



20 N. Wacker Drive, Suite 1301
Chicago, Illinois 60606
312.587.8390 Main Line
312.587.8391 Fax
www.mwalliance.org

August 23, 2022

Indiana Office of Energy Development
One North Capital Avenue, Suite 900
Indianapolis, IN 46204

RE: Midwest Energy Efficiency Alliance (MEEA) Response to Indiana Office of Energy Development's Draft Grid Resilience Grant Program Narrative

The Midwest Energy Efficiency Alliance (MEEA) is a collaborative network, promoting energy efficiency to optimize energy generation, reduce consumption, create jobs and decrease carbon emissions. MEEA seeks an achievable pathway for all people and communities in the Midwest to receive the economic, environmental and societal benefits of energy efficiency and the larger clean energy economy. MEEA welcomes the opportunity to provide comments on the *Draft Program Narrative* for the State of Indiana's implementation of the Grid Resilience Grant Program.

At MEEA, we leverage our expertise to be the Midwest's leading resource for our members, allies, policymakers and the broader sector to promote energy efficiency as the essential pathway to achieve a clean, affordable, equitable and sustainable future. We see energy efficiency as the least cost foundation of the clean energy economy, creating immediate energy savings, providing career pathways, reducing emissions, improving new and existing buildings and boosting Midwest business and industries. MEEA develops connections and engagement opportunities for a diverse group of organizations to collaboratively create practical solutions. MEEA serves as a technical resource, promotes program and policy best practices and highlights emerging technologies, all to maximize energy savings, reduce costs, improve resilience and lower energy burden. By reducing customer bills and increasing job opportunities in the clean energy workforce, energy efficiency is also a powerful tool for economic recovery in the current economic crisis.

With a knowledgeable and experienced staff capable of producing high-value content across a broad range of energy efficiency issues, MEEA takes pride in educating legislators and regulators throughout the region to recognize and implement cost-saving measures that are environmentally sound with a positive economic impact. As a nonpartisan nonprofit organization, we are recognized in the policymaking process and are frequently relied upon as an expert resource, weighing in on proposed policies, identifying opportunities for businesses and helping explain the benefits of embracing energy efficiency. MEEA's members headquartered or operating in Indiana include Duke Energy, AES Indiana, CenterPoint Energy, Philips Lighting, Mitsubishi HVAC, Trane, Fujitsu, and Google, among numerous others.

Energy Efficiency & Resilience

Most discussion about resilience of our energy system focuses on supply and infrastructure. Supply and infrastructure are essential parts of a resilience strategy. Our goal is to remind you that the demand side also plays an important and meaningful role in grid resilience. Energy efficiency (EE) and demand response (DR) can complement other resilience investments. The OED should not overlook these low-cost, high-benefit resources.

Understanding the role of distributed energy resources (DERs), from both the supply- and demand-sides, will enhance your resilience program. The body of knowledge on the role of these resources in resilience is growing. These comments will cite several resources that exemplify the current understanding.

Indiana, as noted in the *Draft Program Narrative*, is a large consumer of energy at 12th in the nation for per capita energy use, with energy-intensive manufacturing a major contributor. Indiana also is an energy importer, with two-thirds of its energy coming from out of state. Investments on the demand side can help to alleviate some of the resilience risk that the state faces from high energy needs. It will be important that potential investments made under this Program that implement DERs, whether supply- or demand-side, be compared on equal footing with other investment opportunities.

DERs have varying resource characteristics and different possible resilience impacts. These impacts include:

- *Dispatchability*, when DERs can respond to a disruption at any time with little to no advanced warning.
- *Islanding capability*, when DERs have the capability to isolate specific loads, a customer, or customers from the rest of the distribution grid and continue to serve those customers during the outage.
- *Siting at critical customer locations*, when DERs are located at critical loads (e.g., police stations) or at critical points in the grid (e.g., residential apartment buildings).
- *Fuel security*, when DERs do not rely upon the availability or deliverability of a limited physical fuel to operate.
- *Quick ramping*, when DERs are capable of changing output quickly to respond to rapidly changing load.
- *Grid services*, when DERs can provide voltage support, frequency response, and other grid services.
- *Decentralization*, when DERs are sized and sited to support distributed load.
- *Flexibility*, when DERs can be deployed and operated quickly (relative to other supply-side resources) at locations and times where resources are needed.¹

Energy efficiency offers resilience benefits by: (a) reducing customer demand, allowing for smaller backup or emergency power sources; (b) facilitating easier power restoration because of lower demand; and (c) improving the safety and survivability of buildings, allowing customers to live safely during disruption events.² Energy efficiency can also enhance the resilience

¹ NESP. 2022. *Methods, Tools and Resources: A Handbook for Quantifying Distributed Energy Resource Impacts for Benefit-Cost Analysis*. p. 177. National Energy Screening Project. <https://www.nationalenergyscreeningproject.org/resources/quantifying-impacts/>

² Relf, G and Jarrah, A. 2020. *Measuring Three Rs of Electric Energy Efficiency: Risk, Reliability, and Resilience*. ACEEE Topic Brief. American Council for an Energy-Efficient Economy. <https://www.aceee.org/topic-brief/measuring-three-rs>

impacts from other DERs by allowing storage to meet demand for a longer period or lowering the generation needed to support an islanded microgrid.

Measuring Resilience Impacts

There are, to our current understanding, few or no jurisdictions who have quantified resilience impacts for the purposes of benefit-cost analysis of EE or other DER resources. Indiana, along with other states, is breaking new ground in considering what metrics are needed to assess resilience investments related to DERs. It is important to do the work to establish these metrics thoughtfully, so the costs and resilience benefits of EE and DERs can be adequately compared to the other investment options available to the OED to meet Program goals.

The National Energy Screening Project (NESP) has proposed a framework for assessing resilience impacts of EE and other DERs that follows seven steps:

1. Characterize the threats
2. Define resilience metrics
3. Define and quantify baseline resilience
4. Characterize potential resilience impacts of DERs
5. Quantify resilience impacts from proposed DERs
6. Calculate net resilience impacts of proposed DERs
7. Calculate dollar values of resilience impacts³

Following such a framework and transparently documenting each step will ensure that DERs are given full consideration alongside the primary transmission and distribution investments considered under Section 40101(e).

Like resilience, EE and DERs also can have impacts related to customer equity. The resilience benefits to target populations relative to other customers can be measured using a process known as Distributional Equity Analysis (DEA).⁴ Distributional equity can be defined as “energy policies and programs [that] achieve fair distribution of benefits and burdens across all segments of a community and across generations.”⁵ Establishing a consistent framework and metrics that consider the distributional equity of investment and resilience impacts would provide the OED with a way to screen and prioritize investments to maximize the resilience benefits for underserved low-income and rural populations that have been disadvantaged by past energy policies.

Thank you for the opportunity to provide these comments. We hope that the resources we cited are valuable to your office as you determine how to make investments in distributed energy resources under the Grid Resilience Grant Program, as well as other federally funded energy programs. MEEA is ready to support your office in your efforts. If you have questions on these

³ NESP. 2022. p. 178-179.

⁴ NESP. 2022. Chapter 9.

⁵ NESP. 2022. p. 183



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comments or want additional information, please contact Greg Ehrendreich, Sr. Analyst, at gehrendreich@mwalliance.org. Thank you for your consideration.

Sincerely,

Stacey Paradis
Executive Director, MEEA

These comments reflect the views of the Midwest Energy Efficiency Alliance – a Regional Energy Efficiency Organization as designated by the U.S. Department of Energy – and not the organization's members or individual entities represented on our board of directors.