

Public Hearing

Department of Energy

Grid Resilience Formula Grant

Thursday, November 10, 2022

Bipartisan Infrastructure Law – Section 40101(d)

Preventing Outages and Enhancing the Resilience of the Electric Grid



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY



Agenda



Introductions and Opening Remarks



Review of DOE and state needs, Grid Resiliency program goals, and eligible activities



Strategy to get and allocate funding



Review related utility work



Tentative timeline

Section 40101(d) Goals

Federal and state needs

Demonstrate measurable improvements in energy resilience in Michigan and mitigate climate related risk and align project with the MI Healthy Plan

Invest in modernized grid infrastructure that can enable consumer access to lower-cost energy and accommodate increased electrification, increased penetrations of variable renewable electricity and distributed energy resources, and other evolving system needs over the coming decades

Invest in clean energy and decarbonization solutions to achieve a carbon-free power sector by 2035 and net-zero greenhouse gas emissions economywide by 2050

Create good-paying jobs with the free and fair choice to join a union

State of Michigan will administer this Federal Program

EGLE will apply for funding on the state's behalf
in collaboration with the MPSC

- EGLE will administer the grant program and issue awards

Utilities need to apply directly to EGLE with projects that
help communities with enhanced reliability

- Funds 1:1 match (100% for those serving > 4 TWh/yr)
- Funds 1/3 match (33% for those serving < 4 TWh/yr)

Awards have specific criteria

- Priority to projects that will generate the greatest community benefit
- Energy justice – assisting disadvantaged communities
- Use of strong labor standards and protections
- Innovation

Electricity Providers, Customers, and MWh Sales

| Utilities Above 4TWh – aka Large Operators | Customers | % Customers |
|---|------------------|--------------------|
| DTE Electric | 2,245,000 | |
| Consumers Energy | 1,870,000 | |
| Subtotal | 4,115,000 | 82% |
| | | |
| Utilities Below 4TWh – aka Small Operators | | |
| Other Investor-Owned Utilities | 247,000 | |
| Cooperatives | 332,000 | |
| Municipals | 312,000 | |
| Subtotal | 891,000 | 18% |
| | | |
| Total Customers Served | 5,006,000 | 100% |

Source: MPSC from EIA and MPSC sources. Data is from 2020 and 2021, depending on availability.

Michigan Proposed Funding Allocation

Goal: Fifty percent (50%) of the funds are allocated to Large IOUs (**LO**)

Fifty percent (50%) of the funds are allocated to Sub 4 TWh generators (**SO**)

Projects within the Scope

Source: IJJA
40101d and ALRD

- Weatherization technologies and equipment
- Fire-resistant technologies and fire prevention systems;
- Monitoring and control technologies;
- The undergrounding of electrical equipment;
- Utility pole management;
- The relocation of power lines or the reconductoring of power lines with low-sag, advanced conductors;
- Vegetation and fuel-load management;
- Other issues and technologies can also be considered.

Projects within the Scope

Source: IJA
40101d and ALRD

- The use or construction of distributed energy resources for enhancing system adaptive capacity during disruptive events, including:
 - a. Microgrids; and
 - b. Battery-storage subcomponents;
- Adaptive protection technologies;
- Advanced modeling technologies;
- Hardening of power lines, facilities, substations, of other systems; and
- The replacement of old overhead conductors and underground cables.
- Other issues and technologies can also be considered.

Eligible projects must also meet criteria such as:

- **Metrics** for improvement (system average interruption frequency index/system average interruption duration index values) monetize reduced customer minutes of interruption with interruption cost estimate Calculator
- **First 2-year grants** – shovel ready
 - Long delays on permits and easements can be problematic
- **Energy Justice**
 - Focus on disadvantaged communities
 - Low growth rates generally mean aging infrastructure
 - Worst performing feeders
 - Upgrades for the community
- Projects that **mitigate climate change risks** (more storms, floods, ice, etc.)
- Consider the **labor force**
 - Partner with training provider
 - Plan to attract, train, and retain an appropriately skilled workforce.

Resilience Measures that are not allowed under Section 40101(d)



Construction of a new:

electric generating facility; or
large-scale battery-storage
facility that is not used for
enhancing system adaptive
capacity during disruptive
events; or



Cybersecurity projects

Funding

How would this work out?

Michigan Allocation

\$7,485,575.00

Full funding scenario:
the state has a full
match of \$1.12M

To get the \$7.485M, Michigan must provide \$1.123M in matching funds. 5% of federal funds go to administration and technical assistance

Full funding scenario, the State of Michigan provides \$1.123M (the source of funds is not specified)

Note: Sub-recipients must provide additional matching funds at 100% for LO and 33% for SO

MI will receive \$7.5M from 2023-2027

| Michigan FFS Full Funding Scenario | | | | |
|--|--------------------|--------|--------------------|------|
| Item | 2023 | | 2024-2027 Amount | |
| Funding allocation to MI | \$7,485,575 | | \$7,485,575 | |
| MS funding request | \$7,485,575 | 100.0% | \$7,485,575 | 100% |
| State match | \$1,122,836 | 15% | \$1,122,836 | 15% |
| Funding request + match | \$8,608,411 | 115% | \$8,608,411 | 115% |
| | | | | |
| Full Adm+TA (5.5%) | \$411,707 | | \$411,707 | |
| DOE portion of Adm+TA (5.0%) | \$374,279 | | \$374,279 | |
| EGLE portion of Adm+TA (0.5%) | \$37,428 | | \$37,428 | |
| Total Adm+TA funds | \$411,707 | | \$411,707 | |
| Total Grant funds to be awarded | \$8,196,705 | | \$8,196,705 | |

Annual Funds Available for Subgrants

| Michigan Sub-grantee Share and Match Full Funding Scenario | | | | |
|--|---------------------|-------------|---------------------|-------------|
| Item | 2023 Amount | | 2024-2027 Amount | |
| LO Over 4 TWh (50.0%) share | \$4,098,352 | 50% | \$4,098,352 | 50% |
| LO Over 4M TWh (100.0%) match | \$4,098,352 | 50% | \$4,098,352 | 50% |
| Total LO project funds | \$8,196,705 | 100% | \$8,196,705 | 100% |
| | | | | |
| SO below 4 TWh (50.0%) share | \$4,098,352 | 75% | \$4,098,352 | 75% |
| SO below 4M TWh (33.3%) match | \$1,364,751 | 25% | \$1,364,751 | 25% |
| Total SO project funds | \$5,463,104 | 100% | \$5,463,104 | 100% |
| | | | | |
| Verify MS funding allocation | \$8,196,705 | 60% | \$8,196,705 | 60% |
| Verify LO , SO , OEE , match | \$5,463,104 | 40% | \$5,463,104 | 40% |
| Total budget for projects | \$13,659,808 | 100% | \$13,659,808 | 100% |

Anticipated Projects in Years 1 and 2

Source: Facilitated discussions with utility sector participants between July and October 2022

Section
40101(d)
Projects most
mentioned by
eligible parties

- Vegetation and fuel-load management;
- The undergrounding of electrical equipment;
- Utility pole management;
- The relocation of power lines or the reconductoring of power lines with low-sag, advanced conductors;
- The replacement of old overhead conductors and underground cables.
- Hardening of power lines, facilities, substations, of other systems.



Questions?

Tentative Timeline

- 2022 November: EGLE submits the grant application to DOE for year 1 funding
- 2022 December – 2023 February: EGLE and MPSC work with eligible parties to finalize the RFP for year 1 funding
- 2023 February: DOE approves year 1 grant and issues an announcement for year 2
- 2023 March: First call for year 1 projects due in 60 days
- 2023 April: EGLE and MPSC submit a request for year 2 funding
- 2023 June: The first set of year 1 projects gets approved.
- 2023 July – EGLE sends recommended projects to DOE for final year 1 approval
- 2023 September: Year 1 Projects start
- 2023 October to December. EGLE and MPSC issue RFP for the year 2 funding



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Michigan Public Service Commission

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