

COMMENTS OF THE CENTER FOR CLIMATE AND ENERGY SOLUTIONS

This document constitutes the comments of the Center for Climate and Energy Solutions (C2ES) on the U.S. Department of Energy's implementation of grid resilience provisions in the Bipartisan Infrastructure Law (Docket No. DE-FOA-0002827).

C2ES is an independent, nonprofit, nonpartisan organization working to secure a safe and stable climate by accelerating the global transition to net-zero greenhouse gas emissions and a thriving, just, and resilient economy. As part of this mission, C2ES focuses on policies and practices that advance climate resilience for communities and businesses and developed [*A Federal Policy Action Plan to Accelerate Local Climate Resilience*](#). Our work has advanced resilience of the electricity sector; C2ES partnered with the U.S. Department of Energy (DOE) to support the DOE Partnership for Energy Sector Climate Resilience and spearheaded the development of DOE's [*Climate Change and the Electricity Sector: Guide for Climate Change Resilience Planning*](#) (2016). We are an affinity group member of the Electric Power Research Institute's [*Climate READi initiative*](#), launching in 2022.

The views expressed here are those of C2ES alone and do not necessarily reflect the views of members of the C2ES Business Environmental Leadership Council ([BELC](#)).

Category 1: DOE's Proposed Implementation Strategy for GRIP program

- 1. What actions can DOE take to best achieve the benefits of coordinating applications to all three Grid Resilience and Innovation Partnerships topic areas at the same time?*

Developing federal funding applications can require significant time and investment from local partners which may impede under-resourced communities from accessing critical grant programs. To avoid these outcomes, DOE should seek to minimize time and effort required to apply to multiple GRIP topic areas by streamlining their applications processes. This could be achieved by developing a common application between the three topic areas. Where possible, the application requirements should also align with other existing DOE grant application processes.

Category 2: DOE Proposed Implementation for Grid Resilience Grants (40101(c))

- 3. Are there additional burdens or challenges faced by small utilities as defined by the statute that should be taken into consideration for the design of this program?*

Small utilities, including rural electric cooperatives, are often at a disadvantage for accessing federal grant funding. Organizations of this size are not equipped with the staff resources to seek out new funding opportunities or develop and collect the components for grant applications, some of which require or benefit from comprehensive planning activities prior to application. In addition, small utilities may not be positioned to manage cumbersome reporting requirements associated with receiving federal grants. Despite these challenges, rural electric cooperatives present significant opportunity for demonstrating successful

technology, often having more flexibility than large utilities in testing and deploying them due to their different regulatory structure. GRIP program funding could be key in advancing deployment of these technologies in rural areas.

Category 3: DOE Proposed Implementation for Smart Grid Grants (40107)

- 1. Appropriateness of highlighted grid flexibility functions and technologies of interest identified by DOE above. Are there additional smart grid functionalities or technologies that would support grid reliability and resilience that should be considered?*

C2ES agrees with the variety of functions and technologies outlined in the RFI and underscores the importance of distributed energy resources and capabilities to provide system benefits. In addition to those technologies and functions already identified, we recommend the inclusion of vehicle-to-grid (V2G) technologies. Electric vehicles (EVs) have the potential to serve as smart, flexible load, and charging can be managed to match grid needs through smart charging programs that can leverage technologies such as automaker telematics to actively manage charging. Going a step further, by leveraging the stored energy in a multitude of car and truck batteries, vehicles could help balance renewable electricity intermittency issues, mitigate future peak load challenges, and even serve as a temporary microgrid—if the right equipment (e.g., microgrid controller) is in place—in the event of a power disruption in the macrogrid due to weather impacts, wildfire service interruptions, or cyberattacks.

V2G technology allows two-way flow between vehicle batteries and the grid. However, vehicles and their chargers have to be designed and enabled for this technology. Currently, very few U.S. light-duty and medium-duty vehicles can use V2G charging due to a lack of uniform technical standards and other factors. Funding under this program should give priority to programs that can support future integration of V2G technologies, anticipating future developments in this space to take advantage of the energy stored in millions of vehicles. However, funding eligibility should not be limited to these applications, particularly in near-term implementation, to reflect that this technology is not currently widespread.

Category 4: DOE Proposed Implementation for Grid Innovation Program (40103(b))

- 13. Appropriateness of the use of a minimum 50% non-Federal cost share for the proposed project. Should DOE establish a different minimum non-Federal cost share? Should DOE express a preference for projects with a higher non-Federal cost share than the statutory minimum?*

A 50 percent non-federal cost share requirement could effectively make this opportunity inaccessible for communities that are most in need of federal support, including rural electric cooperatives. In general, cost-share requirements for federal grants can be restrictive for rural communities and low-income communities in both urban and rural areas, including those that are serviced by electric cooperatives. Due to these barriers, federal resilience funds from agencies including the Federal Emergency Management Agency, the Department of Agriculture, and the Small Business Administration often flow disproportionately to wealthier communities with more resources, a trend which may contribute to increasing health and wealth disparities over time.¹ This is significant because under-resourced communities are often the most vulnerable to the impacts of climate change due to pre-existing social vulnerabilities, infrastructure and housing disparities, unequal exposure to climate hazards (e.g., they are more likely to live in floodplains and intra-urban heat

islands, and less able to evacuate during extreme weather), and unequal access to financial services in the wake of disasters.²

To address these issues, C2ES recommends a lower non-federal cost share requirement across projects and additional consideration for economically disadvantaged communities. FEMA's Building Resilient Infrastructure and Communities program, for example, requires a 25 percent non-federal cost share across projects and a 10 percent cost-share for economically disadvantaged communities. As part of this determination of award limits, DOE should consider the impacts of limiting awards to not more than the total amount that eligible entities have spent in the previous three years on resilience, as trends including the pandemic may have hindered investment in some areas.

14. DOE is interested in supporting highly impactful projects that can deliver significant public benefit and acknowledges that some of these projects may be earlier in the planning or development stages. DOE is considering an option to offer grants of up to \$20 million for planning and development activities for concept papers submitted by a coalition of multiple states for projects that are interregional (i.e., cross multiple ISOs, grid operators, or other balancing authorities) and/or a product of an interregional planning process – assuming the concept paper shows promise in the ability to deliver significant public benefit, but has a project that is not sufficiently mature enough to submit a Full Application. Please provide comment on this approach, the maximum planning and development grant size, what factors to consider in offering these types of grants, and any other additional considerations.

C2ES would support these grants for regional planning and development activities as they can help catalyze resilience projects and create opportunities for additional federal funding once plans are developed. Moreover, regional approaches to resilience planning and project implementation can be more robust when climate hazards like hurricanes or extreme heat affect multiple regions or states simultaneously. Regional planning can also contribute to regulatory consistency across jurisdictions that facilitates technology deployment at a broader scale more quickly. An example of this regional approach is the Electric Highway Coalition, a collaboration of six major utilities building out a highway network on electric charging from west Texas to the east coast.

Category 5: Community Benefits, Justice40, Quality Jobs, and Performance Metrics

1. How can applicants ensure community-based stakeholders/organizations are engaged and included in the planning, decision-making, and implementation processes (e.g., including community-based organizations that are advisory to the decision or directly benefit) for the GRIP program?

Inclusive stakeholder processes along the project development cycle are critical. Applicants should ensure that proposed projects align with community needs and priorities by involving communities in decision making regarding projects. They can do this by identifying all relevant stakeholders, developing plans for the engagement and education of all stakeholders early in the planning process, and identifying local circumstances and priorities through a multi-stakeholder process.

Comprehensive stakeholder identification ensures that all relevant and interested parties are present when projects are developed. These parties include but are not limited to: representatives from state and local government, underrepresented and disadvantaged communities, electric utilities, energy regulators, local community groups, and the private sector. Within the stakeholder identification process, the responsibilities of each party must be clearly specified, and this process will likely look different between states and localities. Within relevant laws, decisionmakers should identify which agencies, sectors, and stakeholders will be responsible for each part of infrastructure roll out, with each step of the project development process involving community stakeholders.

Community engagement can take multiple forms, such as comprehensive outreach and information sharing, participatory budgeting, and inclusive planning processes. Those looking to engage communities can look to examples in the electricity sector: in Oregon, Portland General Electric established a process to continually involve interested stakeholders in order to gather feedback for its Distribution System Plan, including partnering with local nonprofit organizations to conduct workshops and holding specific stakeholder meetings.³ Similar processes can and must be employed by subnational and Tribal governments as well as private sector stakeholders to ensure that projects are developed in tandem with those who will be impacted by their presence.

Equally as important as providing opportunities to engage is the process of informing communities about technological needs for the grid, proposed timelines, and justification for project development. Ideally, the project development process is designed such that communities are included from the very beginning stages, co-creating solutions that align both with policy and business goals while considering local circumstances. It is important for those looking to develop projects to acknowledge that if communities are wholly involved in the process, it is likely that any project vision will undergo changes to account for community-specific circumstances and needs.

By undertaking engagement and outreach processes throughout the project development timeline, lead applicants can ensure that any project is inclusive, predictable, and supported by the community it is affecting.

2. How can DOE best support the creation and retention of high-quality jobs, and the clear workforce training pathways into those jobs, through the GRIP program?

The GRIP program should seek to fund projects that support effective, equitable workforce development. Actions that contribute to the success of workforce development programs include: ensuring program graduates earn skills and certifications that are marketable and in-demand in the locations they live; developing partnerships with local employers; and offering program participants with paid mentoring and hands-on instruction or other short-term internship opportunities. Workforce development programs should collect data for impact assessment and establish processes for continued improvement. These data include baseline and impact metrics gathered through pre- and post-training surveys on areas like participant preferences and areas for program improvement, as well as metrics on placement in internships or jobs.

Endnotes

¹ Amy McCaig, “Flood Risk Buyouts Benefit Cities and their Whitest at-risk Neighborhoods,” *Socius* 6 (February 2020): <https://journals.sagepub.com/doi/10.1177/2378023120905439>; Sarah Anderson, Andrew Plantinga, and Matthew Wibbenmeyer, *Inequality in Agency Responsiveness: Evidence from Salient Wildfire Events* (Washington, DC: Resources for the Future, 2020), https://media.rff.org/documents/WP_20-22.pdf.

² Cushing, Lara, Bill M. Jesdale, and Rachel Morello-Frosch, “The Racial/Ethnic Distribution of Heat Risk Related Land Cover in Relation to Residential Segregation.” *Environmental Health Perspectives*, 121 no. 7 (2013): 811-817, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3701995>.

³ Portland General Electric, “Distribution System Planning,” accessed October 5, 2022, <https://portlandgeneral.com/about/who-we-are/resource-planning/distribution-system-planning>.