



Jack E. Jirak
Deputy General Counsel

Mailing Address:
NCRH 20 / P.O. Box 1551
Raleigh, NC 27602

o: 919.546.3257

jack.jirak@duke-energy.com

October 19, 2022

VIA ELECTRONIC FILING

Ms. A. Shonta Dunston, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

**RE: Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's
Fourth Update on Responses to RFIs
Docket No. M-100, Sub 164**

Dear Ms. Dunston:

By this letter, Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (the "Companies") are providing the North Carolina Utilities Commission and interested parties with an additional update on the Companies' continued involvement in the Infrastructure Investment and Jobs Act federal funding process.

On October 14, 2022, the Companies submitted to the U.S. Department of Energy ("DOE") a response to a Request for Information to obtain input regarding the solicitation process and structure of the DOE's Grid Resilience and Innovation Partnerships program, established via the IIJA. That response is attached to this letter.

Please contact Jason Higginbotham (Jason.higginbotham@duke-energy.com) if there are any questions.

Sincerely,

Jack E. Jirak

Enclosure

cc: Jason Higginbotham
Parties of Record

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Oct 19 2022

Grid Resilience and Innovation Partnerships Program

U.S. Department of Energy
Grid Deployment Office
Office of Clean Energy Demonstrations
GDORFI@hq.doe.gov

Company Contacts:

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
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Duke Energy (NYSE: DUK) respectfully submits the following comments in response to the Request for Information (RFI) issued by the Department of Energy (DOE) on August 30, 2022, to obtain input regarding the solicitation process and structure of its Grid Resilience and Innovation Partnerships (GRIP) program, established via the Infrastructure Investment and Jobs Act (IIJA).

As one of the largest electric and gas utilities in the U.S., Duke Energy embraces its responsibility to power the communities where our customers and employees live and work, as well as address the need for carbon reduction in our generation fleet. Duke Energy serves 8.2 million customers in North Carolina, South Carolina, Florida, Indiana, Ohio, Kentucky and Tennessee, and collectively owns and operates 52,000 megawatts of energy capacity and 314,000 miles of combined transmission and electric distribution infrastructure. We are executing a clean energy transition across our territories to create a smarter, cleaner energy future for our customers and communities. We are well-positioned to exceed our goal of 50% reduction in Scope 1 emissions by 2030, pending advancements in our North Carolina Carbon Plan and other regulatory matters, and have established a second interim target of an 80% reduction by 2040 from 2005 levels.

Duke Energy is expeditiously working to transform the energy grids that it operates, making them more resilient and reliable while enabling a cleaner, lower-carbon future. This includes making a series of strategic improvements, driven by grid performance data and analytics, to avoid outages and restore power faster; strengthen the grid against extreme weather, as well as physical and cybersecurity threats; expand renewable energy generation and promote distributed energy technology adoption; and provide customers with the tools and programs they need to make smarter energy choices that can help save energy and money.

Duke Energy is already installing resiliency measures to address flood and wind risk associated with severe weather events and natural disasters. We implemented permanent flood mitigation at substations that experienced flooding during hurricanes Matthew and Florence and increased our design standard elevation for new substations. We also deploy temporary flood mitigation measures ahead of storms for other substations in the path of the storm.

We have upgraded thousands of wooden poles, often in hard-to-access or wetland areas, to stronger steel poles, reducing outage events and freeing up crews to assist in other areas. We've used advanced data to strategically place outage-prone lines underground in some areas. And we're installing smart, self-healing technology that can automatically detect where power outages are and quickly reroute power to other lines to restore service faster. During Hurricane Ian's landfall in Florida and the Carolinas, self-healing technology helped to avoid more than 200,000 customer outages across both regions, saving customers more than 2.8 million hours (160 million minutes) of lost outage time and providing another tool to our crews in the field working to restore power faster. We currently serve around 30% of our customers with self-healing technologies on our main power distribution lines and are working to expand this technology to serve around 80% of customers over the next few years.

Duke Energy's storm preparation and response measures are critical to our customers and communities, especially as these storms become more frequent and severe. Fewer outages and faster restoration times can help communities recover faster. And these same technologies are not only improving resilience on a daily basis, but are also helping Duke Energy address its aggressive carbon goals and support the growth of cleaner energy options for customers.

In 2021, Duke Energy initiated a Climate Resilience and Adaptation study in the Carolinas to develop a robust set of recommendations for potential Transmission and Distribution system upgrades based on an understanding of the range of potential impacts of climate change. Our goals are to develop a flexible adaptation framework and to provide meaningful opportunities for stakeholder input and engagement. Duke Energy has published the assessment of its stakeholder feedback and vulnerabilities on its website.¹

Although we have already made significant enhancements to our grids, there is more to be done to improve its reliability and resiliency. Around 85% of our \$145 billion capital plan over the next 10 years will be invested in our clean energy transition and grid modernization, with a goal of increased reliability, providing equitable access to benefits and helping keep costs as low as possible for customers. These investments will not only reduce emissions but will also enable substantial economic benefits in the regions we serve while also providing for the cleaner, stronger and more resilient energy system many of our customers are requesting.

¹Duke Energy – Climate Resilience & Adaptation: Future Climate Projections & Vulnerabilities of The Carolinas Transmission & Distribution System <https://www.duke-energy.com/our-company/environment/climate-resilience-and-adaptation>.

“We’re investing \$75 billion over the next 10 years to modernize and harden our electric grid – the nation’s largest – making it smarter, more reliable and resilient and also able to take on significantly more renewables, battery storage and EVs. This investment will also create jobs and generate substantial economic benefits to our customers and communities.”

– Lynn Good, Duke Energy Chair, President & CEO

RECOMMENDATIONS

Duke Energy appreciates the opportunity to respond to this RFI to inform the scope and priorities of DOE’s GRIP program. We also encourage DOE to consider the comments submitted by the Edison Electric Institute (EEI), which is the association that represents all U.S. investor-owned electric companies. As it seeks to establish its GRIP program, Duke Energy recommends that DOE:

- Consider adjusting GRIP program timelines by extending dates outright and/or offering staggered deadlines by topic area, especially if grant applications are limited to projects that are incremental to existing plans. Duke Energy shares DOE’s sense of urgency around hardening and transforming the electric grid for increased resiliency and reliability. However, the proposed timelines are too accelerated for entities to adequately 1) respond to this RFI; 2) prepare thorough concept papers; and 3) plan and obtain regulatory approval for the types of projects that would be eligible for DOE funding.
- Fund projects that are: 1) included in an entity’s existing plans for topic area two (Smart Grid Grants) and three (Grid Innovation Grants); and 2) included in existing plans that are capital intensive, rather than routine operations and maintenance activities, and incremental compared to historical investments or expansions and accelerations of in-plan work for topic area one (Grid Resilience Grants). Duke Energy is investing more in grid resilience and reliability than ever before. Our activities are planned through advanced data analytics and rigorous internal and external processes (sometimes up to 10 years in advance), and align to priority investments in DOE’s draft funding opportunity announcement (FOA). With this in mind, and as the country continues to be impacted by supply chain and inflationary pressures, we ask DOE to consider allowing entities to include planned grid resilience work in their applications. This will help mitigate cost increases to our customers at a time when many are struggling financially while effectively delivering on the goals and intent of the GRIP program and the IIJA.
- Clarify its definition of “eligible entity” to include not only utility holding companies but also their operating utilities. Many energy companies, including Duke Energy, are organized into several jurisdictionally based legal entities. For Duke Energy, this includes Duke Energy Carolinas, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Kentucky and Duke Energy Indiana. Each utility has its own unique set of grid resilience challenges and appropriate solutions to address those opportunities. We encourage DOE to evaluate the merits of each these

operating utility's applications, rather than limiting awards to an overall holding company or a limited number of operating utilities.

- Prioritize projects that 1) deliver proven resiliency benefits; 2) enable the clean energy transition; and 3) give better control of the grid to its operator. These investments may include targeted undergrounding (TUG) of outage-prone overhead lines; capacity improvements to better support communities and prepare the grid for growth from electric vehicles, economic growth and distributed energy resources (DER); self-healing and self-optimizing grid capabilities to restore power fast and support two-way power flow needed for distributed technologies; voltage regulation improvements to provide an improved customer experience for all communities; vegetation-based reliability improvements to reduce outages and strengthen the grid during storms; and software and data science development to make the grid smarter and more capable, and to support advanced data analytics and improved system planning.
- Encourage entities to submit projects that complement multiple work streams, such as integrating systems and technology to leverage data analytics and planning tools to efficiently modernize, operate and manage the grid. Projects could also include advanced grid management and demand response tools to better serve customers, manage peak demand for electricity, and optimize the grid to better support the two-way power flows needed to expand distributed resources such as private solar, electric vehicles and battery storage.
- Proceed with its guidance on Buy America requirements for infrastructure projects, which states that requirements do not apply if the prime recipient is a for-profit entity.

We have expanded on these themes below in response to the questions posed in the RFI. We appreciate the opportunity to provide feedback on implementation of these important incentives and how they can best benefit our customers and look forward to continued dialogue with DOE on this topic.

CATEGORIES & QUESTIONS

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?

Duke Energy supports DOE in its decision to coordinate the three topic areas of the GRIP program. This will give DOE greater oversight into the role and reach of each program and entity's greater scale by streamlining their agency interactions to one office. As DOE looks to deploy transformational, shovel-ready grid-related projects that seek to reduce the impact of severe weather and natural disasters, we recommend it reconsider the accelerated timelines proposed in its draft FOA, especially if grant applications are limited to projects that are incremental to existing plans.

As we continue the company's response to Hurricane Ian, we encourage DOE to either 1) stagger concept paper and application deadlines by topic area; or 2) consider delaying proposed deadlines for all three topic areas, wherein concept papers would be due at the end of January 2023 at the earliest, and applications re-aligned with the now-extended 40101(d) State Formula timeline. This will allow entities adequate time to coordinate each of their proposals to ensure maximum system benefit and optimal alignment across other IIJA initiatives. This will also provide entities with a more reasonable timeline to conduct meaningful stakeholder engagement activities in our communities to gain support for work that may be incremental to existing plans.

4. What approaches can be used to both solicit and evaluate proposals for high-value deployment projects with additionality (i.e., where additional funding will overcome existing obstacles that would otherwise result in the project not being built)?

DOE should include planned work in its eligibility criteria for topic areas two (Smart Grid Grants) and three (Grid Innovation Grants); and planned work that is capital intensive, rather than routine operations and maintenance activities, and incremental compared to historical investments for topic area one (Grid Resilience Grants).

Duke Energy commends DOE on its commitment to partnering with electric companies and other eligible entities to build a cleaner energy system that can withstand the impacts of severe weather and natural disasters. At Duke Energy, our climate strategy is closely aligned to our business strategy. We are currently undertaking one of the most ambitious clean energy transitions in the U.S., which will require significant upgrades to our distribution and transmission systems, many of which are well under way as part of a series of state-level modernization programs.

As a rate-regulated energy provider, Duke Energy is committed to making prudent, customer-centric investments that enhance grid resilience while maintaining customer affordability. To effectively accomplish this, we have planning processes in each of our distribution and transmission business functions that span multiple years. These plans are developed in accordance with the infrastructure needs specific to each state we operate in and include many of the priority investments that are mentioned in the draft FOA. As these plans are finalized, they are vetted through various stakeholder engagement and state-level regulatory processes that exist to hold us accountable and ensure we are making prudent and cost-effective investments for our customers and communities.

As we look to refine forward-looking plans and implement existing plans, we are mindful of recent economywide challenges, including supply chain and workforce constraints, rising fuel costs and inflationary pressures. We are working around the clock to mitigate the risks that are presented by these challenges, and we thank DOE for its great partnership here. These issues, along with our existing planning processes, will impact

our ability to conduct work that is incremental to their existing plans due to 1) already formalized state-level plans and commitments; 2) constraints on obtaining additional materials; 3) a lack of supplemental qualified labor; 4) the need to commit to work included in our regulatory proceedings; and 5) our ongoing, focused commitment to prudent investments and customer affordability.

We encourage DOE to pursue creative solutions in the GRIP program that help energy providers implement and potentially accelerate their existing grid resilience plans. For topic area one (Grid Resilience Grants), we ask DOE to consider funding in-plan projects that align to program goals and are capital-intensive, rather than routine operations and maintenance activities, and incremental compared to historical spend levels or associated with other related incremental needs being proposed. We further encourage DOE to consider funding expansions and accelerations of in-plan work. This will greatly support our efforts to build the types of distribution and transmission projects that will enable our transition to clean energy, enhance resilience and reliability in the face of increasingly severe weather and natural disasters and mitigate further cost increases to our customers who have already been impacted by inflation and rising fuel costs. This would also promote equity in the distribution of benefits to customers and communities served by energy companies that have planned proactive investments to increase resiliency.

5. Any comment on the overall solicitation process, structure, prioritization, requirements, and assessment criteria presented in the draft FOA.

Prioritize projects that 1) deliver proven resiliency benefits; 2) give better control of the grid to its operator; and 3) enable the clean energy transition.

Over the next 10 years, Duke Energy will be implementing a \$145 billion capital plan. Around 85% of this plan will target clean energy and grid modernization, including making investments in proven grid resilience activities like TUG for outage-prone overhead lines; capacity improvements to better support communities, economic growth and distributed energy resources; self-healing and self-optimizing grid capabilities to restore power fast and support two-way power flow needed for distributed technologies; voltage regulation improvements to provide an improved customer experience for all communities; vegetation-based reliability improvements to reduce outages and strengthen the grid during storms; and software and data science development to make the grid smarter and more capable, and to support advanced data analytics and improved system planning. These efforts reduce the impacts of severe weather and natural disasters, like Hurricane Ian.

We encourage DOE to help us achieve even more by prioritizing investments in topic area one (Grid Resilience Grants) that have proven near- and longer-term impacts on grid resiliency and reliability, including two-way power flow technologies, critical DER enablement investments, automated grid controls and intelligence, advanced grid

planning and modeling capabilities, investments that will empower energy storage at the edge, demand side management/demand response (DSM/DR) capabilities and more.

As Duke Energy plans for its smarter energy future, we encourage DOE to lean in on its commitment to fund smart grid and grid-control technologies that unlock grid monitoring and control capabilities to its operators. Specifically, we encourage the DOE to continue to prioritize such investments that 1) improve the visibility of the electrical system to grid operators through data analytics, software and sensors; 2) enhance interoperability and data architecture of systems that support two-way flow of both electric power and localized analytics; and 3) increase transmission capacity and operational transfer capacity through grid enhancing technologies such as dynamic line rating, flow control devices, advanced conductors and network topology optimization.

Finally, we commend DOE for recognizing the importance of funding projects that enable the grid to incorporate additional clean energy resources while focusing on improving resiliency and creating the greatest community benefits overall. Investments in new/upgraded transmission, grid hosting capacity, DSM/DR dispatch tools and other grid modernization solutions will help bolster, empower and enable the resiliency and reliability of our electric grid while expediting our clean energy transition, all while keeping costs affordable for our customers.

Clarify its definition of “eligible entity” to include not only utility holding companies but also their operating utilities.

Duke Energy encourages DOE to clarify its definition of “eligible entity” to include not only utility holding companies but also their operating utilities. Many energy companies, including Duke Energy, are organized into several jurisdictionally based legal entities. For Duke Energy, this includes Duke Energy Carolinas, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Kentucky and Duke Energy Indiana. Each utility has its own unique set of grid resilience challenges and appropriate solutions to address those opportunities, and therefore should be able to submit concepts for their own GRIP proposals. This would complement the work our discrete entities undertake to develop their grid resilience plans alongside our business units, while remaining in compliance with the unique regulatory constructs across our states.

Enabling our various operating utilities to apply for GRIP funding will also maximize the reach and effectiveness of project funds, rather than split funding across a holding company’s jurisdictions. While most, if not all, of these entities will seek GRIP program funding, we encourage DOE to evaluate the merits of each utility’s application, rather than limiting awards to an overall holding company or a limited number of utilities.

Duke Energy also seeks clarification on whether an eligible entity may apply for funding for both the 40101(d) state formula funds and 40101(c) as long as the projects proposed in such applications are discrete and distinct. Since both funding opportunities

are likely to be competitively bid, either at the state or federal level, an eligible entity should be able to compete in both as long as the projects proposed are different.

7. DOE proposes to open the first application cycle for the GRIP program in fall 2022 for 45 days for applicants to submit concept papers, that the Department will then down select to recommend submission of full applications in winter 2023, targeting award selections announced in spring 2023.

- a. Any comments on this proposed timing?

Consider adjusting GRIP program timelines by extending dates outright and/or offering staggered deadlines by topic area, especially if grant applications are limited to projects that are incremental to existing plans.

Duke Energy recognizes the importance of expediency in making transformational infrastructure investments that enhance grid resiliency and enable our clean energy transition. However, entities must be thorough as they continue to plan, design and collaborate internally and externally to ensure they make the right investments at the right time in an effective and efficient manner. This necessary step in the infrastructure deployment process takes time and will likely be rushed under current timelines.

Furthermore, the FOA indicates that for projects that fall under the Grid Resilience Grants, funding is intended to be supplemental to existing grid hardening efforts of GRIP program applicants for any given year. Therefore, an applicant must describe how grant funding would result in proposed activities that would have been undertaken but for funding and will generate the greatest community or regional resilience benefit reducing the likelihood and consequence of disruptive events. The timing of this application process is extremely challenging, including the inherent internal and regulatory requirements associated with considering and planning incremental investment scope, even for entities with substantial resources.

As we continue the company's response to Hurricane Ian and enter the holiday season, we encourage DOE to either 1) stagger concept paper and application deadlines by topic area; or 2) consider delaying proposed deadlines for all three topic areas, wherein concept papers would be due at the end of January 2023 at the earliest, and applications re-aligned with the now-extended 40101(d) State Formula timeline. This will allow entities adequate time to coordinate each of their proposals to ensure maximum system benefit and optimal alignment across other IIJA initiatives. This will also provide entities with a more reasonable timeline to conduct meaningful stakeholder engagement activities in the communities we serve to gain support for projects that may be supplemental to existing plans.

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

7. Is the proposed information to be contained in the Report on Resilience Investments appropriate to determine if proposed projects are supplemental to existing efforts? What challenges may be faced in developing the report? What additional DOE guidance would aid in development of the report?

Duke Energy appreciates DOE's commitment to pursuing projects that are supplemental to existing efforts. We share a commitment to deploying transformational solutions to help curb impacts to severe weather and natural disasters. The proposed report on resilience investments will provide DOE with a good understanding of an entity's commitment and experience in implementing grid resiliency solutions. We support the requirement for reports to include a three-year historic view of an entity's resilience investments. However, we propose a one-year look-ahead requirement rather than three. This would help energy companies, like Duke Energy, obtain GRIP program funding for the critical resiliency work that is already in their plans.

9. Information or analysis that could be submitted to help identify the highest impact projects and proposals that address (1) public benefit (e.g., cost/benefit of the project), (2) additionality (e.g., obstacles that additional funding would allow the project to overcome or would otherwise prevent the project from advancing in the absence of the funding), (3) stakeholder support (e.g., projects where a regional planning process is underway or is taking place), and (4) transformative potential of the project (e.g., the value of the project in catalyzing follow-on replication).

As mentioned above, we encourage DOE to fund projects in topic areas two (Smart Grid Grants) and three (Grid Innovation Grants) that are already in an entity's existing plan. These projects, while transformative in nature, would benefit from more funding and align well with the GRIP program's priorities.

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?

Duke Energy supports the technologies and capabilities defined in DOE's draft FOA under topic area two (Smart Grid Grants). Duke Energy is actively working to prioritize the development and deployment of projects that deliver greater control of the grid to its operator. This includes projects that deliver more discrete, actionable insights and recommendations via data analytics and software development. To help support the work Duke Energy is undertaking in this area, we encourage DOE to include internally built software and algorithms in its list of eligible activities.

Duke Energy also wants to highlight the important role of DSM/DR, not only in maintaining resilience and reliability, but also in furthering our clean energy transition. In its current DR programs, Duke Energy compensates customers for the ability to control specific appliances in the home during times of extreme system load or system emergencies, including to mitigate negative impacts of severe weather. With the rise of Wi-Fi-enabled devices, EVs and behind-the-meter energy storage, Duke Energy intends to broaden DR's role to include balancing load with renewable generation, without inconveniencing our customers. Expanding DR capabilities will be a critical part in helping Duke Energy decarbonize while maintaining customer reliability and affordability, and we encourage DOE to acknowledge this benefit.

3. In the collective portfolio of awarded projects, any suggestions regarding project types that have special strategic importance?

When considering IIJA grid programs and their desired outcomes with the implementation of a more modernized grid, it becomes clear that promoting beneficial electrification, allowing more options for customers access to clean energy, and supporting a decarbonized power supply require a new level of flexibility as envisioned by Congress when it updated the Smart Grid Investments Grants (SGIG) Program. These outcomes are not explicitly supported by other IIJA programs, leaving SGIG as the primary funding mechanism to achieve these goals.

More specifically, we recommend that DOE focus the SGIG on projects that seek to facilitate the integration of DERs and utility scale projects onto the grid, further accelerating grid decarbonization. This would include projects focusing on incorporating more renewable energy, energy storage, transportation electrification, energy-efficient and grid-interactive buildings, and demand response. Decarbonizing the power sector and beneficial electrification will require significant growth and grid integration of renewable energy development across the nation.

When considering Smart Grid Grants, we encourage DOE to consider including projects at both the transmission and distribution levels to address the increased load from beneficial electrification and provide grid operators with additional visibility and flexibility to shift load. Grid modernization technologies, like digital relay installations, SCADA system installations and remotely controlled interrupting and sectionalizing equipment deployed on the transmission system and at the grid edge, will support flexibility and provide significant resilience benefits. DOE should consider closely coordinating its grant allocations across other grid-related programs to ensure that the proposed investments are coordinated effectively.

4. Appropriateness of the requirement for a cybersecurity plan for this provision, and the required contents of such a cybersecurity plan.

As an essential service provider of both electricity and natural gas, protecting our assets and information remains a top priority. Cybersecurity is a critical issue facing our

industry and nation. We understand that security threats are evolving every day and are increasing in frequency, scale and sophistication. Duke Energy routinely communicates with its federal partners to share information and lessons learned and implement new best practices and cybersecurity standards.

With this commitment to cybersecurity, Duke Energy supports DOE's proposal to include a cybersecurity plan within the application for topic areas two (Smart Grid Grants) and three (Grid Innovation Grants). We encourage DOE to ensure appropriate levels of confidentiality upon an entity submitting its report. We look forward to engaging with DOE to continue to bolster the security of our infrastructure and the technology that is deployed alongside it.

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

- 1. How should DOE define and evaluate a full range of “innovative approaches” to transmission and distribution projects that deploy large-scale, high-value projects that are innovative in scope; scale; stakeholder engagement; technology; partnership or business model; financial arrangement; use of innovative planning, modeling, or cost allocation approaches; environmental siting or permitting strategies; or in overcoming other existing barriers to project development and deployment in ways that enhance reliability and resilience and unlock new renewable generation?**

To effectively deploy the transformational projects defined in DOE's draft FOA for topic area three (Grid Innovation Grants), entities will need time to discuss, plan and design potential proposals with state and local partners. These collaborations generally take months or years to develop. Requiring entities at the state and local levels to partner with utilities as sub-recipients in the timeframe established in the draft FOA challenges the ability of industry to effectively initiate, plan or propose the kind of transformational projects sought by DOE. We recommend DOE align with timelines established for its 40101(d) state formula program.

- 4. What are best practices and processes for states, public utility commissions, Tribes, and other eligible entities to obtain input and engage in coordination with regional planning organizations, electricity utilities, and other stakeholders in developing and submitting proposals?**

Initiate a robust stakeholder engagement process that ensures early and frequent utility involvement.

Duke Energy understands there are many parties that have a stake in successful and robust grid infrastructure deployments. Whether Duke Energy is leading a specific project as a subrecipient or merely supporting a non-utility partner, success is built upon frequent, transparent communication. Duke Energy also understands that each entity comes to the table with its own list of priorities and subject matter expertise. Taking the

time to obtain feedback from each stakeholder group while reacting to their ideas and concerns is critical to achieving the best result. In many cases, the utility partner is also uniquely positioned with the most discrete grid and customer. This expertise in approaching the stakeholder engagement process is why an engaged utility partner is critical to a project being deployed right, versus one that is deployed fast.

Duke Energy encourages its state and local partners to engage electric utilities early and often on their transformational electric grid project proposals under 40103(b). When utilities are brought to the table early, they may offer designs and innovative solutions for transmission, distribution or combined system upgrades in a collaborative manner. We may also offer our expertise in planning, designing, building and operating grid assets and infrastructure that may impact the overall proposal.

States, public utility commissions, tribes and other eligible entities should feel comfortable approaching their energy providers with specific proposals, but we also encourage eligible entities to proactively reach out to their energy providers to solicit proposals. For example, pending the outcome of our Carbon Plan hearings in North Carolina, Duke Energy plans to integrate offshore wind onto its system to help support its clean energy transition. If approved, we will need to upgrade existing and build new transmission capabilities. This will require a strong, coordinated partnership between Duke Energy, the state of North Carolina and many other critical stakeholders, including support from the federal government.

- 5. This draft FOA will make up to \$2 billion available for this first award cycle under BIL section 40103(b). Any comment on whether any specific projects or types of large transformative projects might not be viable within the current FOA total of \$2 billion, but could be viable if additional funding were made available and/or if the maximum award size were increased (see question #6 below on maximum award size).**

Duke Energy would like to highlight an opportunity in Indiana that incorporates energy storage as means to provide interim power to the local area when the normal supply of electricity is interrupted. The energy storage installation could potentially back stand the local area without incremental vegetation management and other O&M-intensive investment related to establishing a traditional wires solution such as building a new substation. Energy storage in this use case would provide additional value through voltage support, frequency support and MISO market participation.

The project is designed so that any additional capacity reserved for MISO market participation can be reduced through derating the output of the system and utilized for reliability. This would enhance grid resiliency and lessen the duration of outages by using the microgrid to island local customer load. The energy storage system would also have the capability to charge ahead of predicted storm events, providing enhanced grid resilience to the area. This asset would be the first Duke Energy Indiana storage asset designed with four hours of market participation at full dispatch capacity and will

allow us to gain critical energy arbitrage dispatch experience. If completed, this project will benefit all Duke Energy Indiana customers by participating in the MISO Capacity and Realtime markets, as well as supporting broader community goals of advancing a smarter, cleaner and more resilient energy future.

7. In the collective portfolio of awarded projects, any suggestions regarding project types that have special strategic importance? Should the program prioritize inter-regional multi-state or other types of projects that may be more transformative and provide multiple benefits on a large scale?

While the overall timelines laid out in DOE's draft FOA are quite accelerated, Duke Energy would like to highlight a potential opportunity in North Carolina that would require significant transmission upgrades and additions. Pending the North Carolina Utilities Commission adoption of its Carbon Plan in North Carolina, required to be adopted December 31, 2022 (pursuant to recent state legislation²), Duke Energy will begin construction of transmission facilities to support integrating offshore wind onto its system. If approved, we will need to upgrade existing and build new transmission capabilities. This will require strong, coordinated partnerships between Duke Energy, the state of North Carolina and many other critical stakeholders, including support from the federal government.

Category 5: Community Benefits, Justice40, Quality Jobs & 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?

At Duke Energy, we believe environmental justice is a business imperative, fundamental to our operations and a pillar of meaningful stakeholder engagement. Duke Energy has taken significant steps forward to internalize our environmental justice principles.³ We recognize and understand the importance of both the impact of our work on communities as well as the importance of early engagement. We believe in being transparent on what we are trying to accomplish, seeking feedback and input, and adjusting and aligning where possible to bring about the best outcomes for the communities we serve. We encourage all applicants to establish processes, like these, as they pursue GRIP program funding.

As we have talked to subject matter experts in the environmental justice field, we have learned there is an opportunity to create access to opportunities like jobs and economic

² North Carolina Gen Stat § 62-110.9 (October 13, 2021) requires the North Carolina Utilities Commission to adopt a Carbon Plan that "shall take all reasonable steps to achieve a seventy percent (70%) reduction in emissions of carbon dioxide (CO₂) emitted in the State from electric generating facilities owned or operated by electric public utilities from 2005 levels by the year 2030 and carbon neutrality by the year 2050." DEP and DEC proposed a Carbon Plan to the North Carolina Utilities Commission that includes scenarios to site and build offshore wind off the coast of North Carolina to achieve the carbon reduction targets.

³Duke Energy Environmental Justice Principles Available at: https://www.dukeenergy.com/_/media/PDFs/Unindexed/Duke-Energy-Environmental-Justice-Principles.pdf?_ga=2.227363224.462669767.1643492249-1360442054.1589833581

development to help communities benefit from the clean energy transition. Our communities care about these issues and want to be included in the discussion.

Internally, our teams are purposeful in asking critical questions about projects and their associated impacts. We're building a process that includes early development, analysis and assessment. We believe that by employing similar activities, applicants can better ensure community-based stakeholders/organizations are engaged and included in the planning, decision-making and implementation processes for the GRIP program.

A few examples include:

- Improving the quality and rigor of our screening process by incorporating the latest U.S. Environmental Protection Agency (EPA) screening tools and industry best practices as well as accounting for environmental justice inputs as we plan projects.
- Working with our community relations managers to help identify disadvantaged communities early in project development to engage in more meaningful and authentic stakeholder engagement.
- Improving the way we communicate environmental justice analysis to permitting agencies, policymakers and community members. This will help ensure we're identifying the most critical community concerns earlier in the process and working toward constructive solutions.

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?

Investment in grid resilience offers an opportunity to integrate impactful practices and strategies to address equity, environmental justice, just transition and a path toward reducing greenhouse gas emissions. Value-added considerations include education and research, workforce development, supply chain, and economic development, to name a few. The DOE can better support meaningful and sustained engagement with efforts in grid resilience and modernization by enabling project developers to include community engagement, workforce development and similar efforts as eligible uses of funds.

DOE can support this effort by providing technical assistance to community organizations (including community college networks) that support programs that build pipelines for the energy workforce, including through education and training and by facilitating programs for apprenticeships and internships. DOE investments in early STEM education with diverse partners and investments in technical training and certifications will help create and retain the workforce that is needed for grid improvement projects and the energy industry.

3. DOE identified eight policy priorities to guide DOE's implementation of Justice40 in DACs: (1) decrease energy burden; (2) decrease environmental exposure and burdens; (3) increase access to low-cost capital; (4) increase the clean energy job pipeline and job training for individuals; (5) increase clean

energy enterprise creation (e.g., minority-owned or disadvantaged business enterprises); (6) increase energy democracy, including community ownership and other economic benefits associated with the energy transition; (7) increase parity in clean energy technology access and adoption; and (8) increase energy resilience.

a. Of the eight Justice40 benefits, any comments on tracking these across the GRIP program?

Duke Energy uses data and analytics to identify when and where to invest in grid-related improvements. As our models evolve, they have begun to include community-related data, which includes local resiliency needs. Utilizing a variety of internal and external tools, we aggregate and evaluate the data derived by the same metrics highlighted by DOE. Through a deeper understanding of these figures, we can better inform our strategies around infrastructure deployment and our clean energy transformation in a way that provides the most benefit to disadvantaged and underserved communities. These tools include but are not limited to: DOE's Energy Justice Dashboard (BETA), Climate and Economic Justice Screening Tool, the EPA's EJScreen tool, DOE's Low-Income Energy Affordability Data (LEAD) Tool, state-level justice screening tools, customer data and proprietary stakeholder mapping tools.

The DOE can support the implementation of these priorities by providing consistent, clear metrics and expectations for tracking progress. Clarity around metrics and expectations should include the use of federal agency tools, consistent definitions and suggested metrics for success.

4. What are the most appropriate performance and other metrics to track community benefits?

The DOE should provide a resource for level-setting community benefit metrics at the onset of a project. Each community is unique, and it will be important for DOE to recognize that community benefit success metrics cannot be uniform across each community. Instead, metrics should be established by an initial set data and then tracked during the progress of a project. Each community should participate in the input on what success looks like for their community, but the DOE should support the applicant with technical assistance to initiate the process in each community. Additionally, DOE can further define the Justice 40 priorities and work with communities to ensure alignment through metrics.

Category 6: Build America, Buy America requirements

2. For any item that would normally be procured from a foreign source, please specify to the best of your ability what actions would be required to comply with this requirement should it be deemed to apply, such as the expected added cost of sourcing the requisite materials from domestic sources, seeking a waiver

from Build America, Buy America, etc.; the impact on your project, and whether these items would be unable to be procured domestically due to lack of availability or cost.

Duke Energy supports the ideals embodied in the IIJA Buy America provisions. These domestic supply and workforce capabilities will take time to develop to a scale that supports continued growth of the clean energy transition. Accordingly, DOE should adhere to OMB guidance that states the Buy America requirements of the IIJA do not apply to DOE projects in which the prime recipient is a for-profit entity.

As the world continues to recover from the pandemic's economic shockwave, the energy industry (and many other industrial sectors) remains impacted by significant supply chain and workforce constraints. This global crisis has been further strained by a national increase in demand for materials for major infrastructure projects and the continued deployment of our economywide clean energy transition. Unfortunately, this will remain a challenge and continue to be a potential risk for the near future.

To mitigate the impact of these global challenges, Duke Energy is mobilizing internally and with its peers to help address material gaps and effectively plan for our future. Despite these measures, global supply chain constraints are making it difficult for suppliers of commonly used energy components, like transformers, to keep up with increased demand. This creates challenges for energy providers – including Duke Energy – which will likely persist through at least 2023. Build America, Buy America requirements may impact the industry's work to stabilize its material supply challenges. We encourage DOE to continue to consider these delicate supply chain constraints upon further definition and implementation of its GRIP program, including as it defines its final considerations on Build America, Buy America requirements.

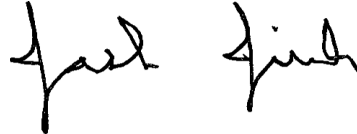
CONCLUSION

Duke Energy appreciates the opportunity to provide comment on the formation of DOE's GRIP program and its topic areas established via the IIJA. The energy landscape is evolving at an ever-increasing pace, and Duke Energy remains committed to delivering reliable, affordable and increasingly clean energy to our customers. We will continue to invest in our electric grid and the technologies that will help it withstand the impacts of severe weather and natural disasters. As the operator of the largest electric grid in the nation, we recognize the critical role we must play in implementing DOE's GRIP priorities, and we welcome the opportunity to partner with DOE to do this successfully for the customers and communities we serve.

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Fourth Update on Responses to RFIs, filed in Docket No. M-100, Sub 164, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to parties of record.

This the 19th day of October, 2022.

A handwritten signature in blue ink, appearing to read "Jack Jirak", is written above the printed name.

Jack E. Jirak
Deputy General Counsel
Duke Energy Corporation
P.O. Box 1551/NCRH 20
Raleigh, North Carolina 27602
(919) 546-3257
jack.jirak@duke-energy.com