be described as follows:

- Installed 132 automation loops on circuits with ties across the service territory.
- Avoided 12.93 System Average Interruption Duration Index (SAIDI) customer minutes from lateral fusing since 2022.
- Drove a 20% improvement in SAIDI between 2021 to 2022 (from 228 to 182 minutes).
- Current budget for reliability and resiliency programs in the Low Voltage Distribution system is planned for $70.7M in 2023.

Project Goals

If awarded funding, this workplan will allow CE to focus on the buildout of much-needed infrastructure investments in some of Michigan's most historically underinvested communities. This project will work to upgrade the backbone of our circuit systems and increase capacity at local substations to better support redundancy in DACs. Reconductoring these backbone 3-phase lines additionally hardens them against the impacts of climate change and prepares them for the future adoption of technologies needed for the automatic transfer of customers to separate lines when an outage does occur.

The specific project goals and objectives are summarized below:

1. Complete lateral fusing of the CE Low Voltage Distribution (LVD) system.
2. Construct new ties between circuits while adding automated loops in targeted DACs.
3. Harden poles and pilot new state-of-the art sensors to drive system resiliency.
4. Support workforce & localized economic development.

To ensure the success of this project, there will be several crucial success factors:

- **Community & Labor Engagement:** CE has a robust plan to seek input from community stakeholders while leveraging existing union relationships to minimize execution risk.
- **Governance & Communication:** CE will leverage its existing Enterprise Project Management Office to oversee project execution while dedicating project resources to DOE engagement, reporting, and compliance obligations.
- **Supply Chain & Procurement:** CE has a robust supply & procurement team to ensure that materials, equipment, vehicles, and other resources are not a limiting factor.
- **Project Leadership Capabilities:** As demonstrated in the "Technical Qualifications & Resources" section, CE is well-positioned to execute this work.

DOE Funding Impact

The funding from this grant will benefit households across the state with a focus on DACs by enabling a scope expansion and acceleration of current work. As outlined in the "Report on Resilience Investments," CE currently plans to spend an average of approximately $79M annually on resiliency investments on the LVD system over the next three years. A $100M grant would increase this annual investment by approximately 25%, enabling the scope additions outlined in the "Technical Scope Summary" section.

Funding from this grant would also help accelerate grid modernization initiatives in DACs that would have otherwise been postponed for 10+ years due to low load growth. DOE funds would allow new circuit ties to be constructed, enabling vulnerable circuits to be quickly re-energized by neighboring circuits in the event of an outage. CE's current efforts for automatic switching between circuits when a fault occurs are primarily focused on circuits with existing ties. Adding new ties will help DACs by:

- Rebuilding system backbone at the end of circuits to meet new standards which will minimize faults on that section of line.
- Creating a tie point and adding automation technology so that customers can be automatically transferred to another power source while also more quickly isolating faults to allow crews to safely make repairs and return affected circuits to normal operation.
- Installing automated transfer reclosers (ATRs) for automation and automatic load transfers when a fault does occur.

Community Benefits Plan

Through the sectionalization and circuit improvement efforts, CE is committed to (1) a meaningful level of engagement with the community and labor unions; (2) creating and sustaining good-paying line worker jobs through the project implementation timeline; (3) ensuring that diversity, equity & inclusion is embedded throughout the project and supports communities of color; and (4) advances the Biden administration's Justice40 initiative. Commitments specific to each of these four pillars are outlined as follows:

Community and Labor Engagement

- Host public feedback sessions and CE-sponsored community engagement events to educate and engage communities on project benefits and seek feedback.
- Engage labor unions on project plans, seek feedback, and leverage existing collective bargaining agreements.
- Negotiate a Community Benefits Agreement with 2 – 4 target communities that will see substantial investment (e.g., Flint/Flushing, Muskegon County, Clare County).

Investing in the American Workforce / Quality Jobs

- Support 66+ high-paying, union-represented jobs in partnership with UWUA and other partners.
- Rotate all company apprentices through various investment-related projects for training.
- Partner with pre-apprentice programs at local community colleges and other partners (e.g., Mott Community College, Alpena Community College, etc.) to reduce barriers to historically underserved individuals and communities.

Diversity, Equity, Access, and Inclusion (DEIA)

- Ensure the project team is diverse and undergoes training in DEIA topics.
- Foster an inclusive team culture by developing, planning, and hosting annual anti-bias and workplace cultural awareness trainings.

- Invite "Diverse-Owned Businesses" (Minority-, Women-, Veteran-, Disabled Veteran-, Disabled-, and LGBT-Owned Businesses) to respond to competitive materials and equipment procurement while tracking diverse spend on this grant opportunity.

Justice40 Initiative

CE commits to supporting the DOE's requirement of having 40% of all project benefits flow toward federally designated DACs. To meet this requirement, CE will:

- Focus sectionalization investments on DACs and historically underinvested sections of our grid system.
- Partner with school-to-work programs to source company apprentices from DAC areas.
- Support the development of three "energy-ready" sites that will provide high-quality power to potential commercial and industrial tenants with the goal of catalyzing additional follow-on private investment in local DAC or DAC-adjacent communities.

Anticipated Negative and Cumulative Environmental Impacts on DACs

Using the EPA's EJSCREEN48 tool, communities targeted for investment – including Genesee County (Flint/Flushing), Muskegon County, and Clare County (among others) – have higher populations of residents living in federally designated DACs as evidenced by various socioeconomic indicators (e.g., income level, unemployment rate, environmental burdens). As such, CE will strive to be cognizant of any potential environmental detriments to these communities within the context of cumulative environmental impacts created by the project.

Based on an initial analysis, this project is expected to have minimal negative impacts on the local environment and DACs. Some potential negative impacts to monitor over the project time horizon include incremental localized air pollutants from trucks, noise pollution from activities related to circuit improvements and pole maintenance, and possible impacts to local land and soil quality. CE is committed to seeking community feedback through a two-part public forum as outlined in the Community Benefits Plan and will employ tactics to mitigate these effects (e.g., utilizing a Jobsite Energy Management System (JEMS) to reduce truck idling).

Sharing and Maximizing Project Benefits

Maximizing Benefits for DACs

To ensure that the benefits of this funding opportunity are maximized for our most vulnerable customers, CE will undertake a wide range of activities and outreach including the following:

- Partner with local community colleges to offer students meaningful pre-apprenticeship and potential employment opportunities.
- Support the development of three "energy-ready" sites that will offer high-quality energy resources to potential commercial or industrial tenants.
- Conduct targeted outreach with impacted DACs to understand potential project risks and benefits while allowing for feedback to alter project workplans.

Public Engagement Strategy

- Collaborate with local government, community, and education organizations to host local community engagement sessions (e.g., block parties, open houses, town halls, etc.) on project plans and impacts.
- Work with the community members and organizations that represent DACs to seek project feedback and to understand local impacts and opportunities throughout project lifetime.

Long-Term Constraints on Natural and Tribal Resources

As shown in the Environmental Questionnaire, this project is expected to have minimal impact on local community access to the natural resources outlined below. CE will engage the community to collect local feedback and minimize construction disturbances to natural and tribal resources.

- Water: No material impact expected
- Vegetation: Minimal clearing activities will be required using standard specifications.
- Clean Air: Construction vehicles will have a negligible impact on localized air quality.

Climate Resiliency Strategy

If awarded this grant the projects outlined in this application would ensure that the grid in these areas is more resilient to harsher weather (e.g., high winds, winter storms, and other catastrophic weather events).

- The construction of new lines and upgraded lines between substation exits would be built to new, sturdier standards with larger class poles and polymer insulators to lower the rate of faults in severe storm scenarios.
- Sturdier poles and pole sensors can help (1) withstand the stronger winds and the pulling from conductors weighed down by ice or a fallen tree from a storm and (2) proactively identify pole issues before a fault is caused.
- Creating new ties between the substations also increases the capacity and amount of load the circuit can handle without causing low voltage incidents to neighboring customers (i.e., impacted circuits are expected to better handle added air conditioning load during the summer, additional EV charging load, and added load from heat with colder winters.
- Installing lateral fuses better sectionalizes the system. When a fault does happen, the outage will affect fewer customers than if the fusing was not in place and the next upstream device were to “trip.”

Technical Description, Innovation, and Impact

Relevance and Outcomes

Project Description & Technology Used

CE will invest in the following scope items across its service territory to drive the project goals & objectives described (also outlined in the Statement of Project Objectives):

- **Fusing:** Install 7,000+ lateral fuses to mitigate impacts to upstream customers from outages due to extreme weather and natural disasters.

- **Circuit Preparation:** Prepare circuits for automation equipment by constructing 28 3-phase ties (requiring 50+ miles of phase extensions and new line additions and another 160 miles of substation backbone reconductoring) needed to make ATR loops and automated load transfers viable – primarily focused on DACs.
- **Automated Loops:** Install 200+ automated loops – adding ATRs to enable automatic re-energization of customers on the circuit until crews can repair the fault.
- **System Hardening:** Harden 10,000+ poles and reconductor 460+ miles of aging lines to achieve new standards that will prevent storm-driven outages. In addition, invest in pole top hardware upgrades to reduce the risk of damage during wind and ice events. Pilot new state-of-the-art pole sensor technology to detect pole tilt and conductor galloping situations, and drive maintenance management for conditions not readily detected through traditional means.
- **Economic Development Sites:** Support multi-MW grid capacity increases and other upgrades required to support the development of three "energy-ready" sites throughout the state in DAC and DAC-adjacent areas (North Lansing, Clare County, and Flint / Mt. Morris), which can help attract new industrial or commercial businesses.

CE has five main categories for traditional reliability & resiliency investments: 1) Targeted Zones, 2) Repetitive Outage, 3) Sectionalization, 4) Rehabilitation (Security Inspection & Further Action), and 5) Grid Automation. This grant's funding will be used to expand and accelerate the "Targeted Zones," "Sectionalization," and "Grid Automation" work with a focus on equitable investments in federally designated DACs.

Past Targeted Zone projects have been selected based on historical outage data for customers across the system. CE's Reliability Analytics Engine data ranks zones (portions of circuits between protective devices) based on customer outage minutes, outage frequency, and annual consistency. The formula inputs used are shown here:

(A) Consistency of Outages	(B) Outages Rate per Mile	(C) Customer Impact of Outage	(D) Current Year Outages		Total Reliability Ranking
Total number of years with an outage over the last 10 years	Average number of outages per mile over the last 10 years	Total number of customers per outages for zone	Total number of outages in current year	=	Total final score ranking for zone performance

Figure 1: *Illustration of CE's methodology for planning reliability & resiliency investments*

With a specific focus on ensuring that at least 40% of the benefits from future investments accrue to DACs, CE has modified the company's ranking philosophy to add a factor that prioritizes DAC and DAC-adjacent circuits. This ensures that the grid and societal outcomes of this project will accrue to DACs throughout CE's service territory. These grid resiliency investments are reflected in the maps below, which illustrate how equity has shaped project planning.

Planned Automation Loop Investments

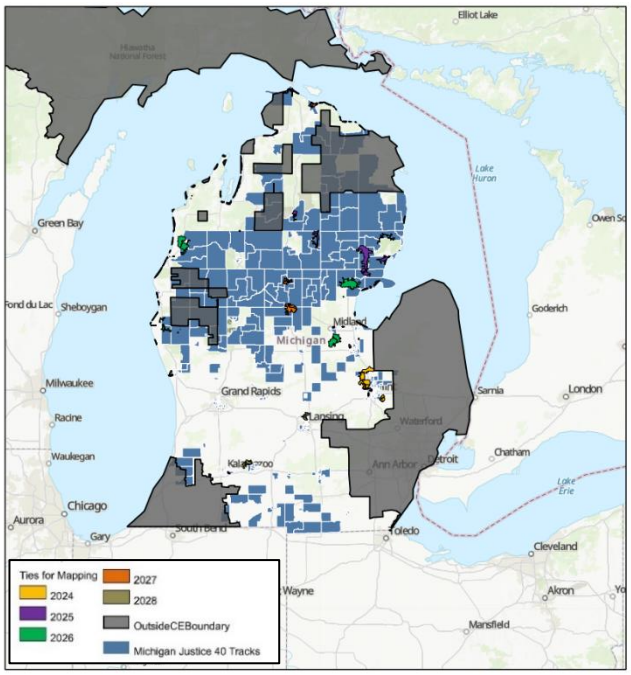


Figure 2.1: *View of 28 planned grant-funded automation loop investments and overlap with DACs*

Statewide Lateral Fusing Efforts

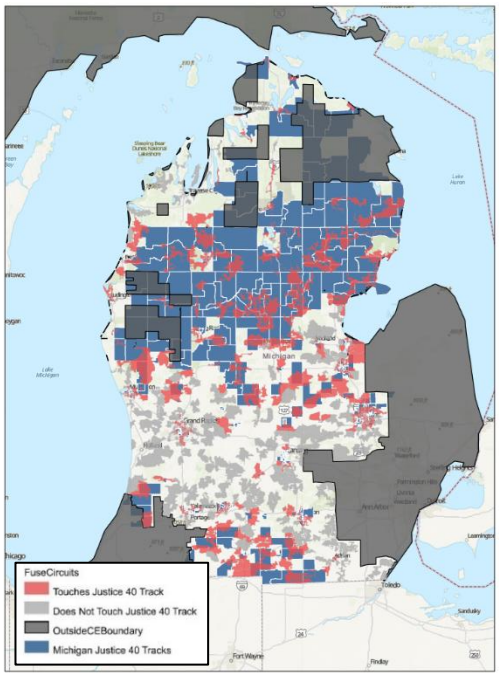


Figure 2.2: *View of statewide lateral fusing efforts and overlap with DACs*

Relevance to FOA Goals & Objectives

The DOE has explicitly outlined in the FOA that projects should encompass "activities that increase the ability to reduce the likelihood and consequences of impacts to the electric grid due to extreme weather, wildfire, natural disaster and other disruptive events." Specifically, this project meets the following eligible uses of funding:

- (C) monitoring and control technologies
- (E) utility pole management
- (F) the relocation of power lines or the reconductoring of power lines with low sag, advanced conductors
- (I) adaptive protection technologies
- (L) the replacement of older overhead conductors and underground cables

Through this project, CE will support these five eligible uses in the following ways:

- This project calls for the installation of additional lateral fuses for sectionalization. This scope directly enables adaptive protection technologies, supporting eligible use (I).
- This project will also support the reconductoring and installation of new tie lines to ensure there are 3-phase ties between circuits which will enable load transfers, quicker restorations, and future grid modernization upgrades. Each project would be evaluated during the project design phase for low sag / advanced conductors. The factors considered include easements, trees, and route. This supports eligible uses (F) and (L).
- This project will enable automated re-energization through ATRs on circuits with lateral ties, which supports eligible uses (C) and (I).

- This project will replace and harden utility poles and pilot pole tilt sensors which supports eligible use (E).

Grid & Societal Outcomes

The project goals & objectives will help support the broader grid and societal outcomes described below.

- **Grid Reliability & Resiliency:** Ensuring targeted portions of the CE system are sectionalized to current standards will achieve an estimated 6 – 7-minute SAIDI improvement by limiting the number of customers affected by any single outage – especially for DACs in a storm event. Additionally, automation and redundancy will create the ability to automatically isolate a fault and transfer customers to another energy source.
- **Grid Flexibility & Clean Energy Enablement:** As customers continue to move toward cleaner energy for their homes and cars, distributed energy resources (DERs) and EV chargers will add additional strain on the electrical grid near their locations. The upgraded conductor along the backbone will create a closer viable connection for devices that may require higher ampacity to connect and not cause issues to neighboring customers. The sectionalization and automation loops being installed in the areas will also lower the frequency of outages by limiting customers affected and automatically transferring other customers to another source during a fault.
- **Workforce & Economic Development:** If awarded this grant there would be additional work above and beyond CE's current resources. At its peak, this work will sustain 66 or more high-paying, union-represented field jobs represented while serving as a training platform for company apprentices – many coming to CE from underserved backgrounds through pre-apprentice programs at local community colleges. Finally, this work would support the deployment of three "energy-ready" sites designed to attract large commercial or industrial businesses to the area, creating an economic multiplier effect.
- **Social Equity:** DOE funding will help CE invest in DAC communities and ensure that at least 40% of project investments and benefits accrue to these households and businesses (as described in more depth in the Community Benefits Plan). DOE grant funding will help accelerate and expand company investment in circuits that serve DACs.
- **Safety:** This project will improve public and worker safety by supporting quicker and more automated isolation of faults through installation of fuses, ties, and ATRs to protect workers and the public in storm scenarios.
- **Customer Affordability & Experience:** Installing sectionalization and automation loops will reduce the amount of time required for fault identification, isolation repairs, and re-energization. Crews can travel directly to the smaller sectionalized zone rather than potentially patrolling a wider area, thus reducing operations and maintenance costs. New construction also hardens the local grid system against outages through stronger poles and conductor and pole top construction that have a stronger ability to withstand storms and other outage causing events.

Feasibility

CE has a wealth of in-house project-related expertise with many technologies such as 3-phase ties, automated ATR loops, pole hardening, new and extended lines, and line reconductoring already being implemented in many CE projects today. The "Background" section describes at a high-level some of the work that has already been done and the results observed. Furthermore, the "Report on Resilience Investments" details the major categories of resiliency spend that CE has conducted over the past three years and how DOE funding would help expand and accelerate planned future work.

New technologies will also be implemented as part of this project such as pole-top sensors that will be used to identify preventative maintenance opportunities across our grid system and reduce the need for in-person inspections. To ensure that the CE team can source, install, and fully utilize these novel technologies, CE plans to leverage existing vendor and partner relationships to validate various preventative maintenance and grid resiliency use cases.

Finally, to ensure that this project can be safely and effectively executed, the CE team will leverage existing infrastructure and relationships to successfully execute on the project including:

- Transportation and construction vehicles – this project will use digger derrick and bucket trucks, which can be leased through existing partners.
- Labor agreements with UWUA and relationships with community college pre-apprentice programs – will ensure sufficient resources to execute the work.
- Material suppliers and providers – existing vendor relationships to procure poles, conductor, ATRs, etc.

CE considers this project "shovel-ready," as the company will be expanding upon existing sectionalization and circuit improvement efforts while adding new innovative technologies to the plan (e.g., pole & line sensors). The expected allocation of funds has a ramp up approach to allow for gradual ramping up of planning/design work and material acquisition. There will also be a similar ramp up effort for hiring crews to conduct this work, as line workers will need requisite training before they can work in the field.

Innovation and Impacts

There are three core areas of innovation for this proposed project:

- **Technology Innovation:** By installing new pole-top sensors in historically difficult-to-monitor sections of the grid, the CE team will be able to monitor and respond to a range of incidents such as downed wires, pole accidents, and deteriorating pole conditions (e.g., pole leaning due to flooding or rapid freezing and thawing) more closely.
- **Resiliency Planning Innovation:** In addition, the CE team also pioneered a new methodology of selecting target investment sites utilizing a combination of in-house outage data and DOE-published Justice40 and DAC information. By referencing both data sources, the CE team has been able to accelerate grid resiliency investments quickly and equitably for our most at-risk and historically underinvested communities. The "Relevance and Outcomes" section above illustrates this methodology in further detail. Furthermore, this project can simultaneously support three 'energy-ready' sites to attract new, large businesses to DAC areas and multiply economic impact.

- **Workforce Innovation:** Finally, due to the broad geographic and technical range of this project, the CE team proposes the use of a fully unionized field workforce with additional opportunity for on-the-job apprentice training to provide job opportunities within the communities the project will be investing in. By doing so, the CE team plans to advance DEIA goals across the impacted communities while also working to accumulate long-lasting benefits to DACs by investing in physical infrastructure and local workforces.

ODIN Commitment: To better support publicly available data on outages and outage impacts, CE will commit to participating in the Department of Energy's Outage Data Initiative Nationwide (ODIN). CE submitted a letter of intent on March 21, 2023.

Support of Governmental Resilience, Decarbonization, and other Energy Plans

From a state policy perspective, this project directly supports resiliency and energy objectives from both the Michigan Public Service Commission (MPSC) and Governor Whitmer's 2022 Michigan Healthy Climate Plan:

- **MPSC Order in Case U-21305:** In October 2022, the MPSC ordered Michigan utilities to report on compliance with regulations governing utilities' response to outages and other persistent safety challenges from severe storms in the state. CE's proposed sectionalization and circuit improvements project addresses the objectives identified in the MPSC's order by protecting the safety and reliability of the electric grid in DACs by bolstering our ability to isolate faults, transfer loads, and resist extreme weather patterns.
- **State MI Healthy Climate Plan:** This project directly supports four main objectives outlined in Governor Whitmer's 2022 Michigan Healthy Climate Plan, which targets net-zero carbon emissions by 2050 with interim milestones:
    a. **Mitigate the worst impacts of climate change** through grid resilience and reliability upgrades.
    b. **Spur economic development and create good-paying jobs** by sustaining union-represented jobs and training apprentices from underserved backgrounds.
    c. **Protect and improve the health of Michiganders** through increased outage resilience during severe winter storms.
    d. **Address environmental injustices** by targeting 40%+ of grant-funded resilience investments toward historically Disadvantaged Communities.

To maintain electric system reliability & resiliency in the face of more frequent and severe storms and to support increasingly clean, distributed, and intermittent sources of power, additional investments in sectionalization are needed to create a more flexible grid with the ability to re-route power more effectively. Among many more, three counties that will see targeted investments include Genesee County (Flint), Muskegon County, and Clare County. Within these communities, the project will help support local climate and master plans in the following ways:

- **Flint, MI:** This project will directly support Flint's "Master Plan for a Sustainable Flint" by helping enable core pillars of the plan – Social Equity & Sustainability, Quality of Life, and Adapting to Change.
- **Muskegon County, MI:** This project will support Muskegon County's Sustainability Plan outcomes of social equity, economic prosperity, and environmental integrity.
- **Clare County, MI:** This project supports Clare County's goals of providing quality civil services to residents and strengthening local employment opportunities.

Potential Impact to Reduce Perceived Risk and Lead to Additional Investment

First, this project will incentivize additional private-sector investment in the targeted communities by supporting the development of three different "energy-ready" sites in North Lansing, Clare County, and the Flint / Mt. Morris area. These sites will provide high-quality power to potential commercial or industrial tenants, further catalyzing local investment. Preliminary site locations can be found in Figure 3 below.

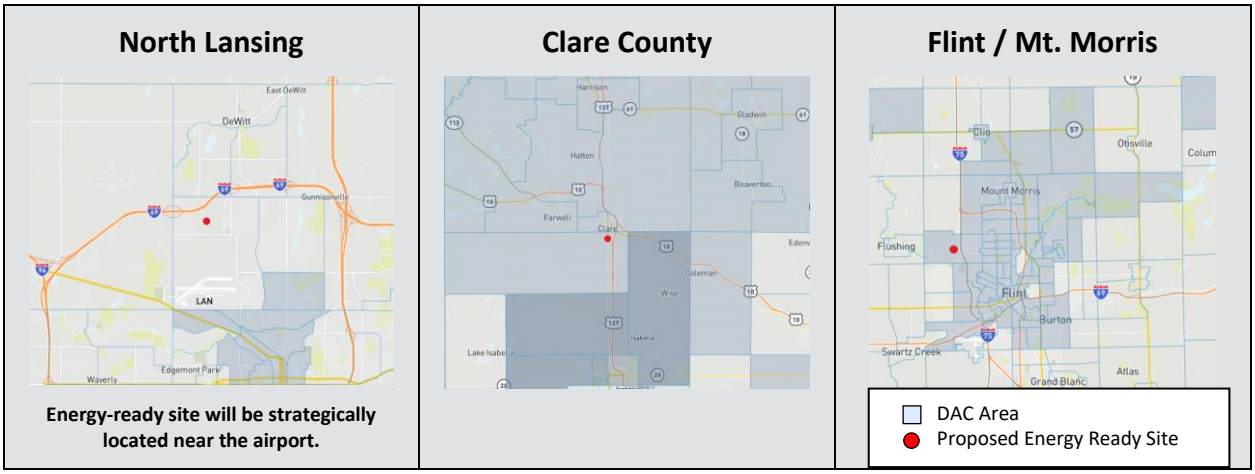


Figure 3: *Geographical locations of three energy-ready sites supported through this project*

This project will also help reduce the perceived risk and promote the wider deployment of proposed technologies as CE will be able to demonstrate a strong positive impact when deployed at the city- and grid-wide scale.

For example, implementation of pole-top sensors can help demonstrate the most beneficial use cases and de-risk further adoption of this technology at CE and more broadly in the utility industry. In addition, while designing projects for new tie lines a determination will be made whether tree resilient conductor will be necessary or not. One conductor that CE uses is Aerial Spacer Cable (ASC), Hendrix®, an insulated tree wire. Depending on the route chosen and easements granted these conductors can be installed to further mitigate outages from trees and storms. Deployment of these ASCs can also help provide learnings for more wide-spread deployment in the future.

Potential for Project to Generate Resilience Benefit in Reducing the Likelihood and Consequences of Disruptive Events

This project will have extensive grid resilience benefits because of both the sectionalization work and novel monitoring technologies that will be installed along the most vulnerable sections of the CE network. First, the proposed pole-top monitoring technologies will help reduce the likelihood of disruptive events by giving the CE team better insight into the state of the grid without needing to send out crews for physical inspection. If an outage does occur, sectionalization will help ensure that damaged portions of the wire can be isolated, restoring power to surrounding lines and allowing maintenance teams to access impacted lines quickly and safely. The "Grid & Societal Outcomes" section above highlights the holistic outcomes that this project will generate – especially focused on reducing storm impacts.

Project Hazard Mitigation

One energy-related hazard faced by Michigan communities is the threat of outages during large storm events – particularly in winter months. Through this project, both outage duration and frequency during a severe storm hazard are expected to be reduced through the dual effects of increased visibility into present grid conditions and improved response capabilities. By giving grid operators the ability to quickly deenergize and reroute power through the installation of lateral fusing, line extensions, and automated loops, the CE team expects to minimize the effect of large storms and ensure that power stays on during these critical events.

DOE Funding Impact and Community / Regional Resilience Benefits

DOE funding for this project would primarily impact Michigan communities in two ways. The first is that DOE funding would accelerate the timelines by which DACs and underserved communities are expected to receive much-needed grid resiliency investments by 10+ years. Historically, utilities have chosen areas to invest by primarily considering load growth in these areas. An influx of DOE funding would allow CE to choose investment areas based also on measures of and expected impacts to social and environmental equity.

Secondly, a grant of $100M would increase CE's annually planned grid reliability and resiliency spending by about 25% compared to CE's long-term financial plan, substantially increasing the amount of funds available to execute on these high-priority, high-urgency projects. For more details, see the "Report on Resiliency Investments."

Workplan

Project Objectives

The four main goals and objectives of this proposal as outlined in the SOPO include:

- **Complete all lateral fusing of our Low Voltage Distribution (LVD) system:** Installing an additional 7,000+ fuses will sectionalize the system minimizing the number of customers affected by any individual outage. This also improves the response time for crews to repair wire downs as there is a smaller zone for crews to patrol before they fix and re-energize the zone.

- **Construct new ties between circuits while adding automated loops in targeted DAC areas:** CE will add 28 new ties to areas that currently do not have 3 phase ties between circuits in disadvantaged, non-rural areas. As part of this work, CE will undertake 160+ miles of substation reconductoring while adding 50+ miles of new line to create these ties. This will allow load transfers for crews to isolate damage and re-energize other customers faster while they make repairs to damaged areas. CE will also add automated load transfer devices to all these circuits, plus add a total of 200+ automation loops across the state.
- **Harden poles & wires while piloting new state-of-the art sensors:** CE will harden 10,000+ poles and reconductor 460+ miles of aging lines to prevent storm-driven outages. Further, there are some areas of the system that cannot support voltage/current line sensors due to conductor type or low current to power the devices. In these cases, pole sensors can help identify pole-lean situations to notify and dispatch repair crews before a failure occurs.
- **Support workforce and localized economic development:** Deploy three 'energy-ready' sites to attract large new businesses while supporting training of company line worker apprentices.

Project Outcomes

Ultimately, this project will help support the stated strategic goals of the DOE in (1) transforming resilience, including in consideration of future shifts in generation and load; (2) catalyzing and leveraging private sector and non-federal public capital; and (3) advancing community benefits. Project outcomes have been described in more depth in the "Grid & Societal Outcomes" section above, but can be summarized as follows:

- **Grid Reliability & Resiliency:** Sectionalize the system to mitigate outage impacts and durations for customers - especially for DACs in storm events - resulting in an estimated 6 – 7-minute SAIDI improvement.
- **Grid Flexibility & Clean Energy Enablement:** Upgrade conductors along the system backbone to support increased load from DERs while sectionalizing wires to allow for DER-enabled load transfers in outage situations.
- **Workforce & Economic Development:** Supporting 66+ high-paying, union-represented field jobs during peak implementation; supporting apprentice training; and enabling three energy-ready economic development sites to catalyze follow-on economic investment.
- **Social Equity:** Accelerating grid investments in DACs to create a more resilient energy system while supporting jobs and economic development in these areas.
- **Safety:** Improving public and worker safety by supporting quicker and more automated isolation of faults while reducing wire-down incidents.
- **Customer Affordability & Experience:** Reducing operations and maintenance expenses through fewer truck rolls while improving resiliency improvements to provide a better experience for households and businesses.

Technical Scope Summary

As outlined in the Statement of Project Objectives, there are several core technological scope items that will be implemented as a part of this project:

- **Fusing:** Install 7,000+ lateral fuses to mitigate storm-driven outage impacts.
- **Circuit Preparation:** Construct 28 3-phase ties to prepare the system for automation.
- **Automated Loops:** Add 200+ ATRs to enable automatic re-energization across the service territory with a focus on DAC areas.
- **System Hardening:** Harden 10,000+ poles and reconductor 460+ miles of aging lines while also piloting pole-top sensors to mitigate storm impacts.
- **Economic Development Sites:** Support multi-MW grid capacity increases and other upgrades required to support the development of three "energy-ready" sites in DAC-adjacent areas (North Lansing, Clare, and Flint / Mt. Morris).

The five main areas and accompanying counties this project will target are as follows. Maps of planned fusing and automation loop investments are also captured in Figures 2.1 and 2.2.

- **Saginaw Area**
  - Saginaw County
  - Arenac County
  - Iosco County
  - Roscommon County
  - Crawford County
  - Midland County
- **Northern Area**
  - Cheboygan County
  - Clare County
  - Northern Isabella County
- **Southwest / Lansing Area**
  - DeWitt/Clinton County
  - Kalamazoo County
  - Calhoun County
  - Southern Isabella County
- **Flint Area**
  - Genesee County
  - Portions of Saginaw County
- **Lakeshore Area**
  - Oceana County
  - Muskegon County
  - Manistee County

Furthermore, a list of targeted areas for investment is shown under the "Project Schedule" section for reference organized by year or Budget Period (BP). Budget Period 1 is 2024 for reference. Go/No-Go criteria by budget period is listed below under the "Go/No-Go Decision Points" section.

WBS and Task Description Summary

The WBS and Task Description Summary provides a high-level overview of the Tasks required to meet the stated project objectives as provided in more detail in the Statement of Project Objectives (SOPO). The timing for these phases is reflected in the "Project Schedule" section.

Task 1.0 Project Management Plan (Q3 2024 – Q3 2028): This task encompasses the project launch and management activities that are required upon notification of award. CE will diligently complete the following sub-tasks to ensure readiness to execute the grant-funded project: (1) project management plan (PMP), (2) NEPA compliance environmental review, and (3) and scheduling a project kickoff and annual continuation briefings.

Key Deliverables & Milestones: PMP, NEPA, CSP, Project Kickoff / Continuation Briefings Scheduled; Quarterly Progress & Financial Reports

Task 2.0 Flint Area – Sectionalization & Circuit Improvements (Q1 2024 – Q4 2025): This task involves the construction of new overhead 3-phase ties; the installation of ATR loops; replacing poles and reconductoring lines along select substations to bolster system resiliency, support load transfer, and enable the buildout of an "energy-ready" site in the Flint Area (also planned for Task 5.0 in Clare County and Task 6.0 in the North Lansing area).

Key Deliverables & Milestones: Baseline Budget, Maps, and Detailed Schedule; Project Completion List (annually updated)

Task 3.0 Saginaw Area – Sectionalization & Circuit Improvements (Q1 2024 – Q2 2026): This task will feature the same tasks, key deliverables, and milestones as Task 2.0 above.

Task 4.0 Lakeshore Area – Sectionalization & Circuit Improvements (Q2 2024 – Q3 2026): This task will feature the same tasks, key deliverables, and milestones as Task 2.0 above.

Task 5.0 Northern Area – Sectionalization & Circuit Improvements (Q4 2025 – Q1 2028): This task will feature the same tasks, key deliverables, and milestones as Task 2.0 above. This task will also enable the buildout of an "energy-ready" site in Clare Country.

Task 6.0 Southwest / Lansing Area – Sectionalization & Circuit Improvements (Q4 2025 – Q1 2028): This task will feature the same tasks, key deliverables, and milestones as Task 2.0 above. This task will also enable the buildout of an "energy-ready" site in North Lansing.

Task 7.0 Statewide – Sectionalization & Circuit Improvements (Q1 2024 – Q1 2026): This task includes the buildout of new lateral fusing on Low Voltage Distribution lines across the state and piloting new pole-top sensor technologies.

Key Deliverables & Milestones: Baseline Budget, Maps, and Detailed Schedule; Project Completion List (annually updated)

Task 8.0 Community Benefits Plan (Q2 2024 – Q4 2028): This task encompasses all aspects of the Community Benefits Plan. Sub-tasks include: (8.1) community and labor engagement efforts to seek feedback through public forums, align on a Community Benefits Agreement with targeted communities, and leverage an existing Collective Bargaining Agreement; (8.2) hiring apprentices through community college programs, developing health & safety plan, seek regular employee feedback; (8.3) invite Diverse-Owned Businesses to respond to competitive RFPs, partner with pre-apprentice programs to reach under-represented individuals, offer DEIA and anti-bias training; (8.4) engage communities on Justice40 metrics, support development of energy-ready sites, implement project recommendations from stakeholders representing DAC communities.

Key Deliverables & Milestones: Refined Community Benefits Plan (CBP); Annual CBP Report (publicly released), Negotiated Community Benefits Agreements

Milestone Summary

Budget Period	Milestone Summary by Quarter
Budget Period 1 (2024)	• Q1: Begin engaging union partners on this project opportunity. • Q2: *Complete project design for work in the Flint area*. *Complete project design for statewide work.* Draft workplace health and safety plans. • Q3: Begin conducting public forums in local communities. Finalize suppliers and partners for Flint-based work. Conduct project continuation briefings. Finalize the hiring of line worker apprentices from DACs. • Q4: Finalize Community Benefits Agreements and DEIA strategy. Publish updated project progress report.
Budget Period 2 (2025)	• Q1: *Complete project design for work in the Saginaw area.* Host community engagement events with local communities to raise project awareness. Begin annual publication of newsletter detailing measured community benefits. Begin conducting annual DEIA/anti-bias training. • Q2: Finalize procurement and permitting for work in the Flint area. Finalize procurement and permitting for work in the Saginaw area. • Q3: Finalize procurement and permitting plans for work in Saginaw area. Finalize procurement and permitting plans for statewide fusing work. Conduct project continuation briefings. • Q4: *Complete project design for work in the Lakeshore area*. Publish updated project progress report.
Budget Period 3 (2026)	• Q1: *Complete construction of work and closeout project in Flint area*. *Complete construction of statewide work.* Finalize procurement and permitting plans for Lakeshore area. Begin conducting annual sentiment surveys. Publish annual CBP report. Conduct annual DEIA/anti-bias training. • Q2: Complete *closeout of statewide work*. • Q3: Conduct project continuation briefings. • Q4: *Complete construction of work and closeout project in Saginaw area*. *Complete project design for work in the Northern area*. *Complete project design for work in the Southwest / Lansing area*. Publish annual report on Community Benefits Plan progress. Publish updated project progress report.
Budget Period 4 (2027)	• Q1: *Complete construction of Lakeshore area work*. Publish annual CBP report. Conduct annual DEIA/anti-bias training. Conduct annual sentiment survey. • Q2: *Complete closeout of Lakeshore area work*. Complete procurement and permitting for Northern and Southwest / Lansing area work. • Q3: Conduct project continuation briefings. • Q4: *Complete construction of Northern and Southwest / Lansing area work*. Publish updated project progress report.
Budget Period 5 (2028)	• Q1: *Complete closeout of Northern and Southwest / Lansing area work*. Publish annual CBP report. Conduct annual DEIA/anti-bias training. Conduct annual sentiment survey. • Q2: Develop draft report on "lagging" Justice40 metrics. • Q3: Conduct project continuation briefings and prepare for full project closeout. • Q4: Publish report on "lagging" Justice40 metrics. Publish updated project progress report. Upload final SOPO deliverables and complete closeout documentation.

Italicized items are technical milestones.

Technical milestones will be verified according to the deliverables listed in the "Workplan" section of this document as well as the SOPO.

Go/No-Go Decision Points

This project will have annual project Go/No-Go decision points aligned with each budget or performance period, which mirror calendar years. The Go/No-Go decisions will coincide with annual project Continuation Briefings with the DOE as outlined in the Statement of Project Objectives (SOPO). The following criteria will be used for evaluation of project continuation:

- SMART milestones from the prior performance period are met or on track to be met.
- Project remains on-time and on-budget or has acceptable mitigation plan for deviations.
- Project has met all reporting & compliance obligations required by the DOE.

After each decision point, the PMP and Community Benefits Plan will be modified or adjusted as agreed upon by CE, the DOE and project partners to ensure any project risks are mitigated.

End of Project Goal

At the end of the project, CE aims to have achieved the following goals, which are in alignment with the Statement of Project Objectives (SOPO):

- Two-part public forums completed to capture public feedback.
- 200+ automated sectionalization loops added.
- 7,000+ lateral fuses installed.
- Harden 10,000+ poles.
- Sustain 66+ union-represented jobs during peak implementation years.
- Three energy-ready sites developed.
- 460+ miles of reconductoring between substations.

Project Schedule

The proposed project schedule is outlined below in a Gantt chart format. This illustrates the high-level timing of the various project tasks – organized by geographical area – and phases for the various sub-tasks. The Gantt chart below also shows some of the major milestones associated with the four pillars of the Community Benefits Plan. A more detailed Gantt Chart and list of commitments can be found in the Community Benefits Plan document.

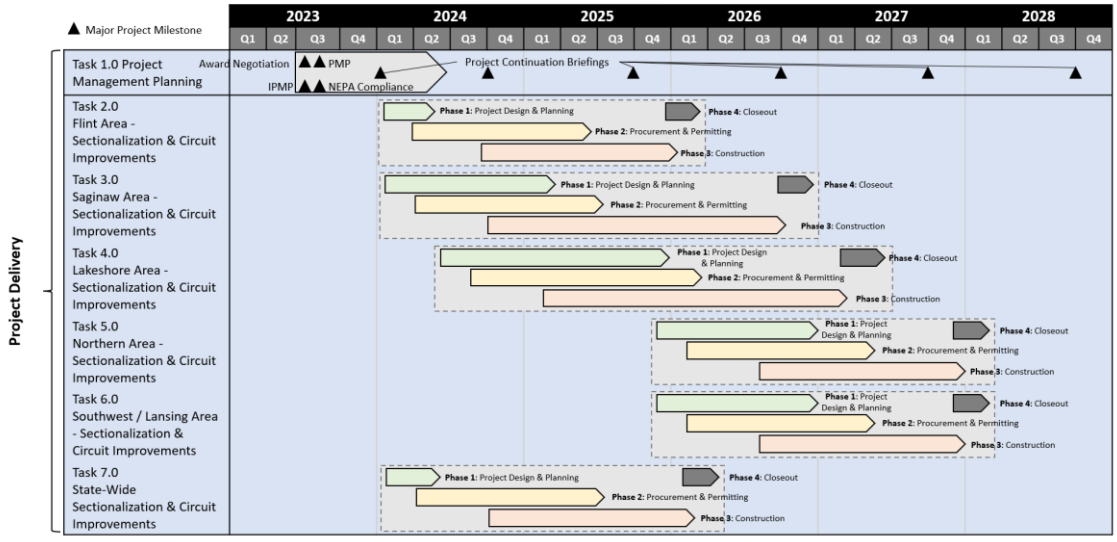


Figure 4: *Overall Project Schedule Gantt Chart*

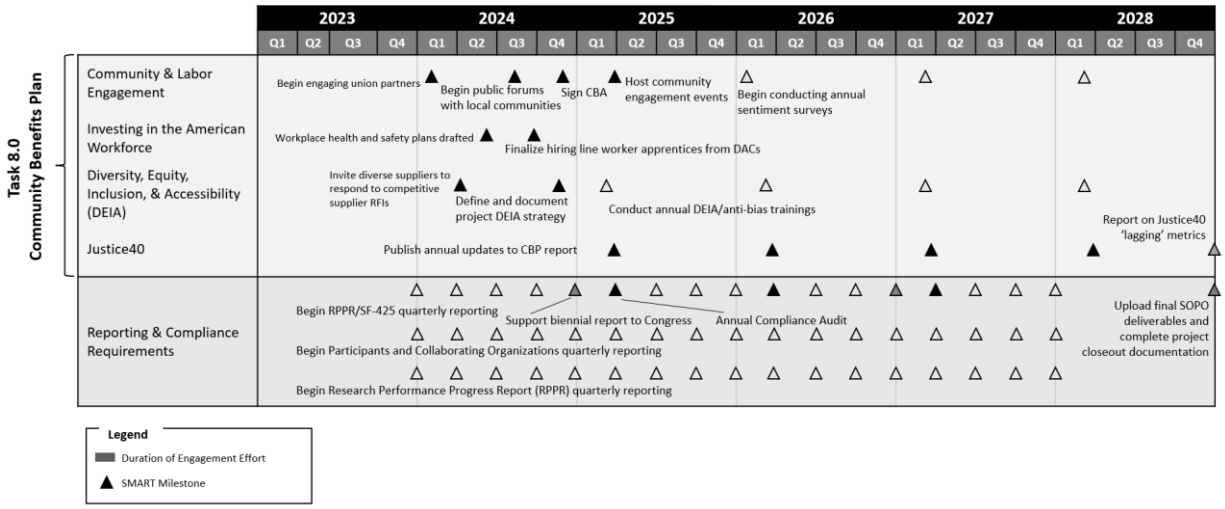


Figure 5: *Community Benefits Plan and Reporting & Compliance Milestones*

A more detailed view of the "Flint Area" and "Statewide Circuit Improvements" workplans are shown below to illustrate more detail behind each sub-task in the Statement of Project Objectives (SOPO).

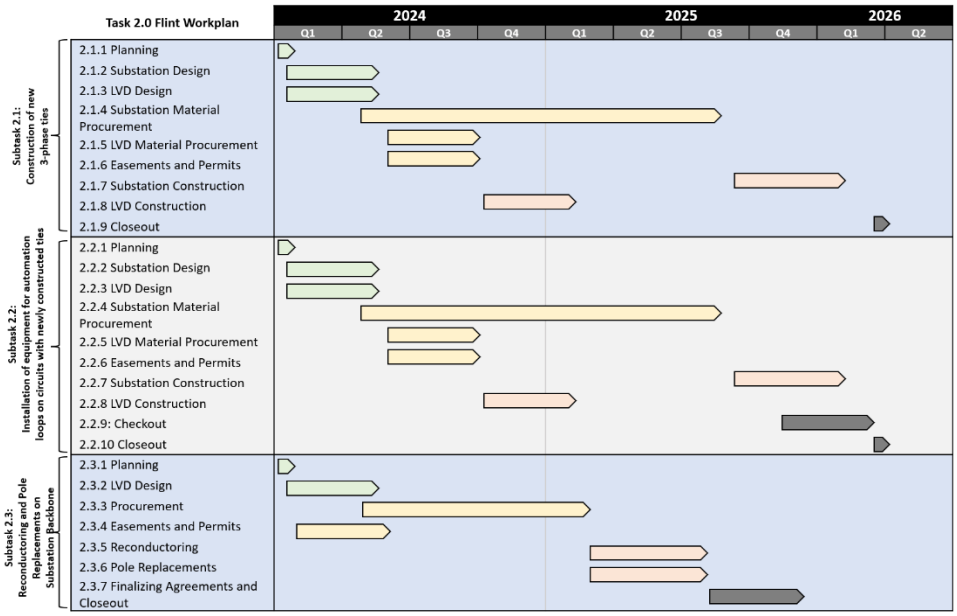


Figure 6: *Detailed view of Flint sectionalization activities and timings*

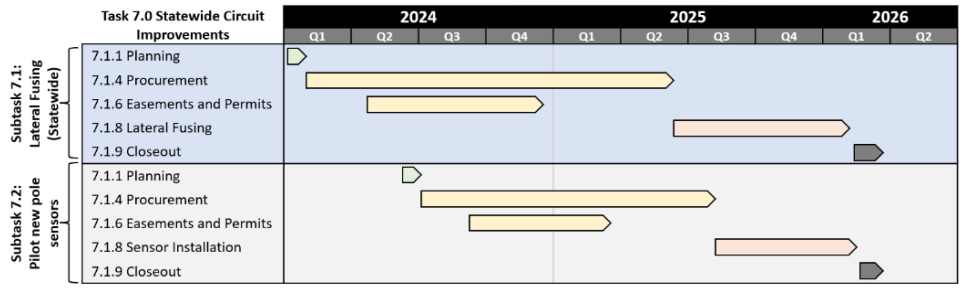


Figure 7: *Statewide Circuit Improvements planned timeline*

Buy America Requirements for Infrastructure Projects

According to page 73 of the GRIP FOA (Section IV.I.vii), for-profit entities like CE are not subject to Buy America requirements. While Buy America provisions are not required for for-profit entities, CE has long-standing relationships with many domestic suppliers and will source materials domestically (with a focus on Michigan-based suppliers) where possible (e.g., poles, conductor) while ensuring that bids are cost competitive.

Project Management

Overall Approach

If awarded grant funding a project manager would be assigned to the project. The project manager would work with the low voltage distribution planning department and work through the established steps of CE's projects.

- Develop a scope and start researching property and easement opportunities.
- Design the project and obtain any necessary permits and easements to complete the work.
- Schedule the construction work. Some community engagement activities will happen prior to CE trucks arriving on-site.
- Utilize UWUA line workers or other union-represented workers for construction.
- UWUA field lab technicians commission the ATR equipment and ensure proper communications with central dispatch.
- Procure all necessary materials.

Project Team Organization & Critical Handoffs Among Project Team Members

The projects to be funded by this grant would follow CE's normal workflow and processes. This standard flow is as follows:

1. **Enterprise Project Management:** The team project manager will oversee this subset of projects and report progress at necessary checkpoints to the DOE.
2. **Low Voltage Distribution Planning:** Circuit planners will develop specific scopes for each circuit and estimate project costs per CE processes.
3. **Low Voltage Distribution Design:** Once in the workplan, designers will draw the projects per CE standards and order materials.
4. **Resource Planning and Scheduling:** Team will evaluate commitments and schedule crews / equipment as required per the project manager's schedule.
5. **Operations:** Crews will construct the workplan.
6. **Geographic Information System and Order Closeout:** Analysts will ensure maps are updated with the new project and orders are charged to appropriate programs.

Two diagrams illustrating the proposed organization chart and workflow are available here:

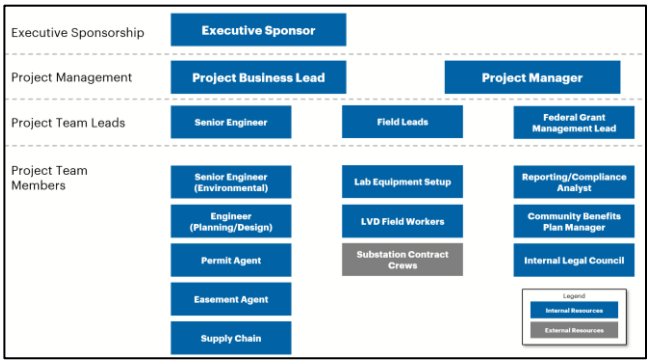


Figure 8: *Proposed project team structure*

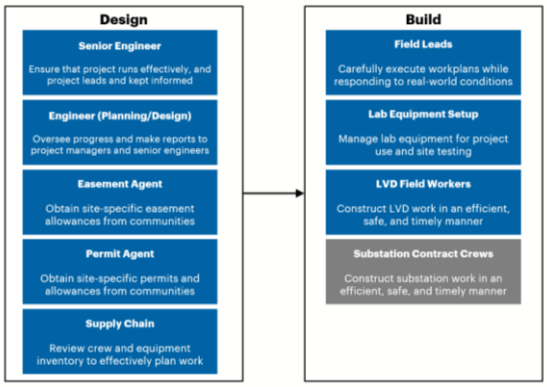


Figure 9: *Proposed project workflow*

Project Team Member Roles & Responsibilities:

Project Role	Project Responsibilities
Project Manager	Maintain oversight over project timelines and deliverables. Manage cross-functional workstreams and meetings
Senior Engineer	Oversee planning, design, and implementation of project scope; oversee risk and issue mitigation
Senior Engineer (Environmental)	Serve as the day-to-day lead for environmental related work and workstreams
Engineer (Planning / Design)	Conduct system planning and design of construction projects
Easement Agent	Reach out to local entities for necessary easement rights and allowances

Project Role	Project Responsibilities
LVD Field Workers	Install grid assets and conduct sectionalization and circuit improvement construction
Lab Equipment Setup	Commission ATR equipment and ensure proper communications with central dispatch
Federal Grant Management Lead	Serve as the project expert on federal grant reporting & compliance requirements and facilitate DOE updates as necessary
Reporting/Compliance Analyst	Work across functions to gather and process all information necessary for reporting / compliance requirements
Community Benefits Plan Manager	Oversee the implementation of all Community Benefits Plan activities including the measurement and tracking of project impacts to communities. Oversee the preparation of regular reports on community benefits.

Permit Agent	Reach out to local entities and arrange for appropriate permits
Supply Chain	Work closely with suppliers and project planners to ensure that material and equipment needs are effectively met

Field Leader	Serve as the site lead for field construction efforts
Internal Legal Counsel	Advise the project oversight team on legal constraints and requirements; draft framework for Community Benefits Agreements in coordination with outside counsel.

Financial, Project Management, and Other Systems & Practices

The team will also employ a rigorous governance structure and project management approach, with appropriate systems and practices to ensure that the project achieves its described goals and outcomes in the time outlined.

- **Cross-Functional Governance:** The team will leverage a cross-functional set of business leaders from across the company to provide strategic guidance and manage risk.
- **Dedicated Project Management Resources:** The organizational team structure has dedicated resources for project management and close budgetary and financial management, leveraging its internal Enterprise Project Management Office (EPMO).
- **Labor Engagement:** The project will leverage an existing Collective Bargaining Agreement with the UWUA to minimize project execution risk and ensure above-prevailing wages and benefits are maintained.
- **Community Engagement:** CE has outlined in the Community Benefits Plan (CBP) and SOPO a multi-pronged approach to solicit feedback from the targeted communities and negotiate CBAs to formalize local support overseen by a dedicated CBP Manager.
- **DOE Engagement:** CE plans to have a dedicated "Federal Grant Management" lead role to serve as the single point of contact for the DOE and help coordinate briefings.
- **Financial Tracking & Auditing:** The project will have a dedicated compliance analyst responsible for implementing compliance obligations and liaising with an independent third party during annual compliance audits.

CE will ensure that work quality is maintained throughout the project lifetime by clearly communicating design requirements and plans to construction teams and field leaders. Project designers are also expected to work closely with construction teams to ensure that designs are feasible and responsive to local working conditions. Additionally, field leaders will be tasked with ensuring quality standards are upheld throughout the construction process.

Change Control & Project Communications

Significant project scope or timeline shifts will be formally requested and approved by the project team's executive sponsors and steering committee, project leadership, and DOE contacts. Change proposals will include (1) the rationale for and scope of the proposed change, (2) the proposed course of action and any alternatives, (3) the implications on timeline and project critical path, (4) the implications on project budget, and (5) any potential risks.

Project team communications will be streamlined with a recurring cadence of update meetings accompanied by a project status report document. Regular meetings will be held with status report materials shared cross-functionally to ensure frequent and clear communication.

- Project Team Standup Meetings (2-3 times weekly)
- Executive Sponsor/Steering Committee Updates (monthly)
- DOE Updates (quarterly or as required by GRIP guidelines)
- Annual Project Continuation Briefings (annual)

Risk Management

The CE EPMO requires rigorous risk management practices for all ongoing projects. The project team will manage a detailed risk register in coordination with the federal Contracting Officer. An initial set of risks is identified below.

Risk	Risk Mitigation Strategy
Cost Recovery: The MPSC may disallow matching funds.	• Engage MPSC early on GRIP application plans. • Include contingent language on IIJA in rate case proceedings and requisite long-term Electric Distribution Infrastructure Investment Plan (EDIIP).
Real Estate Permits & Easements: Landowners may be reluctant to provide necessary easements or permits to support planned work / construction.	• Engage households, businesses, and communities on benefits of proposed investments through planned Community Benefits Plan activities. • Develop backup routes and alt. plans to pay for easements. • Utilize backup projects if landowners are unwilling to provide project access.
Truck Acquisition/Leasing: This project would require significant incremental leasing of resources and trucks. Global supply chain issues may present a challenge to acquiring equipment.	• Create a flexible workplan that can leverage existing contractor resources and vehicles. • Lease trucks early (18-month lead time). • Investigate alternative options for critical path constraints.
Material Acquisition: Global supply chain issues may present a challenge to ATRs, poles, and conductor materials acquisition.	• Pre-order materials ahead of workplan schedule. • Assign Incident Command System (ICS) team to resolve potential roadblocks ahead of intended procurement and construction start.
Resource Limitations: Staffing may be insufficient to support implementation and integration work. Apprentices hired from community college School-to-Work program take 4-5 years to become full line workers and may complete work less efficiently while training as apprentices.	• Develop project plan details that enable better staffing forecasts that incorporate apprentice efficiency levels. • Work with EPMO to improve accuracy of resource estimates. • Continue to reallocate resources as appropriate, escalate risks and impacts through standard communications pathways. • Adjust workplan to support training apprentices.

Technical Qualifications and Resources

Team Qualifications & Expertise:

Team Member	Qualifications & Achievements	Professional Experience
Michael Kelly (Project Business Lead / Point of Contact)	**Education:** BS Mechanical Engineering, MS Mechanical Engineering, MBA Finance **Notable Relevant Qualifications:** **Manager** of Vegetation Management at DTE Energy (2017 – 2018). Executive Director of Electric Distribution Strategy at CE (2022 – 2023)	Mr. Kelly has 14 years of utility work experience. His prior experiences have ranged from roles in financial planning and analysis to vegetation management. Mr. Kelly has more than ten years of experience in utility strategy at DTE Energy and CE. Most recently, Mr. Kelly has been working as the Executive Director of Electric Distribution Strategy at CE. In this role, Mr. Kelly is responsible for the long-term planning, strategy, and finances for the Electric Distribution organization at CE.
Jennifer Partlan (Project Technical Point of Contact / Senior Engineer - System Engineer Lead)	**Education:** MS Engineering Management; BS Electrical Engineering **Notable Relevant Qualifications:** Project Management Professional (PMP) Certified since 2016	Ms. Partlan's prior experience includes procedure and work methods writing and updating, field construction manager, running contract crews working on large substation projects including upgrades to equipment, building new substations, and updating substations with Distribution Supervisory Control and Data Acquisition (DSCADA) equipment. Most recently Ms. Partlan has worked as the System Engineering Lead to Circuit Planners for the Low Voltage Distribution system for the last 5 years. Coaching her team with planning projects to ensure a reliable, robust service to the customers in the Grand Rapids, Big Rapids, and Greenville areas of Michigan.
Monica Humbad (Engineer – Planning / Design)	**Education**: BS in Electrical Engineering; Certificate in Electric Power Engineer (CEPE) **Notable Relevant Qualifications**: Statewide Planner for low voltage distribution automation at CE (2021-present); Generation design engineer at DTE Energy (2010-2012)	Ms. Humbad has 7 years of experience in electrical engineering. Her work experience includes designing Lithium-Ion batteries for hybrid vehicles and troubleshooting and designing electrical equipment in power plants. Most recently, Ms. Humbad has been working as a system wide planner of distribution automation loops at CE. In this role, Ms. Humbad identifies and evaluates the best locations for automatic transfer reclosers based on cost and benefit analysis, to improve reliability throughout the State of Michigan.
Tony Smith (Project Manager)	**Education:** MS Administration, BS Mechanical Engineering **Notable Relevant Qualifications:** Project Management Professional (PMP) Certified since 2020, Certified Energy Manager since 2020, Consumers Energy Lean Practitioner Certificate	Mr. Smith has over 7 years of experience with Consumers Energy. His experience includes leading the project management team for Low Voltage Distribution (LVD) automation projects including Automatic Throw Recloser (ATR) installations which automatically re-energize customers when a fault is detected. His project management experience has involved detailed project planning and execution as well as performance tracking, problem solving and process improvement solutions. Mr. Smith also served as an Energy Management Engineer for Commercial and Industrial customers consulting and developing energy efficient solutions as well as a Senior Quality Analyst where he developed lean solutions and methodologies for projects. Mr. Smith also has significant experience as an automotive design engineer with several supply and original equipment manufacturing automotive companies.

Existing Equipment & Facilities:

All work included in this proposal is fully within the geographic scope of previous projects, so it will be able to leverage much of CE's existing equipment and facilities. There are local service centers throughout the state that this project will have available for use. For scope items beyond the current workplan, resources and equipment will be obtained or leased as outlined in the "Risk Management" section above and in the "Budget Justification Workbook."

Previous Work Efforts & Demonstrated Innovations:

The scope of work for this proposal is an expansion and acceleration of work CE is already doing with a specific focus on DACs. CE's current focus for automation and load transfers is on circuits that already have 3-phase tie connections. The grant funding will help CE accelerate this long term workplan and focus efforts on creating ties on the circuits in disadvantaged areas sooner, additionally adding equipment for automation loops.

CE Past Project Examples:

The project examples below showcase CE's ability to implement the scope of work outlined in this grant application in addition to its history of partnership with union partners (e.g., UWUA).

CE Project Title	Project Description
Install Manual Switches for Operational Switching Between circuits	Added tie switches and isolation switches on circuits to allow for manual Isolate, Restore, Repair (IRR) capabilities. This allows crews to manually isolate faults, re-energize customers from another source, and safely make repairs before switching the system back to normal.
Install Automation Between 2 Circuits (Meadowbrooke and Caledonia)	This Distribution Automation project reconductored some line to address capacity concerns during automation transfers due to a fault, and installed the necessary ATR to handle the automation and automatically re-energize customers when a fault is detected by one of the ATRs.
Install Automation Between 2 Circuits (Beals Road and Doehler Jarvis)	This Distribution Automation project installed poles and the necessary ATR to automatically re-energize customers when a fault is detected by one of the ATRs. This project was constructed by the UWUA union workforce.
Reconductor Open Wire to Tree Wires in a Heavily Treed Area	Reconductored open wire to tree wire in a wooded area with many tree-related outages. This project reconductored the line to insulated tree wire to minimize tree related faults caused by trees falling onto the wire. Additionally, protective coating was added to reduce the number of faults to ground through the tree. This project was constructed by CE UWUA union workforce.

Time Commitment to Support Project:

Project Member	Role	% Project Allocation	Time Supporting Project
Michael Kelly	Project Business Lead	20%	2024 – 2028
Jennifer Partlan	Senior Engineer	50%	2024 – 2028
Monica Humbad	Engineer (Planning / Design)	100%	2024 – 2028
Tony Smith	Project Manager	100%	2024 – 2028

Technical Services to be Provided by DOE/NNSA FFRDCs:

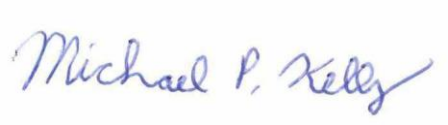
CE is not partnering with any FFRDCs as part of this project.

SECTIONALIZATION & CIRCUIT IMPROVEMENTS TO MITIGATE OUTAGE IMPACTS FOR DISADVANTAGED COMMUNITIES – BUY AMERICA WAIVER

Applicant Name: Consumers Energy

Unique Entity Identifier: MJLAKT69Z3J5

Waiver Justification: As detailed in Appendix C of DE-FOA-0002740, the Buy America requirements of the BIL "do not apply to DOE projects in which the prime recipient is a for-profit entity." Being a for-profit entity, Consumers Energy is exempt from these requirements but will engage in a good-faith effort to source materials domestically where possible.



Michael Kelly
Executive Director – Electric Distribution Strategy
Consumers Energy

Instructions and Summary

Award Number: DE-FOA-0002740
Award Recipient: Consumers Energy

Date of Submission: 6-Apr-23
Form submitted by: Mike Kelly (AOR)
(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!
Do not modify this template or any cells for formulas!

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.
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, contractors, 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 and 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 24 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

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

Section A - Budget Summary

	Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
Budget Period 1	$22,200,749	$22,297,031			$44,497,780	50.11%	01/01/2024 - 12/31/2024
Budget Period 2	$28,395,697	$28,497,568			$56,893,265	50.09%	01/01/2025 - 12/31/2025
Budget Period 3	$25,390,225	$25,425,883			$50,816,108	50.04%	01/01/2026 - 12/31/2026
Budget Period 4	$12,460,988	$12,498,567			$24,959,555	50.08%	01/01/2027 - 12/31/2027
Budget Period 5	$11,552,340	$11,591,947			$23,144,287	50.09%	01/01/2028 - 12/31/2028
Total	$100,000,000	$100,310,996			$200,310,996	50.08%	

Section B - Budget Categories

CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	**Comments** (as needed)
a. Personnel	$9,336,874	$9,659,772	$6,708,533	$5,056,185	$3,902,430	$34,663,794	17.30%	
b. Fringe Benefits	$2,520,956	$2,608,138	$1,811,304	$1,365,170	$1,053,656	$9,359,224	4.67%	
c. Travel	$0	$0	$0	$0	$0	$0	0.00%	
d. Equipment	$32,473,200	$42,452,855	$39,436,272	$18,288,200	$18,088,200	$150,738,727	75.25%	
e. Supplies	$1,750	$0	$0	$0	$0	$1,750	0.00%	
f. Contractual								
Sub-recipient	$0	$0	$0	$0	$0	$0	0.00%	
Contractor	$0	$0	$0	$0	$0	$0	0.00%	
FFRDC	$0	$0	$0	$0	$0	$0	0.00%	
Total Contractual	$0	$0	$0	$0	$0	$0	0.00%	
g. Construction	$0	$2,050,000	$2,760,000	$150,000	$0	$4,960,000	2.48%	
h. Other Direct Costs	$165,000	$122,500	$100,000	$100,000	$100,000	$587,500	0.29%	
Total Direct Costs	$44,497,780	$56,893,265	$50,816,108	$24,959,555	$23,144,287	$200,310,996	100.00%	
i. Indirect Charges	$0	$0	$0	$0	$0	$0	0.00%	
Total Costs	$44,497,780	$56,893,265	$50,816,108	$24,959,555	$23,144,287	$200,310,996	100.00%	

Additional Explanation (as needed):

a. Personnel

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

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Hourly Rate ($/Hr)	Total Budget Period 1	Time (Hrs)	Hourly Rate ($/Hr)	Total Budget Period 2	Time (Hrs)	Hourly Rate ($/Hr)	Total Budget Period 3	Time (Hrs)	Hourly Rate ($/Hr)	Total Budget Period 4	Time (Hrs)	Hourly Rate ($/Hr)	Total Budget Period 5			
1-8	Project Manager	2000	$80.44	$160,880	2000	$84.78	$169,560	2000	$89.36	$178,720	2000	$94.19	$188,380	2000	$99.27	$198,540	10000	$896,080	Pay Rate ($/Hr) = Average Salary (including merit and inflation
1-8	Sr Engineer (Environmental)	40	$70.43	$2,817	40	$74.24	$2,970	40	$78.25	$3,130	40	$82.47	$3,299	0	$86.93	$0	160	$12,216	Pay Rate ($/Hr) = Average Salary (including merit and inflation
1-7	Sr Engineer	1000	$76.98	$76,980	1000	$81.13	$81,130	1000	$85.51	$85,510	1000	$90.13	$90,130	1000	$95.00	$95,000	5000	$428,750	Included in project costs; Pay Rate ($/HR) = Average Salary (including merit
1-7	Engineer (planning/design) (10)	20000	$54.99	$1,099,800	20000	$57.96	$1,159,200	20000	$61.09	$1,221,800	20000	$64.39	$1,287,800	10000	$67.87	$678,700	90000	$5,447,300	Included in project costs; Pay Rate ($/HR) = Average Salary (including merit
1-7	Easement Agent	2000	$59.28	$118,560	1000	$62.48	$62,480	500	$65.85	$32,925	250	$69.41	$17,353	0	$73.16	$0	3750	$231,318	Included in project costs; Pay Rate ($/HR) = Average Salary (including merit
1-7	Permit Agent	200	$62.26	$12,452	200	$65.62	$13,124	200	$69.16	$13,832	200	$72.90	$14,580	40	$76.83	$3,073	840	$57,061	Included in project costs; Pay Rate ($/HR) = Average Salary (including merit
1-7	Supply Chain	80	$62.67	$5,014	80	$66.05	$5,284	80	$69.62	$5,570	80	$73.38	$5,870	40	$77.34	$3,094	360	$24,831	Included in project costs; Pay Rate ($/HR) = Average Salary (including merit
2-7	LVD Field Worker (66)	125400	$55.81	$6,998,574	125400	$58.82	$7,376,028	70000	$62.00	$4,340,000	40000	$65.35	$2,614,000	30000	$68.87	$2,066,100	390800	$23,394,702	Included in project costs; Pay Rate ($/HR) = Average Salary (including merit
2-7	Lab Equipment Setup	1120	$65.71	$73,595	1440	$69.26	$99,734	1440	$73.00	$105,120	960	$76.94	$73,862	640	$81.10	$51,904	5600	$404,216	Included in project costs; Pay Rate ($/HR) = Average Salary (including merit
1-8	Federal Grant Management Lead	2080	$63.66	$132,413	2080	$67.10	$139,568	2080	$70.72	$147,098	2080	$74.54	$155,043	2080	$78.56	$163,405	10400	$737,526	Pay Rate ($/Hr) = Average Salary (including merit and inflation
1-8	Reporting/Compliance Analyst	2080	$66.68	$138,694	2080	$70.28	$146,182	2080	$74.07	$154,066	2080	$78.07	$162,386	2080	$82.29	$171,163	10400	$772,491	Pay Rate ($/Hr) = Average Salary (including merit and inflation
8	Community Benefits Plan Manager	2080	$82.26	$171,101	520	$86.71	$45,089	520	$91.39	$47,523	520	$96.32	$50,086	520	$101.53	$52,796	4160	$366,595	Pay Rate ($/Hr) = Average Salary (including merit and inflation
2-7	Field Leaders (supervison) (3)	4000	$73.00	$292,000	4000	$76.95	$307,800	4000	$81.10	$324,400	4000	$85.48	$341,920	4000	$91.10	$364,400	20000	$1,630,520	Included in project costs; Pay Rate ($/HR) = Average Salary (including merit
1-8	Internal Legal Counsel	80	$125.38	$10,030	40	$132.15	$5,286	0	$139.28	$0	0	$146.81	$0	0	$154.73	$0	120	$15,316	Pay Rate ($/Hr) = Average Salary (including merit and inflation
1-8	Project Business Lead	400	$109.91	$43,964	400	$115.84	$46,336	400	$122.10	$48,840	400	$128.69	$51,476	400	$135.64	$54,256	2000	$244,872	Included in project costs; Pay Rate ($/HR) = Average Salary (including merit
				$0			$0			$0			$0			$0	0	$0	
				$0			$0			$0			$0			$0	0	$0	
				$0			$0			$0			$0			$0	0	$0	
				$0			$0			$0			$0			$0	0	$0	
				$0			$0			$0			$0			$0	0	$0	
				$0			$0			$0			$0			$0	0	$0	
				$0			$0			$0			$0			$0	0	$0	
				$0			$0			$0			$0			$0	0	$0	
	Total Personnel Costs	**162560**		**$9,336,874**	**160280**		**$9,659,772**	**104340**		**$6,708,533**	**73610**		**$5,056,185**	**52800**		**$3,902,430**	**553590**	**$34,663,794**	

Additional Explanation (as needed): The rates listed are "unloaded" labor rates that only reflect salary in addition to modest merit and inflation increases over time. The rates are exclusive of fringe benefitsm which are included on tab b.

Note - internal legal counsel is required for the establishment of Community Benefits Agreements.

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	
Personnel Fringe Benefits	9,336,874	27.00%	$2,520,956	9,659,772	27.00%	$2,608,138	6,708,533	27.00%	$1,811,304	5,056,185	27.00%	$1,365,170	3,902,430	27.00%	$1,053,656	$9,359,224
			$0			$0			$0			$0			$0	$0
			$0			$0			$0			$0			$0	$0
			$0			$0			$0			$0			$0	$0
			$0			$0			$0			$0			$0	$0
Total:	**$9,336,874**		**$2,520,956**	**$9,659,772**		**$2,608,138**	**$6,708,533**		**$1,811,304**	**$5,056,185**		**$1,365,170**	**$3,902,430**		**$1,053,656**	**$9,359,224**

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

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

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

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

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at https://www.energy.gov/eere/funding/downloads/sample-indirect-rate-proposal-and-profit-compliance-audit, 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.

In order to calculate the fringe benefit percentage, Consumers energy consider all forms of fringe benefits available to employees: DCCP, 401K savings plan, Active Life Insurance, Active Health Insurance, Pension, Other Post-Employement Benefits (OPEB) and other miscellanous benefits. The 27% fringe benefit rate is relatively consistent across resources that will be utilized on this project.

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. Only travel that is directly associated with this award should be included as a direct travel cost to the award.

4. Federal travel regulations are contained within the applicable cost principles for all entity types.

5. 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.

6. Columns E, F, G, H, I, J, and K are per trip.

7. The number of days is inclusive of the day of departure and the day of return.

8. Recipients should enter City and State (or City and Country for International travel) in the Depart from and Destination fields.

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

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

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

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

2. List all equipment below, providing a basis of cost (e.g. contractor 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 contractor quote for all equipment items over $50,000 in price. If the contractor quote is not an exact price match, provide an explanation in the additional explanation section below. If a contractor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.

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

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
2-7	Bucket Truck	11	$100,600.00	$1,106,600	Lease $5,800/mo, $31,000 maintenance and fuel/yr	Bucket truck required for setting new poles and pole top connections.
2-7	Pickup Truck	11	$18,000.00	$198,000	Lease, $1,500 per month, no maintenance or fuel included	Crew truck
2-7	Digger Derrick	11	$84,600.00	$930,600	Lease $5,800/mo, $15,000 maintenance and fuel/yr	Digger Derrrick is required to drill hole and set pole.
2-7	Pole Trailer	11	$6,000.00	$66,000	Historical Fleet Average	Pole trailer required to move poles to necessary locations.
2-7	Tensioner Trailer	2	$6,000.00	$12,000	Historical Fleet Average	Tensioner Trailer is used to hold conductor and pull conductor to proper tension through multiple spans.
7	Fusing Statewide 2024	1	$10,000,000	$10,000,000	Historical estimate, 3,693 locations	Material for projects, fuses, cutout, jumpers, crossarms, insulators
2	Flint reconductoring and building ties	1	$15,160,000	$15,160,000	Historical estimate	Reconductoring 100 miles and creating 7 ties
2	Flint ATR Installation	1	$5,000,000	$5,000,000	Historical estimate	Estimates based on number of ATRs added for automation per tie for 7 ties, Material will be ordered in budget period 1, constructed in budget period 2. Implement 35 automation loops
				$0		
	Budget Period 1 Total			$32,473,200		
Budget Period 2						
2-7	Bucket Truck	11	$100,600.00	$1,106,600	Lease $5,800/mo, $31,000 maintenance and fuel/yr	Bucket truck required for setting new poles and pole top connections.
2-7	Pickup Truck	11	$18,000.00	$198,000	Lease, $1,500 per month, no maintenance or fuel included	Crew truck
2-7	Digger Derrick	11	$84,600.00	$930,600	Lease $5,800/mo, $15,000 maintenance and fuel/yr	Digger Derrrick is required to drill hole and set pole.
2-7	Pole Trailer	11	$6,000.00	$66,000	Historical Fleet Average	Pole trailer required to move poles to necessary locations.
2-7	Tensioner Trailer	2	$6,000.00	$12,000	Historical Fleet Average	Tensioner Trailer is used to hold conductor and pull conductor to proper tension through multiple spans.
7	Fusing Statewide 2025	1	$9,550,000	$9,550,000	Historical estimate 3,417 locations	Material for projects, fuses, cutout, jumpers, crossarms, insulators
3	Saginaw reconductoring and building ties	1	$18,850,000	$18,850,000	Historical estimate	Reconductoring 125 miles can creating 6 ties
3	Saginaw ATR Installation	1	$10,039,655	$10,039,655	Historical estimate	Estimates based on number of ATRs added for automation per tie for 6 ties. Material ordered in budget period 2, constructed in budget period 3. Implement 35 automation loops.
7	Pole Sensor Pilot	1	$500,000	$500,000	Estimated, evaluating, installing sensors on up to 3 circuits	Research, evaulate, scope, and install pole sensors as a pilot program.
2	Substation Transformers	2	$600,000	$1,200,000	Historical estimate	Transformers for Calkins and Boman Substations, ordered in budget period 1, received and paid for in budget period 2
	Budget Period 2 Total		pot	$42,452,855		
Budget Period 3						
2-7	Bucket Truck	11	$100,600.00	$1,106,600	Lease $5,800/mo, $31,000 maintenance and fuel/yr	Bucket truck required for setting new poles and pole top connections.
2-7	Pickup Truck	11	$18,000.00	$198,000	Lease, $1,500 per month, no maintenance or fuel included	Crew truck
2-7	Digger Derrick	11	$84,600.00	$930,600	Lease $5,800/mo, $15,000 maintenance and fuel/yr	Digger Derrrick is required to drill hole and set pole.
2-7	Pole Trailer	11	$6,000.00	$66,000	Historical Fleet Average	Pole trailer required to move poles to necessary locations.
2-7	Tensioner Trailer	2	$6,000.00	$12,000	Historical Fleet Average	Tensioner Trailer is used to hold conductor and pull conductor to proper tension through multiple spans.
4	Central Michigan reconductoring ties and building ties	1	$19,650,000	$19,650,000	Historical estimate	Reconductoring 130 miles per tie for 8 ties, plus building for 8 ties.
4	Central Michigan ATR Installation	1	$16,873,072	$16,873,072	Historical estimate	Estimates based on number of ATRs added for automation per tie for 8 ties. Material ordered in budget period 3, constructed in budget period 3 and 4. Implement 35 automation loops.
3	Substation Transformers	1	$600,000	$600,000	Historical estimate	Transformers for Whittmore Substations, ordered in budget period 2, received and paid for in budget period 3
	Budget Period 3 Total			$39,436,272		
Budget Period 4						
2-7	Bucket Truck	11	$100,600.00	$1,106,600	Lease $5,800/mo, $31,000 maintenance and fuel/yr	Bucket truck required for setting new poles and pole top connections.
2-7	Pickup Truck	11	$18,000.00	$198,000	Lease, $1,500 per month, no maintenance or fuel included	Crew truck
2-7	Digger Derrick	11	$84,600.00	$930,600	Lease $5,800/mo, $15,000 maintenance and fuel/yr	Digger Derrrick is required to drill hole and set pole.
2-7	Pole Trailer	11	$6,000.00	$66,000	Historical Fleet Average	Pole trailer required to move poles to necessary locations.
2-7	Tensioner Trailer	2	$6,000.00	$12,000	Historical Fleet Average	Tensioner Trailer is used to hold conductor and pull conductor to proper tension through multiple spans.
5	Northern reconductoring and building ties	1	$11,375,000	$11,375,000	Historical estimate	Reconductoring 80 miles and create 4 ties.
5	Northern ATR Installation	1	$4,600,000	$4,600,000	Historical estimate	Estimates based on number of ATRs added for automation per tie for 4 ties. Material ordered in budget period 4, constructed in budget period 4 and 5. Implement 35 automation loops.
				$0		
	Budget Period 4 Total			$18,288,200		
Budget Period 5						
2-7	Bucket Truck	11	$100,600.00	$1,106,600	Lease $5,800/mo, $31,000 maintenance and fuel/yr	Bucket truck required for setting new poles and pole top connections.
2-7	Pickup Truck	11	$18,000.00	$198,000	Lease, $1,500 per month, no maintenance or fuel included	Crew truck
2-7	Digger Derrick	11	$84,600.00	$930,600	Lease $5,800/mo, $15,000 maintenance and fuel/yr	Digger Derrrick is required to drill hole and set pole.
2-7	Pole Trailer	11	$6,000.00	$66,000	Historical Fleet Average	Pole trailer required to move poles to necessary locations.
2-7	Tensioner Trailer	2	$6,000.00	$12,000	Historical Fleet Average	Tensioner Trailer is used to hold conductor and pull conductor to proper tension through multiple spans.
6	Southwest/Lansing Area Reconductoring and building ties	1	$11,375,000	$11,375,000	Historical estimate	Reconductoring 80 miles and create 3 ties.
6	Southwest/Lansing Area ATR Installation	1	$4,400,000	$4,400,000	Historical estimate	Estimates based on number of ATRs added for automation per tie for 3 ties. Material ordered in budget period 4, constructed in budget period 4 and 5. Implement 35 automation loops.
				$0		
	Budget Period 5 Total			$18,088,200		
	TOTAL EQUIPMENT			**$150,738,727**		

Additional Explanation (as needed): For outer years of this project overall estimates were are based on historical estimates and will be distributed amongst the other line items during the scoping phase for those projects.

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. contractor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.

3. Multiple supply items valued at $5,000 or less used to assemble an equipment item with a value greater than $5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.

4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

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

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
4,6	**EXAMPLE!!!** Wireless DAS components	10	$360.00	$3,600	Catalog price	For Alpha prototype - Task 2.4
8	Printing Materials for Community Communications	5	$100.00	$500	Newsletters, flyers, mail	Community outreach materials; assumes five commmunities for outreach
8	Public Forum Presentation Materials	5	$250.00	$1,250	Poster prints, flyers	Communication materials needed to facilitate public forums; assumes five commmunities for outreach
				$0		
				$0		
				$0		
				$0		
				$0		
	Budget Period 1 Total			**$1,750**		
Budget Period 2						
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
	Budget Period 2 Total			$0		
Budget Period 3						
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
	Budget Period 3 Total			$0		
Budget Period 4						
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
	Budget Period 4 Total			$0		
Budget Period 5						
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
				$0		
	Budget Period 5 Total			$0		
	TOTAL SUPPLIES			**$1,750**		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to sub-recipients, contractors, and FFRDC partners in the applicable boxes below.

2. Sub-recipients (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) 25% of total award costs. These sub-recipient forms may be completed by either the sub-recipients themselves or by the preparer of this form. The budget totals on the sub-recipient's forms must match the sub-recipient 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. contractor status.

3. Contractors: List all contractors supplying commercial supplies or services used to support the project. For each Contractor cost with total project costs of $100,000 or more, a Contractor quote must be provided. A contractor 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.contractor 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	Sub-Recipient Unique Entity Identifier (UEI)	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2,4	**EXAMPLE!!!** XYZ Corp.		Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	$48,000	$32,000	$16,000			**$96,000**
									$0
									$0
									$0
									$0
									$0
									$0
			Sub-total	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

SOPO Task #	Contractor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
6	**EXAMPLE!!!** ABC Corp.	Contractor for developing robotics to perform lens inspection. Estimate provided by contractor.	$32,900	$86,500				**$119,400**
								$0
								$0
								$0
								$0
								$0
		Sub-total	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

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

Total Contractual	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Additional Explanation (as needed):

g. Construction

PLEASE READ!!!
1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a contractor 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: This project will involve the construction and installation of lateral fuses, phase and line extensions and reconductoring to prepare circuits for automation loops, addition of Automatic Transfer Recloser (ATR) devices to automate power re-routing, pole hardening, and the installation of pole-top sensor technology thorughout the state of Michigan. This work is organized across the five main areas of the Consumers Energy service territory and aligned with the Statement of Project Objectives (SOPO) tasks.

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	$28,000	Engineering estimate	Site must be prepared for construction of platform.
	Budget Period 1 Total	$0		
Budget Period 2				
2	Flint Area Substation Upgrades	$2,050,000	Estimate, lump sum bid, includes, material, construction, labor	Upgrade transformer at Calkins and Boman substations, upgrade regulators and structure for Webster and Gilkey Creek substations
	Budget Period 2 Total	$2,050,000		
Budget Period 3				
3	Saginaw Area Substation Upgrades	$2,100,000	Estimate, lump sum bid, includes, material, construction, labor	Upgrade transformer at Whittmore substation and add 2 circuits to break up load.
4	Lakeshore Area Substation Upgrades	$660,000	Estimate, lump sum bid, includes, material, construction, labor	Upgrade substation regulators at McCracken substation and regulators and structure at Freeland substation
	Budget Period 3 Total	$2,760,000		
Budget Period 4				
5	Northern Area Substation Upgrades	$150,000	Estimate, lump sum bid, includes, material, construction, labor	Upgrade regulators at Deer Lake substation to accommodate load transfers.
	Budget Period 4 Total	$150,000		
Budget Period 5				
	Budget Period 5 Total	$0		
	TOTAL CONSTRUCTION	**$4,960,000**		

Additional Explanation (as needed): For outer years of this project overall estimates were are based on historical estimates and will be distributed amongst the other line items during the scoping phase for those projects.

h. Other Direct Costs

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

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
	Budget Period 1			
5	**EXAMPLE!!!** Grad student tuition - tasks 1-3	$16,000	Established UCD costs	Support of graduate students working on project
8	External Legal Counsel	$5,000	Legal costs for drafting reusable community benefits agreement framework and terms	Support creating CBA template to be used across different communities.
8	Project web page/social media - develop a web page and/or social media presence to provide ongoing information, updates on the project, and tracked metrics	$60,000	Website development/hosting costs	Website to receive community input/feedback and publish updates on progress against project delivery and CBP goals, and Justice40 metrics
N/A	Annual Independent Audit	$100,000	Established outsourced audit function costs	Annual compliance audit required for for-profit entity expending more than $750,000 of DOE award during fiscal year; based on estimate from existing audit vendor
	Budget Period 1 Total	$165,000		
	Budget Period 2			
N/A	Annual Independent Audit	$100,000	Established outsourced audit function costs	Annual compliance audit required for for-profit entity expending more than $750,000 of DOE award during fiscal year; based on estimate from existing audit vendor
8	Host community engagement events to raise awareness of project benefits and seek community feedback	$22,500	Permitting, concessions, labor/setup, supplies	Assumes $7,500 for materials, permitting, marketing, and refreshments for the community meeting; Assumes three community engagement events.
	Budget Period 2 Total	$122,500		
	Budget Period 3			
N/A	Annual Independent Audit	$100,000	Established outsourced audit function costs	Annual compliance audit required for for-profit entity expending more than $750,000 of DOE award during fiscal year; based on estimate from existing audit vendor
	Budget Period 3 Total	$100,000		
	Budget Period 4			
N/A	Annual Independent Audit	$100,000	Established outsourced audit function costs	Annual compliance audit required for for-profit entity expending more than $750,000 of DOE award during fiscal year; based on estimate from existing audit vendor
	Budget Period 4 Total	$100,000		
	Budget Period 5			
N/A	Annual Independent Audit	$100,000	Established outsourced audit function costs	Annual compliance audit required for for-profit entity expending more than $750,000 of DOE award during fiscal year
	Budget Period 5 Total	$100,000		
	TOTAL OTHER DIRECT COSTS	**$587,500**		

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 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. NOTE: A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim resulting cost as a Cost Share contribution, nor can the Recipient claim "unrecovered indirect costs" as a Cost Share contribution**. Neither of these costs can be reflected as actual indirect cost rates realized by the orgnaization, and therefore are not verifiable in the Recipient records as required by Federal Regulation (200.306(b)(1))
5.. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	0.00%	0.00%	0.00%	0.00%	0.00%		*Example: Labor + Fringe*
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%		
Indirect Costs (As Applicable):							
Overhead Costs						**$0**	
G&A Costs						**$0**	
FCCM Costs, if applicable						**$0**	
OTHER Indirect Costs						**$0**	
Total indirect costs requested:	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	

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.
___X___ The organization does not have a current, federally approved indirect cost rate agreement and has provided an indirect rate proposal in support of the proposed costs.
_____ This organization has elected to apply a 10% de minimis rate in accordance with 2 CFR 200.414(f).

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).

Consumers Energy does not currently have an indirect rate agreement. CE plans to discuss with the Department of Energy if selected for award negotiations.

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. **Contractors may not provide cost share.** 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. **Contractors 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 **EXAMPLE!!!**	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of $680 per module	$13,600					**$13,600**
Consumers Energy	Cash	a. Personnel	$4,722,513	$4,887,076	$3,378,687	$2,553,831	$1,978,343	**$17,520,450**
Consumers Energy	Cash	b. Fringe	$1,254,543	$1,297,814	$899,060	$675,636	$519,504	**$4,646,557**
Consumers Energy	Cash	c. Travel	$0	$0	$0	$0	$0	**$0**
Consumers Energy	Cash	d. Equipment	$16,236,600	$21,226,428	$19,718,136	$9,144,100	$9,044,100	**$75,369,364**
Consumers Energy	Cash	e. Supplies	$875	$0	$0	$0	$0	**$875**
Consumers Energy	Cash	f. Contractual	$0	$0	$0	$0	$0	**$0**
Consumers Energy	Cash	g. Construction	$0	$1,025,000	$1,380,000	$75,000	$0	**$2,480,000**
Consumers Energy	Cash	h. Other	$82,500	$61,250	$50,000	$50,000	$50,000	**$293,750**
								$0
								$0
		TOTAL COST SHARE	**$22,297,031**	**$28,497,568**	**$25,425,883**	**$12,498,567**	**$11,591,947**	**$100,310,996**

Total Project Cost: $200,310,996 **Cost Share Percent of Award: 50.1%**

Additional Explanation (as needed): Consumers Energy Develops their workplan 2 years in advance in preperation for rate case. In 2023 the workplan for 2025 is being developed. The values listed here are a portion of the reliaibility spend from the Long Term Financial Plan which will be reflected in the next EDIIP (Electric Distribution Infrastructure Investment Plan) being writen now to be filed with the MPSC soon. These values include budget for Reliability spend, Repetivie Outage, and Rehabilitation, all programs that roll into resiliency efforts on the LVD system.

Applicant Name: Consumers Energy Award Number: DE-FOA-0002740

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		Total (g)
1. Budget Period 1				$22,200,749	$22,297,031		$44,497,780
2. Budget Period 2				$28,395,697	$28,497,568		$56,893,265
3. Budget Period 3				$25,390,225	$25,425,883		$50,816,108
4. Budget Period 4				$12,460,988	$12,498,567		$24,959,555
5. Budget Period 5				$11,552,340	$11,591,947		$23,144,287
6. Totals				$100,000,000	$100,310,996		$200,310,995

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity					Total (5)
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	
a. Personnel	$9,336,874	$9,659,772	$6,708,533	$5,056,185	$3,902,430	$34,663,794
b. Fringe Benefits	$2,520,956	$2,608,138	$1,811,304	$1,365,170	$1,053,656	$9,359,224
c. Travel	$0	$0	$0	$0	$0	$0
d. Equipment	$32,473,200	$42,452,855	$39,436,272	$18,288,200	$18,088,200	$150,738,727
e. Supplies	$1,750	$0	$0	$0	$0	$1,750
f. Contractual	$0	$0	$0	$0	$0	$0
g. Construction	$0	$2,050,000	$2,760,000	$150,000	$0	$4,960,000
h. Other	$165,000	$122,500	$100,000	$100,000	$100,000	$587,500
i. Total Direct Charges (sum of 6a-6h)	$44,497,780	$56,893,265	$50,816,108	$24,959,555	$23,144,287	$200,310,996
j. Indirect Charges	$0	$0	$0	$0	$0	$0
k. **Totals** (sum of 6i-6j)	$44,497,780	$56,893,265	$50,816,108	$24,959,555	$23,144,287	$200,310,996
7. Program Income						$0

Community Benefits Plan: Job Quality & Equity

Equity for all communities has been thoughtfully integrated throughout the design of this investment, as it will provide state-wide grid investments and the targeted deployment of automation loops in areas with higher proportions of federally designated Disadvantaged Community (DAC) census tracts including Genesee County (Flint/Flushing), Muskegon County, Clare County, and many others. Overall, this work will (1) support reliable and resilient grid power for DACs, (2) promote energy affordability through-long term O&M cost optimizations, and (3) catalyze workforce and economic development.

Section I. Community & Labor Engagement

Community Engagement

Throughout the planning, implementation, and deployment process of the project, Consumers Energy (CE) is committed to (1) listening and incorporating feedback from the workers, communities, local governments and tribal entities about key priorities and concerns, (2) educating them about the benefits of this investment, (3) creating and sustaining quality, union-represented line worker jobs, and (4) maximizing the net benefits of this investment while minimizing negative impacts.

History of Community Engagement:

CE has a long-standing history of community engagement. CE prides itself on its World Class Performance Delivering Hometown Service for families, businesses, and communities in Michigan. A few recent examples that this investment will build upon include:

- **Supporting community economic development:** CE introduced a new economic development rate in 2021 designed to attract new businesses to communities in Michigan. This investment will also attract new private localized investments by deploying three energy-ready sites.
- **Supporting renewable energy**: As part of CE's net-zero commitments, the company now plans to exit coal-fired electricity generation by 2025 – 15 years earlier than originally planned in 2018. CE has already decommissioned seven coal power plant units in Muskegon, Luna Pier, and Bay City and is planning similar retirements at its Karn and Campbell facilities. CE takes a people-centric approach to the clean energy transition and is partnering with these communities to re-skill and retain impacted workers, support local economic development and environmental visioning to make use of decommissioned power plant sites, and attract additional private investment to these areas. CE will apply lessons learned to its approach on this investment.
- **Supporting vulnerable families:** CE supported $100 million+ in customer assistance to keep bills affordable in 2022. This investment will invest directly in DAC-designated areas to improve system reliability and resiliency, support localized workforce and economic development, and drive long-term O&M reductions that will keep bills affordable.
- **Creating jobs:** CE attracted 230 MW of new or expanding load in 2022, estimated to create ~6,300 jobs and bring >$8 billion of investment to Michigan. This particular

investment will sustain 66 or more union-represented jobs and will serve as a training platform for company apprentices.

- **Advancing Diversity, Equity, Inclusion, and Accessibility (DEIA):** CE has a robust internal strategy to advance Diversity, Equity, & Inclusion (consistent with the DOE's focus on DEIA as discussed further below), which is comprised of four "Stands" that include multi-year goals in the areas of (1) culture, (2) talent, (3) philanthropy, and (4) supplier diversity. This is described in more depth in Section III below.

Community Engagement Approach:

CE will take the following steps to work towards negotiating community benefits agreements (CBA) involving the specific DACs selected for sectionalization and circuit improvement work outlined in the technical volume workplan:

1. **Identify Impacted Stakeholders:** Identify the specific stakeholders who will be impacted by investment activities through initial meetings with the state of Michigan and relevant local governments. Stakeholders would be inclusive of community representatives and may include local governments, labor unions and workers, community-based organizations representing DACs, tribal entities, customers, advocacy groups and more. Many have already been engaged as evidenced by the Letters of Commitment and Community Partnership Documentation.
2. **Seek Public Feedback:** Invite identified stakeholders and the public to a two-part public forum session focused on (1) sharing preliminary details about the proposed investment while seeking input on priorities and concerns and then (2) summarizing public input received and plans to address major concerns or priorities.
3. **Negotiate Community Benefits Agreements (CBAs):** Engage with local governments of Genesee (Flint/Flushing), Muskegon, and Clare Counties – areas that will see the most investment - to negotiate the terms of 2 – 4 CBAs. Terms may include targets for localized job sustainment, reliability improvements, strategies to minimize local disruptions and environmental impacts, and implementation of Justice40 requirements.
4. **Publish and Annually Update Community Benefits Plan:** Create a report summarizing the Community Benefits Plan commitments and timelines that will be updated annually based upon investment progress.
5. **Host Ongoing Community Engagement Sessions:** Host ongoing educational, CE-sponsored community engagement sessions in communities that will see the most investment to educate residents and businesses about the investment benefits and potential impacts while also serving as a continuous feedback opportunity.

Community Groups Impacted:

Below is a preliminary list of key stakeholder groups and planned future engagement with respect to the Community Benefits Plan (see "Letters of Commitment").

- **Local Communities:** City of Clare, City of Grayling, DeWitt Mayor's Office, Flint Mayor's Office, Muskegon County, Newaygo County, Roscommon County
- **Local Community-Based Organizations:** Clare County Chamber of Commerce, Develop Iosco, Flint and Genesee Chamber, Genesee County United Way, Greater Muskegon Economic Development, Lansing Chamber, Lansing Economic Area Partnership, Middle

Michigan Development Corp., Midland Business Alliance, Midland United Way, Northeast Michigan Community Service Agency, Roscommon County United Way, Saginaw Chamber of Commerce, Saginaw Future Inc., The Right Place (Newaygo County), United Way of Bay County, United Way of the Lakeshore

- **Statewide Organizations:** Michigan Infrastructure Office
- **Labor Unions:** Utility Workers Union of America (UWUA) / Michigan State Utility Worker Council (MSUWC)
- **Educational Institutions:** Mid-Michigan College, Mott Community College, Alpena Community College

Community Benefits Communication Plan:

CE intends to employ an effective communication plan to publicly share the intended investment benefits and other commitments of the investment to the broader community on an annual basis:

- **Content:** CE will develop a clear and concise messaging strategy that explains the benefits of the investment to the community, including any community-wide commitments made around labor and tracking of accrued benefits.
- **Channels:** CE will utilize a variety of channels such as the CE website, social media, and published newsletters to reach stakeholders and establish a system for ongoing communication and updates on the investment's progress and impact.
- **Cadence:** In addition to leaving a portal open for community feedback at any time, CE will commit to publishing updates on the investment annually.

Labor Engagement

Consumers Energy has a long-standing relationship with UWUA and other union partners and has successfully arrived at new or extended Collective Bargaining Agreements in 2010, 2015, and 2020 before prior agreements have expired. On December 31, 2022, unions represented 41% of CE's approximately 8,800 employees. The UWUA represents CE's operating, maintenance, construction, and customer contact center employees and the United Steel Workers (USW) represents Zeeland plant employees. CE collective bargaining agreements with UWUA and USW were ratified in 2020 and will expire in 2025.

CE has engaged the UWUA and its Michigan affiliate – the MSUWC – to perform the field construction work required for this investment. CE will commit to (1) listening and incorporating feedback from the labor partners about their priorities throughout the investment, (2) ensuring prevailing wages and benefits are met or *exceeded* for the project workforce, and (3) maximizing the impacts of quality jobs created.

Labor Engagement Approach:

CE will ensure fair and transparent labor practices are leveraged through the following ways:

- **CE will leverage its existing Collective Bargaining Agreement with union partners** to (1) ensure prevailing wages, benefits and working conditions are guaranteed for all project workers and (2) minimize project execution risk.
- **CE and partners will commit to equitable job recruitment practices**, embedding our key DEIA pillars into the assembly of line worker crews and the internal project team.

- **CE will ensure that the line worker crews have at least 33% apprentices** – many coming from local community colleges and underserved backgrounds. Throughout the course of the investment, CE expects all company apprentices to rotate through this grant-funded work given the variety of technologies and projects involved.
- **CE will ensure that local workers have access to line worker training** and advancement opportunities related to the project.
- **CE will maintain a regular meeting cadence with union leadership** throughout the lifespan of the investment to continually incorporate the worker voice into project decision-making while also helping mitigate the risk of labor shortages and disputes.

SMART Goals & Labor Engagement Milestones by Budget Period:

See *Figure 4* for a more granular Gantt chart view on the timeline of all planned community engagement efforts and respective SMART milestones.

Section II. Investing in America's Workforce

As one of Michigan's largest employers, CE is committed to developing and implementing a world-class inclusive workforce investment strategy that will realize the intended investment impacts to (1) sustain 66 or more well-paying line worker jobs, (2) maintain a safe and inclusive work environment, (3) educate DAC residents about the grid resiliency and flexibility opportunities as a result of this investment, and (4) invest in workforce development to ensure individuals from underrepresented backgrounds benefit from the investment directly.

Plan to Attract, Train and Retain a Skilled & Diverse Workforce:

Attracting a Skilled and Diverse Workforce

- CE is committed to recruiting from a diverse pool of candidates through existing school-to-work pre-apprenticeship programs, including those from DACs and underrepresented groups. Partner community colleges are located throughout the service territory and include Mott Community College (Flint), Alpena Community College, Grand Rapids Community College, Jackson Community College, Lansing Community College, Muskegon Community College, and more. CE's talent pipeline programs are built in diverse communities to increase equitable access to our skilled-trade positions. CE also has programs targeting pre-college talent through its Talent Ambassador program. This program connects youth with energy opportunities, inspiring K-12 students to become future co-workers and building CE's talent pipeline in the communities we serve.
- CE is committed to offering competitive pay and benefits, such as (1) wages that are equitable, transparent, and at or above regional averages, (2) clear opportunities for job progression, (3) a comprehensive benefits package that includes employer-sponsored health insurance and pension/retirement coverage options, and (4) personal and family benefits that include paid family and medical leave, parental leave, paid sick leave, and mental health support.

Training a Skilled and Diverse Workforce

1. CE currently offers in depth training apprenticeship training programs designed to provide new Low Voltage Distribution (LVD) workers with the knowledge, skills, and

abilities to perform project work successfully and safely with both classroom and on the job training. Many of these apprentices come from underserved backgrounds.

2. CE will proactively support the ongoing growth and advancement of employees**.** Apprentice line workers will graduate from the program by the end of the investment timeline.

Retaining a Skilled and Diverse Workforce

- CE will provide workers with an environment in which they have a collective voice through internal forums and regular "pulse-check" feedback surveys.
- CE will develop a robust risk mitigation plan to minimize the probability of labor disputes or shortages that may delay the project.
- CE will commit to providing predictable scheduling of work hours, with a safe, healthy, and accessible workplace devoid of hostility and harassment.
- CE will foster a positive and inclusive work culture that values diversity, equity, inclusion, and accessibility.
- CE will involve employees in the development and implementation of the workplace safety and health plan through regular meetings and workshops. The company will also emphasize a safety-first culture through regular safety tailboards before meetings and on the worksites.
- CE will actively encourage employees to report any safety concerns or incidents and provide an administrative process for addressing those concerns in a timely and effective manner.

Community Groups Impacted:

Below is a preliminary list of key stakeholder groups and planned future engagement with respect to workforce investment initiatives.

- **Community College / School-to-Work Partners:** Mott Community College (Flint), Alpena Community College, Grand Rapids Community College, Jackson Community College, Lansing Community College, Muskegon Community College

Free & Fair Choice to Join a Union:

CE is committed to abiding by the National Labor Relations Act (NRLA) and all employment laws. CE will give employees the ability to organize, bargain collectively, and participate through labor organizations elected under the terms of the NLRA, respecting the rights of employees to choose their own labor organization, and not discriminating against employees based on their union status. CE will additionally provide information to employees about their rights to organize and bargain collectively, and not take any actions that might discourage such activity.

Workplace Health & Safety Plan:

CE is committed to involving employees in the development of a robust workplace safety and health program that meets all applicable regulations, CE will co-create the plan early in the project through internal workshops and surveys. Basic components of the plan will include:

- Establishing a safety-first work culture and abiding by all health and safety regulations (e.g., OSHA) including regular safety tailboards in meetings to promote safety.
- Hosting learning sessions that feature mental health and well-being topics and offer professional development opportunities such as mentorship.
- Committing to a positive, diverse, equitable, and inclusive team environment in which all coworkers feel they belong (survey-measured).
- Offering DE&I and anti-bias training. Additionally ensuring that all employees and contractors have a clear escalation path and 'zero-tolerance' policies for corrective action.
- Giving opportunities for workers to provide feedback and update the plan.

Workforce Continuity Plan:

CE will work with UWUA to ensure that workers and apprentices utilized for the implementation of this grant-funded project have opportunities for continued employment and advancement. Most project resources will be full-time CE employees.

Recent Labor Violations in Past Two Years:

CE does not have any violations to disclose in the past two years under the NLRA, Fair Labor Standards Act, Service Contract Act, Davis-Bacon Act, or Title VII of the Civil Rights Act. CE received 3 citations in 2022 under the Occupational Safety and Health Act, following the Lansing Service Center wall to wall inspection:

- Exposed 240V electrical switch box with a missing cover
- Missing exit sign
- Opening in electrical cabinet

All the violations were repaired and closed out on 1/6/22, completed after the inspection.

Section III. Diversity, Equity, Inclusion & Accessibility (DEIA)

CE is committed to advancing DEIA for its customers, communities, employees, and partners. CE has a long history of DEIA focus. A few recent examples from 2022 include:

- 2000+ co-workers engaged in our 8 Business Employee Resource Groups (BERGs) to support women, persons of color, the LGBTQ+ community, veterans, and more
- Recognized in Best Employers for Women by Forbes 4 years in a row
- Ranked #2 Best Utility Employers for Workplace Diversity by Forbes
- Ranked #1 by DiversityInc for Top Utility Companies for Employee Resource Groups
- Ranked #10 by DiversityInc for Top Companies for Philanthropy
- Scored 90% on Corporate Equality Index from the Human Rights Campaign
- Made Military Times "Best for Vets: Employers" list

As a part of its internal People Roadmap, CE and its parent CMS Energy employ a four-pronged strategy designed to embed DEIA into all aspects of the business. CE's approach to advancing DEIA is comprised of DEIA Movement "Stands" - that include multi-year goals in the areas of culture, talent, philanthropy, and supplier diversity. The table below represents CE's tactics to support these four "stands" through this grant-funded proposal.

CE DEIA Movement "Stand"	Project-Specific Tactics to Support Stand
Culture: CE's DEIA culture is focused on educating our co-workers and leaders. This includes companywide DEIA awareness training and highlighting opportunities where they can contribute to create an inclusive environment.	• CE will offer annual DE&I training with required antibias curriculum and include learning opportunities on DEIA topics through our BERGs. • CE's BERGs will host learning sessions that feature mental health and well-being topics and offer professional development opportunities such as mentorship.
Talent: CE's talent sourcing strategy focuses on recruiting in areas representative of all demographics, allowing us to build diverse, qualified candidate pools. Workforce DEIA efforts are also embedded in our employee lifecycle (e.g., hiring, promoting, developing, and succession planning).	• CE will leverage 100% union-represented field workers in partnership with UWUA and other labor union partners while leveraging an existing Collective Bargaining Agreement. • CE will staff the project with team members representing a diverse set of backgrounds per CE's hiring inclusivity plan. CE will ensure that representation from underrepresented backgrounds is adequately embedded in the hiring process through existing school-to-work pre-apprentice programs at local community colleges. • CE will ensure that all company apprentices will rotate through this grant-funded infrastructure work, leveraging it as a training platform.
Supplier Diversity: CE is committed to the development of Diverse-Owned business enterprises. CE will double its company-wide spend with diverse suppliers, reaching the first quartile by 2024.	• CE will ensure that diverse suppliers are invited to respond to vendor RFPs and that selected vendors are encouraged to demonstrate a strong internal DEIA program. • CE will track diverse supplier spend as part of this project.
Philanthropy: As a force of change, CE is committing $15 million by 2023 to create equitable, sustainable change in justice initiatives. Recently, CE contributed $2.6 million to diverse organizations specifically impacting communities of color.	• This investment will support community engagement events in DAC areas to inform residents and businesses about the investment's benefits.

SMART Goals & DEIA Milestones by Budget Period:

See *Figure 5* for a more granular Gantt chart view of the approach to meaningfully advance DEIA along with timing of SMART milestones.

Section IV. Justice40 Initiative

CE is strongly committed to ensuring that project benefits are equitably distributed amongst a wide range of local communities and stakeholders CE has approximately 454,000 customers that live within federally defined DACs, making up 24% of the total customer base. With 1,200+ circuits that service these DACs, this investment has been specifically designed and scoped to ensure that most investments will be in circuits that either partially or fully support DACs. Throughout the state of Michigan, this investment will (1) improve local grid reliability & resiliency by an estimated 6 – 7 SAIDI minutes, (2) enhance broader customer affordability through annualized maintenance savings and upgraded aging infrastructure, and (3) sustain 66 or more quality jobs partially sourced from many of these same communities that will see project investment.

Identification of Applicable DACs:

For the purposes of identifying "target zones" for sectionalization and circuit enhancements under this investment, CE has enhanced its typical methodology of prioritizing resiliency enhancements – largely based on historical outage data and an internal "Reliability Analytics Engine" that scores and ranks zones (portions of circuits between protective devices) – to also incorporate social equity as shown in the "Report on Resiliency Investments" and "Technical Volume." Figure 1 below illustrates a few examples of investments planned for DAC areas.

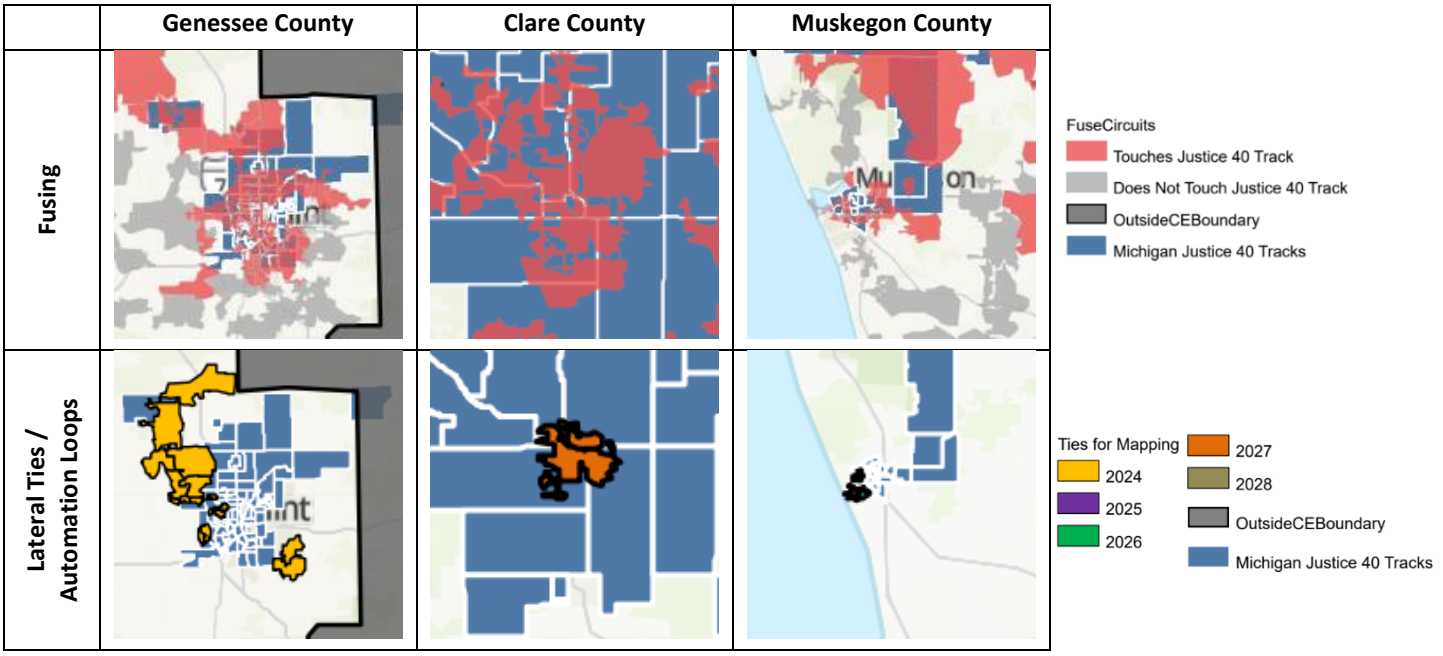


Figure 1: *Maps detailing select locations for fusing and lateral tie workplans*

Target Communities

Based upon the scoring criteria above, several target zones were prioritized for the grant investments in automation loops with a focus on areas with significant DAC-designated populations including (1) Flint/Flushing, (2) Muskegon County, and (3) Clare County to name a few. Relative to other areas in Michigan, these community areas generally see greater economic burdens as outlined in Figure 2 below (e.g., lower average income, higher energy burden) and suffer from a lack of historical investment – both characteristics that this infrastructure project attempts to address directly. Maps detailing project work zones, a list of impacted communities, and key characteristics of each area are captured in the table below.

Target Areas for Investment:

- **Saginaw Area**
  - Saginaw County
  - Arenac County
  - Iosco County
  - Roscommon County
  - Crawford County
  - Midland County
- **Northern Area**
  - Cheboygan County
  - Clare County
  - Northern Isabella County
- **Southwest / Lansing Area**
  - DeWitt/Clinton County
  - Kalamazoo County
  - Calhoun County
  - Southern Isabella County
- **Flint Area**
  - Genesee County
  - Portions of Saginaw County
- **Lakeshore Area**
  - Oceana County
  - Muskegon County
  - Manistee County

Select Target Communities	Select Community Statistics[1]				
	Population	**% Pop. Living in DAC**	**% Pop. Below 200% Poverty Level**	**% Weighted Average Energy Burden**	**% Pop. that Experienced Historic Underinvestment**
Genesee County (Flint, MI)	407,875	43.9%	37.9%	4.1%	48.7%
Clare County (Clare, MI)	30,651	100%	43.0%	8.3%	N/A
Muskegon County (Muskegon, MI)	173,297	38.4%	37.5%	3.6%	66.7%
All Project-Impacted Counties	1,562,877	38.7%	35.8%	3.8%	36.1%
Entire State of Michigan (reference)	9,965,265	30.2%	31.5%	3.3%	26.1%

Figure 2: *Characteristics of select target communities*

Project Justice40 Benefits:

To ensure that the project abides by the Justice40 initiative requirements, the overall project benefits have been summarized below and organized into overarching categories. Benefits areas that support Section vii.4.2 of the Funding Opportunity Announcement are indicated with an asterisk (*) below. Unless otherwise noted, the project will target at least 40% of each metric accruing partially or fully designated DACs. In addition, all benefits are direct unless otherwise noted. Metrics without targets will be tracked, but no target will be established.

[1] Climate & Economic Justice Screening Tool, Version 1.0 Community List Data

Anticipated Project Justice40 Benefits	Metrics to be Quantified, Measured, and Tracked for Overall Project and Justice40 Initiative	Benefit Recipients
Grid Reliability & Resilience		
An increase in energy resilience*	"Leading" Metrics • 50+ miles of circuit phase extension and new line • 460+ miles of reconductoring • 10,000+ number of poles hardened • 7,000+ fuses installed • 28 ties created • 200+ automated loops created	Residents & Businesses of targeted circuits
	"Lagging" Metrics • 6 – 7 SAIDI minutes reduced system wide	Residents & Businesses of targeted circuits
Workforce & Economic Development		
An increase in high-quality job creation, the clean energy job pipeline, and job training for individuals;*	"Leading" Metrics • 66 jobs sustained in peak construction years (100% union-represented workers) • 33%+ of crew workers will be apprentices • All company apprentices rotated through grant-funded work • Establishment of three "energy-ready" sites in targeted communities	All Residents & Businesses
Increases in clean energy enterprise creation and contracting (e.g., Diverse-Owned business enterprises)*	"Leading" Metrics • $ of spend with Diverse-Owned Businesses (tracking only)	Selected Diverse-Owned Businesses
Customer Affordability		
A decrease in energy burden*	"Lagging" Metrics • $1.0M – $1.5M in O&M savings per year (from capitalizing maintenance tree trimming on circuits included in this project)	All Residents & Businesses in Service Territory

Figure 3: *Summary of project benefits, quantifiable impacts, and benefit recipients. Asterisk denotes explicit DOE priority benefit. Italics indicates indirect benefit area. "Leading" metrics are expected to be realized proportionally during project implementation. "Lagging" metrics are expected to be realized after project completion.*

Plans to Maximize Applicable Benefits

There are a few ways that this investment will maximize the benefits listed herein, which are demonstrated in the Community Benefits Plan Gantt chart and integrated Statement of Project Objectives (SOPO) activities. Specifically, CE will commit to the following:

- **Grid Reliability & Resilience:** CE is maximizing reliability and resiliency areas by targeting circuits that serve areas with higher DAC populations and have the most room for resiliency improvement. CE will track asset upgrades by location, which can be mapped to the appropriate communities for reporting. In addition, SAIDI can be measured down to the circuit level, which also will allow for mapping to DAC-designated census tracts for Justice40 reporting purposes. Additional sectionalization will allow for

more automated and manual load transfers during major storm events, reducing the impact and duration of customer outages.

- **Workforce & Economic Development:** CE will work with union partners to hire, onboard and train the necessary people to perform the work. All program apprentices – many coming from underrepresented backgrounds – will be rotated through this grant-funded work for training purposes. Additionally work with targeted DACs to establish three "energy-ready" communities to attract potential large commercial or industrial tenants.
- **Customer Affordability:** This work will help reduce outage restoration costs while also reducing the need for planned vegetation management work along circuits that will see improvements, thereby helping maintain customer affordability.
- **Safety:** CE will track wire down incidents before and after project implementation in the target communities to ensure targets are met. CE will also collaboratively develop a robust health & safety plan alongside project workers.
- **Grid Flexibility & Clean Energy Enablement:** While this is an indirect benefit that is hard to attribute, sectionalization indirectly enables greater grid flexibility – a foundation for a cleaner, more distributed power system.

Anticipated Negative and Cumulative Environmental Impacts on DACs:

With any major infrastructure project, there will be some impacts and temporary community disruptions caused by construction activities. To minimize the impact, CE plans to engage local governments and the public early and often, as outlined in the Community Benefits Plan Gantt chart through one-on-one meetings and a two-part public forum. Through these channels, CE will listen to community concerns and then present proposed mitigation strategies to address those concerns – potentially adjusting the project scope or activities accordingly. A preliminary list of negative impacts is captured below:

Potential Negative Community Impacts	Mitigation Strategy
Planned Outage Time: Businesses may be disrupted due to planned outages required to perform the system upgrades	CE will coordinate with customers and the target communities to take any planned outages at optimal times to minimize community disruption.
Traffic Congestion: Construction activities may require lane or road closures	CE – alongside local communities – will identify detours and will minimize full road closures to the extent possible. CE will coordinate with local communities to ensure that traffic is safely directed in construction areas.
Localized Air Pollution: Construction activities will involve large trucks to complete the work, although the impact to localized air quality is expected to be minimal.	CE will utilize Jobsite Energy Management Systems (JEMS) where possible to minimize truck idling time.

SMART Goals & Justice40 Milestones by Budget Period:

See *Figure 5* for a more granular phase-by-phase Gantt chart view on the timeline of Justice40 SMART milestones.

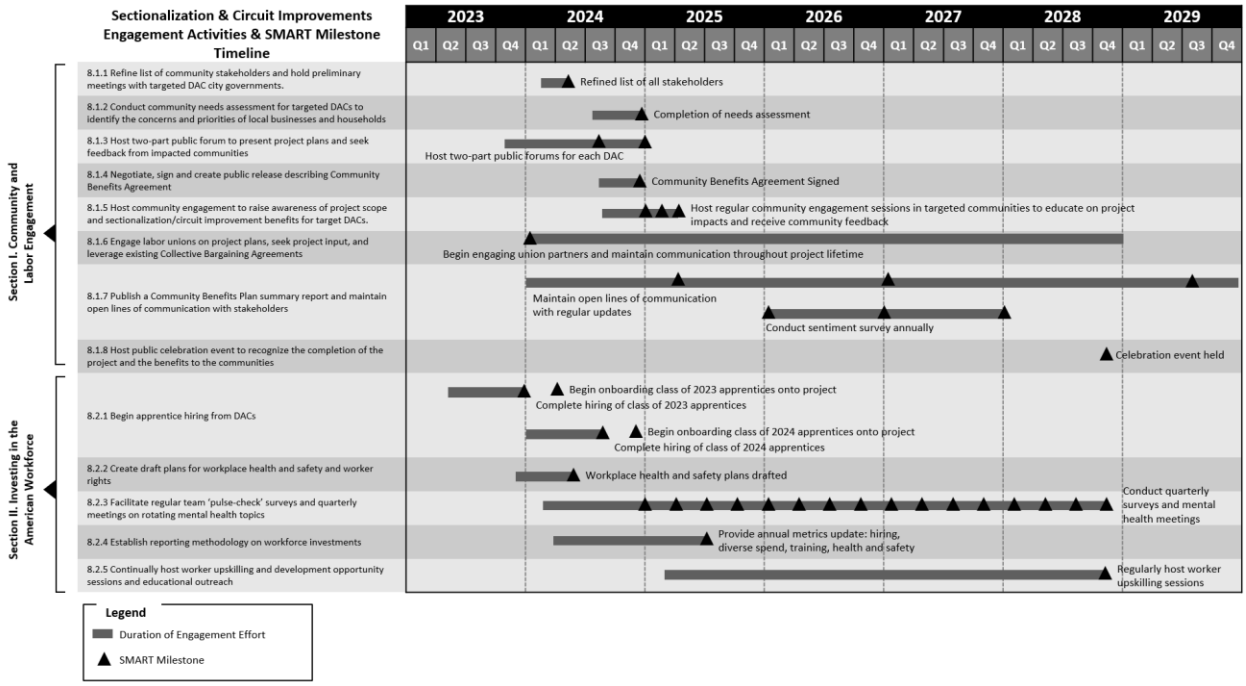


Figure 4: *Section I & Section II SMART Milestone Timeline*

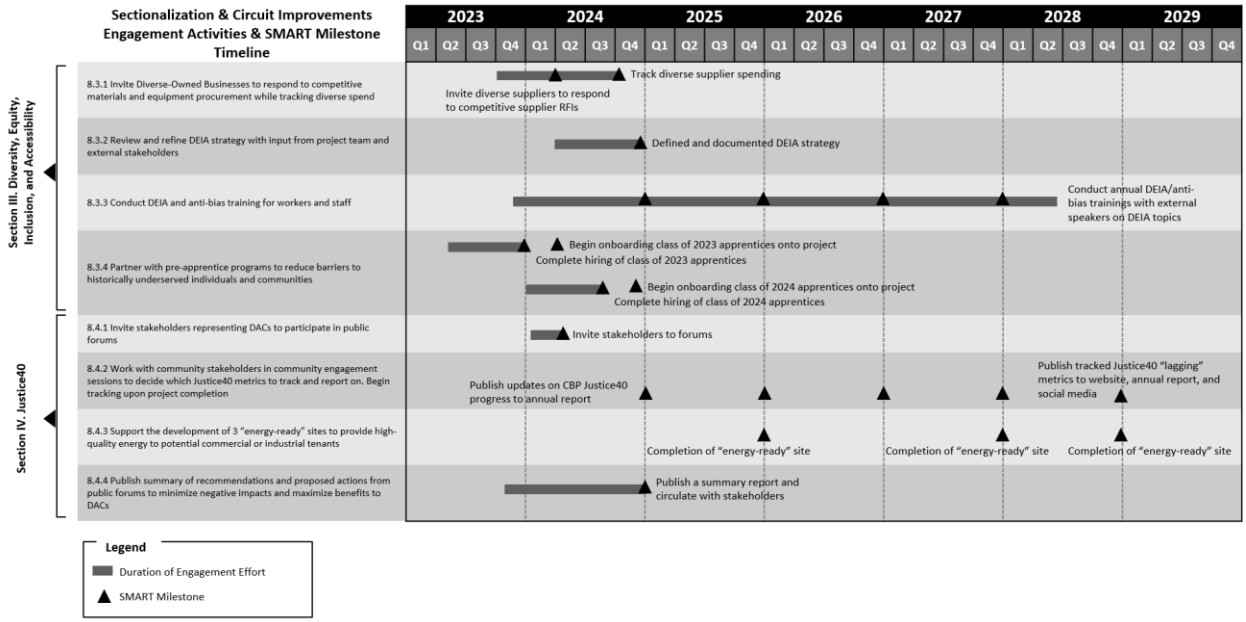


Figure 5: *Section III & Section IV SMART Milestone Timeline*

UTILITY WORKERS UNION OF AMERICA

JAMES SLEVIN
PRESIDENT

MICHAEL COLEMAN
SECRETARY-TREASURER

PATRICK M. DILLON
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April 1, 2023

Jennifer Partlan, Senior Engineering Lead
Consumers Energy
One Energy Plaza
Jackson, MI 49201

Re: Letter of Support for Consumers Energy's Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer:

The Utility Workers Union of America (UWUA) is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." The UWUA has represented employees of Consumers Energy since 1944 and through our joint partnership, have built successful apprenticeship and certification programs, in addition to a strong partnership around safety and we see this proposal as an opportunity to extend and expand our partnership for the future benefit of consumers, workers and the company.

We support the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining high-road, family and community supporting jobs within Michigan. Additionally, this project will give apprentices – many coming from economically challenged backgrounds - valuable on-the-job training opportunities to build lifelong careers in the utility sector.

To ensure the success of the project, UWUA will also provide support for the project in the following ways, which we have discussed with CE representatives:

- Provide 100% of the resources needed to complete the grid upgrades as part of this grant proposal while leveraging an existing Collective Bargaining Agreement
- Collaborate with CE through the Joint Apprentice Committee to provide apprentices on-the-job training leveraging graduates from school-to-work programs in local communities, including ones in disadvantaged areas (e.g., Mott Community College in Flint, MI, Alpena Community College, and others)
- Partner with CE to ensure that a robust employee health & safety plan is designed and implemented as part of this grant-funded project

UWUA looks forward to partnering with the CE team on this effort and encourages the Department of Energy to fund the project.

In Solidarity,

James T. Slevin
National President
Utility Workers Union of America, AFL-CIO

MID MICHIGAN COLLEGE

February 21, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer,

Mid Michigan College is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy not only has a record of delivering clean, reliable, affordable power, but creating valuable partnerships to help meet needs in the local communities in which our students and staff call home.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our core values of people, integrity, learning, community and excellence.

To ensure the success of the project, Mid Michigan College will also provide support for the project wherever appropriate. We look forward to partnering with the Consumers Energy team on this effort and encourage the Department of Energy to fund the project.

Sincerely,

Tim Hood, President
Mid Michigan College

United Way of the Lakeshore

Visit 31 East Clay Avenue, Muskegon MI 49442 | Mail PO Box 207, Muskegon MI 49443
Call (877) 722-3134 | Fax (231) 722-3137 | www.unitedwaylakeshore.org

February 28, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza
Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer:

United Way of the Lakeshore is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with United Way to provide resources, including: volunteers for our Days of Caring projects that focus on individual veteran homes and community improvements; funding support for 2-1-1 statewide; funds to support the ALICE report in Michigan that raises awareness around the needs of low-income working families and individuals; and providing volunteer leadership for our board of directors, campaign cabinet and various committees. With their help, our community is so much stronger.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of supporting low-income working families, providing Safe and Stable homes and access to services for individuals and families in our area.

To ensure the success of the project, United Way of the Lakeshore will provide support for the project as requested by company representatives.

United Way of the Lakeshore looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Christine J Robere
President/CEO
Direct line: 231.332.4001

ROSCOMMON COUNTY UNITED WAY

February 21, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan,

Roscommon County United Way is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with Roscommon County United Way (RCUW) in the past to implement and support our Helping ALICE utility assistance program. ALICE stands for **A**sset **L**imited **I**ncome **C**onstrained **E**mployed. These are individuals who work, and yet cannot adequately support their households. They live from one paycheck to the next and are often one small disaster from being able buy enough food, fuel, utilities, and other household necessities. In Roscommon County 29% of the households are ALICE households combine that with the households living under the poverty level over 40% of the households are often in need of some sort of assistance. Since January of 2022 RCUW has helped with over $50,000 in utility payments. Consumers Energy not only partners with RCUW with outreach and daily eligibility assistance but, also gave a generous corporate gift of $200,000 to support the program for the future.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of helping ensure that individuals and families are in safe adequate housing in economically viable communities. Keeping families in their homes through the Helping ALICE utilities assistance and mortgage assistance programs prevents homelessness and migration to other parts of the state or country. Thriving communities require an effective and efficient infrastructure. Updating and improving the infrastructure will not only improve the communities but will improve the quality of life for each household.

To ensure the success of the project, Roscommon County United Way will also provide support for the project in the following ways, which we have discussed with company representatives:

- Roscommon County United Way annual fundraising campaign which helps nonprofits achieve their mission.
- Helping ALICE utility and mortgage assistance programs
- Dish of the Day mobile Soup Kitchen provides meals for individuals and families in need.
- Collaborate with Consumers Energy to educate ALICE households about the benefits of the grant project.

Roscommon County United Way looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,
Cherrie Benchley
Executive Coordinator
Roscommon County United Way

P.O. Box 1003
Houghton Lake, MI 48629

UNITED WE FIGHT.
UNITED WE WIN.

February 22, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer,

United Way of Bay County is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to support programs that improve the socio-economic status of residents and to promote diversity and inclusion within Bay County.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of improved health, education, and income stability for all.

United Way of Bay County looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Nicole Luczak
President/ CEO
United Way of Bay County
909 Washington Ave. Suite 2
Bay City, MI 48708

United Way
United Way of Bay County

ALPENA
COMMUNITY COLLEGE
665 Johnson Street
Alpena, MI 49707-1495

(989) 356-9021
www.alpenacc.edu

February 28, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza
Jackson, MI 49201

Dear Jennifer Partlan,

Alpena Community College is delighted to offer this letter of support to Consumers Energy to assist in its pursuit of federal infrastructure resources to build out and improve the electrical power grid in rural Iosco County, Michigan. ACC has a branch campus in Iosco County and provides post-secondary education to all four K-12s in Iosco County and the Iosco Regional Educational Service District (IRESA) technical center on Rempert Road in Tawas. We believe there is a clear need for the grid upgrades in Iosco County that Consumers Energy is proposing. We also believe it will provide much-needed economic and educational opportunities for the citizens in this region.

ACC is also excited by the potential of this grant to provide additional employment opportunities for graduates of its Utility Technology (UTT) pre-apprentice lineworkers program to perform the upgrades funded by this grant opportunity. ACC offers a one-year vocational certificate, an advanced certificate, and an associate in applied science (AAS) degree in Utility Technology. The program accepts 60 students and is filled to capacity with a lengthy waiting list. The Utility Technology program is designed to prepare students to construct, install, and repair electrical distribution, telephone, and CATV transmission systems. It also helps prepare students to take the Michigan Commercial Driver's License exam.

Both the vocational certificate and AAS degree programs include two semesters of study of practical theory and hands-on training using actual equipment and materials in classroom, laboratory, and field settings. Students must be able to climb 40-foot power poles to successfully complete the first semester. Graduates meet the utility industry's need for trained, entry-level employees. Many ACC students enter Consumers Energy's 11-week climb school in Marshall, Michigan, and eventually become Consumers Energy lineworkers. We see this grant proposal as offering additional employment opportunities to ACC Utility Technology program graduates.

We look forward to good news regarding this proposal. Please reach out if you have questions or need additional information.

Regards,

Don MacMaster

Dr. Don MacMaster
President
Alpena Community College
989 358-7246

MOTT COMMUNITY COLLEGE

Office of the President

March 1, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer:

Mott Community College is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to create an Electric Line Worker Pre-apprenticeship training program which prepares students for careers as electrical power-line installers and repairers, working on cables or wires used in electrical power or distribution systems. This job may also include erecting poles and light- or heavy-duty transmission towers.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of improving student success and increasing community engagement and communication

To ensure the success of the project, Mott Community College will also provide support for the project in the following ways, which we have discussed with company representatives:

- Recruit and placement for open positions
- Build training programs with Consumers Energy for the project
- Promote the partnership between Consumers Energy and Mott Community College

Mott Community College looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Beverly Walker-Griffea, Ph.D.
President
Mott Community College
1401 E Court St, Flint, MI 48503

ASPEN PRIZE TOP 150 2021

United Way of Midland County

February 22, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer:

United Way of Midland County is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to serve the vulnerable ALICE population, invest dollars to tackle the most important human service needs and lend their expertise as community volunteer.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of serving the underserved, ensuring household stability and helping individuals and families live their potential and thrive.

To ensure the success of the project, United Way of Midland County will also provide support for the project in the following ways, which we have discussed with company representatives:

- ALICE data and insights at the township level
- Communication with the nonprofit community

United Way of Midland County looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Holly Miller

Holly Miller
President and CEO

2/28/23

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

To Whom it May Concern:

The United Way of Genesee County, serving Genesee and Shiawassee County, is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to support systems for utility assistance for low-income Michigan families and the 211information and referral system.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of supporting low-income families with affordable and equitable treatment as it related to utility accessibility and reliability.

To ensure the success of the project, United Way of Genesee County will also provide support for the project in the following ways, which we have discussed with company representatives:

- Continued partnership to communicate and support low-income residents with equitable access to resources associated with utility services, affordability, and communication after a disasters and to obtain basic needs.

The United Way of Genesee County looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

James Gaskin
CEO
United Way of Genesee County

NETL F 451.1-1/3
Revised: 12/3/2014
Reviewed: 12/3/2014
(Previous Editions Obsolete)

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: DE-FOA-0002740 Proposer: Consumers Energy
2. This Environmental Questionnaire pertains to a: ☒ Recipient or Prime Contractor ☐ Sub-recipient or Subcontractor
3. Principal Investigator: Jennifer Partlan Telephone Number: 616-530-4239
4. Project Title: Sectionalization and Circuit Improvements
5. Expected Project Duration: 1 year, per area (5 years total)
6. Location of Activities covered by **this** Environmental Questionnaire: (City/Township, County, State):
   Flushing, Genesse County, MI
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
   Replace existing poles along the backbone of the circuits Boman circuit 01 and 02, Webster circuit 02 and Mayfair circuit 03. Upgrades at the Mayfair substation to upgrade the transformer.
   Mayfair Substation address, 4137 N Clio Rd, Flint, MI in Genesse County (example)
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
CE Crews	4147 CLIO RD FLINT, MI 48504
CE Crews	See Locations of Work file for more locations

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.

U.S. DEPARTMENT OF ENERGY

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

☑ 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.

Alternate routes could be selected depending on obstacles, waterways, trees, etc.

C. PROJECT LOCATION

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

Replace and/or install poles along routes to create ties to neighboring circuits to increase grid flexibility.

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

Please see Figures 2.1 and 2.2 in the Technical Volume for maps of planned project work

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.

☐ Urban	☑ Industrial	☑ Commercial	☐ Agricultural
☑ Suburban	☐ Rural	☑ Residential	☐ Research Facilities
☐ Forest	☐ University Campus	☐ Other: _____	

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

Poles are typically 44 - 50 inches circumference, each location would have that much area + some distrubed to set the pole. Poles are typically set 6-9 feet deep.

U.S. DEPARTMENT OF ENERGY

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.

Poles would be planned on private property with easements granted for maintenance. If easements cannot be obtained poles would be installed in the road-right-of-way.

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

☐ No land areas would be affected.

During installation the land will be driven on and holes to install the poles will be dug. All soil would stay on site, and landscaping would be restored upon completion of the project

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)

With statewide projects some areas may be through state, and federal land (Tawas, AuSable) as well as tribal lands (Mt Pleasant).

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

Attached, for Mayfair Substation address, 4137 N Clio Rd, Flint, MI in Genesse County. Other projects throughout the state would be similar and planned as the project in design.

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)

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)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

3. Biological Resources

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

A review of the Michigan Natural Features Inventory (MNFI) did not show any threatened or endangered species on this project.

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

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

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

Wooden poles would be installed per standard practice, though no contamination risks come from these installations.

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

4. Socioeconomic and Infrastructure Conditions

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

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

Only during construction

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

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

U.S. DEPARTMENT OF ENERGY

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

There are currently no known sites, though a detailed cultural survey has not been completed at this time and will be completed prior to project construction.

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)

As described in the previous (a), a survey has not been completed. Installation of new poles can easily be designed around any identified cultural sites as they become known to the project

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.

As described in the previous (a), a survey has not been completed. Installation of new poles can easily be designed around any identified cultural sites as they become known to the project

6. Atmospheric Conditions/Air Quality

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

	Attainment	Non-Attainment
O_3 - 1 Hour	☑	☐
O_3 - 8 Hour	☑	☐
SO_x	☑	☐
PM - 2.5	☑	☐
PM - 10	☑	☐
CO	☑	☐
NO_2	☑	☐
Lead	☑	☐

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.

U.S. DEPARTMENT OF ENERGY

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
☐ SO_x		
☐ NO_x		
☐ PM - 2.5		
☐ PM - 10		
☐ CO		
☐ CO_2		
☐ Lead		
☐ H_2S		
☐ Organic solvent vapors or other volatile organic compounds--List:		
☐ Hazardous air pollutants -- List:		
☐ Other -- List:		
☑ 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?
Vehicle exhausts during construction only.

7. Hydrologic Conditions/Water Quality

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.
Flint River and Hartshorn Drain are near or the project crosses, though the project will not impact these waterways.

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

	Gallons/day	Gallons/year
☐ Non-contact cooling water		
☐ Process water		
☐ Sanitary		
☐ Other -- describe:		
☑ 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)

U.S. DEPARTMENT OF ENERGY

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
☐ **Municipal solid waste (e.g., paper, plastic, etc.)**	
☐ **Coal or coal by-products**	
☑ **Other -- Identify:** Wood poles; electrical equipment	
☐ **Hazardous waste – Identify:**	
☐ **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)

Wood poles: Subtitle D landfill. Electrical equipment: TSCA disposal (PCB-containing), refurbished (non-pcb), recycled (metal components), or landfilled (non-hazardous solids)

d. How would wastes for disposal be transported?

Wood poles: transported in rolloffs. Electrical equipment: transported on trucks permitted for each waste material or in rolloffs to the recycler or 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

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

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)

Consumers Energy has it's own safety program and procedures that apply to all locations of the company including worksites and vehicles.

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)

Bucket trucks, digger derricks while running would cause additional noise to the public at locations of constructions. This would be less than 1 day per location.

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)

Per CE's safety proceduresHearing protection is required when operating any type of hand-held power tool (electric, gasoline, pneumatic) operating at 85 dBA regardless of duration. Both ear plugs and earmuffs must be worn where noise levels average 100 dBA or

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)

U.S. DEPARTMENT OF ENERGY

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:
Manifests will be created for the shipment of any electrical equipment that contain PCBs exceeding 50 ppm.

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:

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ENVIRONMENTAL QUESTIONNAIRE

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

i. Floodplains and Wetlands Regulations: ☐ None ☑ New Required ☐ Modification Required
Describe:
A permit would be required from EGLE for any new impacts to wetlands the project may have.

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.

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)

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ENVIRONMENTAL QUESTIONNAIRE

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

This project is utility poles and conductor only. If new line then there would be no decommissioning. If replacing existing lines then the old poles will be removed thrown away.

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: DocuSigned by: Jennifer M Partlan 2874CFB28B5D4CA... Date (mm/dd/yyyy): 03/10/2023

Typed Name: Jennifer Partlan

Title: System Engineer Lead

Organization: Consumers Energy Low Voltage Distribution Pla

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):

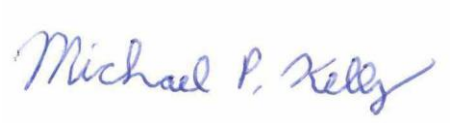
Typed Name:

SECTIONALIZATION & CIRCUIT IMPROVEMENTS TO MITIGATE OUTAGE IMPACTS FOR DISADVANTAGED COMMUNITIES – FOREIGN ENTITY PARTICIPATION & FOREIGN WORK WAIVER

Applicant Name: Consumers Energy

Unique Entity Identifier: MJLAKT69Z3J5

Waiver Justification: Consumers Energy does not request waivers for Foreign Entity Participation or Foreign Work, as it is not applicable.



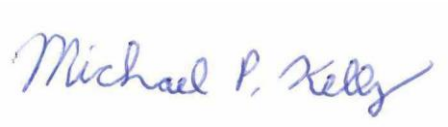
Michael Kelly

Executive Director – Electric Distribution Strategy

Consumers Energy

CONSUMERS ENERGY: SECTIONALIZATION & CIRCUIT IMPROVEMENTS TO MITIGATE OUTAGE IMPACTS FOR DISADVANTAGED COMMUNITIES

Note on Letters of Commitment and Community Partnership Documentation: Based on the lack of guidance in the GRIP Funding Opportunity Announcement, Consumers Energy had originally instructed partners and sub-recipients to direct letters to Consumers Energy project contacts. Later, Consumers Energy revised this guidance for partners to address letters to the Department of Energy or Grid Deployment Office. Please disregard these inconsistencies and consider the content of the Letters of Commitments and Community Partnership Documentation.

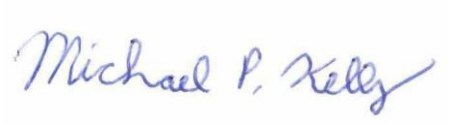


Locations of Work (DE-FOA-0002740)				
Prime or Sub	**Name** (Substation)	**City**	**State**	**Zip Code + 4**
Prime	Consumers Energy Company	JACKSON	MICHIGAN	49201-2357
Prime	LEVEL PARK/COLLIER	BATTLE CREEK	MICHIGAN	49037-1259
Prime	BEDFORD/MEACHEM	BATTLE CREEK	MICHIGAN	49017-0000
Prime	ULMER/ BURT ROAD	BIRCH RUN	MICHIGAN	48415-0000
Prime	GILKEY CREEK/WOLCOTT	BURTON	MICHIGAN	48519-0000
Prime	CHEBOYGAN/DUNCAN	CHEBOYGAN	MICHIGAN	49721-2020
Prime	BEAUGRAND/HOSPITAL	CHEBOYGAN	MICHIGAN	49721-1062
Prime	CLARE/CLARE	CLARE	MICHIGAN	48167-0000
Prime	CLARE/FARWELL	CLARE	MICHIGAN	48167-0000
Prime	DEWITT/EAST HERBISON	DEWITT	MICHIGAN	48820-0000
Prime	MAYFAIR/SHERATON	FLINT	MICHIGAN	48504-0000
Prime	MILBOURNE/DARTMOUTH	FLINT	MICHIGAN	48504-0000
Prime	MILBOURNE/PASADENA	FLINT	MICHIGAN	48504-0000
Prime	CALKINS/DUTCHER ROAD	FLINT	MICHIGAN	48532-0000
Prime	CALKINS/FLUSHING ROAD	FLINT	MICHIGAN	48532-0000
Prime	BOMAN/COUTANT	FLUSHING	MICHIGAN	48433-0000
Prime	BOMAN/DELAND	FLUSHING	MICHIGAN	48433-0000
Prime	DUNHAM/BRENT CREEK	FLUSHING	MICHIGAN	48433-0000
Prime	FREELAND/FREELAND	FREELAND	MICHIGAN	48623-0000
Prime	SKYLARK/SUN VALLEY	GRAND BLANC	MICHIGAN	48439-0000
Prime	GRAYLING/HOSPITAL	GRAYLING	MICHIGAN	49738-0000
Prime	GRAYLING/BEAR	GRAYLING	MICHIGAN	49738-0000
Prime	HARRISON/STOCKWELL	HARRISON	MICHIGAN	48625-0000
Prime	DEER LAKE/CRANBERRY LAKE	HARRISON	MICHIGAN	48625-0000
Prime	HART/DISTRIBUTION	HART	MICHIGAN	49420-0000
Prime	PALMER/REED	KALAMAZOO	MICHIGAN	49001-0000
Prime	PALMER/HEALY	KALAMAZOO	MICHIGAN	49001-0000
Prime	ONEKAMA/CHIEF	KALEVA	MICHIGAN	49645-0000

Prime	ONEKAMA/BEAR LAKE	KALEVA	MICHIGAN	49645-0000
Prime	NORTH LANSING/LABORATORY	LANSING	MICHIGAN	48906-0000
Prime	MACKINAW CITY/STATE PARK	MACKINAW CITY	MICHIGAN	49701-0000
Prime	MACKINAW CITY/POND STREET	MACKINAW CITY	MICHIGAN	49701-0000
Prime	ASHMAN CIRCLE/ASHMAN	MIDLAND	MICHIGAN	48642-0000
Prime	WALDO/LABORATORY	MIDLAND	MICHIGAN	48642-0000
Prime	INGERSOLL/SASSE	MIDLAND	MICHIGAN	48640-0000
Prime	MONTROSE/MCKINLEY ROAD	MONTROSE	MICHIGAN	48457-0000
Prime	WEBSTER/COLDWATER	MOUNT MORRIS	MICHIGAN	48458-0000
Prime	WEBSTER/WEBSTER	MOUNT MORRIS	MICHIGAN	48458-0000
Prime	WESTERN AVENUE/BARCLAY	MUSKEGON	MICHIGAN	49441-0000
Prime	WESTERN AVENUE/LAKESIDE	MUSKEGON	MICHIGAN	49441-0000
Prime	MAPLE GROVE/HENRY STREET	NORTON SHORES	MICHIGAN	49441-4012
Prime	MCCRACKEN/MCCRACKEN	NORTON SHORES	MICHIGAN	49441-3420
Prime	COOKE DAM/VILLAGE	OSCODA	MICHIGAN	48750-0000
Prime	FOOTE HYDRO/DISTRIBUTION	OSCODA	MICHIGAN	48750-0000
Prime	STATE STREET/WARWICK	SAGINAW	MICHIGAN	48602-0000
Prime	CHEYENNE/MCCARTY	SAGINAW	MICHIGAN	48603-0000
Prime	ST HELEN/ST HELEN	SAINT HELEN	MICHIGAN	48656-0000
Prime	ST HELEN/KENO	SAINT HELEN	MICHIGAN	48656-0000
Prime	SHELBY/PINE STREET	SHELBY	MICHIGAN	49455-0000
Prime	SHELBY/STATE STREET	SHELBY	MICHIGAN	49455-0000
Prime	STANDISH/STERLING	STANDISH	MICHIGAN	48658-0000
Prime	STANDISH/STANDISH	STANDISH	MICHIGAN	48658-0000
Prime	TAWAS/EAST TAWAS	TAWAS	MICHIGAN	48763-0000
Prime	TAWAS/TAWAS	TAWAS	MICHIGAN	48763-0000
Prime	TURNER/GROVE	TURNER	MICHIGAN	48765-0000
Prime	WHITTEMORE/M-65	WHITTEMORE	MICHIGAN	48770-0000

CONSUMERS ENERGY: SECTIONALIZATION & CIRCUIT IMPROVEMENTS TO MITIGATE OUTAGE IMPACTS FOR DISADVANTAGED COMMUNITIES

Note on Locations of Work Spreadsheet and Project/Performance Site Locations Online Form: The Locations of Work (LOW) spreadsheet lists unique combinations of connected substations where work is planned to take place. In the Project/Performance Site Locations online form, only unique addresses of substations where project work will originate from are listed. In cases where there are multiple projects originating from a single substation, the substation is only listed once on the online form leading to the discrepancy in the number of projects listed in the LOW spreadsheet and the online form.



PROJECT DESCRIPTION AND ASSURANCES DOCUMENT (PDAD)

Project title: IMPLEMENTATION OF FOUNDATIONAL SOFTWARE PLATFORMS TO ENABLE DISTRIBUTED ENERGY RESOURCE MANAGEMENT

Applicant Name: CONSUMERS ENERGY

Applicant Address: 1 ENERGY PLAZA DR, JACKSON, MI 49201

Names of all team member organizations (if applicable):

- Consumers Energy

Principal Investigator: JENNY PARTLAN
Email: jenny.partlan@cmsenergy.com
Phone: 616-530-4239

Business Point of Contact: MICHAEL KELLY
Email: michael.p.kelly@cmsenergy.com
Phone: 616-638-5998

Confidentiality Statement:

EACH PARTY ACKNOWLEDGES THE CONFIDENTIAL AND PROPRIETARY NATURE OF THE INFORMATION THAT THE OTHER PARTY HAS DISCLOSED (AND WILL DISCLOSE) AS PART OF THIS APPLICATION AND FURTHER NEGOTIATIONS BETWEEN THE PARTIES, AND AGREES THAT SUCH CONFIDENTIAL INFORMATION (I) WILL BE KEPT CONFIDENTIAL RECEIVING PARTY; (II) WILL NOT BE USED FOR ANY REASON OR PURPOSE OTHER THAN TO EVALUATE AND CONSUMMATE A TRANSACTION BETWEEN THE PARTIES AS CONTEMPLATED IN CONSUMERS ENERGY'S APPLICATION; AND (III) WITHOUT LIMITING THE FOREGOING, WILL NOT BE DISCLOSED BY THE RECEIVING PARTY TO ANY PERSON, EXCEPT IN EACH CASE AS OTHERWISE EXPRESSLY PERMITTED BY THE TERMS OF THIS APPLICATION. EACH PARTY WILL DISCLOSE THE CONFIDENTIAL INFORMATION OF THE OTHER PARTY ONLY TO ITS REPRESENTATIVESWHO REQUIRE SUCH MATERIAL FOR THE PURPOSE OF EVALUATING THE TRANSACTIONS CONTEMPLATED BY THIS APPLICATION AND ARE INFORMED BY THE RECEIVING PARTY OF THE OBLIGATIONS WITH RESPECT TO SUCH INFORMATION. EACH PARTY WILL (IV) ENFORCE THESE CONFIDENTIALITY REQUIREMENTS AS TO ITS RESPECTIVE REPRESENTATIVES; (V) TAKE SUCH ACTION TO THE EXTENT NECESSARY TO CAUSE ITS REPRESENTATIVES TO COMPLY WITH SUCH REQUIREMENTS; AND (VI) BE RESPONSIBLE AND LIABLE FOR ANY BREACH OF THESE PROVISIONS BY IT OR ITS REPRESENTATIVES.

Federal Share: $100,000,000
Cost Share: $100,310,996
Total Estimated Project Cost: $200,310,996

Item 1: Specify (mark with "X")" the FOA Topic Area and as applicable the Area of Interest (AOI):

X 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
X distribution provider
__ fuel supplier

If further description is needed for the specified entity type, please provide below:

Item 3: Please provide the total amount (USD) of qualifying resilience investments (as outlined in DE-FOA-00002740) that has been spent for the previous 3 years. Please also provide the time period utilized for calculation of this amount.

Total Amount: $278,600,000
Time Period for Resilience Investments: 2020 – 2022 (Past 3-year total)
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
X No
Note: If YES, applicant must provide their Form 861 for the last reporting year submitted to the Energy Information Administration (EIA}.

Item 5:Per BIL section - 40101(e}(2) (C) APPLICATION LIMITATIONS. - An eligible entity may not submit an application for a grant provided by the Secretary under subsection (c) and a grant provided by a State or Indian Tribe pursuant to subsection (d) during the same application cycle. Therefore, is the eligible entity a Subaward/Subcontract recipient for an application submitted under IIJA Section 40101(d), ALRD 2736? If "YES", please describe the differences between the GRIP FOA 2740 application [40101(c)] and the ALRD 2736 [40101(d)] applications in the box below:

__Yes

X No

We plan to pursue similar types of investments through the state formula driven grid resiliency program (40101d), but those projects will cover different geographical regions to ensure that there is no duplication of grant funding. In addition, the 40101d proposal has not yet been submitted.

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

Authorized Organizational Representative {AOR): Name: Michael Kelly

Address: 1 ENERGY PLAZA DR, JACKSON, MI 49201

Phone: 616-638-5998

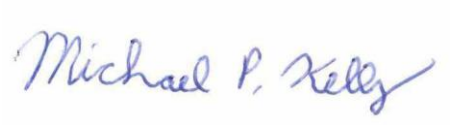
E-mail: michael.p.kelly@cmsenergy.com

Item 8: Signature of Authorized Organizational Representative (AOR)

SECTIONALIZATION & CIRCUIT IMPROVEMENTS TO MITIGATE OUTAGE IMPACTS FOR DISADVANTAGED COMMUNITIES – POTENTIALLY DUPLICATIVE FUNDING NOTICE (PDFN)

The proposed activities and funding uses in the application for FOA-00002740 Topic Area 1 (40101(c)) do not overlap with any activities federally funded from other active awards to the best of our knowledge.

Consumers Energy plans to pursue similar types of investments through the state formula driven grid resiliency program (40101d), but those projects will cover different geographical regions to ensure that there is no duplication of grant funding. In addition, the 40101d proposal has not yet been submitted.



Michael Kelly

Executive Director – Electric Distribution Strategy

Consumers Energy

Report on Resilience Investments (Topic Area 1 ONLY) – Consumers Energy

Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities

Summary of Consumers Energy Resiliency Strategy & Investment Planning Process

Consumers Energy (CE) is committed to providing World Class Performance Delivering Hometown Service. In terms of bolstering system resiliency against the increasingly frequent and more severe storms in the Midwest, CE takes a strategic approach to ensure that capital investments are made in locations and technologies that yield the most cost-effective improvements in core reliability and resiliency metrics.

CE currently has plans for future reliability projects through 2025. CE has five categories within its resiliency spending buckets, those being (1) Targeted Zones, (2) Repetitive Outages, (3) Sectionalization, (4) Rehabilitation – Further Action and Security Inspections, and (5) Grid Automation. GRIP funding from the Department of Energy will be used to expand and accelerate the "Targeted Zones," "Sectionalization," and "Grid Automation" categories of resiliency spend for federally designated Disadvantaged Community Areas (DACs).

1. **Targeted Zones:** These projects are identified using outage history data and ranking the zone within a circuit based on the number of outages, number of customers affected, and consistency of those outages year over year. These projects include mitigation efforts to reduce customer interruptions such as reconductoring lines, relocating lines out of deep right of way to the road, or relocating lines out of swamps and wetlands to the road. Projects in this category are typically larger projects and scoped two years prior to construction. Additionally in this category are projects dedicated to replacing aging poles that were identified as needing replacement during a pole inspection.
2. **Repetitive Outages:** These projects are shorter-cycle work. Using outage data and customer complaints, these projects are smaller in scope and include investments such as adding fusing to isolate customers from the outage areas, pole top upgrades, or short (2 parcel maximum) reconductoring. These projects are typically identified, scoped, and constructed within 12 months.
3. **Sectionalization:** These projects involve the installation of devices such as fuses, reclosers and sectionalizers. These devices can then coordinate with each other and ensure that fewer customers are affected by a fault and that faults do not affect upstream customers. Applying sectionalizing devices can reduce sustained interruptions per mile by reducing the number of customers who lose power from the initial event. Only those customers downstream of the protective device nearest the fault location are affected.
4. **Rehabilitation**
    - **Rehabilitation - Security Inspections:** Security Inspections are projects that were identified by circuit planner inspections. During their cycle, these inspections

identify locations where equipment is deteriorated (imminent failure) and flags them for repair. These projects are longer-cycle work.

- **Rehabilitation – Further Action (Imminent Rehabilitation):** Further Action projects in the rehabilitation category are identified through field personnel and circuit planners identifying deteriorating items while they are in the field (classified as an imminent failure but not yet failed). Once identified they are submitted and designed for construction. These projects are typically short-cycle work (i.e., identified, designed, and constructed within 12 months). Further action work is prioritized against other rehabilitation work in the area. For example, safety items are handled expediently, voltage issues are the next priority, and other items that are deteriorated are assessed based on severity.

5. **Grid Automation – Automated Transfer Recloser (ATR) Loops:** The Grid Automation program focuses on deployment and enablement of smart devices and technologies that deliver Grid Modernization capabilities, such as ATR loops. These investments involve adding communication capability to grid devices to enhance grid visibility and provide real-time data and remote-control capabilities. Projects in Grid Modernization are constructed to create redundancy and automatic load transfer opportunities on the system. An ATR loop is a set of reclosers installed between adjacent circuits that work simultaneously to automatically restore power to many impacted customers when power loss is detected. This allows customers to be automatically switched to another source in the event of a fault. The fault is isolated between two ATRs and all other customers are re-energized from both substations.

Target Zones Detailed Approach

Past Targeted Zone projects have been selected based on historical outage data across the system. CE's Reliability Analytics Engine data ranks zones (portions of circuits between protective devices) based on customer outage minutes, outage frequency, and annual consistency. The formula inputs used are shown here:

(A) Consistency of Outages		(B) Outages Rate per Mile		(C) Customer Impact of Outage		(D) Current Year Outages		Total Reliability Ranking
Total number of years with an outage over the last 10 years		Average number of outages per mile over the last 10 years		Total number of customers per outages for zone		Total number of outages in current year	=	Total final score ranking for zone performance

Figure 1: *Inputs and Output of the CE's Reliability & Resiliency capital investments*

As CE systematically works through the targeted zones on the system, projects are analyzed and evaluated based on customer benefit to balance the work across the system. The projects are selected to effectively use the authorized budget and strategically work through the worst zones. By working through worst zones first CE maximizes efforts to prevent outages, improve customer satisfaction, and prepare the electric grid for the future. For the new construction

proposed in this application, and for projects moving forward, CE will incorporate data on DAC measures in decisions of where to build out new work.

The grid is hardened through targeted zone projects by ensuring all construction meets CE's standards. This makes the lines more resilient by having higher conductor strength, higher pole strength, and the most current available equipment. By rebuilding these zones to the current resiliency standards, the grid has an improved chance of withstanding the changing weather experienced in Michigan[1]. As proof of the benefits of these efforts historically, projects that have been completed in these categories have seen an improvement of 64.7% over the past 5 years[2] in their outages and CAIDI/SAIDI minutes benefiting the customers who are served by those portions of the grid.

CE's current targeted zone planning relies on the concept of grid "archetypes" – groupings of distinctive parts of the CE electrical system with distinctive need profiles and characteristics in terms of customer types, urban vs. rural geography, and more. These archetypes are illustrated below in Figure 2 below.

CE Grid Archetypes Overview

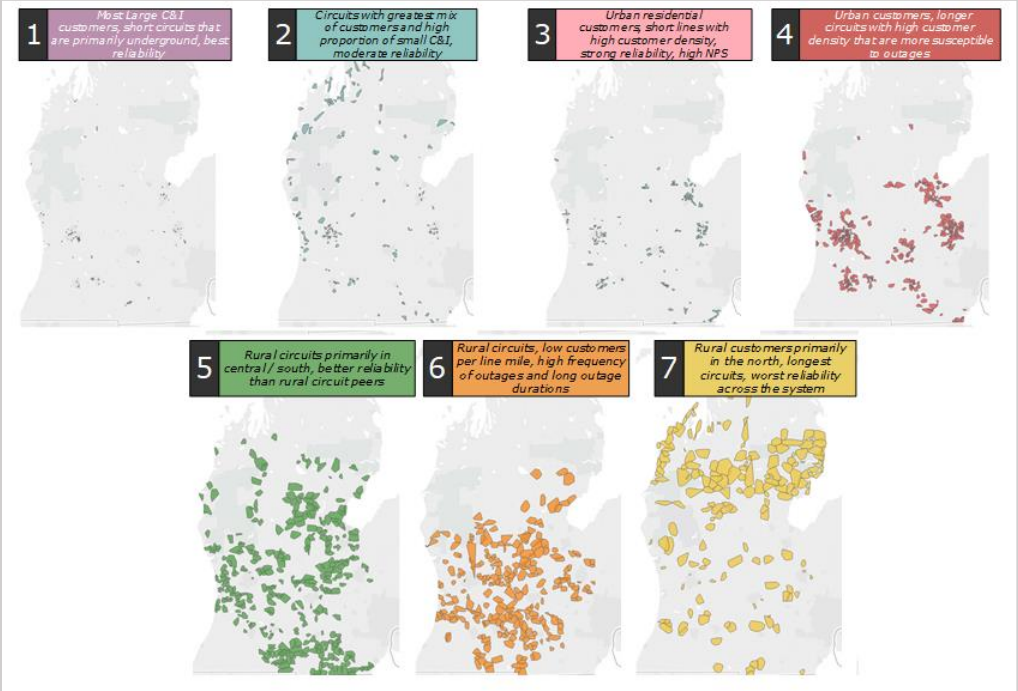


Figure 2: *Illustration of the seven archetypes that cover the CE electric service territory*

Additionally, funding is determined based on these archetypes to balance equity of resources and system improvements. Details on this effort can be found in the CE's Electric Distribution

[1] Frankson, R., K.E. Kunkel, S.M. Champion, and J. Runkle, 2022: Michigan State Climate Summary 2022. NOAA Technical Report NESDIS 150-MI. NOAA/NESDIS, Silver Spring, MD, 4 pp.

[2] 2022 Rate case, current data has not been filed publicly yet

Infrastructure Investment Plan (EDIIP) filed and on public record with the Michigan Public Service Commission (MPSC). Archetypes two, four, and seven tend to have more federally designated DACs, and historically CE has prioritized investment in these regions.

Low Voltage Distribution Targeted Zone Spend by Archetype

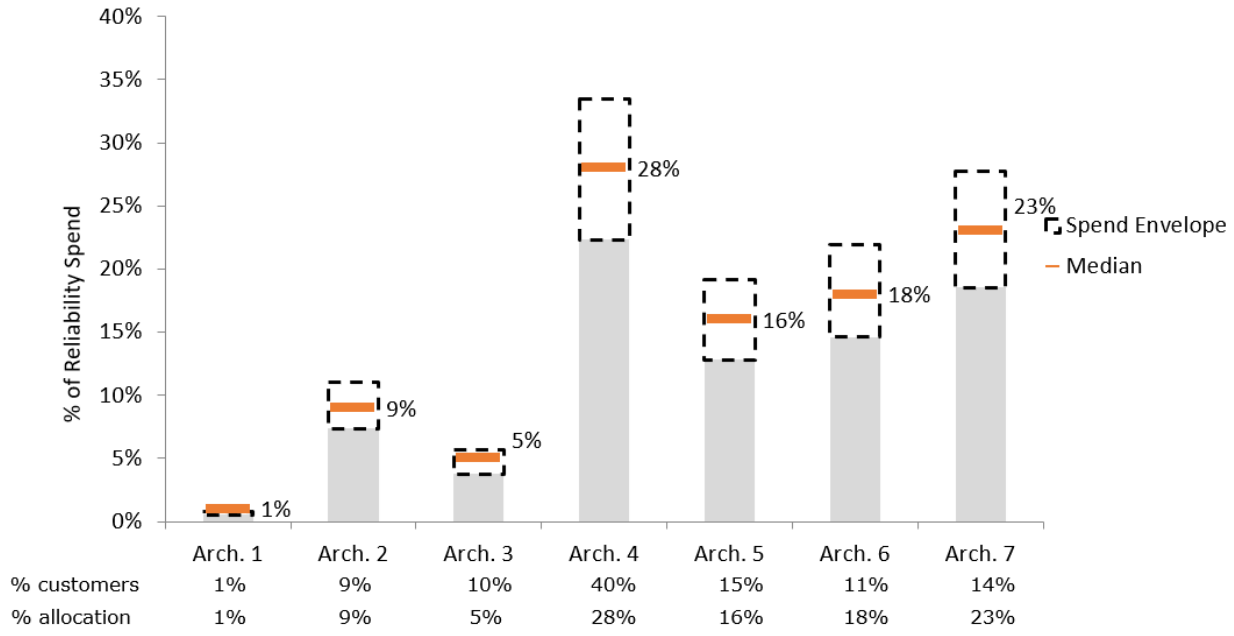


Figure 3: *An illustration of Low Voltage Distribution (LVD) spend in by archetype in addition to the breakdown on customer counts and spend allocations.*

Overview of Past & Future Planned Resilience Investments

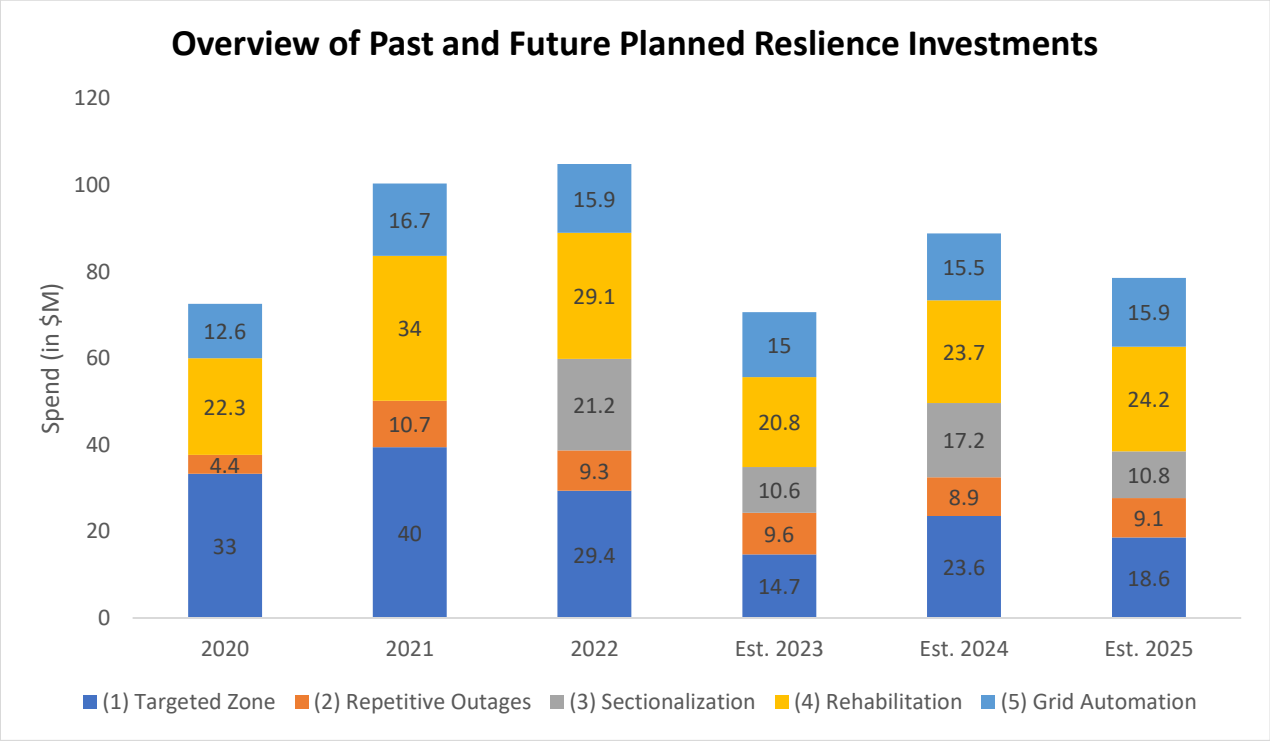
As stated above CE's resilience and reliability budgets are categorized in five main buckets: (1) Targeted Zones, (2) Repetitive Outages, (3) Sectionalization, (4) Rehabilitation – Further Action and Security Inspections, and (5) Grid Automation. Sectionalizing is a temporary program that began in 2022 and expected to be completed in 2025. A short description of each scope is listed below.

Resilience Program Name	Timing	Description of Investment Scope
(1) Targeted Zone	Ongoing	Reconductoring and mitigation of outages by zone
(2) Repetitive Outage	Ongoing	Short cycle projects to mitigate outages, identified by customer complaints or repetitive outage reports
(3) Sectionalization	2022 – 2025	Install all lateral fusing where feasible
(4) Rehabilitation - Security Inspections	2012 – 2023	Repairs to deteriorating equipment
(4) Rehabilitation - Further Action	Ongoing	Imminent rehabilitation for deteriorating equipment
(5) Grid Automation	Ongoing	Installing automation technologies on the grid

Past & Future Planned Resilience Investment Spend by Category

CE has been drafting EDIIPs since 2018. These plans are long term plans for funding to drive CE's purpose to achieve world-class performance delivering hometown service, measured by a

triple bottom line – people, the planet, and Michigan's prosperity.[3] CE is currently drafting the next iteration of the EDIIP scheduled to be submitted to the Michigan Public Service Commission (MPSC) in September 2023.



Historical Spend (2020 – 2022)

Below are the actual spend dollars across each spend category for the past 3 years. These include amounts approved by the MPSC in addition to amounts approved by the company for projects viewed as beneficial for either customer satisfaction, customer reliability, or customer capacity projects.

The spend category Sectionalization started in 2022 during CE's inspections. CE's standards now include fusing of all LVD laterals. Historically, this was not the case, so there are locations where lateral fuses are not installed. Internal inspection resources were leveraged to identify those locations where additional lateral line fusing could be added where the benefit, considering the probability of operation, was anticipated to overcome the retrofit cost.

Spend Category (in $M)	**2020**	**2021**	**2022**	**Past 3-Year Total (2020-2022)**
(1) Targeted Zone	$33.0	$40.0	$29.4	$102.4
(2) Repetitive Outages	$4.4	$10.7	$9.3	$24.4
(3) Sectionalization	$0.0	$0.0	$21.2	$21.2

[3] Electric Distribution Infrastructure Investment Plan, filed with the Michigan Public Service Commission's June 30, 2021 Order in Case No. U-20147.

(4) Rehabilitation (Further Action and Security Inspections)	$22.3	$34.0	$29.1	$85.4
(5) Grid Automation	$12.6	$16.7	$15.9	$45.2
Totals (all categories)	$72.3	$101.4	$104.9	**$278.6**

Future Planned Spend (2023 - 2025)

The projected estimates in these spending categories were submitted as part of CE's Long Term Financial Plan. The estimates below are projected by CE but are subject to change based upon the current rate case proceeding that CE is undergoing. Current rate case requests include approvals for 2023 and 2024. 2025 is projected and not submitted for approval.

Spend Category (in $M)	**2023**	**2024**	**2025**	**Future 3-Year Total (2023-2025)**
Targeted Zone	$14.7	$23.6	$18.6	$56.9
Repetitive Outages	$9.6	$8.9	$9.1	$27.6
Sectionalization	$10.6	$17.2	$10.8	$38.6
Rehabilitation (Further Action and Security Inspections)	$20.8	$23.7	$24.2	$68.7
Grid Automation	$15.0	$15.5	$15.9	$46.4
Totals (all categories)	$70.7	$88.9	$78.6	**$238.2**

Future planned spend is subject to change. As CE has started using data analytics, the benefits of each project type can more directly be tied to specific construction on the electric distribution system. As CE develops learnings from these findings in the data certain spending categories are adjusted to reflect the better customer benefit ratio.

Overview of Grant-Funded Investments

Funding from this grant will accelerate grid automation, targeted zone, and sectionalization projects in disadvantaged communities. These projects do not rise to the highest priority level when applying the typical targeted zones planning formula from Figure 1 above. This grant-funded proposal would allow CE to factor in DAC designations into the planning formula and accelerate investments in these areas. DAC areas typically have low load growth which then translates into a low need for electrical distribution system upgrades. CE decided to target circuits that do not have ties to other circuits for the purposes of this project since it limits the ability to restore customers quickly by a load transfer to another source. The projects that will be funded by this grant will not only strengthen the backbone of these circuits, but they will also increase the load capabilities of these circuits allowing distributed energy resource and EV chargers to connect more easily, as well as increase reliability and resilience with automation and ATR loops.

Funding from the GRIP program grants will increase CE's resiliency spend – with an emphasis entirely on DAC-designated or DAC-adjacent communities – by about 25% on average over the performance period of the award (average of $20M in grant spend over five years).

Funding Source (in $M)	**2024**	**2025**	**2026**	**2027**	**2028**	**Total (2024 – 2028)**
Grant Funding	$22.2	$28.4	$25.4	$12.5	$11.5	$100.0
Company Match	$22.3	$28.5	$25.4	$12.5	$11.6	$100.3
Totals (all categories)	$44.5	$56.9	$50.8	$25.0	$23.1	**$200.3M**

Project Title: Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities

Name of Applicant: Consumers Energy

Project Business Lead: Michael Kelly

Senior Engineer: Jenny Partlan

Project Manager: Tony Smith

Project Description

Consumers Energy (CE) is an electric and natural gas utility headquartered in Jackson, MI that serves 6.7 million Michiganders. Since 1900, the Midwest and Michigan have become more prone to weather-related grid disruptions. Compared to 1900, Michigan is almost three degrees warmer, gets five more inches of rain per year, and sees twice as many severe weather events.

To equitably address these climate-induced challenges, CE is proposing an expansion of its existing sectionalization and circuit improvements program to both increase the number of circuits improved in federally designated Disadvantaged Communities (DACs) and accelerate existing project timelines. The scope of this work includes preparing for and implementing circuit loops that can automatically re-energize customers in a storm event while also installing lateral fuses, replacing poles, reconductoring circuit and other activities to harden the system. Finally, this project will pilot new pole sensor technology to optimize maintenance processes.

Not only will this project help bolster grid resiliency for underserved areas, but it will also sustain 66+ jobs in partnership with the Utility Workers Union of America (UWUA) and others while serving as a training ground for line worker apprentices from several local community colleges – many coming from underrepresented backgrounds.

Project Objectives

This project will upgrade aging infrastructure and add system redundancy to mitigate the outage impacts of increasingly frequent and severe storms, with the underlying work prioritizing federally designated Disadvantaged Communities. This project will seek to:

- Sectionalize the grid to reduce outage impacts and durations for customers
- Harden the grid to prevent and minimize the impact of storm-driven outages

Grid & Community Impacts

To ensure that this project maximizes benefits while minimizing risks to local communities, this infrastructure investment will help drive the following outcomes:

- Improve system-wide grid reliability and resiliency
- Leverage this project as a platform to support 66+ union-represented jobs and support line worker apprentice training
- Drive economic development by supporting three (3) “energy-ready” sites that would provide quality power to high energy intensity commercial and industrial businesses
- Ensure that at least 40% of investments flow to local disadvantaged communities
- Maintain ongoing dialogues with local communities to maximize local benefits

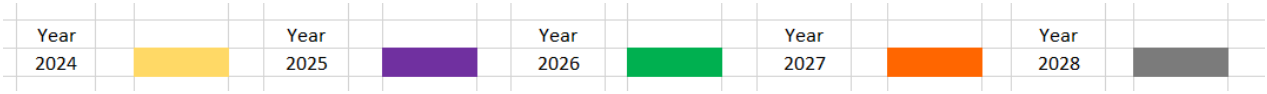
New Grant Funded Projects

The below tables list projects that will be built using grant funding. These projects are incremental to Consumers Energy's (CE) planned work.

Grid Automation Projects

The below table details all the new, incremental grid automation projects that CE plans to build with funding from this grant opportunity. A description of the columns is as follows:

- Sub Station 1: DAC designated substation where the tie / automation loop will start.
- Sub Station 2: Substation where the tie / automation loop will end.
- HQ: The location of the crew service center.
- Township/City: The township/city the work is planned to take place in.
- County: The county the work is planned to take place in.
- Area: The corresponding work area as described in the Technical Scope Summary of the Technical Volume



Sub Station 1	Sub Station 2	HQ	Township/City	County	Area
BOMAN	WEBSTER	FLT	FLUSHING	Genesse	Flint
BOMAN	MAYFAIR	FLT	FLUSHING	Genesse	Flint
MONTROSE	ULMER	FLT	MONTROSE	Genesse/Saginaw	Flint
SKYLARK	GILKEY CREEK	FLT	BURTON	Genesse	Flint
MILBOURNE	MILBOURNE	FLT	FLINT	Genesse	Flint
WEBSTER	DUNHAM	FLT	FLUSHING	Genesse	Flint
CALKINS	CALKINS	FLT	FLINT	Genesse	Flint
STATE STREET	CHEYENNE	SAG	SAGINAW	Saginaw	Saginaw
COOKE DAM	FOOTE HYDRO	TWS	PLAINFIELD	Iosco	Saginaw
TAWAS	TAWAS	TWS	TAWAS CITY	Iosco	Saginaw
TURNER	WHITTEMORE	TWS	TWINING	Arenac/Iosco	Saginaw
ST HELEN	ST HELEN	WBR	AU SABLE	Roscommon	Saginaw
GRAYLING	GRAYLING	WBR	GRAYLING	Crawford	Saginaw
ASHMAN CIRCLE	WALDO	MDL	MIDLAND	Midland	Saginaw
FREELAND	INGERSOLL	SAG	MIDLAND	Saginaw/Midland	Saginaw
STANDISH	STANDISH	WBR	STANDISH	Arenac	Saginaw
HART	SHELBY	LDG	HART	Oceana	Lakeshore
ONEKAMA	ONEKAMA	BEN	BEAR LAKE	Manistee	Lakeshore
SHELBY	SHELBY	MUS	SHELBY	Oceana	Lakeshore
WESTERN AVENUE	WESTERN AVENUE	MUS	MUSKEGON	Muskegon	Lakeshore
MAPLE GROVE	MCCRACKEN	MUS	MUSKEGON HTS	Muskegon	Lakeshore
CHEBOYGAN	BEAUGRAND	BNC	CHEBOYGAN	Cheboygan	Northern
MACKINAW CITY	MACKINAW CITY	BNC	MACKINAW CITY	Cheboygan	Northern
HARRISON	DEER LAKE	CLR	HARRISON	Clare	Northern
CLARE	CLARE	CLR	CLARE	Clare/Isabella	Northern
LEVEL PARK	AUGUSTA	BCK	BATTLE CREEK	Calhoun/Kalamazoo	Southwest / Lansing
PALMER	PALMER	KAL	KALAMAZOO	Kalamazoo	Southwest / Lansing
NORTH LANSING	DEWITT	LAN	LANSING	Clinton	Southwest / Lansing

Sectionalization

The below table details all the new, incremental sectionalization projects that CE plans to build with funding from this grant opportunity. A description of the columns is as follows:

- Sub Name: A description of where the project will originate.
- Circuit Name: The internal CE name for the targeted circuit.
- HQ: The location of the crew service center.
- Township/City: The township/city the work is planned to take place in.

Sub Name	Circuit Name	HQ	Township/City
WEST RIVER	GRAND RIVER	GRN	PLAINFIELD
WEST RIVER	CHAMBERLIN	GRN	PLAINFIELD
MUSKEGON HEIGHTS	HEIGHTS	MUS	MUSKEGON
BELLA VISTA	BELLA VISTA	GRN	CANNON
BELLA VISTA	BLAKELY	GRN	PLAINFIELD
GREENWOOD	RAU ROAD	WBR	MOFFATT
BLINTON	CAMPUS	FLT	HOLLY
BLINTON	VEMCO	FLT	HOLLY
BLINTON	MCWAIN	FLT	GRAND BLANC
BLINTON	POLLOCK	FLT	GRAND BLANC
ST JOHNS	CITY	LAN	ST JOHNS
ST JOHNS	WATERWORKS	LAN	ST JOHNS
COOKE DAM	VILLAGE	TWS	PLAINFIELD
FIVE CHANNELS HYDRO	DISTRIBUTION	TWS	OSCODA
CADILLAC	CENTRAL	CAD	CADILLAC
CADILLAC	BERRY LAKE	CAD	CADILLAC
MAUMEE	LENAWEE ST	ADR	ADRIAN
TAWAS	EAST TAWAS	TWS	TAWAS CITY
TAWAS	TAWAS	TWS	TAWAS CITY
LARKIN	LARKIN	MDL	MIDLAND
LARKIN	EASTMAN	MDL	MIDLAND
LARKIN	MORNING SIDE	MDL	MIDLAND
SPRING DRIVE	BISHOP LAKE	FRE	FREMONT
STANLEY	SUMMIT	FLT	MT MORRIS
STANLEY	NORTHLAND	FLT	MT MORRIS
CLIO	MILL STREET	FLT	CLIO
CLIO	PINE RUN	FLT	CLIO
CLIO	WEST CLIO	FLT	CLIO
BEECHER	DISPOSAL	ADR	ADRIAN
BEECHER	ANDERSON	ADR	ADRIAN
HOMESTEAD	BEULAH	BEN	BEULAH
ALCONA DAM	GLENNIE	TWS	CURTIS
AUGUSTA	HOSPITAL	KAL	AUGUSTA
AUGUSTA	AUGUSTA	KAL	AUGUSTA
ELM STREET	VERONA	BCK	BATTLE CREEK
ELM STREET	MAIN	BCK	BATTLE CREEK
ELM STREET	VAN BUREN	BCK	BATTLE CREEK
ESSEXVILLE	ESSEXVILLE	BCY	ESSEXVILLE
ESSEXVILLE	WOODSIDE	BCY	ESSEXVILLE
ESSEXVILLE	CENTER ROAD	BCY	ESSEXVILLE
CHESANING	CHESANING	SAG	CHESANING
FREELAND	RURAL	SAG	TITTABAWASSEE
FREELAND	FREELAND	SAG	MIDLAND
WEALTHY STREET	NORTHWEST	GRA	GRAND RAPIDS
WEALTHY STREET	INDIANA	GRA	GRAND RAPIDS
GLADWIN	CEDAR	CLR	GLADWIN
MEADOWBROOKE	MEADOWBROOKE	GRE	CALEDONIA
HASTINGS	BROADWAY	HST	HASTINGS
HASTINGS	HANOVER	HST	HASTINGS
ITHACA	COURT HOUSE	ALM	ITHACA
LINDEN	LOBDELL	FLT	LINDEN
LEELANAU	OMENA BAY	TRA	LEELANAU
SANFORD DAM	AVERILL	MDL	SANFORD
SANFORD DAM	OLSON	MDL	SANFORD
SMALLWOOD DAM	DISTRIBUTION	CLR	BUCKEYE

Sub Name	Circuit Name	HQ	Township/City
GREENVILLE	WILLIAMS ST	GVL	GREENVILLE
GREENVILLE	WASHINGTON ST	GVL	GREENVILLE
EATON RESEARCH	40TH STREET	KAL	CHARLESTON
REED CITY	YOPLAIT	BIG	REED CITY
REED CITY	MEDICAL	BIG	REED CITY
REED CITY	HOLDENVILLE	BIG	REED CITY
REED CITY	HIGH SCHOOL	BIG	REED CITY
HARVEY STREET	CORRECTION	GRA	GRAND RAPIDS
HARVEY STREET	SUNSHINE	GRA	GRAND RAPIDS
HARVEY STREET	FULLER	GRA	E GD RAPIDS
WESTERN AVENUE	LAKESIDE	MUS	MUSKEGON
WESTERN AVENUE	WEST BUSINESS	MUS	MUSKEGON
WESTERN AVENUE	DIVISION	MUS	MUSKEGON
PINCONNING	PINCONNING	BCY	PINCONNING
PINCONNING	WHITE FEATHER	BCY	PINCONNING
STANDISH	STERLING	WBR	STANDISH
ATHERTON	HEMPHILL	FLT	FLINT
ROEDEL ROAD	BAKER	SAG	BRIDGEPORT
ROEDEL ROAD	JUNCTION ROAD	SAG	BRIDGEPORT
MANITOU BEACH	DEVILS LAKE	ADR	ROLLIN
MANITOU BEACH	ADDISON	ADR	ADDISON
FINE LAKE	BRISTOL	BCK	JOHNSTOWN
CONVIS	WALNUT POINT	BCK	MARSHALL
EDMORE	SIX LAKES	ALM	EDMORE
EDMORE	CEDAR LAKE	ALM	EDMORE
EDMORE	BLANCHARD	ALM	EDMORE
ST HELEN	KENO	WBR	S BRANCH
BLACK RIVER	FILLMORE	HML	ZEELAND
BLACK RIVER	ZEELAND	HML	ZEELAND
BEERS	NICHOLS	FLT	GAINES
BEERS	BALDWIN ROAD	FLT	SWARTZ CREEK
STATE STREET	MACKINAW	SAG	SAGINAW
WILDWOOD	YARDMAN	JAC	BLACKMAN
CARSON CITY	HARVEST	GVL	CARSON CITY
AGNEW	LAKE	MUS	GRAND HAVEN
COOPER	NAGEL	KAL	COOPER
COOPER	COOPER CENTER	KAL	COOPER
BRONSON	MILL STREET	CLD	BRONSON
MENDON	M-60	CLD	MENDON
NEFF ROAD	LEWIS ROAD	FLT	VIENNA
NEFF ROAD	DODGE ROAD	FLT	CLIO
MCBAIN	VOGEL CENTER	CAD	MCBAIN
MONTROSE	VOLKMER	FLT	MONTROSE
RUTLAND	TANNER LAKE	HST	HOPE
RUTLAND	COOK RD	HST	HASTINGS
NORTH MUSKEGON	DALTON	MUS	N MUSKEGON
NORTH MUSKEGON	SANITARIUM	MUS	MUSKEGON
ONEKAMA	ONEKAMA	BEN	ONEKAMA
ONEKAMA	BEAR LAKE	BEN	BEAR LAKE
SALEM	BURNIPS	HML	SALEM
SALEM	NORTH DORR	HML	BYRON
NORTH LANSING	VALLEY FARMS	LAN	EAST LANSING
NORTH LANSING	LABORATORY	LAN	LANSING
OAKWOOD	BROADWAY	KAL	KALAMAZOO
OAKWOOD	PARKVIEW	KAL	KALAMAZOO
OAKWOOD	HILLCREST	KAL	KALAMAZOO
MICHIGAN CENTER	PAGE	JAC	JACKSON
MICHIGAN CENTER	BALLARD	JAC	NAPOLEON
MILLER ROAD	YALE STREET	FLT	FLINT
MILLER ROAD	NERREDIA STREET	FLT	FLINT
HAMILTON	HAMILTON	HML	HEATH
HAMILTON	HAWKEYE	HML	HEATH

Sub Name	Circuit Name	HQ	Township/City
HAMILTON	OVERISEL	HML	HEATH
MANCHESTER	LOGAN ROAD	JAC	MANCHESTER
MANCHESTER	AUSTIN ROAD	JAC	MANCHESTER
MANCHESTER	DUNCAN	JAC	MANCHESTER
STOCKBRIDGE	MORTON	JAC	STOCKBRIDGE
STOCKBRIDGE	STOCKBRIDGE	JAC	STOCKBRIDGE
VANDERCOOK LAKE	VANDERCOOK LAKE	JAC	SUMMIT
LAMBERTVILLE	WHITEFORD	SMN	WHITEFORD
LAMBERTVILLE	SUMMERFIELD	SMN	BEDFORD
PALMYRA	PALMYRA	ADR	RAISIN
HOLTON	MAPLE ISLAND	FRE	FREMONT
ORLEANS	LONG LAKE	GVL	RONALD
REMUS	LEPRINO	BIG	WHEATLAND
WALDRON	BETZER	ADR	WALDRON
WALDRON	MUNSON	ADR	WALDRON
EAST MUSKEGON	MILL IRON	MUS	MUSKEGON
EAST MUSKEGON	SHERIDAN	MUS	MUSKEGON
EAST MUSKEGON	QUARTERLINE ROAD	MUS	MUSKEGON
BOSTON SQUARE	NELAND	GRA	GRAND RAPIDS
BOSTON SQUARE	KALAMAZOO	GRA	GRAND RAPIDS
BOSTON SQUARE	HALL	GRA	E GD RAPIDS
BOSTON SQUARE	MULICK PARK	GRA	E GD RAPIDS
PIERSON	PIERSON	GRN	PIERSON
PIERSON	WHITEFISH	GRN	PIERSON
NORGE MACHINE	LINCOLN	MUS	MUSKEGON
NORGE MACHINE	EDGEWATER	MUS	MUSKEGON
NORTH ALLEGAN	ROCKWELL	HML	ALLEGAN
NORTH ALLEGAN	HUBBARD	HML	ALLEGAN
EAST GRANT	MUD FLAT	FRE	ENSLEY
EAST GRANT	ONION FARMS	FRE	BROOKS
DIMONDALE	M-99	LAN	DIMONDALE
DIMONDALE	DIMONDALE	LAN	DIMONDALE
DIMONDALE	ROSSMAN	LAN	DIMONDALE
POTTER	KIRK	SAG	SAGINAW
HICKORY	GATEWAY	MUS	NORTON SHORES
HICKORY	BLACK LAKE	MUS	NORTON SHORES
HUDSONVILLE	HUDSONVILLE	GRA	HUDSONVILLE
HUDSONVILLE	32ND	GRA	HUDSONVILLE
BELSAY	RAYMOND	FLT	BURTON
CARROLLTON	CARROLLTON	SAG	ZILWAUKEE
CARROLLTON	MAPLE RIDGE	SAG	ZILWAUKEE
CARROLLTON	ZILWAUKEE	SAG	ZILWAUKEE
EDDY	WADSWORTH	SAG	SAGINAW
EDDY	FINDLEY	SAG	SAGINAW
WASHINGTON	FIRST STREET	LDG	LUDINGTON
WASHINGTON	MADISON	LDG	LUDINGTON
WASHINGTON	CONRAD	LDG	LUDINGTON
IRON STREET	DORT HIGHWAY	FLT	FLINT
IRON STREET	ATHERTON ROAD	FLT	FLINT
IRON STREET	TERM	FLT	FLINT
IRON STREET	JOYCE	FLT	BURTON
APPLE	WOLF LAKE	MUS	EGELSTON
OTTAWA BEACH	LAKEWOOD	HML	PARK
OTTAWA BEACH	PORT SHELDON	HML	PARK
DELTON	CLOVERDALE	HST	PRAIRIEVILLE
DELTON	DELTON	HST	PRAIRIEVILLE
RAVENNA	MOORLAND	MUS	RAVENNA
KNIGHT	FARLEY	BCY	GILFORD
KNIGHT	ROSEMARY	BCY	BAY CITY
FAIRFIELD	WESTON	ADR	MADISON

Sub Name	Circuit Name	HQ	Township/City
SLOAN	BALLENGER	FLT	FLINT
HOUGHTON HEIGHTS	PRUDENVILLE	WBR	DENTON
GULL LAKE	WILLOW BEACH	KAL	PRAIRIEVILLE
LONG LAKE	THOMPSON RD	FLT	FENTON
LONG LAKE	LAKESIDE	FLT	HOLLY
LASALLE	DIXIE	SMN	MONROE
LASALLE	OTTER CREEK	SMN	IDA
LASALLE	TELEGRAPH	SMN	MONROE
GODFREY	LOWELL	GVL	KEENE
GODFREY	FLAT RIVER	GVL	LOWELL
FLUSHING	SEYMOUR ROAD	FLT	FLUSHING
FLUSHING	MAPLE STREET	FLT	FLUSHING
KELLOGGSVILLE	HOME ACRES	GRA	KENTWOOD
KELLOGGSVILLE	LEISURE	GRA	KENTWOOD
KELLOGGSVILLE	CHEMICAL	GRA	KENTWOOD
KELLOGGSVILLE	KELLOGGSVILLE	GRA	KENTWOOD
SYLVAN	CITY	JAC	CHELSEA
GLENDALE	KEYES	KAL	KALAMAZOO
NORTH ADAMS	JEROME	ADR	NORTH ADAMS
CLIMAX	AGGREGATES	KAL	CHARLESTON
CLIMAX	CLIMAX	KAL	CLIMAX
GERRISH	MERRIO	WBR	BEAVER CREEK
MARION	MILL	CAD	MARION
FOUR MILE	GREENRIDGE	GRN	WALKER
FOUR MILE	CORDES	GRN	WALKER
FOUR MILE	BAUMHOFF	GRN	WALKER
FOUR MILE	WALKENT	GRN	WALKER
EDGEWOOD	DISTRIBUTION	ALM	LAFAYETTE
MONTAGUE	NORTH SHORE	MUS	MONTAGUE
LATIMER	MUSKETAWA	MUS	MUSKEGON
LATIMER	CARR LAKE	MUS	MUSKEGON
LATIMER	OLTHOFF	MUS	MUSKEGON
LATIMER	PORT CITY	MUS	MUSKEGON
HYDE PARK	MCMILLIAN	MUS	FRUITLAND
BATES	ACME	TRA	ACME
DIVISION	PARKER	GRA	BYRON
DIVISION	PIEDMONT	GRA	BYRON
CENTRAL LAKE	ELLSWORTH	BNC	ELLSWORTH
CENTRAL LAKE	CENTRAL LAKE	BNC	CENTRAL LAKE
CHEBOYGAN	DUNCAN	BNC	CHEBOYGAN
BAY HARBOR	DUNDEE	BNC	PETOSKEY
BAY HARBOR	PRESERVE	BNC	PETOSKEY
CRYSTAL	MT HOPE ROAD	GVL	CRYSTAL
OLIVET	AINGER	BCK	OLIVET
OLIVET	COLLEGE	BCK	OLIVET
STANDALE	PARKSIDE	GRA	WALKER
EASTWOOD	TEXEL	KAL	KALAMAZOO
EASTWOOD	EAST	KAL	KALAMAZOO
EASTWOOD	NAZARETH	KAL	KALAMAZOO
WYOMING PARK	WYOMING	GRA	WYOMING
WYOMING PARK	PORTER	GRA	GRANDVILLE
HAMMOND RD	INDUSTRIAL PARK	TRA	TRAVERSE CITY
READING	CITY	CLD	READING
READING	CAMBRIA	CLD	READING
INDIAN RIVER	RONDO	BNC	TUSCARORA
BOYNE CITY	BOYNE CITY	BNC	BOYNE CITY
BOYNE CITY	VETERANS	BNC	BOYNE CITY
GLEN LAKE	BURDICKVILLE	TRA	CLEVELAND
GLEN LAKE	HOMESTEAD	TRA	CLEVELAND
ROSE CITY	KLACKING CREEK	WBR	ROSE CITY
ORIOLE	HAMLIN	LDG	LUDINGTON
ORIOLE	BRYANT ROAD	LDG	LUDINGTON

Sub Name	Circuit Name	HQ	Township/City
ALDEN	CLAM	TRA	FOREST HOME
BALDWIN	IDLEWILD	LDG	BALDWIN
COLON	COLON	CLD	COLON
COLON	PALMER	CLD	COLON
CASCO	BLUFF	HML	SOUTH HAVEN
CASCO	HAWKHEAD	HML	CASCO
PENINSULA	MAPLETON	TRA	PENINSULA
TEMPERANCE	WOOD ROAD	SMN	IDA
TEMPERANCE	CRABB ROAD	SMN	BEDFORD
TUSTIN	LEROY	CAD	LEROY
TRUFANT	GOWEN	GVL	MONTCALM
NUNICA	LEONARD	MUS	POLKTON
LAKE CITY	JENNINGS	CAD	LAKE CITY
TEKONSHA	TEKONSHA	CLD	TEKONSHA
TEKONSHA	WAGNER	CLD	BURLINGTON
BLUEGRASS	BLUEGRASS	ALM	MT PLEASANT
BLUEGRASS	SUMMERTON	ALM	MT PLEASANT
O-AT-KA	PINE GROVE	TRA	TRAVERSE CITY
EAST JORDAN	WILLIAMS STREET	BNC	EAST JORDAN
CUTLERVILLE	CUTLERVILLE	GRA	BYRON
CUTLERVILLE	SPARTAN	GRA	BYRON
CUTLERVILLE	68TH STREET	GRA	WYOMING
CUTLERVILLE	GAINES	GRA	BYRON
ENSLEY	DISTRIBUTION	BIG	ENSLEY
INGERSOLL	SASSE	MDL	TITTABAWASSEE
MCGRAW	PORTSMOUTH	BCY	BAY CITY
MCGRAW	CASS	BCY	BAY CITY
NEW LOTHROP	BYRON ROAD	FLT	NEW LOTHROP
MACKINAW CITY	STATE PARK	BNC	MACKINAW CITY
WALNUT	GILKEY	FLT	FLINT
BOWEN	AIRCRAFT	GRA	GRAND RAPIDS
BOWEN	BOWEN	GRA	GRAND RAPIDS
BOWEN	BLOSSOM	GRA	GRAND RAPIDS
BOWEN	KIMBERLY	GRA	GRAND RAPIDS
STEVENS	ALBANY	GRA	GRAND RAPIDS
STEVENS	Campau	GRA	GRAND RAPIDS
COLLEGE PARK	CARLETON	ADR	ADRIAN
PORT CALCITE	ROGERS CITY	BNC	ROGERS CITY
PORT CALCITE	WOODWARD	BNC	ROGERS CITY
BARNARD	BAYSIDE	SAG	SAGINAW
BARNARD	BARNARD	SAG	SAGINAW
MAYNARD	MAYNARD	GRA	WALKER
MAYNARD	BESTWALL	GRA	GRAND RAPIDS
LAINGSBURG	LELAND ROAD	OWS	LAINGSBURG
LAINGSBURG	ROUND LAKE	OWS	LAINGSBURG
EIGHT POINT	WHITE BIRCH	CLR	SURREY
LESLIE	BUSINESS	JAC	LESLIE
LESLIE	HULL ROAD	JAC	LESLIE
WURTSMITH	AIR BASE	TWS	OSCODA
BEHNKE	ANGOLA ROAD	CLD	COLDWATER
BEHNKE	RIVER RD	CLD	COLDWATER
BEDFORD	MEACHEM	BCK	JOHNSTOWN
JUDD ROAD	JOLSON	FLT	BURTON
JUDD ROAD	OTTAWA	FLT	BURTON
JUDD ROAD	HOLIDAY	FLT	BURTON
JUDD ROAD	CARMANWOOD	FLT	BURTON
JUDD ROAD	MANDEVILLE	FLT	FLINT
CURTIS	MAGRUDDER	CLR	TOBACCO
DEWEY	WIDDICOMB	GRA	GRAND RAPIDS
DEWEY	SEATING	GRA	GRAND RAPIDS
DEWEY	CONVENTION CENTER	GRA	GRAND RAPIDS

Sub Name	Circuit Name	HQ	Township/City
DEWEY	BRIDGEWATER	GRA	GRAND RAPIDS
APPLETON	WALDRON WAY	BIG	BIG RAPIDS
SEIDEL	PLAZA	SAG	SAGINAW
MIDDLEVILLE	BUSINESS	HST	MIDDLEVILLE
MIDDLEVILLE	LAFAYETTE	HST	MIDDLEVILLE
LANDWER	VANWAGONER	MUS	SPRING LK
GRAYLING	RIVER	WBR	GRAYLING
ANTRIM	BASS LAKE	TRA	ELK RAPIDS
ANTRIM	ELK RAPIDS	TRA	ELK RAPIDS
BOYNE MTN	BOYNE MTN	BNC	BOYNE VALLEY
FIFTEEN MILE ROAD	15 MILE ROAD	BCK	MARSHALL
HARPER ROAD	EIFERT	LAN	AURELIUS
HARPER ROAD	AURELIUS	LAN	AURELIUS
ALPINE	WESTGATE	GRN	ALPINE
ALPINE	ALPINE	GRN	PLAINFIELD
FORDYCE	BAMBER	ALM	MT PLEASANT
FORDYCE	LINCOLN	ALM	MT PLEASANT
CARLETON ROAD	BECK ROAD	CLD	HILLSDALE
CARLETON ROAD	GAIGE ROAD	CLD	JONESVILLE
HOSPITAL	ELMWOOD	TRA	TRAVERSE CITY
LOVEJOY	BRADEN	OWS	ARGENTINE
LOVEJOY	DEERFIELD	OWS	ARGENTINE
FORT CUSTER	BRYDGES RD	BCK	BATTLE CREEK
FORT CUSTER	HARMONIA	BCK	SPRINGFIELD
FORT CUSTER	GUARD	BCK	BATTLE CREEK
FORT CUSTER	HILL-BRADY	BCK	BATTLE CREEK
CARY ROAD	WOODSTOCK	JAC	CEMENT CITY
CARY ROAD	LAKE COLUMBIA	JAC	CEMENT CITY
CARY ROAD	MOSCOW	JAC	HANOVER
CARY ROAD	JEFFERSON ROAD	JAC	CEMENT CITY
CLUB	VILLAGE	MUS	LAKEWOOD CLUB
OAK STREET	COOPER STREET	JAC	JACKSON
OAK STREET	WEST GANSON	JAC	JACKSON
OAK STREET	STATE STREET	JAC	JACKSON
OAK STREET	PLYMOUTH	JAC	JACKSON
CLAY	54TH STREET	GRA	WYOMING
CLAY	FREEZER	GRA	WYOMING
CLAY	WAREHOUSE	GRA	WYOMING
BESSINGER	QUARRY	WBR	OMER
CALVIN	BELTLINE	GRE	GRAND RAPIDS
CALVIN	ROSEMONT	GRE	E GD RAPIDS
CALVIN	FOREST HILLS	GRE	GRAND RAPIDS
CALVIN	WOODCLIFF	GRE	E GD RAPIDS
CALVIN	CALVIN	GRE	GRAND RAPIDS
PECK ROAD	ORE-IDA	GVL	GREENVILLE
PECK ROAD	M-91	GVL	MONTCALM
PECK ROAD	WISE ROAD	GVL	GREENVILLE
SHANTY CREEK	EAST POINT	TRA	KEARNEY
SHANTY CREEK	LODGE	TRA	KEARNEY
BEAUGRAND	HOSPITAL	BNC	CHEBOYGAN
BEAUGRAND	MARINA	BNC	CHEBOYGAN
NINETEEN MILE RD	INDUSTRIAL PARK	BIG	BIG RAPIDS
CHAPIN	CHAPIN	OWS	RUSH
SURREY	SURREY	CLR	FARWELL
SURREY	MAIN STREET	CLR	FARWELL
MIDWAY	M-89 BUSINESS	KAL	PLAINWELL
MIDWAY	NAOMI	KAL	PLAINWELL
LOCH ERIN	PENTECOST	ADR	FRANKLIN
LOCH ERIN	KINGSLEY	ADR	FRANKLIN
TEFT ROAD	LAKEFIELD	SAG	ST CHARLES
TEFT ROAD	GRAHAM	SAG	THOMAS

Sub Name	Circuit Name	HQ	Township/City
SAVIDGE	BOOM ROAD	MUS	GRAND HAVEN
COGGINS	NEWBERG	BCY	FRASER
SQUIRE HILL	EDGEWATER	FLT	FLINT
SQUIRE HILL	HILLSIDE	FLT	FLINT
GILKEY CREEK	WOLCOTT	FLT	BURTON
GILSON	WYMAN	ALM	EDMORE
GILSON	ROCK LAKE	ALM	EDMORE
MORLEY	INDUSTRIAL PARK	SAG	BUENA VISTA
MORLEY	HOLLAND	SAG	BRIDGEPORT
CHAFFEE	BOULEVARD	GRA	GRAND RAPIDS
CHAFFEE	RUNWAY	GRA	GRAND RAPIDS
HANSEN	44TH STREET	GRA	WYOMING
FOURTEENTH STREET	TOBIAS STREET	FLT	FLINT
FOURTEENTH STREET	LIPPINCOTT STREET	FLT	FLINT
FOURTEENTH STREET	LIBERTY STREET	FLT	FLINT
FOURTEENTH STREET	SOUTH WESTERN	FLT	FLINT
ALAMO	PINE GROVE	KAL	PINE GROVE
OBERLIN	BENMARK	CLR	SAGE
ISABELLA	MISSION	ALM	MT PLEASANT
SCHUSS MOUNTAIN	CHALET	TRA	KEARNEY
DRAKE ROAD	COUNTRY CLUB	KAL	KALAMAZOO
DRAKE ROAD	PRAIRIES GOLF	KAL	KALAMAZOO
DRAKE ROAD	MAPLE HILL	KAL	KALAMAZOO
BAY ROAD	SEARS	SAG	KOCHVILLE
HOGSBACK	PINE TREE	LAN	LANSING
HOGSBACK	HOLT ROAD	LAN	DELHI
KENT CITY	TYRONE	GRN	KENT CITY
KENT CITY	CASNOVIA	GRN	CASNOVIA
STEELCASE	STEELCASE	GRA	GRAND RAPIDS
CASCADE	THORNCREST	GRE	LOWELL
HARING	INDUSTRIAL	CAD	CADILLAC
MANTON	GILBERT	CAD	MANTON
RENTON	WATKINS	BCK	BATTLE CREEK
ATWATER	CRONK	KAL	OSHTEMO
ATWATER	VALLEY COLLEGE	KAL	TEXAS
ALABAMA	YANKEE	SAG	SAGINAW
ALABAMA	KING ROAD	SAG	BRIDGEPORT
LAWRENCE	BRUSH CREEK	KAL	LAWRENCE
LAWRENCE	CHRISTIE LAKE	KAL	LAWRENCE
MAPLE CITY	SUGAR LOAF	TRA	CLEVELAND
BALLENGER	HOSPITAL	FLT	FLINT
SKYLARK	KING'S POINTE	FLT	GRAND BLANC
SKYLARK	ROCKING CHAIR	FLT	GRAND BLANC
SKYLARK	HILL	FLT	GRAND BLANC
NEWBURG	BANCROFT	OWS	BANCROFT
PEWAMO	PEWAMO	LAN	DALLAS
PEWAMO	FOWLER	LAN	FOWLER
KALARAMA	ROMENCE	KAL	PORTAGE
KALARAMA	ANGLING	KAL	KALAMAZOO
BRETON	KEN-O-SHA	GRA	GRAND RAPIDS
BRETON	BRETON	GRA	GRAND RAPIDS
BRETON	MEIJER	GRA	GRAND RAPIDS
BRETON	PLYMOUTH	GRA	E GD RAPIDS
BRETON	TOWERS	GRA	GRAND RAPIDS
CEDAR LAKE	VAN ETTEN	TWS	OSCODA
TAMARACK	AMBLE	BIG	LAKEVIEW
RANGER LAKE	LUPTON	TWS	LOGAN
DUQUITE	JOHNSFIELD	WBR	STANDISH
DUQUITE	SAGANING	WBR	STANDISH
EAST TAWAS	ALABASTER	TWS	TAWAS CITY
LEVELY	ALLBRIGHT	MDL	BUCKEYE
CAMBRIDGE	SPEEDWAY	JAC	COLUMBIA

Sub Name	Circuit Name	HQ	Township/City
CAMBRIDGE	IRISH HILLS	JAC	COLUMBIA
HALEY ROAD	MEDINA	ADR	HUDSON
BLACKMAN	SANDSTONE	JAC	SANDSTONE
BLACKMAN	HURST	JAC	PARMA
BLACKMAN	MEIJERS	JAC	BLACKMAN
ROSCOMMON	SOUTH BRANCH	WBR	ROSCOMMON
BIL-MAR	PIERCE	HML	BLENDON
TALLMAN	WACOUSTA	LAN	WESTPHALIA
TALLMAN	CLARK ROAD	LAN	WESTPHALIA
TALLMAN	WRIGHT ROAD	LAN	GRAND LEDGE
TALLMAN	EAGLE	LAN	EAGLE
WATKINS	CHRISTY	BCK	BATTLE CREEK
WATKINS	HAMILTON	BCK	BATTLE CREEK
BELL ROAD	ALBEE	SAG	ALBEE
FOREMAN	VERGENNES	GRE	ADA
FOREMAN	CUMBERLAND	GRE	ADA
KIPP ROAD	HULL ROAD	LAN	MASON
KIPP ROAD	COLUMBIA ROAD	LAN	MASON
KIPP ROAD	COLLEGE ROAD	LAN	MASON
KIPP ROAD	MEIJERS	LAN	MASON
BENNINGTON	MANITOU	OWS	BENNINGTON
BALZER	COMSTOCK	JAC	LESLIE
MILL GROVE	ALLEGAN HYDRO	HML	ALLEGAN
SIMMONS	CABIN LAKE	WBR	WEST BRANCH
ALGER	SKIDWAY	WBR	RICHLAND
HACKETT	HACKETT	SAG	KOCHVILLE
HACKETT	DICE ROAD	SAG	TITTABAWASSEE
IRISH ROAD	BELLE MEADE	FLT	DAVISON
CLARE	FARWELL	CLR	CLARE
CLARE	CLARE	CLR	CLARE
NOBLE	WHITNEY	TWS	SIMS
MARKER LAKE	JACKSON ROAD	GVL	BOSTON
MARKER LAKE	KYSER ROAD	GVL	BOSTON
VAN ATTA	POWELL	LAN	WILLIAMSTOWN
VAN ATTA	VAN ATTA	LAN	WHEATFIELD
MANNSIDING	CEDAR	CLR	REDDING
WEST FENTON	OVERPASS	FLT	FENTON
ZYLMAN	ZYLMAN	KAL	PORTAGE
MISSION	UNIVERSITY	ALM	MT PLEASANT
MISSION	THREE LEAVES	ALM	MT PLEASANT
MCCANDLISH	BUSH CREEK	FLT	GRAND BLANC
MCCANDLISH	THREAD RIVER	FLT	GOODRICH
HUBBARD LAKE	HUBBARD LAKE	TWS	ALCONA
LAUNDRA	CARDINAL PARK	SAG	KOCHVILLE
LAUNDRA	PLEASANTVIEW	SAG	KOCHVILLE
TRIPP ROAD	TRIPP ROAD	ADR	WRIGHT
HUBBARDSTON ROAD	HUBBARDSTON	GVL	HUBBARDSTON
HUBBARDSTON ROAD	STONEY CREEK	GVL	PEWAMO
COLUMBIA	COLUMBIA	BCK	BATTLE CREEK
COLUMBIA	AIRPORT ROAD	BCK	BATTLE CREEK
PRICE ROAD	PRICE	MDL	MIDLAND
BIRCHWOOD	LARAWAY LAKE	GRE	ADA
BIRCHWOOD	KENMORE	GRE	KENTWOOD
BIRCHWOOD	BIRCHWOOD	GRE	CASCADE
SMITH CREEK	SKIPARK	WBR	OGEMAW
WOODWARD	WOODWARD LAKE	CAD	BOON
MILBOURNE	PASADENA	FLT	FLINT
MILBOURNE	DUPONT	FLT	FLINT
MILBOURNE	DARTMOUTH	FLT	FLINT
WEST CLARK LAKE	EAGLE POINT	JAC	COLUMBIA
WEST CLARK LAKE	GRAND	JAC	COLUMBIA
PEARLINE	COPPER BEACH	GRA	ALLENDALE

Sub Name	Circuit Name	HQ	Township/City
PEARLINE	WINDFIELD	GRA	ALLENDALE
BENSTON	LEWIS	MUS	WHITEHALL
MONUMENT	AUSABLE	TWS	OSCODA
KROMDYKE	RAMONA	KAL	PORTAGE
KROMDYKE	PORTAGE CREEK	KAL	PORTAGE
THORNTON	FUTURE	MDL	SANFORD
THORNTON	NELSON RD	MDL	SANFORD
MT PLEASANT	COLLEGE	ALM	MT PLEASANT
MT PLEASANT	BROADWAY	ALM	MT PLEASANT
MUSKEGON HEIGHTS	MUSKEGON	MUS	MUSKEGON
CERESCO	RURAL	BCK	MARSHALL
ROBERTS STREET	FOOTE HOSPITAL	JAC	JACKSON
BEAVERTON	TOBACCO	CLR	BEAVERTON
SUTTONS BAY	SUTTONS BAY	TRA	SUTTONS BAY
LOGISTIC	ZEELAND FARMS	HML	ZEELAND
LOGISTIC	FELCH	HML	ZEELAND
CADILLAC	HOSPITAL	CAD	CADILLAC
CADILLAC	BOND	CAD	CADILLAC
HOLLY	ACADEMY	FLT	HOLLY
LARKIN	N MIDLAND	MDL	MIDLAND
SPRING DRIVE	HESS LAKE	FRE	NEWAYGO
FENTON	DENTON HILL	FLT	FENTON
OWOSSO	OAKWOOD	OWS	OWOSSO
CHARLOTTE	SEMINARY STREET	LAN	CHARLOTTE
CHARLOTTE	FOOTE STREET	LAN	CHARLOTTE
CHARLOTTE	WATER WORKS	LAN	CHARLOTTE
WEALTHY STREET	LOGAN	GRA	GRAND RAPIDS
FREMONT	GERBER	FRE	FREMONT
GRAND LEDGE	HARTEL ROAD	LAN	GRAND LEDGE
GLADWIN	RURAL	CLR	GLADWIN
GLADWIN	SPRING	CLR	GLADWIN
MEADOWBROOKE	CHERRY	GRE	CALEDONIA
MEADOWBROOKE	KARONA	GRE	KENTWOOD
MEADOWBROOKE	WOOD PRODUCTS	GRE	CALEDONIA
MEADOWBROOKE	GARNET	GRE	KENTWOOD
HASTINGS	BOLTWOOD	HST	HASTINGS
CAMELOT LAKE	COLEMAN	MDL	GENEVA
CAMELOT LAKE	LOOMIS	MDL	JASPER
PERRY	PERRY	OWS	PERRY
PERRY	PITTSBURG	OWS	PERRY
NEW RICHMOND	NEW RICHMOND	HML	SAUGATUCK
NEW RICHMOND	HOLLAND RENDERING	HML	MANLIUS
EVANSTON	EVANSTON	MUS	FRUITPORT
TECUMSEH	PATTERSON	ADR	TECUMSEH
TECUMSEH	EVANS STREET	ADR	TECUMSEH
TECUMSEH	BRITTON	ADR	TECUMSEH
GRANDVILLE	GEORGETOWN	GRA	GRANDVILLE
GRANDVILLE	GRANDVILLE	GRA	GRANDVILLE
GRANDVILLE	CANAL	GRA	GRANDVILLE
SPRING LAKE	SPRING LAKE	MUS	SPRING LAKE
SPRING LAKE	COUNTRY CLUB	MUS	SPRING LAKE
JEROME ROAD	STATE STREET	ALM	ALMA
PULLMAN	CHICORA	HML	CLYDE
PULLMAN	PULLMAN	HML	CLYDE
CONVIS	MAR CREEK	BCK	PENNFIELD
DURAND	GAINES	OWS	DURAND
SUMMIT	SOUTH STREET	JAC	JACKSON
SUMMIT	FRANCIS STREET	JAC	JACKSON
SUMMIT	FOURTH STREET	JAC	JACKSON
PATTERSON	BRIDGE	BCY	BAY CITY
PATTERSON	PATTERSON	BCY	BAY CITY
PATTERSON	STATE	BCY	BAY CITY

Sub Name	Circuit Name	HQ	Township/City
STATE STREET	WARWICK	SAG	SAGINAW
STATE STREET	STATE STREET	SAG	SAGINAW
GOGUAC	GOGUAC	BCK	BATTLE CREEK
GOGUAC	LAKEVIEW	BCK	BATTLE CREEK
GOGUAC	RIVERSIDE	BCK	BATTLE CREEK
CARSON CITY	HOSPITAL	GVL	CARSON CITY
CARSON CITY	BUTTERNUT	GVL	CARSON CITY
MIDDLETON	NEWARK	ALM	MAPLE RAPIDS
ALLENDALE	RIVER	MUS	ALLENDALE
ALLENDALE	BLENDON	MUS	POLKTON
BRONSON	MONROE LAKE	CLD	BRONSON
CASINO	LEATON	ALM	UNION
LAKE MITCHELL	GOLF CLUB	CAD	CADILLAC
DOEHLER JARVIS	GRIGGS STREET	GRA	GRAND RAPIDS
DOEHLER JARVIS	JEFFERSON	GRA	GRAND RAPIDS
DOEHLER JARVIS	COTTAGE GROVE	GRA	GRAND RAPIDS
DOEHLER JARVIS	SEYMOUR	GRA	GRAND RAPIDS
PORTAGE	CARPENTERS CORNERS	KAL	PORTAGE
PORTAGE	SHAVER ROAD	KAL	PORTAGE
PORTAGE	MUSTANGS	KAL	PORTAGE
PORTAGE	LOVERS LANE	KAL	PORTAGE
MONTROSE	MCKINLEY ROAD	FLT	MONTROSE
BITTERSWEET	DOWN HILL	HML	OTSEGO
BITTERSWEET	RIVER ROAD	HML	TROWBRIDGE
NASHVILLE	VERMONTVILLE	HST	VERMONTVILLE
NASHVILLE	NASHVILLE	HST	NASHVILLE
GRANT	CATALPA	FRE	GRANT
GRANT	MASON DRIVE	FRE	GRANT
DEWITT	DEWITT	LAN	DEWITT
HANOVER	HORTON	JAC	HANOVER
HANOVER	HANOVER	JAC	HANOVER
SARANAC	KEENE	GVL	BOSTON
SARANAC	CENTERLINE	GVL	LOWELL
SARANAC	SARANAC	GVL	SARANAC
SARANAC	RIVERSIDE	GVL	SARANAC
OTSEGO	OTSEGO	HML	OTSEGO
OTSEGO	FARMER	HML	OTSEGO
DIXIE	HARVARD	FLT	FLINT
DIXIE	GEORGE STREET	FLT	FLINT
DIXIE	BRANCH ROAD	FLT	FLINT
CEDAR SPRINGS	WHITE CREEK	GRN	CEDAR SPRINGS
MARKEY	CARRICK	WBR	GERRISH
MARKEY	FOREST ESTATES	WBR	MARKEY
VANDERCOOK LAKE	ACKERSON LAKE	JAC	NAPOLEON
PALMYRA	VICTORSVILLE	ADR	MADISON
ASHLEY	GARFIELD	ALM	ASHLEY
ASHLEY	NORTH STAR	ALM	ASHLEY
HOLTON	HOLTON	MUS	HOLTON
WEIDMAN	BEAL CITY	CLR	LAKE ISABELLA
ORLEANS	ORLEANS	GVL	OTISCO
REMUS	MECOSTA	BIG	MECOSTA
DUCK LAKE	PARTELLO	BCK	WALTON
LINCOLN	LOST LAKE	TWS	LINCOLN
LINCOLN	MIKADO	TWS	GREENBUSH
ASHMAN CIRCLE	ASHMAN	MDL	MIDLAND
ASHMAN CIRCLE	SUGNET	MDL	MIDLAND
ASHMAN CIRCLE	HIGH SCHOOL	MDL	MIDLAND
SUNFIELD	SUNFIELD	LAN	SUNFIELD
AU GRES	POINT LOOK-OUT	TWS	AU GRES
LITCHFIELD	QUAKER LAKE	CLD	LITCHFIELD
LITCHFIELD	ADAMS RD	CLD	LITCHFIELD
HARRISON	HARRISON	CLR	HARRISON

Sub Name	Circuit Name	HQ	Township/City
HARRISON	DODGE CITY	CLR	HARRISON
BURROWS	WHEELER	SAG	SAGINAW
BURROWS	BURROWS	SAG	SAGINAW
BURROWS	GRATIOT	SAG	SAGINAW
BYRON CENTER	RAILSIDE	GRA	BYRON
BYRON CENTER	FALCON	GRA	BYRON
BELSAY	BELSAY	FLT	BURTON
LIBERTY	WASHINGTON	BCK	SPRINGFIELD
LIBERTY	RALSTON	BCK	BATTLE CREEK
LIBERTY	LIBERTY	BCK	BATTLE CREEK
PISTON RING	STEBBINS	GRN	SPARTA
COOLEY	WESTNEDGE	KAL	KALAMAZOO
COOLEY	NORTH STREET	KAL	KALAMAZOO
COOLEY	EXCHANGE	KAL	KALAMAZOO
KNIGHT	HAMPTON	BCY	HAMPTON
HESPERIA	HESPERIA	FRE	HESPERIA
ROCKFORD	TANNERY	GRN	ROCKFORD
ROCKFORD	WOLVERINE	GRN	ROCKFORD
ROCKFORD	SUMMIT	GRN	ROCKFORD
ROCKFORD	FRESKA LAKE	GRN	ROCKFORD
ELSIE	CARLAND	OWS	ELSIE
WAYLAND	BRADLEY	HML	WAYLAND
WHITTUM	PETRIEVILLE	LAN	EATON RAPIDS
LAKE LEANN	BUNDY HILL	JAC	MOSCOW
LAKE LEANN	LAKE LEANN	JAC	SOMERSET
KINDERHOOK	LAKE DRIVE	CLD	COLDWATER
KINDERHOOK	GILEAD	CLD	OVID
PITTSFORD	BIRD LAKE	ADR	HILLSDALE
RUSSELLVILLE	VASSAR ROAD	FLT	GENESEE
RUSSELLVILLE	VICTORIA	FLT	RICHFIELD
WAKESHMA	LEONIDAS	BCK	LEONIDAS
WAKESHMA	FULTON	BCK	WAKESHMA
PENTWATER	CARROLL	LDG	PENTWATER
DIETZ ROAD	LAKE CHARLEVOIX	BNC	BOYNE CITY
DIETZ ROAD	BOYNE FALLS	BNC	BOYNE FALLS
RODNEY	RODNEY	BIG	COLFAX
ARCADIA	STARKE	BEN	ONEKAMA
ARCADIA	PLEASANTON	BEN	JOYFIELD
MERRILL	MERRILL	ALM	MERRILL
STANDALE	CHESTERFIELD	GRA	WALKER
OLIVER	CHESTNUT	OWS	OWOSSO
OLIVER	KING STREET	OWS	OWOSSO
LETTS ROAD	AIRPORT ROAD	MDL	MIDLAND
LETTS ROAD	MONROE ROAD	MDL	MIDLAND
LETTS ROAD	WALKER	MDL	MIDLAND
WHITEHALL	ALICE	MUS	WHITEHALL
WHITEHALL	HANSON	MUS	MONTAGUE
WOOD STREET	AVENUE A	FLT	FLINT
WOOD STREET	MASON	FLT	FLINT
WHITE CLOUD	WILLIAM STREET	FRE	WHITE CLOUD
PENNFIELD	PENNFIELD	BCK	PENNFIELD
MIDLAND	BUTTLES	MDL	MIDLAND
MIDLAND	COMMERCIAL	MDL	MIDLAND
MIDLAND	NORTHWOOD	MDL	MIDLAND
MOLINE	GREEN LAKE	GRA	DORR
SPRINGPORT	SPRINGPORT	JAC	SPRINGPORT
SPRINGPORT	DEVEREAUX	JAC	SPRINGPORT
KINGSLEY	WALTON	TRA	KINGSLEY
KINGSLEY	CENTER ROAD	TRA	KINGSLEY
LEONARD	IONIA	GRA	GRAND RAPIDS
LEONARD	TAYLOR	GRA	GRAND RAPIDS
LEONARD	NEWBERRY	GRA	GRAND RAPIDS

Sub Name	Circuit Name	HQ	Township/City
SALZBURG	SALZBURG	BCY	BAY CITY
DAVISON	DELVE	FLT	DAVISON
EAST LAKE	PINE CREEK	LDG	EASTLAKE
OHMAN ROAD	EVART	BIG	EVART
OHMAN ROAD	SEARS	BIG	EVART
MORRICE	M-78	OWS	MORRICE
GENESEEVILLE	GENESEE	FLT	GENESEE
GENESEEVILLE	PINEWOOD	FLT	GENESEE
SHELBY	STATE STREET	MUS	SHELBY
OKEMOS	FERGUSON PARK	LAN	MERIDIAN
ROSEBUSH	STEVENSON LAKE	CLR	ROSEBUSH
FRANKFORT	FRANKFORT	BEN	FRANKFORT
FRANKFORT	CRYSTALLIA	BEN	FRANKFORT
FRANKFORT	GATEWAY	BEN	FRANKFORT
BROADWAY	PHILLIPS	MUS	MUSKEGON
BROADWAY	BLACK CREEK	MUS	MUSKEGON
BROADWAY	SHERMAN CENTER	MUS	MUSKEGON
BEAVER	SEIDLERS	MDL	KAWKAWLIN
BEAVER	CRUMP	MDL	KAWKAWLIN
COOPERSVILLE	CONKLIN	MUS	COOPERSVILLE
LAKE CITY	FORGE	CAD	LAKE CITY
MAYFAIR	HAMADY	FLT	FLINT
MAYFAIR	MAYFAIR	FLT	FLINT
MAYFAIR	SHERATON	FLT	MT MORRIS
MAYFAIR	HOME	FLT	FLINT
MAYFAIR	PIERSON	FLT	FLINT
MAYFAIR	CASS	FLT	FLINT
BISHOP	RAINBOW	FLT	FLINT
O-AT-KA	EAST BAY	TRA	ACME
HART	DISTRIBUTION	LDG	HART
INGERSOLL	LAPORTE	MDL	JONESFIELD
MACKINAW CITY	POND STREET	BNC	MACKINAW CITY
MACKINAW CITY	BAYWIND GENERATION	BNC	MACKINAW CITY
UNIVERSITY	UNIVERSITY	LAN	EAST LANSING
WALKER	ROSALIE	GRA	GRAND RAPIDS
DEAN ROAD	SHANNON LAKE	FLT	ARGENTINE
DEAN ROAD	PARSHALLVILLE	FLT	HARTLAND
MAGNUS	EAGLE CORNER	CLR	CLARE
MAGNUS	MCKAY FARM	CLR	GRANT
FERGUSON	BROWNS LAKE	JAC	SUMMIT
COLLEGE PARK	MADISON	ADR	ADRIAN
SPRING ARBOR	CHAPEL	JAC	SPRING ARBOR
SPRING ARBOR	ARBOR HILLS	JAC	SPRING ARBOR
THAYER	RIVER	SAG	SAGINAW
THAYER	LUFKIN RULE	SAG	SAGINAW
MONA LAKE	GRAND HAVEN	MUS	NORTON SHORES
RED ARROW	BRISTOL	FLT	FLINT
RED ARROW	OGEMA	FLT	FLINT
PINE RIVER	RURAL	ALM	ALMA
YORKVILLE	HIGHLAND PARK	KAL	PRAIRIEVILLE
YORKVILLE	BAYVIEW	KAL	RICHLAND
MAPLE GROVE	SUMMIT AVENUE	MUS	MUSKEGON HTS
MAPLE GROVE	SHAW BOX	MUS	MUSKEGON
JUDD ROAD	AINSWORTH	FLT	BURTON
JASPER	REDSTONE	ALM	ST LOUIS
STANTON	STANTON	GVL	STANTON
FOX FARM	GRANT	LDG	FILER
ALTO	ALTO	GRE	BOWNE
ALTO	MCCORDS	GRE	BOWNE

Sub Name	Circuit Name	HQ	Township/City
GRAYLING	HOSPITAL	WBR	GRAYLING
GRAYLING	BEAR	WBR	GRAYLING
HARPER ROAD	ARENS	LAN	LANSING
HARPER ROAD	ONONDAGA	LAN	EATON RAPIDS
MULLINS	MULLINS	GRA	WALKER
MULLINS	ELMRIDGE	GRA	WALKER
MULLINS	METALCAST	GRA	WALKER
MULLINS	ROYAL VISTA	GRA	WALKER
HOSPITAL	KIDS CREEK	TRA	TRAVERSE CITY
STACEY	PIONEER	FLT	FLUSHING
STACEY	STONEGATE	FLT	FLINT
BAGLEY	ALPINE	BNC	GAYLORD
BAGLEY	FREDERIC	BNC	GAYLORD
DUPONT	OLD CHANNEL	MUS	MONTAGUE
WAGER	PARKLAND	FLT	FLINT
HARRIET	WITHERBEE	FLT	FLINT
AMPERSEE	WELDER	KAL	KALAMAZOO
AMPERSEE	BORGESS	KAL	KALAMAZOO
AMPERSEE	NORTH COMMERCIAL	KAL	KALAMAZOO
VENICE	GOODALL	FLT	LENNON
DERBY	BROWN	GVL	STANTON
BOON ROAD	MITCHELL STREET	CAD	CADILLAC
BOON ROAD	ROUND LAKE	CAD	HARING
LYON MANOR	TOWN HALL	WBR	GERRISH
STONEGATE	CHRISTIAN	GRA	GRANDVILLE
STONEGATE	BRILLCAST	GRA	GRANDVILLE
STONEGATE	REMCO	GRA	GRANDVILLE
STONEGATE	BREVIS	GRA	GRANDVILLE
STERNS ROAD	POINT PLACE	SMN	ERIE
KOCHVILLE	SCHUST	SAG	KOCHVILLE
KOCHVILLE	PIERCE	SAG	KOCHVILLE
KOCHVILLE	KRAENZLEIN	SAG	KOCHVILLE
KOCHVILLE	CARDINALS	SAG	KOCHVILLE
CENTER ROAD	CENTER ROAD	FLT	FLINT
CENTER ROAD	EASTLAND	FLT	BURTON
CENTER ROAD	EVERGREEN	FLT	FLINT
HARRIETTA	BOON	CAD	HARRIETTA
FILLMORE	NORTH BLENDON	GRA	BLENDON
SAVIDGE	KELLY STREET	MUS	SPRING LK
HURON	TWO MILE	BCY	BANGOR
HURON	MONITOR	BCY	MONITOR
GILKEY CREEK	WALKER	FLT	BURTON
JEFFS ROAD	U.S. 23	SMN	WHITEFORD
WESTERVELT	TITTABAWASSEE	SAG	ZILWAUKEE
WESTERVELT	KOCHVILLE	SAG	ZILWAUKEE
ALDRICH	TRAVERSE	FLT	FLINT
ALAMO	FISH HATCHERY	KAL	OSHTEMO
GOODALE	HUBBARD	BCK	BATTLE CREEK
GOODALE	IRVING PARK	BCK	BATTLE CREEK
GOODALE	ROOSEVELT	BCK	BATTLE CREEK
GOLDEN	SMITH'S CROSSING	MDL	MIDLAND
GOLDEN	CONTINENTAL	MDL	MIDLAND
GOLDEN	ROCKWELL	MDL	MIDLAND
GOLDEN	SCHUETTE	MDL	MIDLAND
HENDERSHOT	MONROE ROAD	ADR	BRITTON
HENDERSHOT	CENTENNIAL	ADR	BRITTON
DUNHAM	BRENT CREEK	FLT	FLUSHING
BELLEVUE	BELLEVUE	BCK	BELLEVUE
BAY ROAD	DAVIS ROAD	SAG	KOCHVILLE
BAY ROAD	BELL	SAG	KOCHVILLE
BAY ROAD	BAY ROAD	SAG	KOCHVILLE
HOGSBACK	SYCAMORE	LAN	DELHI

Sub Name	Circuit Name	HQ	Township/City
ABBE	ABBE	WBR	MENTOR
GREGORY	GREGORY	JAC	UNADILLA
HARING	SIXTH STREET	CAD	CADILLAC
HARING	FAIRGROUND	CAD	CADILLAC
HARING	THIRD AVENUE	CAD	CADILLAC
MANTON	DOWNTOWN	CAD	MANTON
CADMUS	WINTER	ADR	ADRIAN
NORTH CORUNNA	COPAS ROAD	OWS	OWOSSO
NORTH CORUNNA	MEIJER	OWS	CORUNNA
BENTHEIM	140TH AVENUE	HML	SALEM
BENTHEIM	STORAGE	HML	OVERISEL
WILDER	WILDER	BCK	ECKFORD
SQUIRES	PACKING	CLD	BUTLER
SQUIRES	ALLEN	CLD	ALLEN
CHAUVEZ	PARK	LDG	LUDINGTON
WIRTZ ROAD	BOWMANVILLE	WBR	BOURRET
WIRTZ ROAD	WILDWOOD	WBR	GRIM
CRAWFORD	DEERFIELD	ALM	MT PLEASANT
STEEL DRIVE	VISTA	FLT	FENTON
STEEL DRIVE	PONCHATRAIN	FLT	FENTON
PLAINWELL	COMMERCIAL	KAL	PLAINWELL
PLAINWELL	HEIGHTS	KAL	PLAINWELL
MCKEIGHAN	SHARON ROAD	SAG	CHESANING
MCKEIGHAN	BRADY ROAD	SAG	CHESANING
BAILEY	CHERRY	FRE	ASHLAND
WILMOTT	WILMOTT	HML	OTSEGO
WILMOTT	PARKER	HML	OTSEGO
LOOMIS	TAFT ROAD	LAN	ST JOHNS
LOOMIS	LOOMIS ROAD	LAN	OLIVE
RANGER LAKE	KOKOSING	TWS	PLAINFIELD
RANGER LAKE	GOODAR	TWS	MENTOR
WHITTEMORE	SAND LAKE	TWS	TAWAS
DUQUITE	PINE RIVER	WBR	STANDISH
EAST TAWAS	LINCOLN STREET	TWS	TAWAS CITY
MILLERS POINT	MEADOW VIEW	KAL	KALAMAZOO
MILLERS POINT	HOLIDAY	KAL	KALAMAZOO
MILLERS POINT	CONCORD	KAL	KALAMAZOO
PEACOCK	STOLL ROAD	LAN	WOODHULL
PEACOCK	COLEMAN ROAD	LAN	WILLIAMSTOWN
JOHNSON	LINCOLN	MUS	OLIVE
VANDERBILT	CORWITH	BNC	VANDERBILT
KRAFT AVENUE	CHAPPEL HILL	GRE	KENTWOOD
KRAFT AVENUE	SYSCO	GRE	CASCADE
KRAFT AVENUE	FOOTHILLS	GRE	KENTWOOD
KRAFT AVENUE	CENTENNIAL	GRE	CASCADE
KRAFT AVENUE	ACQUEST	GRE	GRAND RAPIDS
KRAFT AVENUE	TAHOE	GRE	CASCADE
BELKNAP	BELKNAP	HML	CASCO
BELKNAP	TODD FARM	HML	CLYDE
ALDER CREEK	EAST LEROY	BCK	BURLINGTON
CANNONSBURG	GRASS LAKE	GRN	CANNON
BENNINGTON	GRAND RIVER	OWS	LAINGSBURG
M.A.E.	LINCOLN ROAD	SMN	MONROE
M.A.E.	ALBAIN ROAD	SMN	MONROE
CROFTON	AMOCO PRODUCTION CO. GAS STRIPPING PLANT	TRA	KALKASKA
HOTCHKISS	BAY VALLEY	BCY	MONITOR
HOTCHKISS	OLD BRIDGE	BCY	MONITOR
BALZER	SANDERS	LAN	LESLIE
SANDERSON	VAN DEINSE	GVL	GREENVILLE
SANDERSON	M-57	GVL	GREENVILLE
SANDERSON	KENT RD	GVL	GREENVILLE
PORTSMOUTH	INDIANTOWN	SAG	REESE

Sub Name	Circuit Name	HQ	Township/City
WARNER	BURCHETT	KAL	PRAIRIEVILLE
SIMMONS	DAM ROAD	WBR	WEST BRANCH
SILVER LAKE	SECOR	TRA	GREEN LK
SILVER LAKE	TWIN LAKE	TRA	GARFIELD
BACKUS	SPRINGBROOK	WBR	DENTON
IRISH ROAD	WEXFORD	FLT	DAVISON
NOBLE	DUBY	TWS	ALABASTER
MEDICAL PARK	HEALTHCARE VILLAGE	GRA	WYOMING
MEDICAL PARK	METRO HEALTH	GRA	WYOMING
MEDICAL PARK	MEDICAL PARK	GRA	WYOMING
DUFFIELD	COLE CREEK	FLT	CLAYTON
ARTHUR	ARTHUR	MUS	COOPERSVILLE
ARTHUR	BERLIN	MUS	POLKTON
MANNSIDING	MANNSIDING	CLR	LINCOLN
CRAHEN	GREENBRIER	GRA	GRAND RAPIDS
CRAHEN	LOMOND	GRA	ADA
PACKARD	INDUSTRIAL	LAN	CHARLOTTE
PACKARD	PACKARD	LAN	CHARLOTTE
HUCKLEBERRY	ELECTRIC AVENUE	GRA	BYRON
HUCKLEBERRY	146TH STREET	GRA	GAINES
BRYE ROAD	STILES ROAD	LDG	SCOTTVILLE
WEST FENTON	NORTH ROAD	FLT	FENTON
GIRARD	GIRARD	CLD	COLDWATER
GIRARD	DAYBURG ROAD	CLD	COLDWATER
WINGATE	SOUTH	JAC	SHARON
WINGATE	NORTH	JAC	LIMA
LELAND	NARROWS	TRA	LELAND
HILL ROAD	REGENCY	FLT	MUNDY
HILL ROAD	WALKABOUT	FLT	MUNDY
HILL ROAD	PINE WAY	FLT	MUNDY
SPICEBUSH	LESTER LAKE	KAL	GENEVA
SPICEBUSH	LACOTA	KAL	S HAVEN
RICHLAND	D AVENUE	KAL	RICHLAND
RICHLAND	THREE LAKES	KAL	RICHLAND
SCENIC LAKE	BEARD ROAD	OWS	WOODHULL
SHARON HOLLOW	ENGLISH ROAD	JAC	MANCHESTER
SHARON HOLLOW	SHARON VALLEY	JAC	SHARON
BUCHANAN	SANDY SHORES	HML	PARK
BUCHANAN	TALLGRASS	HML	PARK
STANWOOD	RIVERSWAY	BIG	COLFAX
RUSSELL ROAD	RUSSELL ROAD	ADR	TECUMSEH
RUSSELL ROAD	RAISIN	ADR	TECUMSEH
RATIGAN	MURRAY LAKE	GRN	OTISCO
RIDGEVIEW	RIVER OAKS	KAL	COMSTOCK
RIDGEVIEW	MORROW LAKE	KAL	COMSTOCK
FLETCHER	ODEN	BNC	ALANSON
FLETCHER	BAY VIEW	BNC	BEAR CREEK
FISH LAKE	ROSE	FLT	HOLLY
ASH ROAD	SIMPSON DRIVE	CLD	LITCHFIELD
ASH ROAD	ANDERSON ROAD	CLD	LITCHFIELD
ASH ROAD	STERLING ROAD	CLD	LITCHFIELD
MURNER	VAN TYLE	BNC	GAYLORD
STURGEON	PERRINE	MDL	MIDLAND
SAND CREEK	M-34	ADR	ADRIAN
SAND CREEK	AIRPORT	ADR	ADRIAN

Existing Workplan Matching Funds Projects

Below is the current work plan for 2024. Please see section Project Target List Philosophy below for how projects are selected for future years. Consumers Energy is currently developing the work plan for 2025. By the end of 2023, details on the 2025 work plan will be available.

Grid Automation

The table below details all the grid automation projects CE plans to use as matching work for this funding opportunity. A description of the columns is as follows:

- Sub Name1: The substation where the tie / automation loop will originate.
- Sub Name2: The substation where the tie / automation loop will end.
- HQ: The location of the crew service center.
- Township/City: The township/city the work is planned to take place in.
- County: The county the work is planned to take place in.

Year				
2024				
Sub Name 1	**Sub Name 2**	**HQ**	**Township/City**	**County**
AUSTIN	ZYLMAN	KAL	PORTAGE	KALAMAZOO
GRAND BLANC	McCANDLISH	FLT	GRAND BLANC	GENESEE
HUBBARD LAKE	SPRUCE ROAD	TWS	SPRUCE	ALCONA
HUDSONVILLE	VAN BUREN	GRA	HUDSONVILLE	OTTAWA
JACKMAN	JACKMAN	SMN	TEMPERANCE	MONROE
LAMBERTVILLE	JACKMAN	SMN	LAMBERTVILLE	MONROE
MENDON	MENDON	CLD	MENDON	SAINT JOSEPH
MILBOURNE	HARRIET	FLT	FLINT	GENESEE
BRIDGE STREET	OAK STREET	JAC	JACKSON	JACKSON
OAKWOOD	OAKWOOD	KAL	KALAMAZOO	KALAMAZOO
RAMONA	RAMONA	GRA	GRAND RAPIDS	KENT
SHATTUCK	CHEYENNE	SAG	SAGINAW	SAGINAW
TRAVIS	TWILIGHT	KAL	KALAMAZOO	KALAMAZOO
WESTERN AVENUE	TERRACE	MUS	MUSKEGON	MUSKEGON
CHEYENNE	STATE STREET	SAG	SAGINAW	SAGINAW
EAST MUSKEGON	APPLE	MUS	MUSKEGON	MUSKEGON
HOMESTEAD	HONOR	BEN	BENZONIA	BENZIE
KEATING	LATIMER	MUS	MUSKEGON	MUSKEGON
MAPLE GROVE	MUSKEGON HEIGHTS	MUS	NORTON SHORES	MUSKEGON
MISSION	BLUEGRASS	ALM	MOUNT PLEASANT	ISABELLA
POTTER	JANES	SAG	SAGINAW	SAGINAW
QUINCY	QUINCY	CLD	QUINCY	BRANCH
TEKONSHA	HOMER	CLD	TEKONSHA	CALHOUN
TEKONSHA	TEKONSHA	CLD	TEKONSHA	CALHOUN
TERRACE	MUSKEGON HEIGHTS	MUS	MUSKEGON	MUSKEGON

Targeted Zone Work

The below table details all the targeted zone projects CE plans to use as matching work for this funding opportunity. A description of the columns is as follows:

- Description: The description captures CE's internal project name for different investments and lists the name of the targeted substations or circuits.
- HQ: The location of the crew service center.
- Township/City: The township/city the work is planned to take place in.
- County: The county the work is planned to take place in.

Description	HQ	Township/City	County
RLBY James Savage Washington	MDL	MIDLAND	MIDLAND
RLBY Midland Buttles	MDL	MIDLAND	MIDLAND
GRID KENTWOOD02_KENTWOOD04	GRE	GRAND RAPIDS	KENT
GRID KENTWOOD04_BROADMOOR05	GRE	GRAND RAPIDS	KENT
GRID Centreville01_Centreville02	CLD	NOTTAWA	ST JOSEPH
GRID POTTERVILLE M78 3P GANG SW INST	LAN	POTTERVILLE	EATON
GRID Centreville02_BurrOak02	CLD	NOTTAWA	ST JOSEPH
GRID - Cranbrook02_Convis03	BCK	EMMETT	CALHOUN
GRID - Elm St05_Princeton01	BCK	EMMETT	CALHOUN
GRID Babcock02_Kolassa02	CLD	MATTESON	BRANCH
GRID Kinderhook01_Behnke01	CLD	OVID	BRANCH
GRID SHATTUCK03_HACKETT02	SAG	THOMAS	SAGINAW
GRID ALAMO_ALAMO ATR LOOP	KAL	ALAMO	KALAMAZOO
GRID Goguac03	BCK	BATTLE CREEK	CALHOUN
GRID SAUGATUCK 03_NEW RICHMOND01	HML	LAKETOWN	ALLEGAN
GRID ELEVENTH ST01_ALAMO03	KAL	ALAMO	KALAMAZOO
GRID WARNER01_WARNER02	KAL	PRAIRIEVILLE	BARRY
GRID COMSTOCK01_RIDGEVIEW02	KAL	COMSTOCK	KALAMAZOO
GRID RIDGEVIEW01_GALESBURG01	KAL	COMSTOCK	KALAMAZOO
GRID KENDALL02_DRAKE RD06	KAL	KALAMAZOO	KALAMAZOO
GRID COOLEY02_COOLEY02	KAL	KALAMAZOO	KALAMAZOO
GRID PHILLIPS04_OAKWOOD03	KAL	KALAMAZOO	KALAMAZOO
GRID HAGER PARK02_CHICAGO02	GRA	HUDSONVILLE	OTTAWA
GRID HASTINGS02_RUTLAND02	KAL	HASTINGS	BARRY
GRID COWAN LAKE01_RATIGAN01	GRN	ROCKFORD	KENT
GRID WEALTHY ST01_WEALTHY08	GRA	GRAND RAPIDS	KENT
GRID TEKONSHA01_HOMER01	BCK	CLARENDON	CALHOUN
GRID QUINCY01_QUINCY03	CLD	QUINCY	BRANCH
GRID DEWEY01_DEWEY02	GRA	GRAND RAPIDS	KENT
GRID CADILLAC01-CADILLAC02	CAD	CADILLAC	WEXFORD
GRID EAST MUSKEGON01_APPLE04	MUS	MUSKEGON	MUSKEGON
GRID KEATING01_KEATING02	MUS	MUSKEGON	MUSKEGON
HZRD NORTHPORT-LIGHTHOUSE LCP 584	TRA	NORTHPORT	LEELANAU
HZRD PENINSULA-MCKINLEY ROAD LCP 535	TRA	PENINSULA	GRAND TRAVERSE
RLBY19CAMBRIDGE-IRISHHILLS-RCND #2 M50	JAC	CAMBRIDGE	LENAWEE
POLE12 Englishville/Pine Island	GRN	BELMONT	KENT
BKBNP13 Portage Mustangs 1	KAL	PORTAGE	KALAMAZOO
BKBNP13 Watkins/Minges Creek	BCK	BATTLE CREEK	CALHOUN
POLE14 Plainfield/Wood #3	GRN	GRAND RAPIDS	KENT
POLE15 Vandercook Lake/Vandercook #6	JAC	SUMMIT	JACKSON
BKBNP15 CLIO/PINE RUN	FLT	CLIO	GENESEE
BKBNP16 RIX ROAD_UNDERPASS	KAL	OSHTEMO	KALAMAZOO
POLE16 BURLINGAME_NEWHALL 1	GRA	WYOMING	KENT
BKBNP16 KILGORE-WISTERIA ORDER01 - 00103	KAL	PORTAGE	KALAMAZOO
POLE15 HURON_TWO MILE - 1	BCY	MONITOR	BAY
BKBNP16 WILMOTT/WILMOTT	HML	OTSEGO	ALLEGAN
POLE21 ALDER CREEK_LEE LAKE	BCK	BURLINGTON	CALHOUN
POLE21 AUGUSTA_AUGUSTA PT1	KAL	ROSS	KALAMAZOO
POLE21 COOLEY_NORTH STREET PART 1	KAL	KALAMAZOO	KALAMAZOO
POLE21 CERESCO_RURAL	BCK	MARSHALL	CALHOUN
POLE21 DELTON_DELTON PART 1	KAL	BARRY	BARRY
POLE21 FINE LAKE_BRISTOL	KAL	JOHNSTOWN	BARRY
POLE21 GOGUAC_GOGUAC	BCK	BATTLE CREEK	CALHOUN

Description	HQ	Township/City	County
POLE21 HAMILTON_HAMILTON PART 1	HML	HEATH	ALLEGAN
POLE21 JOPPA_JOPPA	BCK	LEROY	CALHOUN
POLE21 KENDALL_SAGE PART 1	KAL	KALAMAZOO	KALAMAZOO
POLE21 KINDERHOOK_GILEAD PART 1	CLD	OVID	BRANCH
POLE21 NORTHERN FIBRE_FIBRE	HML	OLIVE	OTTAWA
POLE21 OAKWOOD_HILLCREST	KAL	KALAMAZOO	KALAMAZOO
POLE21 PALMER_WATER LIFT PART 1	KAL	KALAMAZOO	KALAMAZOO
POLE21 PULLMAN_CHICORA PART 1	HML	LEE	ALLEGAN
POLE21 RIX ROAD_UNDERPASS	KAL	OSHTEMO	KALAMAZOO
POLE21 SAUGATUCK_SAUGATUCK	HML	SAUGATUCK	ALLEGAN
POLE21 WAYLAND_BRADLEY	HML	WAYLAND	ALLEGAN
RLBY NOBLE_WHITNEY LCP 521	TWS	SIMS	ARENAC
VOLT PARKWAY VINE 1401	KAL	KALAMAZOO	KALAMAZOO
VOLT PORTAGE MUSTANGS 2303	KAL	PORTAGE	KALAMAZOO
VOLT PARKWAY VINE 4108_09	KAL	KALAMAZOO	KALAMAZOO
VOLT PHILLIPS ALCOTT 1202	KAL	KALAMAZOO	KALAMAZOO
VOLT PHILLIPS ALCOTT 2301	KAL	KALAMAZOO	KALAMAZOO
VOLT PHILLIPS ALCOTT 2103 BURDICK	KAL	KALAMAZOO	KALAMAZOO
VOLT PHILLIPS ALCOTT 2105	KAL	KALAMAZOO	KALAMAZOO
VOLT PHILLIPS ALCOTT 4303	KAL	KALAMAZOO	KALAMAZOO
RLBY EAST GENESEE AVE/GENESEE	SAG	SAGINAW	SAGINAW
SYSP WEST FENTON OVERPASS LCP#329	FLT	FENTON	GENESEE
RLBY17 CONVIS_CONVIS 304 PART B	BCK	CONVIS	CALHOUN
RLBY19 BITTERSWEET_RIVER ROAD LCP 330	HML	OTSEGO	ALLEGAN
RLBY Honor/Indian Hill LCP 6418 PT1	BEN	LAKE	BENZIE
SUB23 HARMON ROAD_CONSTRUCTION	ADR	CAMDEN	HILLSDALE
RLBY19 SPRING LAKE/COUNTRY CLUB LCP 416	HML	SPRING LAKE	OTTAWA
RLBY HARRIETTA-BOON LCP 717	CAD	SLAGLE	WEXFORD
RLBY NESTROM SOUTHSHORE LCP 550	MUS	FRUITLAND	MUSKEGON
RLBY Rodney-Rodney LCP 452	BIG	RODNEY	MECOSTA
RLBY BALDWIN BALDWIN LCP 113	MUS	BALDWIN	LAKE
RLBY BATH-BATH - LCP 206	LAN	BATH	CLINTON
RLBY HARRIETTA-CABERFAE PHASE A	CAD	HARRIETTA	WEXFORD
RLBY Alden_Clam LCP 7009	TRA	ALDEN	ANTRIM
RLBY ALAMO_PINE GROVE LCP 89	KAL	PINE GROVE	VAN BUREN
RLBY - Convis Convis SUB	BCK	CONVIS	CALHOUN
RLBY TEXAS_EAGLE LAKE LCP 746	KAL	TEXAS	KALAMAZOO
RLBY HOUGHTON HTS SUB RELO	WBR	ROSCOMMON	ROSCOMMON
RLBY MERSON MERSON LCP 420	HML	TROWBRIDGE	ALLEGAN
RLBY BITTERSWEET RIVER ROAD LCP 753	HML	OTSEGO	ALLEGAN
RLBY NESTROM SOUTH SHORE LCP 557	MUS	FRUITLAND	MUSKEGON
RLBY EAST MUSKEGON_QUARTERLINE LCP 682	MUS	MUSKEGON	MUSKEGON
RLBY NOBLE_WHITNEY LCP 558	TWS	SIMS	ARENAC
RLBY VIRGINIA PARK_MACATAWA ATR LOOP	HML	LAKETOWN	ALLEGAN
RBLY NORTH PARK_LAMBERTON RECONDUCTOR	GRN	GRAND RAPIDS	KENT
RLBY HULL STREET_LIME LAKE LCP-888	GRN	SPARTA	KENT
RLBY Cedar Springs-Edgerton Sub	GRN	CEDAR SPRINGS	KENT
DARE Saranac_Saranac LCP 797	GVL	#N/A	#N/A
RLBY CEDAR SPRINGS_NELSON LCP 179	GRN	CEDAR SPRINGS	KENT
RLBY CEDAR SPRINGS_EDGERTON LCP 814	GRN	NELSON	KENT
RLBY CONKLIN PARK_CROTON LCP 946	BIG	CROTON	NEWAYGO
RLBY MT MORRIS PINEHURST AND WOOLFIT	FLT	MOUNT MORRIS	GENESEE
RLBY LEITH STREET_WESTERN ROAD	FLT	GENESEE	GENESEE
RLBY BALCOM_BANKERS LCP 578	ADR	READING	HILLSDALE
RLBY ALAMO_PINE GROVE LCP 638	KAL	PINE GROVE	VAN BUREN
RLBY SANDERSON_COUNTY FARM LCP 414	GVL	FAIRPLAINS	MONTCALM
RLBY DEWEY_SEATING LCP 210	GRA	GRAND RAPIDS	KENT
RLBY LARKIN_EASTMAN LCP SUB	MDL	MIDLAND	MIDLAND
RLBY HASKELITE_ANN STREET LCP CKT	GRA	GRAND RAPIDS	KENT

Description	HQ	Township/City	County
RLBY WEALTHY STREET_GODFREY LCP CKT	GRA	GRAND RAPIDS	KENT
RLBY CEDAR SPRINGS_WHITE CREEK Recond	GRN	CEDAR SPRINGS	KENT
RLBY KENT CITY_CASNOVIA BALL CREEK LINE	GRN	CASNOVIA	KENT
RLBY PIGEON LAKE_PIGEON LCP CKT	HML	PORT SHELDON	OTTAWA
RLBY NESTROM SOUTH SHORE LCP 693	MUS	FRUITLAND	MUSKEGON
RLBY MILL GROVE_ALLEGAN HYDRO LCP SUB	HML	ALLEGAN	ALLEGAN
RPOUT BATH SUB - BATH CKT LCP 215	LAN	BATH	CLINTON
RLBY GETTY_SUB REBUILD	MUS	MUSKEGON	MUSKEGON
RLBY MERSON_DUCK LAKE LCP 847	HML	CHESHIRE	ALLEGAN
RLBY ALAMO_FISH HATCHERY LCP CKT	KAL	ALAMO	KALAMAZOO
RLBY Joppa - Joppa LCP 854	BCK	LEROY	CALHOUN
VOLT STANDISH_STANDISH LCP 827	TWS	DEEP RIVER	ARENAC

GARY C. PETERS
MICHIGAN

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(202) 224-6221

United States Senate

March 7, 2023

Ms. Maria Robinson
Director, Grid Deployment Office
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Director Robinson,

I am writing to express my strong support of Consumer Energy's (CE) proposal in response to DE-FOA-0002740 "BIL– Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1, titled *Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities*.

Through this project, $200M will be infused into Michigan's economy in a way that will mitigate outage impact and duration for households and businesses while also preventing some outages altogether. With funding, this project will help ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while also sustaining over 60+ high-paying field jobs from within the state of Michigan in partnership with union organizations. The project will focus investments on federally-designated Disadvantaged Communities while also using the field work as a training ground for pre-apprenticeship programs at local institutions such as Mott Community College in Flint. This will help grow the pipeline of diverse, local talent within the energy and construction industry for the state of Michigan. The project will also support three different "energy-ready" sites near Flint, North Lansing, and Clare County that can help attract new large businesses to the state of Michigan. Consumers Energy continues to engage local cities and towns to seek feedback prior to the start of any work to maximize local benefits while mitigating any potential concerns.

I support the objectives of this project to bolster the resiliency of Michigan's grid against severe storms, equitably invest in historically Disadvantaged Communities, and multiply the local economic impact of taxpayer dollars by sustaining high-paying jobs while training individuals from underrepresented backgrounds.

I am confident that Consumers Energy's proposal to the GRIP (Topic Area 1) program will receive appropriate consideration. If I may be of any additional service, please contact me, or my Federal Grants Director Elise Lancaster at (313) 505-5615. Thank you in advance for your attention to this matter.

Sincerely,

Gary C. Peters
United States Senator

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GRAND RAPIDS OFFICE
110 MICHIGAN STREET NW
GRAND RAPIDS, MI 49503
(616) 451-8383

Congress of the United States
House of Representatives
Washington, DC 20515

March 13, 2023

Ms. Maria Robinson
Director, Grid Deployment Office
U.S. Department of Energy
1000 Independence Ave., S.W.
Washington, D.C. 20585

Dear Director Robinson,

I am pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." This project – which will help modernize the electric power system in the state of Michigan, especially for historically underserved communities – will help grow our local economy in West Michigan while also preparing communities to weather more severe and frequent storms from the effects of climate change.

This project is thoughtfully designed in a way to invest in targeted electric infrastructure upgrades throughout the state – including parts of Muskegon and Kent Counties – that will strengthen the grid and make it more flexible to reroute power in outage events to keep homes and businesses running. Furthermore, this project will sustain 60+ high-paying, union-represented field jobs at its peak while serving as a training ground for Consumers Energy apprentices coming from places like Muskegon Community College.

CE's commitment to improving Michigan's infrastructure and strengthening our energy systems to the effects of climate change will ensure that project benefits are felt across the state. Additionally, by working closely with communities like those of Muskegon and Kent Counties to clearly determine potential projects risks, benefits, and areas for collaboration, CE has shown a strong drive to ensure that the voices of all Michiganders are heard.

I encourage the Department of Energy to give full and fair consideration to this project that will bolster the resiliency of Michigan's grid against severe storms, equitably invest in historically Disadvantaged Communities, and multiply the local economic impact by sustaining high-paying unionized jobs while training individuals from underrepresented backgrounds.

Sincerely,

Hillary J. Scholten

Hillary J. Scholten
Member of Congress (MI-03)

MICHIGAN INFRASTRUCTURE OFFICE

March 3, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

The Michigan Infrastructure Office (MIO) is pleased provide this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." The MIO was established by Governor Whitmer to ensure that resources sent to Michigan through the Infrastructure Investment and Jobs Act are used efficiently and effectively. In support of this goal, we have engaged in regular dialogue with Consumer's Energy to identify and pursue transformative energy-related investments that can improve the lives of Michiganders. CE's proposal to expand the scope of their existing sectionalization and circuit work will support this goal by upgrading aging infrastructure in disadvantaged communities and helping to mitigate outages resulting from increasingly frequent severe weather events, such as the recent winter storm on February 23, 2023.

The MIO supports the objectives of this grant-funded proposal, which will sustain 60+ high-paying, union-represented jobs throughout the state of Michigan and see Consumers partner with the likes of Mott Community College in Flint, Alpena Community College, and others to use these infrastructure investments as a training ground for its apprentices – many coming from underrepresented or underserved backgrounds. In implementing this project, CE takes another step forward in ensuring that Michiganders are better equipped to plan for and address the impacts of climate change.

The Michigan Infrastructure Office will offer support this effort in the following ways:

- Participate in any stakeholder engagement sessions facilitated by Consumers Energy
- Serve as a liaison with the State to remove barriers to project implementation

We look forward to working with DTE as they lead this opportunity for Michigan and urge you to give their application your utmost consideration.

Sincerely,

Zach Kolodin
Chief Infrastructure Officer,
Michigan Infrastructure Office (MIO)

JACK BERGMAN
1ST DISTRICT, MICHIGAN

COMMITTEE ON ARMED SERVICES
COMMITTEE ON VETERANS' AFFAIRS
COMMITTEE ON THE BUDGET

Congress of the United States
House of Representatives
Washington, DC 20515–2201

March 27, 2023

Ms. Maria Robinson
Director, Grid Deployment Office
U.S. Department of Energy
1000 Independence Ave., S.W.
Washington, D.C. 20585

Director Robinson:

I'm writing on behalf of Consumer Energy (CE), which is seeking funding through the Grid Resilience and Innovation Partnerships Program for its proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities."

This project will ensure that Michigan communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid, while also sustaining high-paying jobs, supporting workforce training, and catalyzing economic development. Consumers Energy has thoughtfully designed this proposal to sustain 60+ high-paying jobs throughout the state in many of the same areas where the grid investments will be deployed. Furthermore, many of these jobs will support graduates of the company's pre-apprenticeship program in partnership with educational intuitions like Alpena Community College in my district.

CE's commitment to improving Michigan's infrastructure and hardening our energy systems will ensure that project benefits are felt across the state while also maintaining energy bill affordability for Michiganders into the future. Funding this project will bolster the resiliency of Michigan's grid against severe storms, equitably invest in historically Disadvantaged Communities, and multiply the local economic impact by sustaining high-paying unionized jobs while training individuals from underrepresented backgrounds.

I therefore respectfully request that the proposal from Consumers Energy receives your full and fair consideration.

Sincerely,

Jack Bergman

Jack Bergman
Member of Congress

WASHINGTON, DC OFFICE
566 CANNON HOUSE OFFICE BLDG
WASHINGTON, DC 20515
(202) 225–4735

TRAVERSE CITY OFFICE
1396 DOUGLAS DR, STE 22B
TRAVERSE CITY, MI 49696
(231) 944–7633

GWINN OFFICE
125 G AVE, STE B-119
GWINN, MI 49841
(906) 273–2227

MANISTIQUE OFFICE
7876W CO RD 442, STE B
MANISTIQUE, MI 49854
(906) 286–4191

70TH DISTRICT
STATE CAPITOL
P.O. BOX 30014
LANSING, MI 48909-7514

MICHIGAN HOUSE OF REPRESENTATIVES
CYNTHIA R. NEELEY
STATE REPRESENTATIVE

PHONE: (517) 373-0834
FAX: (517) 373-9622
CynthiaNeeley@house.mi.gov

03/22/2023

To: Ms. Maria Robinson
Director, Grid Deployment Office
U.S. Department of Energy
1000 Independence Ave., S.W.
Washington, D.C. 20585

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

I am pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." This project – which will deploy $200M towards grid investments with a focus on federally-defined Disadvantaged Communities – will not only harden our electric system against climate-induced severe storms but will also multiply the impact of taxpayer dollars by catalyzing workforce and economic development. Additionally, objectives of this project also clearly align with the pillars of Michigan's "MI Healthy Climate" plan while also ensuring that the impacts are felt at a local level.

This project will sustain 60+ high-paying and union-represented jobs at its peak but will also support lineman apprentice training for individuals coming from underserved backgrounds. Consumers Energy has partnered with community colleges throughout the state – including Mott Community College in Flint – to provide a pipeline of diverse, local talent for this infrastructure work. Additionally, Consumers Energy plans to support the development of a local "energy-ready" site near the city of Flint to attract industrial and commercial businesses to the area will help further spur economic development.

I encourage the Department of Energy to fund this project that will bolster the resiliency of Michigan's grid against severe storms, equitably invest in historically Disadvantaged Communities, and multiply the local economic impact by sustaining high-paying unionized jobs while training individuals from underrepresented backgrounds.

Sincerely,

Cynthia R Neeley

State Representative for Michigan's 70th House District
Michigan House of Representatives P.O. Box 30014, Lansing, MI 48909-7514

DANIEL T. KILDEE
8TH DISTRICT, MICHIGAN

WAYS AND MEANS COMMITTEE

TRADE SUBCOMMITTEE
SOCIAL SECURITY SUBCOMMITTEE

BUDGET COMMITTEE

STEERING & POLICY COMMITTEE

CO-CHAIR

Congress of the United States
House of Representatives
Washington, DC 20515

WASHINGTON OFFICE

200 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3611
(202) 225-6393 (FAX)

DISTRICT OFFICE

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FLINT, MI 48502
(810) 238-8627
(810) 238-8658 (FAX)

WWW.DANKILDEE.HOUSE.GOV
/REPDANKILDEE
@REPDANKILDEE

March 17, 2023

Maria Robinson
Director, Grid Deployment Office
U.S. Department of Energy
1000 Independence Ave. SW
Washington, DC 20585

RE: Grid Resilience and Innovation Partnerships (GRIP) Program

Dear Ms. Robinson:

I am writing with my strong support for Consumers Energy's application for the Grid Resilience and Innovation Partnership (GRIP) Program grant.

Consumers Energy's proposal would help improve the electric grid in Genesee, Saginaw and Bay Counties. This grant would ensure that all communities are prepared for severe storms and climate change that could impact power to homes and businesses in mid-Michigan. Recent storms in Michigan have resulted in power outages affecting hundreds of thousands of Michiganders, demonstrating the types of infrastructure investments that need to be made.

This investment will help strengthen the electrical grid in mid-Michigan and support good-paying, union jobs. Mid-Michigan is home to great apprenticeship programs, including at Mott Community College in Flint, that are ready and able to provide a pipeline of diverse talent to do this important work.

I strongly support the Consumers Energy's grant application, and I hope that the Department of Energy will look favorably upon the proposal to the extent federal law and agency regulations apply.

Sincerely,

Daniel T. Kildee

Dan Kildee
MEMBER OF CONGRESS

DEBBIE STABENOW
MICHIGAN

COMMITTEES:
AGRICULTURE, NUTRITION, AND FORESTRY
BUDGET
ENVIRONMENT AND PUBLIC WORKS
FINANCE

United States Senate
731 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510–2204

March 16, 2023

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

Dear Secretary Granholm,

I am writing in support of Consumers Energy's applications for funding through the Department of Energy's Grid Resilience and Innovation Partnerships program.

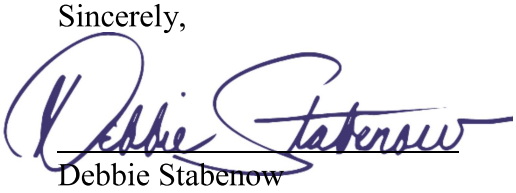
As you know, Michigan is playing a pivotal role in the transformation of our nation to a clean energy economy. In addition to ambitious goals to reduce our carbon emissions, our state is at the center of our country's manufacturing renaissance and transition to electric vehicles. As one of Michigan's largest utility companies, Consumers Energy is a key partner in this transformation.

Your department has already approved the concept papers Consumers Energy submitted outlining its projects. The company has submitted two projects – the Empowering Michigan Communities through Distributed Energy Resource Optimization project and the Sectionalization and Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities.

These innovative projects are critically important to improve the reliability of our electric grid, reduce outages, and keep electric service affordable for consumers. The projects will also promote the greater adoption of clean energy technology and reduce carbon emissions.

Given Michigan's unique role in our clean energy economy, the importance of our automotive industry and manufacturing sector, and our state's commitment to our environment and natural resources, I urge your serious consideration of these proposals.

Sincerely,



Debbie Stabenow
United States Senator

NEWAYGO COUNTY MICHIGAN

ECONOMIC DEVELOPMENT PARTNERSHIP

Powered by The Right Place

Mission

To drive sustainable economic growth in Newaygo County & surrounding areas.

Vision

Newaygo County & surrounding areas will have a diverse and resilient economy, providing economic accessibility and opportunities for upward mobility for all.

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

The Newaygo County Economic Development Partnership is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but also partners with us frequently on infrastructure and economic development projects.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan.

To ensure the success of the project, NCEDP will also provide support for the project in the following ways, which we have discussed with company representatives:

- Advocacy with the Newaygo County employer base and elected officials
- Convening of meetings necessary to inform the public and/or industries of any proposed upgrades

NCEDP looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Thank you,

Julie Burrell
Economic Development Director

southwest michigan first

March 31st, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer Partlan:

Southwest Michigan First is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us and others in the past to find the best design for reliable energy service for Graphic Packaging's planned $600 million expansion on the northside of Kalamazoo. This design also provided more reliable service to other customers in area, including residents of the nearby neighborhood.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of:

- Retaining, supporting, and expanding existing businesses.
- Identifying and attracting new companies, jobs, and investments.
- Promoting Southwest Michigan as an ideal location to live, work, and engage.
- Supporting and catalyzing industrial site development.

To ensure the success of the project, Southwest Michigan First will also provide support for the project in the following ways, which we have discussed with company representatives:

- Convening conversations so business owners can understand the impact of this project.
- Providing connections to community partners to ensure community benefits can be realized by those they are intended to impact.

Southwest Michigan First looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Jonas R Peterson

Jonas Peterson
CEO

P.O. Box 50827
Kalamazoo MI 49005-0827
p 269.553.9588
www.southwestmichiganfirst.com

saginaw FUTURE

www.SaginawFuture.com

February 23, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

Saginaw Future Inc. is pleased to offer this letter of support for Consumers Energy's proposal titled, "Sectionalization & Circuit Improvement to Mitigate Outage Impacts for Disadvantaged Communities."

Saginaw Future Inc. is a non-profit economic development organization and our goal is to enhance the economy in Saginaw County through job creation and new investment. We work with hundreds of businesses each year to reduce barriers to growth; one of which is access to clean, reliable and affordable power. Consumers Energy has been and continues to be an excellent partner in achieving these goals.

We also have agreements to provide economic development services to several disadvantaged communities including the City of Saginaw, Buena Vista, Bridgeport and Carrollton Townships among others. We have worked with Consumers Energy in these communities for over 30 years to ensure that our businesses and communities have the energy they need 24/7.

This grant is so important as it will minimize household and business outage impacts during storms and harden the system to prevent additional outages from happening altogether. Those two goals alone will help maintain affordable and reliable energy. In addition, Consumers Energy will sustain 60+ well-paying Michigan jobs, which fully aligns with our priorities.

We look forward to partnering with the Consumers Energy team on this effort and strongly encourage the Department of Energy to fund this important project.

Sincerely,

JoAnn Crary, President
Saginaw Future Inc.

515 N. Washington Avenue, 3rd Floor • Saginaw, MI 48607 P 989.754.8222
W GreatLakesBaySites.com GreatLakesTechnologyPark.com facebook.com/SaginawFuture

SAGINAW COUNTY CHAMBER OF COMMERCE

515 N. Washington Avenue, Saginaw, MI 48607
Ph. 989-752-7161
info@saginawchamber.org
www.saginawchamber.org

February 24, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan,

The Saginaw County Chamber of Commerce is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to found Light Up The City in Saginaw.

Light Up The City hosts several events, provides light bulbs to residents to reduce crime. Monies raised from this effort are housed at the Saginaw Chamber Foundation and used to pay for expenses incurred to bring witnesses of crimes to Saginaw to testify in court. This program has helped increase the number of witnesses willing to come forward and help reduce crime in Saginaw.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of working to create a thriving economy in Saginaw County and the Great Lakes Bay Region.

To ensure the success of the project, the Saginaw County Chamber of Commerce will also provide support for the project in the following ways, which we have discussed with company representatives:

- Communication with our nearly 1000 members and their organizations,
- Giving Consumers Energy podium time at our Percolator Breakfast (draws between 250-300),
- Continuing our partnership with the Light Up The City program.

The Saginaw County Chamber of Commerce looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Veronica L. Horn

Veronica Horn, President/CEO
Saginaw County Chamber of Commerce

ROSCOMMON COUNTY
BOARD OF COMMISSIONERS

500 LAKE STREET, ROSCOMMON, MICHIGAN 48653

www.roscommoncounty.net

David Russo, Chair
Marc J. Milburn, Vice-Chair
Rex Wolfsen, Commissioner
Eric Ostergren, Commissioner
Darlene Sensor, Commissioner

March 7, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
~~One Energy Plaza~~
Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's (CE) Proposal in Response to DE-FOA 0002740 "BIL-Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

The Roscommon County Board of Commissioners, as representatives for approximately 23,243 permanent and seasonal households, would like to strongly support Consumers Energy's (CE) proposal titled "Sectionalization and Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." As the leading provider of electrical services in Roscommon County, Consumer's Energy has proven to be a strong partner in improving the socio-economics of our rural county. Most recently Consumers Energy has provided funding for a mobile food truck to serve residents in need.

The objectives of Consumers Energy's grant-funded proposal to minimize household and business outage impacts during storms and to create over 60+ high paying jobs within some of the most disadvantaged communities in the State of Michigan is fully supported by the Roscommon County Board of Commissioners. As a rural county that has a large elderly and disabled population, coupled with limited immediate resources in cases of emergency, this proposal assists in addressing several points of our strategic priorities and hazardous mitigation initiatives.

Roscommon County is eager to provide support for this project in numerous ways, including: providing communication to residents on project objectives and timelines. We truly believe that the reduction of outages and outage duration outlined in the proposed grant funded project will provide more support to our disadvantaged communities, along with providing more career opportunities.

We look forward to partnering with the Consumers Energy team on this effort and encourage the Department of Energy to fully fund this project.

Sincerely,

David Russo
Chairperson, Roscommon County Board of Commissioners

LANSING REGIONAL CHAMBER

Monday, February 27, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer:

The Lansing Regional Chamber of Commerce is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to support economic growth in the Lansing region and many small businesses that were severely disadvantaged during the COVID pandemic.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. Additionally, CE's plans to support the development of a local "energy-ready" site to attract industrial and commercial businesses to the area will help further spur economic development. Taken altogether, this project aligns well with our priorities of catalyzing economic development in Lansing and providing citizens with strong work and business opportunities.

The Lansing Regional Chamber of Commerce looks forward to supporting the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Tim Daman
President & CEO
Lansing Regional Chamber of Commerce
500 E Michigan Ave Suite 200, Lansing, MI 48912

500 E. Michigan Avenue, Suite 200
Lansing, MI 48912

p 517.487.6340
f 517.484.6910

www.lansingchamber.org

Office of Administration

1087 Newell, PO Box 885
White Cloud, Michigan 49349
Phone: (231) 689-7234
Fax: (231) 689-7205

March 7, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan,

Newaygo County is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but also partners with us on a 40+ mile natural surface trail around Hardy Pond known as Michigan's Dragon at Hardy Dam, as well as Hardy Marina and Sandy Beach County Park.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities for economic development.

To ensure the success of the project, Newaygo County will also provide support for the project by convening meetings necessary to inform the public and/or industries of any proposed upgrades.

Newaygo County looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Christopher Wren
Newaygo County Administrator

NORTHEAST MICHIGAN COMMUNITY SERVICE AGENCY
NEMCSA
2569 US-23 South
Alpena, MI 49707
989-358-4600
nemcsa.org

February 24, 2023

Jennifer Partlan, Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza
Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan,

The Northeast Michigan Community Service Agency (NEMCSA) is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to assist low-income, at-risk families in northern Michigan during the COVID-19 pandemic.

NEMCSA supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe weather with a flexible and resilient power grid while sustaining 60+ high-paying jobs from within the State of Michigan. This project also aligns well with our priorities of strengthening communities and working to ensure safe housing for northeast Michigan residents.

To ensure the success of the project, NEMCSA will also provide support for the project in the following ways, which we have discussed with company representatives:

- Working to best serve disadvantaged communities in northeast Michigan.
- Working to promote and support economic development.

NEMCSA looks forward to partnering with the Consumers Energy team on this effort. Please do not hesitate to reach out if any additional information is needed.

Sincerely,

Lisa L. Bolen
Executive Director/CEO
Northeast Michigan Community Service Agency
bolenl@nemcsa.org

February 27, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

The Midland Business Alliance is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities."

Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to advance our mission as an economic development organization and Chamber of Commerce. We were proud to partner with Consumers Energy on the "Winter Blues" gift card giveaway in February 2021, and then again with the "Our Town" gift card giveaway in December 2021. Together, these generous initiatives helped to put thousands of dollars into our local retail community, and certainly helped to boost spirits during the ongoing COVID-19 crisis. We are also grateful for Consumers Energy's ongoing support through various sponsorships, and financial support of our economic development efforts.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priority of establishing a long-term energy plan that addresses Michigan's growing energy needs.

To ensure the success of the project, the Midland Business Alliance will also provide support for the project in the following ways:

- Communicate the new project to our membership
- Provide more in-depth communications & education about the project via programming
- Assist Consumers Energy in developing potential partnerships with local governmental units

The Midland Business Alliance looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project. If you have any questions, please do not hesitate to contact my office at tstamas@mbami.org or (989) 839-9522. Thank you.

Sincerely,

Tony Stamas

Tony Stamas
President/CEO, Midland Business Alliance
300 Rodd St., Midland MI 48640

MUSKEGON County

February 22, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Rich Houttman:

Muskegon County is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of investing in communities and has partnered with us in alternative energy.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of serving our community.

Muskegon County looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Mark Eisenbarth
Muskegon County Administrator

OFFICE OF THE ADMINISTRATOR/CONTROLLER

Midland County Services Building • 220 W. Ellsworth St. • Midland, Michigan 48640-5194

Bridgette M. Gransden
Administrator/Controller
Phone (989) 832-6784
Fax (989) 832-6602

February 23, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

The County of Midland is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of delivering clean, reliable, affordable power and investing in communities equitably. This reliability is even more important in the rural disadvantaged areas of the Midland community. When power is lost it disproportionately hurts those most disadvantaged with potential hotel costs, lost food, etc.

Our organization strongly supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of improving reliability of utilities during disasters so as not to exacerbate already challenging and stressful situations for residents. Reliable power allows for better communication to residents on what is happening during emergencies including where to find shelter, and other necessities as well as increases the speed at which can begin recovery.

The County of Midland looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Bridgette M. Gransden, CPA, CGFM
Administrator/Controller

XC: Board of Commissioners

MIDDLE MICHIGAN DEVELOPMENT CORPORATION

February 23, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer:

Middle Michigan Development Corporation (MMDC), which provides economic development services for Isabella and Clare Counties, is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of delivering clean, reliable, affordable power and investing in communities equitably. Consumers Energy also has partnered with us as a member of our MMDC Board in the past to provide aid to disadvantaged communities and COVID-19 Relief grants to small businesses suffering from the pandemic.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with MMDC priorities as follows:

MMDC Mission: We grow the economy with services designed to retain, expand, and attract businesses in Clare and Isabella counties.
MMDC Vision: We are the primary economic development driver for businesses, communities, and industrial partners in Middle Michigan.

To ensure the success of the project, Middle Michigan Development Corporation also will provide support for the project by working closely with Mid-Michigan College and Central Michigan University to provide apprenticeship programs to strongly encourage the hiring of local job candidates.

Middle Michigan Development Corporation looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund this project.

Sincerely,

James McBryde
President & CEO
Middle Michigan Development Corporation
200 E. Broadway
Mt. Pleasant, MI 48858

LEAP
stronger together

1000 South Washington Avenue, Suite 201 Lansing, MI 48910
(517) 702-3387 TEL (517) 702-3390 FAX
www.purelansing.com

February 24, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

Lansing Economic Area Partnership is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also regularly partnered with us in the past on numerous community and economic development projects, such as mixed-use developments, corporate headquarters, industrial facilities, and electric vehicle charging station program advocacy.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of improving the region's economic development by helping existing businesses grow, attracting new businesses to Lansing, and providing citizens with strong opportunities for meaningful employment.

Lansing Economic Area Partnership looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Robert L. Trezise, Jr.
President & CEO
Lansing Economic Area Partnership

THE CITY OF Kalamazoo

OFFICE OF THE CITY MANAGER

241 W. South Street
Kalamazoo, MI 49007-4796
Phone: (269) 337-8047
Fax: (269) 337-8182
www.kalamazoocity.org

3/28/2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms Partlan:

The City of Kalamazoo is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to support a variety of projects in the City of Kalamazoo.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns with our goals of Shared Prosperity, Safe Community, and Economic Vitality in Imagine Kalamazoo 2025, our City Strategic Plan.

To ensure the success of the project, the City of Kalamazoo will also provide support for the project in the following ways, which we have discussed with company representatives:

- Attending and support community engagement activities related to the project
- Provide technical assistance and work together on projects of mutual benefit
- Assist with communication of benefits to community residents when possible

The City of Kalamazoo looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

James K. Ritsema
City Manager
City of Kalamazoo
241 West South Street
Kalamazoo, MI 49007

GREATER MUSKEGON
economic development

February 22, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer:

Greater Muskegon Economic Development is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with our organization in the past on several major industrial and commercial development projects with large utility investments and usage that resulted in job creation.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of continuously expanding industry investments that is highly concentrated in advanced manufacturing for the greater Muskegon area.

To ensure the success of the project, Greater Muskegon Economic Development will also provide support for the project in the following ways, which we have discussed with company representatives:

- Advocacy with the Muskegon County employer base and elected officials;
- Convening of meetings necessary to inform the public and/or industries of any proposed upgrades;
- And, researching and reporting through our database systems to provide information for the project.

Greater Muskegon Economic Development looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

M. Schneider

Marla Schneider, President/CEO
Greater Muskegon Economic Development
380 W. Western Ave., STE 202, Muskegon, MI 49440

3-1-23

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer Partlan

Charter Township of Grayling is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to Upgrade substation on 4 Mile industrial area, Support AuSable river Canoe Marathon, and coordinate easements for Iren Belle trail extension.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of developing GCT DNR Industrial/heavy commercial property along the I-75 corridor.

To ensure the success of the project, Grayling Charter Township will also provide support for the project in the following ways, which we have discussed with company representatives:

- Support for Utility easements
- Board Resolutions if Requested
- Use of Township Hall for Public Meetings

GCT looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Lacey Stephan
GCT supervisor
lstephan@twp.grayling.mi.us
989-348-4361

Crawford COUNTY

BOARD OF COMMISSIONERS

February 23, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

Crawford County is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to sponsor community events, delivery of grants for community projects and keep the local units engaged in current developments.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of ensuring stable delivery of energy to our businesses and residents along with advancing our economic opportunities.

Crawford County looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Laurie Jamison

Laurie Jamison, Chair
Crawford County Board of Commissioners

FLINT & GENESEE CHAMBER

A Division of the Flint & Genesee Group

519 S. Saginaw Street | Suite 200
Flint, MI 48502
(810) 600-1404
FlintandGenesee.org

February 27, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer,

The Flint & Genesee Chamber is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." CE plays an integral role in the growth and sustainability of Genesee County's business community, as well as in maintaining a strong quality of life for our county's residents. CE has consistently delivered reliable, affordable power and is committed to investing in our communities equitably. CE has demonstrated a strong commitment to the well-being of our area, directly supporting our businesses through cost-saving and equipment programs, as well as through innovative gift card match programs to stimulate the local economy. With projects like the Gas City training facility in Flint, they are committed to creating jobs and cultivating our community's workers with the skills to keep the power infrastructure strong, safe, and up to date.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. Reliable, affordable power is a cornerstone of a strong economy, and is a "must-have" for our county's *Forward Together* vision to become a top five county in Michigan in terms of jobs, talent, livability and equity, by 2040. CE is an active partner and critical piece of the puzzle as we work toward that vision with a variety of strategies.

To ensure the success of the proposed Sectionalization project, the Flint & Genesee Chamber will also provide support for the project in the following ways, which we have discussed with company representatives:

- Helping attract and retain a talented workforce in Genesee County through our *Make Your Move* campaign
- Highlighting and promoting the project through our numerous print and online publications as well our social media channels
- Connecting CE with new and growing businesses in our area – large and small – to develop solutions that deliver safe, consistent power for all who live and work in Genesee County

The Flint & Genesee Chamber looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Andrew Younger, Executive Director
Flint & Genesee Chamber

City of Flint

Office of Mayor Sheldon Neeley

February 24, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer,

The City of Flint is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to support demolition projects addressing structural blight, as well as helped incentivize residents to consent to lead service line replacement.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of providing a stable source of power for our aging and medically vulnerable populations. A resilient energy grid is especially important to the City of Flint as the host of two major hospitals and three major colleges.

To ensure the success of the project, the City of Flint will also provide support for the project in the following ways, which we have discussed with company representatives:

- Maintaining easements and right of ways while work is done on power lines.
- Partnering with Mott Community College to promote apprenticeship programs that feed to job opportunities with Consumers Energy.
- Providing feedback and continued engagement on project priorities or potential concerns.
- Providing suggestions of other stakeholders or community-based organizations to meet with.

The City of Flint looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Sheldon A. Neeley
Mayor

CITY OF DEWITT

DEWITT CITY HALL • 414 EAST MAIN STREET • DEWITT, MICHIGAN 48820

February 24, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Jennifer Partlan:

As Mayor of the City of DeWitt, I am pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities."

I support the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of catalyzing and continuing investments in our local community, improving climate resiliency throughout our county, and improving the quality of life for our citizens.

As Mayor of DeWitt, I am pleased to support the Consumers Energy team on this effort and encourage the Department of Energy to fund the project.

Sincerely,

Susan Leeming
Mayor, City of DeWitt
414 E Main Street, DeWitt, MI 48820

DEVELOP IOSCO INC

Community. Synergy. Solutions.

February 23, 2023

Jennifer Partlan, Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

Develop Iosco, Inc., Iosco County's economic development organization, is providing this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has been a partner on a variety of projects in this community and continues to demonstrate its commitment to deliver clean, reliable, affordable power and investing in communities equitably. Past partnerships with Develop Iosco (DI) include supporting the February 2022 Marketing Blueprint survey, conducted by Golden Shovel Agency, to determine the economic development priorities for Iosco County, as well as supporting ongoing economic development through annual grant support.

DI supports the objectives of GRIP's grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining more than five dozen high-paying jobs from within the state of Michigan. This project also aligns well with DI's priority of expanding high speed internet services to unserved and underserved residents of Iosco County, which is greatly impacted if severe storms take down the power grid for a period of hours or days. Virtual-based businesses, access to healthcare, and online learning are examples of the impact of storm-related power outages that occur when internet services are not accessible. DI has convened an advisory committee with support from Iosco County government to address expanding the capacity and coverage of existing high speed internet services. Consumers Energy's ability to utilize GRIP funding to strengthen the power grid in Iosco County would make a significant difference in this rural Northeast Michigan community of 25,000 residents.

DI looks forward to partnering with the Consumers Energy team on this effort and strongly encourages the Department of Energy to fund the project.

Sincerely,

Gloria A. Brooks, MPA
President

PO Box 9, East Tawas MI 48730
www.develop-iosco.org

Clinton County Catalyst
CONNECT • CONSTRUCT • CULTIVATE

12800 Escanaba Drive, Suite D
Dewitt, MI 48820
517.669.1345
www.clintoncountycatalyst.org

February 23, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer:

The Clinton County Catalyst is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of improving the region's economic development by helping existing businesses grow, attracting new businesses to Clinton County, and providing citizens with strong opportunities for meaningful employment.

The Clinton County Catalyst looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Craig A. Bishop

Board Chair
Clinton County Catalyst
12800 Escanaba Dr. Suite D, DeWitt, MI 48820
989-450-8462

Clearly Clare MICHIGAN

CITY OF CLARE

202 West Fifth Street | Clare, Michigan 48617-1490
Office 989.386.7541 | Fax 989.386.4508
www.cityofclare.org

CITY HALL
Ph 989.386.7541
Fx 989.386.4508
www.cityofclare.org
Manager x102
Assessor x103
Clerk x106
Treasurer x107

DEPARTMENT OF PUBLIC WORKS
Ph 989.386.2182 or
989.386.7541 x202
Fx 989.386.4508

UTILITY BILLING
Ph 989.386.7541 x201

W/WWT PLANT
Ph 989.386.2321
Fx 989.386.2387

POLICE DEPT.
NON-EMERGENCY
Ph 989.386.2121
Fx 989.386.0440

FIRE DEPT.
NON-EMERGENCY
Ph 989.386.2151
Fx 989.386.3020

PARKS & RECREATION
Ph 989.386.7541 x213
Fx 989.386.4508

AIRPORT
Ph 989.386.0445
Fx 989.386.4508

February 20, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

To Whom it May Concern:

The City of Clare is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to help with local projects and development as well as always been a willing donor and supporter of our community events and festivals.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan.

To ensure the success of the project, the City of Clare is committed to working with Consumers Energy in order to provide reliable and affordable power for the City of Clare and surrounding community.

The City of Clare looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Jeremy Howard

Jeremy Howard
City Manager
City of Clare
202 West Fifth Street
Clare, MI 48617

It's Working!

cte

CAREER & TECHNICAL EDUCATION
CLARE-GLADWIN RESD

2/22/2023
Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer,

Clare-Gladwin Regional Education Service District is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to improve Career and Technical Education facilities and provide work-based learning experiences, as well as sponsorship for student leadership events for students entering the energy career field.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of preparing students for the skilled trades industry by providing quality technical education services to five local school districts. This project is important to enhance electrical services to many of the students and families who fall within the poverty threshold and ALICE population. In addition, Clare-Gladwin is expanding career and technical education programming through a new 40,000 sq. ft. facility that is serviced by Consumers Energy.

To ensure the success of the project, Clare-Gladwin Regional Education Service District will also provide support for the project in the following ways, which we have discussed with company representatives:

- Collaboration with local government and school districts to support the project
- Promoting apprenticeship and work-based learning opportunities for students
- Supporting pre-apprentice and dual-enrollment opportunities for skill trades students

Clare-Gladwin Regional Education Service District looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Eric Johnson
Director of Career & Technical Education
Clare-Gladwin Regional Education Service District

City Hall ♦ 333 West Ellsworth Street ♦ Midland, Michigan 48640-5132 ♦ 989.837.3300 ♦ 989.835.2717 Fax ♦ www.midland-mi.org

February 21, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

The City of Midland is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has long been a partner with the City of Midland towards efficient and effective improvements to their power supply system and their continuing goal of improving system reliability aligns closely with the needs and concerns of our community.

Our organization strongly supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of improving system reliability during severe weather and flood events that continue to test the resiliency of our community and that of our residents. Recent wind and snowfall events, and of course the dam failures upstream of Midland in 2020, highlight the impact that the loss of power can have on a community and its ability to respond and recover quickly following such events.

The City of Midland looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project. We would be happy to speak with you or your team if doing so would help highlight the importance of this effort on our community.

Sincerely,

C. Bradley Kaye

C. Bradley Kaye, ICMA-CM AICP CFM
City Manager

Erich Podjaske - City Manager
1020 City Blvd - PO Box 549
Grayling, MI 49738
Phone - (989) 348-2131 Fax – (989) 348-6752
manager@cityofgrayling.org

March 21, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer Partlan:

City of Grayling is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of delivering clean, reliable, affordable power and investing in communities equitably.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan.

To ensure the success of the project, the City of Grayling will also provide support for the project in the following ways, which we have discussed with company representatives:

- **Participating in planned public forums to provide community feedback on the project on how to maximize benefits and minimize any negative impacts and**
- **Helping educate local communities about the grid, economic and societal benefits that the project is bringing in coordination with CE.**

The City of Grayling looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Erich Podjaske
City Manager

BAY AREA
CHAMBER OF COMMERCE
People. Partnerships. Progress.

March 17, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan,

The Bay Area Chamber of Commerce is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to ensure the vitality of the community by supporting community initiatives.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priority of being a thriving community by providing opportunities for investment, job retention and creation, and a higher quality of life for our current and future residents.

To ensure the success of the project, the Bay Area Chamber of Commerce will also provide support for the project in the following ways, which we have discussed with company representatives:

- Provide advocacy for the project to Chamber members and community stakeholders
- Assist in communication efforts to our membership and community at-large
- Other support as needed for Consumers Energy

The Bay Area Chamber of Commerce looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,

Magen Samyn

Magen Samyn
President & CEO
Bay Area Chamber of Commerce
812 N. Water Street
Bay City, MI 48708

March 1, 2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Support for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Jennifer,

The Clare Area Chamber of Commerce is pleased to offer this letter of complete support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of delivering clean, reliable, affordable power and investing in communities equitably. We appreciate Consumers Energy partnering with the Clare Area Chamber of Commerce to help provide assistance and services for those in need.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining many high paying jobs from within the state of Michigan. The Clare Area Chamber of Commerce continually strives to make our community a better place to live, work and play. We have partnered with local government, education, workforce, and economic development leaders to improve essential services in Clare County and strongly feel that a more reliable and resilient electrical grid is imperative to the success of our county. Improved electric services will help ensure more stable broadband, lead to business growth, and allow families to enjoy basic amenities that other communities take for granted. Our Chamber has worked closely with Consumers Energy for many years and pledges to be a source of information and assistance throughout this project as needed by your company.

The Clare Area Chamber of Commerce looks forward to partnering with the Consumers Energy team in the future and strongly encourages the Department of Energy to fund this project.

Optimistically,

Dave Coker
Executive Director

2/24/2023

Jennifer Partlan
Senior Engineering Lead
Consumers Energy (CE)
One Energy Plaza Jackson, MI 49201

Subject: Letter of Commitment for Consumers Energy's ("CE") Proposal in Response to DE-FOA-0002740 "BIL – Grid Resilience and Innovation Partnerships (GRIP)" Topic Area 1

Dear Ms. Partlan:

Bay Future, Inc., is pleased to offer this letter of support for Consumers Energy's (CE) proposal titled "Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities." Consumers Energy has a record of not just delivering clean, reliable, affordable power and investing in communities equitably, but has also partnered with us in the past to fund and steer an economic recovery and development strategy that will prove to impact the community for years to come.

Our organization supports the objectives of this grant-funded proposal to ensure that all communities are prepared for the adverse impacts of severe storms with a flexible and resilient grid while sustaining 60+ high-paying jobs from within the state of Michigan. This project also aligns well with our priorities of economic development, providing opportunities for investment, job retention and creation, and a higher quality of life for our current and future residents.

To ensure the success of the project, Bay Future, Inc. would be pleased to provide support for the project in the following ways, which we have discussed with company representatives:

- Communication of project scope to community shareholders
- Advocacy of participation and understanding of project to shareholders
- Coordinating best practice economic development strategies to secure successful support and completion of project.

Bay Future, Inc. looks forward to partnering with the Consumers Energy team on this effort and encourages the Department of Energy to fund the project.

Sincerely,
Trevor M. Keyes
President & CEO
Bay Future, Inc.
812 N. Water St.
Bay City, MI 48708

Statement of Project Objectives (SOPO)
SECTIONALIZATION & CIRCUIT IMPROVEMENTS
TO MITIGATE OUTAGE IMPACTS FOR DISADVANTAGED COMMUNITIES

A. OBJECTIVES

There are four goals & objectives for this project, which are described below:

1. **Complete all lateral fusing of our Low Voltage Distribution (LVD) system:** Installing an additional 7,000+ fuses will sectionalize the system minimizing the number of customers affected by any individual outage. This also improves the response time for crews to repair wire downs as there is a smaller zone for crews to patrol before they fix and re-energize the zone.
2. **Construct new ties between circuits while adding automated loops in targeted DAC areas:** Consumers Energy (CE) will add 28 ties to areas that currently do not have 3 phase ties between circuits in disadvantaged, non-rural areas. As part of this work. CE will undergo 160+ miles of reconductoring between substations while adding 50+ miles of new line to create these ties. This will allow load transfers for crews to isolate the damage and re-energize other customers faster while they make the repairs. CE will also add automated load transfer devices to all these circuits and add a total of 200+ automation loops across the state.
3. **Harden poles & wires while piloting new state-of-the art sensors:** CE will harden 10,000+ poles and reconductor 460+ miles of aging lines to prevent storm-driven outages. Further, there are some areas of the system that cannot support voltage/current line sensors due to conductor type or low current to power the devices. In these cases, pole sensors can help identify pole-lean situations to notify and dispatch repair crews before a failure occurs.
4. **Support workforce and localized economic development:** Deploy three 'energy-ready' sites to attract new, large businesses while supporting training of company line worker apprentices.

B. SCOPE OF WORK

The scope of work is described below. This work will be conducted throughout the CE Service Territory with a focus on areas with (1) needs for infrastructure upgrades and (2) that contain large areas of designated Disadvantaged Community (DAC) census tracts. This work will be organized by the five main areas within CE's service territory as illustrated in section C - "Tasks to be Performed."

- **Fusing:** Install 7,000+ lateral fuses to mitigate impacts to upstream customers from outages due to extreme weather (e.g., severe storms) and natural disasters.
- **Circuit Preparation:** Prepare circuits for future automation equipment by constructing 28 3-phase ties (requiring 50+ miles of phase extensions and new line additions and another 160+ miles of substation backbone reconductoring) needed to make automated transfer recloser (ATR) loops and automated load transfers viable – primarily focused on DACs.
- **Automated Loops:** Create an additional 28 ties – adding ATRs to enable automatic re-energization of customers on the circuit until crews can repair the fault.

- **System Hardening:** Harden 10,000+ poles and reconductor 460+ miles of aging lines to achieve new standards that will prevent storm-driven outages. In addition, invest in pole top hardware upgrades to reduce the risk of damage during wind and ice events. Pilot new state-of-the-art pole sensor technology to detect pole tilt and conductor galloping situations, and drive maintenance management for conditions not readily detected through traditional means.
- **Economic Development Sites:** Support multi-MW grid capacity increases and other upgrades required to support the development of three "energy-ready" sites throughout the state in DAC or DAC-adjacent areas (North Lansing, Clare, and Flint / Mt. Morris), which can help incentivize large industrial or commercial businesses to operate in Michigan.

C. TASKS TO BE PERFORMED

Task 1.0: Project Management Plan

Task 1.0 will support more detailed project planning while also ensuring compliance with all federal obligations as the work launches.

Subtask 1.1: Project Management Plan (PMP)

Within 30 days of the award notification, CE shall submit a Project Management Plan (PMP) to the designated Federal Project Officer (FPO). CE shall not proceed beyond Task 1.0 until the PMP has been accepted by the FPO.

The PMP shall be revised and resubmitted as often as necessary, during the project, to capture any major/significant changes to the planned approach, budget, key personnel, major resources, etc.

CE shall manage and direct the project in accordance with the accepted PMP to meet all technical, schedule and budget objectives and requirements. CE will coordinate activities to effectively accomplish the work. CE will ensure that project plans, results, and decisions are appropriately documented, and that project reporting and briefing requirements are satisfied.

Subtask 1.2: National Environmental Policy Act (NEPA) Compliance

As required, CE shall provide the documentation necessary for NEPA compliance.

Subtask 1.3: Continuation Briefing(s)

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

The tasks shown below will be the same for different areas of the state organized by various CE "areas" that serve the surrounding geographies.

Task 2.0: Flint Area - Sectionalization & Circuit Improvements

Below is an example of the tasks and sub-tasks required to accomplish the project goals & objectives for the geographical area served by the CE Flint Headquarters. This will be replicated in the other regions of the project depicted in the maps included as part of the Technical Volume. **Subtask 2.1: Construction of new 3-phase ties (i.e., "circuit preparation")**

Construct new overhead 3-phase ties between circuits that currently do not have 3-phase ties between circuits in disadvantaged non-rural areas. This will allow load transfers for crews to isolate the damage and re-energize other customers faster while they make the repairs. This work will also require addition of new lines and new poles.

Subtask 2.2: Installation of equipment for automation loops on circuits with newly constructed ties

CE plans to add automation on these new ties in targeted areas through the installation of ATR loops. This will allow the fault to be isolated automatically and all other customers energized while crews make repairs safely.

Subtask 2.3 – Reconductoring and Pole Replacements on Substation Backbone

CE plans to reconductor select substation "backbones" to bolster system resiliency, support load transfer, and enable three different "energy-ready" economic development sites *(Flint, Clare, and North Lansing areas only).*

Task 3.0: Saginaw Area - Sectionalization & Circuit Improvements

Task 3.0 will feature the same subtasks as Task 2.0 shown above. Timing and locations of this work will be reflected in the "Workplan" section of the application.

Task 4.0: Lakeshore Area - Sectionalization & Circuit Improvements

Task 4.0 will feature the same subtasks as Task 2.0 shown above. Timing and locations of this work will be reflected in the "Workplan" section of the application.

Task 5.0: Northern Area - Sectionalization & Circuit Improvements

Task 5.0 will feature the same subtasks as Task 2.0 shown above. Timing and locations of this work will be reflected in the "Workplan" section of the application. Includes econ dev. site.

Task 6.0: Southwest / Lansing Area - Sectionalization & Circuit Improvements

Task 6.0 will feature the same subtasks as Task 2.0 shown above. Timing and locations of this work will be reflected in the "Workplan" section of the application. Includes econ dev. site.

Task 7.0 – State-Wide Sectionalization & Circuit Improvements

Select system upgrades will be evaluated and deployed at a state-wide level – namely lateral fusing efforts in addition to evaluation of suitable locations to deploy state-of-the-part pole sensors.

Subtask 7.1: Lateral fusing (Statewide)

Complete all lateral fusing of our Low Voltage Distribution (LVD) system. This will sectionalize the system minimizing the number of customers affected by any individual outage. This also improves the response time for crews to repair wire downs as there is a smaller zone for crews to patrol before they fix and re-energize the zone. Lateral fusing is only intended for the first two years of the grant funding and program, at that time all the feasible laterals will be fused.

Subtask 7.2: Pilot new pole sensors *(will be piloted in select target areas to be determined after award selections in conjunction with the DOE and community stakeholders)*

There are some areas of CE's system where currently used line sensors cannot be installed due to conductor type or low current to power the devices. In some of those areas there may be opportunities to monitor for leaning poles or low wires with pole sensors that can sense the lean and notify dispatch before the pole fails. This would be a pilot program to understand the benefits and feasibility of using them elsewhere on the system. This program will not apply in all tasks/area.

Task 8.0: Community Benefits Plan

Task 8.0 summarizes the activities to be conducted as part of the Community Benefits Plan. This is organized into the four pillars of the plan outlined by the Department of Energy.

Subtask 8.1: Community and Labor Engagement

Subtask 8.1.1: Refine list of community stakeholders and hold preliminary meetings with targeted DAC city governments.

Subtask 8.1.2: Conduct community needs assessment for targeted DACs to identify the concerns and priorities of local businesses and households

Subtask 8.1.3: Host two-part public forum to present project plans and seek feedback from impacted communities.

Subtask 8.1.4: Negotiate, sign and create public release describing Community Benefits Agreement.

Subtask 8.1.5: Host community engagement to raise awareness of project scope and sectionalization/circuit improvement benefits for target DACs.

Subtask 8.1.6: Engage labor unions on project plans, seek project input, and leverage existing Collective Bargaining Agreements

Subtask 8.1.7: Publish a Community Benefits Plan summary report and maintain open lines of communication with stakeholders.

Subtask 8.1.8: Host public celebration event to recognize the completion of the project in 2027 and the benefits to the communities.

Subtask 8.2: Investing in the American Workforce

Subtask 8.2.1: Begin first tranche of apprentice hiring from DACs in Q2 2023 and finalize first tranche hires by Q4 2023.

Subtask 8.2.2: Create draft plans for workplace health and safety and worker rights.

Subtask 8.2.3: Facilitate regular team 'pulse-check' surveys and quarterly meetings on rotating mental health topics.

Subtask 8.2.4: Establish reporting methodology on workforce investments.

Subtask 8.2.5: Continually host worker upskilling and development opportunity sessions and educational outreach.

Subtask 8.3: Diversity, Equity, Inclusion, and Accessibility (DEIA)

Subtask 8.3.1: Invite Diverse-Owned Businesses to respond to competitive materials and equipment procurement while tracking diverse spend.

Subtask 8.3.2: Review and refine DEIA strategy with input from project team and external stakeholders.

Subtask 8.3.3: Conduct annual DEIA and anti-bias training for workers and staff with external speakers on DEIA topics.

Subtask 8.3.4: Partner with pre-apprentice programs to reduce barriers to historically underserved individuals and communities.

Subtask 8.4: Justice40

Subtask 8.4.1: Invite stakeholders representing DACs to participate in public forums.

Subtask 8.4.2: Work with community stakeholders in community engagement sessions to decide which Justice40 metrics to track and report on. Begin tracking upon project completion.

Subtask 8.4.3: Support the development of three "energy-ready" sites to provide high-quality energy to potential commercial or industrial tenants.

Subtask 8.4.4: Publish summary of recommendations and proposed actions from public forums to minimize negative impacts and maximize benefits to DACs.

D. DELIVERABLES

Subtask 1.1: Project Management Plan
Subtask 1.3: Cybersecurity Plan (*if applicable)
Subtask 1.4: Pre-Continuation Briefing Document(s); Quarterly Progress & Financial Reports
Tasks 2.0 – 7.0: Baseline Budget, Maps, and Detailed Schedule ("Project Design & Planning")
Tasks 2.0-7.0: Project Completion List ("Closeout" Phase)
Task 8.0: Refined Community Benefits Plan (CBP); Annual CBP Report (publicly released), Negotiated Community Benefits Agreements

E. BRIEFINGS AND TECHNICAL PRESENTATIONS

Kickoff Briefing: Not more than 30 days after submission of the Project Management Plan, CE shall prepare and present a project summary briefing as part of a Kickoff.

Pre-Continuation Briefing: Not less than 90 days prior to the planned start of a budget period, CE 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 continuation.

Technical presentation on Pole Sensors Findings: Interim presentation focused on the key learnings from implementing new pole sensor technology, key uses cases, and potential value for utilities in general.

Final Project Briefing: Not less than 30 days prior to the end of the project, CE shall prepare and present a Final Project Briefing on the results and accomplishments of the entire project (planned for 2028).

Project Information

Project Title	Sectionalization & Circuit Improvements to Mitigate Outage Impacts for Disadvantaged Communities
Prime Recipient	Consumers Energy
Business Point of Contact	Michael Kelly
Tech. Point of Contact / Senior Engineer	Jenny Partlan
Requested DOE Funds	$100M
Proposed Applicant Cost Share	$100M

Key Project Takeaways

- **Improve energy reliability and resilience** by hardening grid systems, building out lines, creating automated loops, reconductoring wires, and installing new ties and fuses
- **Support local economic development** by working to build out three energy-ready sites to help attract large commercial and industrial customers to the area
- **Increase job access and aid local workforce development** by agreeing to create 60+ competitive jobs and provide apprentices from local community colleges “on-the-job” learning experiences
- **Advance local and state-wide climate and justice goals** by improving grid resilience and responsiveness; directing investments towards historically disadvantaged communities where possible; and hiring labor directly from local unions and organizations

Technology Summary

- **Sectionalization & Fusing:** Install 7,000+ lateral fuses to mitigate impacts to upstream customers from outages due to extreme weather and natural disaster.
- **Reconductoring:** Reconductor 460+ miles of line to create new ties between adjacent circuits to allow for manual load transfers, additional automatic transfer reclosers (ATRs), and looping of circuits.
- **Circuit Preparation:** Prepare circuits for future automation equipment by constructing 3-phase ties needed to make ATR loops viable.
- **Automated Loops:** Target disadvantaged areas and create 200+ automated loops to enable automatic re-energization of customers on the circuit until crews can repair the fault.
- **System Hardening:** Harden 10,000+ and make necessary pole top hardware upgrades to reduce the risk of damage during wind and ice events. Pilot new pole sensor technology to detect pole tilt and conductor galloping situations, and drive maintenance management for conditions not readily detected through traditional means.

Key Personnel

- **Michael Kelly** (Project Business Lead & Main Business Point of Contact) – MS in Mechanical Engineering from University of Michigan Dearborn; MBA from University of Michigan Ann Arbor; Worked at CE from 2018 in Corporate Strategy and Electric Distribution
- **Jenny Partlan** (Tech. Lead / Senior Engineer) – MS in Engineering Management from University of Michigan Dearborn; Project Management Professional certified since 2016, worked at CE for 11 years and in the Low Voltage Distribution Planning Department for 4 years
- **Monica Humbad** (LVD System Planning Engineer) – BS in Electrical Engineering from Lawrence Technological University; Worked for Johnson Controls in their Lithium-Ion battery division and at DTE Energy in Generation before starting as an Automatic Transfer Recloser statewide planner for CE

Proposed Project Goals

Project Objectives

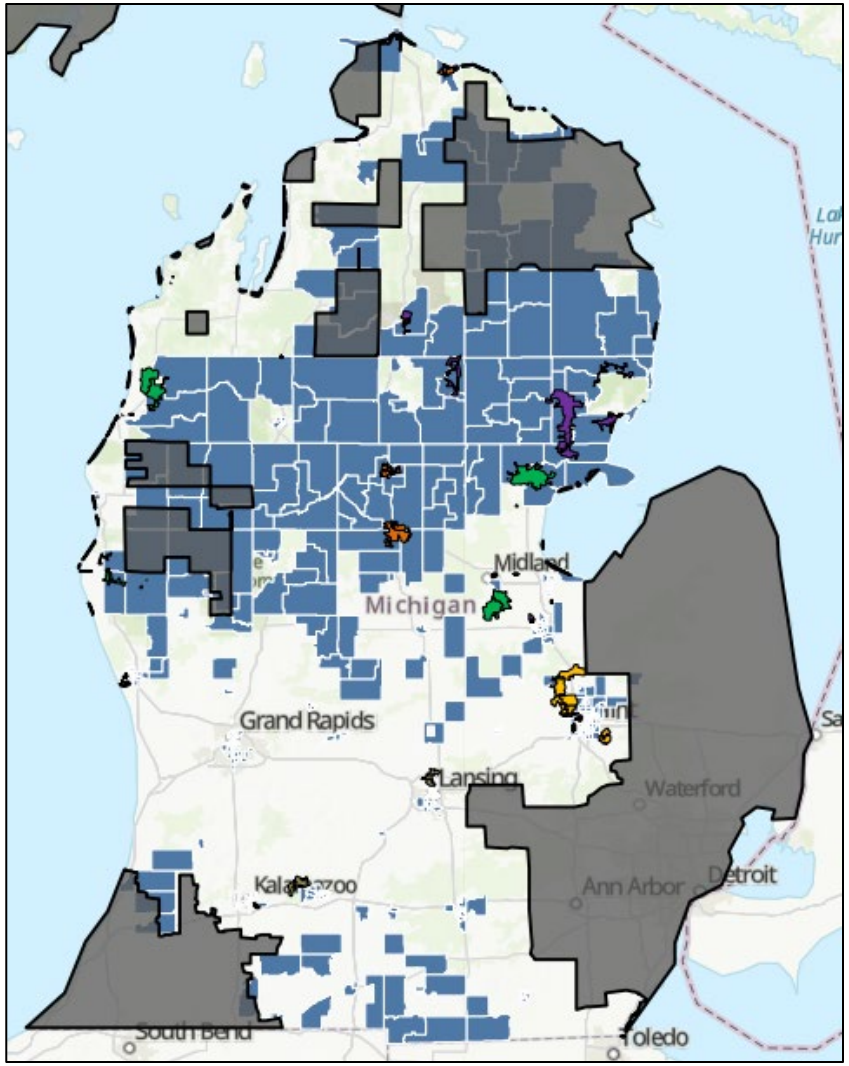
- **Objective #1:** Complete lateral fusing of the Low Voltage Distribution (LVD) system.
- **Objective #2:** Construct new ties between circuits while adding automated loops in targeted DACs.
- **Objective #3:** Harden poles and pilot new state-of-the-art sensors to drive system resiliency.
- **Objective #4:** Support workforce & localized economic development.

Project Outcomes

- **Grid Reliability & Resiliency** – Ensuring the system is sectionalized to current standards will improve SAIDI by limiting the number of customers effected by any single outage.
- **Grid Flexibility & Clean Energy Enablement** – DERs and EV chargers will continue to add additional strain on the electrical grid near their locations. Upgraded conductors will create a closer viable connection for devices that may require the higher ampacity to connect.
- **Social Equity** – CE is working towards ensuring 40% of the workplan benefits DACs in rural and non-rural areas of the state of Michigan.
- **Safety** – If the fault is a downed wire, this project will enable quick de-energization reducing the risk to the public.
- **Customer Affordability & Experience** – Installing sectionalization and automation loops limits the amount of time and distance a crew will need to patrol to find the fault and / or re-energize upon making repairs.
- **Economic Development** – Work with local communities to build out three energy-ready sites to help attract large commercial and industrial customers.
- **Job Creation / Workforce Development** – Commit to establishing 60+ meaningful employment opportunities for workers from local unions and labor organizations.

Technology Impact

- **Reduced Outage Impact, Duration, and Restoration Times:** Reconductoring portions of these circuits and creating the tie lines in areas that have not been upgraded to new standards will harden the system against severe weather patterns.
- **Reduced Outage Frequency:** Constructing 3-phase tie lines will upgrade poles and conductors to current standards that can withstand stronger winds and storm events, preventing outages in the first place. Implementing pole sensing technology will also support preemptive maintenance management by detecting potential outage risks such as poles that are out of position and conductors that are dropped.
- **Downed Wire Hazard Reduction:** Installation of lateral fuses will enable faster restoration operations when a fault occurs downstream. A downed wire can be de-energized quickly, while preventing burning trees and threats to public safety.
- **Reduction in On-Site Restoration Efforts:** Having tie lines and load transfer capabilities allows for crews to isolate the fault area to ensure the lines are de-energized while they are making repairs.
- **Distributed Energy Resource Enablement:** Addition of new ties for these circuits will increase the fault current available for protective devices and electric capacity to enable new distributed energy resources (DERs) to be added to the system with fewer upgrades being required. The 3-phase tie would also allow for more availability to add additional load.
- **Grid Flexibility:** The construction of additional switches and added system redundancy will enable smart-grid functions and ultimately allow for future grid modernization opportunities. Overall, a sectionalized, flexible grid will enable higher renewable and DER penetration in DACs.
- **Long-Term Affordability for Households and Businesses:** Households and businesses will benefit from a robust low voltage infrastructure that is capable of load transfer at no incremental increase to the electric rate. Customers also will receive reductions in energy bills, passed on through outage response cost optimization.



Target Communities for Potential Investment

- **Saginaw Area**
  - Saginaw County
  - Arenac County
  - Iosco County
  - Roscommon County
  - Crawford County
  - Midland County
- **Northern Area**
  - Cheboygan County
  - Clare County
  - Northern Isabella County
- **Southwest / Lansing Area**
  - DeWitt/Clinton County
  - Kalamazoo County
  - Calhoun County
  - Southern Isabella County
- **Flint Area**
  - Genesee County
  - Portions of Saginaw County
- **Lakeshore Area**
  - Oceana County
  - Muskegon County
  - Manistee County

Map Legend

- 2024 Projects
- 2025 Projects
- 2026 Projects
- 2027 Projects
- 2028 Projects
- Outside of CE Territory
- Michigan Justice40 Tracks

Note: figure above only shows grant-funded automation loop investments.

Locations of Work (DE-FOA-0002740)				
Prime or Sub	**Name**	**City**	**State**	**Congressional District**
Prime	ONE ENERGY PLAZA, JACKSON, MI 49201	JACKSON	MI	MI-005
Prime	173 COLLIER AVE BATTLE CREEK, MI 49037	BATTLE CREEK	MI	MI-004
Prime	3007 MEACHEM RD BATTLE CREEK, MI 49017	BATTLE CREEK	MI	MI-002
Prime	12000 ULMER RD BIRCH RUN, MI 48415	BIRCH RUN	MI	MI-008
Prime	E ATHERTON RD BURTON, MI 48519	BURTON	MI	MI-008
Prime	265 SOUTH ST CHEBOYGAN, MI 49721	CHEBOYGAN	MI	MI-001
Prime	1307 HIGGINS DR CHEBOYGAN, MI 49721	CHEBOYGAN	MI	MI-001
Prime	CLARE, MI 48617	CLARE	MI	MI-006
Prime	CLARE, MI 48617	CLARE	MI	MI-006
Prime	602 LOCUST TRANSFORMER SITE DEWITT, MI	DEWITT	MI	MI-007
Prime	4147 CLIO RD FLINT, MI 48504	FLINT	MI	MI-008
Prime	901 W PASADENA AVE FLINT, MI 48504	FLINT	MI	MI-008
Prime	901 W PASADENA AVE FLINT, MI 48504	FLINT	MI	MI-008
Prime	S LINDEN RD FLINT, MI 48532	FLINT	MI	MI-008
Prime	S LINDEN RD FLINT, MI 48532	FLINT	MI	MI-008
Prime	925 COUTANT ST FLUSHING, MI 48433	FLUSHING	MI	MI-007
Prime	925 COUTANT ST FLUSHING, MI 48433	FLUSHING	MI	MI-007
Prime	W MT MORRIS RD FLUSHING, MI 48433	FLUSHING	MI	MI-007
Prime	8100 WEBSTER RD FREELAND, MI 48623	FREELAND	MI	MI-008
Prime	S BELSAY RD GRAND BLANC, MI 48439	GRAND BLANC	MI	MI-008
Prime	JAMES ST GRAYLING, MI 49738	GRAYLING	MI	MI-001
Prime	JAMES ST GRAYLING, MI 49738	GRAYLING	MI	MI-001
Prime	327 N FOURTH ST HARRISON, MI 48625	HARRISON	MI	MI-001
Prime	HARRISON, MI 48625	HARRISON	MI	MI-001
Prime	4042 W TYLER RD HART, MI 49420	HART	MI	MI-002
Prime	2209 PALMER AVE, KALAMAZOO, MI 49001	KALAMAZOO	MI	MI-004
Prime	2209 PALMER AVE, KALAMAZOO, MI 49001	KALAMAZOO	MI	MI-004

Prime	7974 CHIPPEWA HWY KALEVA, MI 49645	KALEVA	MI	MI-002
Prime	7974 CHIPPEWA HWY KALEVA, MI 49645	KALEVA	MI	MI-002
Prime	W WIELAND RD VACANT LANSING, MI 48906	LANSING	MI	MI-007
Prime	MACKINAW CITY, MI 49701	MACKINAW CITY	MI	MI-001
Prime	MACKINAW CITY, MI 49701	MACKINAW CITY	MI	MI-001
Prime	314 CAMBRIDGE ST MIDLAND, MI 48642	MIDLAND	MI	MI-008
Prime	2910 E WHEELER ST MIDLAND, MI 48642	MIDLAND	MI	MI-008
Prime	E LAPORTE RD MIDLAND, MI 48640	MIDLAND	MI	MI-002
Prime	146 W HICKORY ST MONTROSE, MI 48457	MONTROSE	MI	MI-008
Prime	N LINDEN RD MOUNT MORRIS, MI 48458	MOUNT MORRIS	MI	MI-008
Prime	N LINDEN RD MOUNT MORRIS, MI 48458	MOUNT MORRIS	MI	MI-008
Prime	1083 W WESTERN AVE MUSKEGON, MI 49441	MUSKEGON	MI	MI-003
Prime	1083 W WESTERN AVE MUSKEGON, MI 49441	MUSKEGON	MI	MI-003
Prime	2860 HENRY ST NORTON SHORES, MI 49441	NORTON SHORES	MI	MI-003
Prime	2817 MCCRACKEN ST NORTON SHORES, MI 49441	NORTON SHORES	MI	MI-003
Prime	COOKE HYDRO PLANT OSCODA, MI 48750	OSCODA	MI	MI-001
Prime	FOOTE HYDRO PLANT OSCODA, MI 48750	OSCODA	MI	MI-001
Prime	3628 MACKINAW ST SAGINAW, MI 48602	SAGINAW	MI	MI-008
Prime	2800 N CENTER RD SAGINAW, MI 48603	SAGINAW	MI	MI-008
Prime	SAINT HELEN, MI 48656	SAINT HELEN	MI	MI-001
Prime	SAINT HELEN, MI 48656	SAINT HELEN	MI	MI-001
Prime	SHELBY, MI 49455	SHELBY	MI	MI-002
Prime	SHELBY, MI 49455	SHELBY	MI	MI-002
Prime	S COURT ST STANDISH, MI 48658	STANDISH	MI	MI-001
Prime	S COURT ST STANDISH, MI 48658	STANDISH	MI	MI-001
Prime	CEDAR ST TAWAS CITY, MI 48763	TAWAS	MI	MI-001
Prime	CEDAR ST TAWAS CITY, MI 48763	TAWAS	MI	MI-001
Prime	1 ENERGY PLAZA DR TURNER, MI 48765	TURNER	MI	MI-001
Prime	WHITTEMORE, MI 48770	WHITTEMORE	MI	MI-001

