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June 10, 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 Update on Responses to RFIs
Docket No. M-100, Sub 164

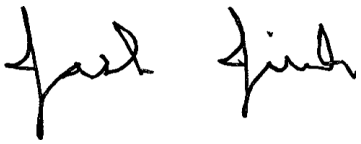
Dear Ms. Dunston:

As noted in their Initial and Reply Comments in this docket, Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (collectively, "Duke Energy" or the "Companies") are committed to keeping the North Carolina Utilities Commission ("Commission") apprised of developments as the Companies evaluate opportunities to pursue federal funds that have been appropriated under the Infrastructure Investment and Jobs Act ("IIJA"). To that end, the Companies attached to their April 14, 2022 Reply Comments in this proceeding copies of their responses to Requests for Information ("RFI") submitted to the Federal Highway Administration related to electric vehicle charging infrastructure deployment and to the U.S. Department of Energy ("DOE") related to regional clean energy hydrogen hubs and the domestic manufacturing and recycling of clean hydrogen technologies.

By this letter, Duke Energy is providing the Commission and interested parties with an additional update on the Companies' continued involvement in the IIJA federal funding process. On June 2, 2022, the Companies submitted to the DOE another response to an RFI regarding the solicitation process and structure of a DOE Funding Opportunity Announcement, in accordance with the IIJA, to implement formula grants to states and Indian tribes for preventing outages and enhancing the resilience of the grid. 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

Formula Grants to States and Indian Tribes for Preventing Outages and Enhancing the Resilience of the Electric Grid

U.S. Department of Energy
Grid Deployment Office
40101formulagrants@hq.doe.gov

Company Contacts:

[redacted]

[redacted]

Duke Energy respectfully submits the following comments in response to the Notice of Request for Information ("RFI") issued by the U.S. Department of Energy ("DOE") on April 27, 2022, intending to obtain public input regarding the solicitation process and structure of a DOE Funding Opportunity Announcement (FOA), in accordance with the Infrastructure Investment and Jobs Act (IIJA), to implement formula grants to states and Indian tribes for preventing outages and enhancing the resilience of the grid.

Duke Energy (NYSE: DUK), a Fortune 150 company headquartered in Charlotte, N.C., is one of America's largest energy holding companies and employs 28,000 people. Our electric utilities serve 8.2 million customers in North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky, and collectively own 51,000 megawatts of energy capacity. Our natural gas utilities serve 1.6 million customers in North Carolina, South Carolina, Tennessee, Ohio and Kentucky. Duke Energy owns and operates 31,000 miles of transmission infrastructure and 283,000 miles of electric distribution infrastructure. Duke Energy has set ambitious climate goals for our company, striving toward at least a 50% reduction in CO2 emissions from electricity generation in 2030 on the way to net-zero CO2 by 2050. We are also targeting net-zero methane emissions for our natural gas distribution business by 2030.

Duke Energy is transforming the energy grids that we operate, making them more reliable and resilient, while enabling a cleaner, lower-carbon future. We are making strategic, data-driven improvements to increase reliability, strengthen the grid against physical and cyber threats,

expand renewables and distributed energy technologies, and provide customers tools and information to make smart energy choices and save money.

"We're creating a smarter electric grid that helps prevent outages and gets the lights back on sooner when problems do occur. Our reliability ratings are good, but we need to prepare the electric grid for what's to come, including electric vehicles and more customers generating their own green energy." – Stan Pinegar, Indiana President, Duke Energy

Duke Energy appreciates the opportunity to respond to this RFI to inform the scope and priorities of DOE's goal to support the efforts of States and Indian Tribes to improve the all-hazards resilience of the electric grid and prevent outages.[1]

INTRODUCTION

At Duke Energy, we make a distinction between reliability and resiliency. Our teams forecast, model, test, plan, build, maintain, and operate our transmission assets to deliver highly reliable, affordable, and increasingly clean energy day in and day out, to keep the lights on for the millions of Americans we serve. We have other teams, largely on the distribution planning and customer delivery side of our businesses, who are laser-focused on enhancing resiliency, the ability of the grid to withstand or, if necessary, recover from extreme events. As the United States electric grid infrastructure continues to age, with approximately 70% of the grid's transmission lines and power transformers being over 25 years old, grid modernization, hardening and expansion are key to ensuring electricity availability and resilience.

Electric utility investments to build resilience against the increasing frequency of extreme weather events that lead to power outages and energy supply disruptions are essential to protecting health, safety, and the economy. For example, some communities are particularly vulnerable because of their location (i.e., in 500-year flood plain that is now inundated every 10 years) and/or because the communities themselves do not have the focused support or resources to plan and prepare for extreme weather events, thus making these communities particularly vulnerable. With investments in transmission and distribution infrastructure, the grid can be better protected against supply disruptions due to climate-induced extreme weather and other disruptive events. A robust grid can help to minimize the impact of supply disruptions when they happen and restore electricity more quickly when outages do occur.

RECOMMENDATIONS

With this context in mind, Duke Energy recommends that DOE:

- Look holistically at past spending on grid resilience and extreme weather and consider that different mitigation activities may be warranted for future investments.
- Prioritize specific grid resiliency projects such as: Self-Optimizing Grid, Targeted Undergrounding, Feeder and Lateral Hardening, Voltage Optimization, Integration of Renewables & Distributed Energy Resources, Transmission Hardening and Resiliency,

[1]Duke Energy's electric utilities serve customers located in a number of federally- and state-designated tribes, including but not limited to the Eastern Band of the Cherokee Indians, the Lumbee Tribe of North Carolina, the Sumter Tribe of Cheraw, the Pee Dee Indian Tribe, Seminole Tribe of Florida, the Miccosukee Tribe of Indians

Transmission System Intelligence and Vegetation Management (described in the following section).

- Encourage states to direct these funds toward advancing technologies and providing equipment that hardens the grid and reduces the likelihood of impacts from local disruptive events. For example, installations of flood protection around substations in areas that have experienced historic flooding in recent years may also provide resilience for vulnerable communities who may reside in those areas. When aligned with vegetation management, pole and line upgrades, targeted undergrounding of outage-prone lines, and self-healing technology installations in many of the same areas, we can significantly increase resiliency and help better protect the local community and economy during extreme weather.
- Funds should be further directed in a manner that:
  - Prioritizes projects that deliver multiple benefits, such as those that result in not only a more resilient grid but also a green-enabled grid that provides cleaner energy options, hardens the grid against severe weather, provides customers with more options and control, and delivers reliable service at the lowest possible cost.
  - Allows the electric utility flexibility such that funds can be used for directly supervised contract resource deployments (i.e., all project aspects managed in-house except for construction) as well as for engineering procurement and construct (EPC) vendors.
  - Enables green-enabled functionalities that come with expanding cleaner energy, such as hosting capacity, voltage regulation capabilities, automation and communication capabilities, and reliable access to distributed resources.
  - Focuses on grid optimization, not simply grid improvement. Funds should be prioritized for projects that complement other work streams, such as integrating systems and technology to leverage analytics and planning tools to efficiently invest, operate and manage the grid while integrating systems, technology and customer products and services, such as ADMS, AMI, ADP and DSM.[2]
  - Requires proactive engagement by States, Tribal Governments, and electric utilities among each other as well as with customers and stakeholders to achieve positive project outcomes.

In the sections below we provide an overview of our strategic approach to reliability and resilience, current resilience investments and approach to equity and environmental justice.

Duke Energy Strategic Approach

Duke Energy believes a proactive approach to enabling a reliable and resilient grid is crucial and efforts should focus on grid modernization and developing execution plans as future grid and transmission investment opportunities are identified. With respect to the distribution grid, Duke Energy teams are developing and implementing specific changes to the distribution system to improve resiliency and to allow for dynamic power flows associated with evolving customer requirements such as increased residential and commercial customer rooftop solar adoption as well as electric vehicle charging and home battery system installation and associated innovative

[2]Advanced Distribution Management System (ADMS), Advanced Metering Infrastructure (AMI), Advanced Distribution Planning (ADP), Demand-side Management (DSM)

customer programs and pricing structures. Importantly, distribution grid control enhancement investments are foundational to our integrated resource planning and accommodating increasing levels of distribution – connected renewable resources while developing a more sustainable and efficient grid.

Reliability and Resilience Considerations

Transitioning the power system to lower-carbon sources of energy has been identified as one of the grid's highest-magnitude reliability risks by the North American power industry.[3] Electric utilities have the obligation to plan and operate their generating fleets and transmission and distribution systems to provide reliable power system operations to their customers 24 hours per day, seven days per week, 52 weeks per year in accordance with federally mandated North American Reliability Corporation ("NERC") Reliability Standards.

In addition to changing the shape and magnitude of net load in ways that may be challenging for the power system to manage, increasing levels of intermittent resources, such as wind and solar, also increase the uncertainty of balancing supply and demand. This uncertainty manifests in two ways: higher magnitudes of forecast errors and higher intra-hour variability in the load net of renewables. In both cases, sufficient dispatchable resources must be available to respond quickly to ensure reliable operation of the grid. These resources are held "in reserve" (that is, not otherwise in use) to respond to any potential variability. Adequate reserve capacity must be available to account for unplanned outages of generating equipment, economic load forecast uncertainty and higher than projected demand due to weather extremes.

Impact of Decarbonization Across Neighboring Utilities

All of Duke Energy's electric utilities operate within the Eastern Interconnection. When a frequency deviation occurs in one balancing area that is part of the Interconnection, it is "seen" by every piece of equipment in every other balancing area within the Interconnection within milliseconds. As electric power suppliers in the Interconnection accelerate the decarbonization of their power generation systems, and their fuel and technology changes combine with Duke Energy's portfolio of generators, the result will be that maintaining system frequency within normal operating bounds will become more challenging. Specifically, when power suppliers retire synchronous generators and add new, asynchronous solar, for example, the system will become more susceptible to deviations in the power balance, and thus frequency deviations will increase in magnitude. These deviations also translate to active and reactive power flow deviations within and between the interconnected transmission regions.

Such power flow deviations will occur within a different time domain than the typical steady-state, predictable response of the system. This response will show transmission lines at or near thermal limits one minute and not near the limits the next. Such volatility demands additional modeling and analysis capabilities to identify system constraints and which constraints are suspected to be sustained and thus need remediation and which are transient. Such models will require tighter

[3]North American Electric Reliability Corporation, 2021 ERO Reliability Risk Priorities Report, pg 15 Available at: https://www nerc com/comm/RISC/Documents/RISC%20ERO%20Priorities%20Report_Final_RISC_Approved_July_8_2021_Board_Submitted_Copy pdf

coordination between systems within Duke Energy and between Duke Energy and other regions within the Eastern Interconnection.

Future System Resilience

Separate from reliability, resilience refers to the ability of the grid to withstand or, if necessary, recover from extreme events. Considerations of resilience look beyond the standard measures of resource adequacy to identify low-probability, high-impact events that directly affect grid assets or disable critical enabling infrastructure such as transportation networks and fuel supplies. First and foremost, a resilient decarbonized grid must be designed to address potential weather extremes. As has previously been discussed, our power systems are planned to accommodate summer and winter peaks in the course of normal operations, but beyond modeling standard weather variability, there are certain extreme winter conditions that factor into planning a resilient system.

Beyond winter risks from extreme cold and ice storms, summer and fall in the Southeastern region come with the added risk from major hurricanes and related flooding. Historically, Category 3 and 4 storms have made landfall and Category 4 and 5 storms are known to have passed within proximity of potential offshore wind sites. Resilience includes a substantial element of recovery from extreme events, and new planning and response measures will be necessary to ensure that distributed wind and solar resources can be repaired and quickly returned to service after potential widespread damage from major hurricanes.

In the event of a major outage (be it from extreme weather or other disruptive event), quickly and safely restoring the power supply to customers is a major feature of power system resilience. As our resource mix changes, new challenges will emerge for re-energizing the power system after a blackout. This process of restoring system power, known as “black-start,” relies on a carefully planned and coordinated strategy for re-energizing transmission pathways and bringing loads and generation back online in a balanced manner. New, variable generating resources such as solar can complicate this process by increasing the volatility of the system net load during restoration should these resources restart and re-energize automatically. Thus, we are developing new planning and processes to handle these risks. Distributed resources also create new opportunities for resilience, as microgrids powered by solar and storage can island and continue delivering power to critical loads during outages. Throughout our service areas, we are working with first responders, hospitals, and U.S. military bases to explore the value and benefits of microgrids at these critical locations.

Overview of Duke Energy’s Current Resilience Investments

As an essential service provider, Duke Energy is focused first and foremost on our customers and the communities we serve. A “smart-thinking” power grid that provides high-quality, reliable electric service and that flexibly supports a variety of distributed energy resources will give customers new energy options and help attract new business and industry to our service area. A resilient, green-enabled grid helps drive economic growth and new jobs, better protects communities and vulnerable customer groups, and gives customers the energy they need to help them work, play and live the way they want.

Building a better grid that enables customers to use energy the way they want to will also achieve greater customer satisfaction and can provide new tools and resources through platforms like our recently completed smart meter deployment to help customers better manage their energy use and save money. These grid improvements will also provide the flexibility to support an evolving set of local, state and federal energy policies and priorities, and help those entities achieve their desired resiliency and sustainability goals now and in the future.

Duke Energy's strategy not only focuses on operational capabilities and efficiencies, but also on cost to the customer. Keeping energy affordable for customers is a priority for Duke Energy. That's why we have pursued rate options in tandem to the grid improvement strategy development to seek smaller, incremental increases to customer bills that are more predictable and with the intent to help to avoid a large bill spike in the future. The optimized approach the company is taking can help deliver benefits to customers faster while keeping costs lower and better protecting vulnerable communities and customer groups.

Objectives Guiding Our Resilience Investment Decisions

Our public service obligation is to provide reliable power system operations to customers 24 hours per day, seven days per week, 52 weeks per year in accordance with federally mandated North American Electric Reliability Corporation ("NERC") Reliability Standards. In addition, we continually collaborate and align with states and stakeholder priorities to transform how energy is produced, delivered and used. The steps and timeline for this energy transition will be unique in each state we serve, and we'll collaborate with regulators, customers and other stakeholders to determine the right path.

Any generation and resource changes will take place with the intention to maintain or improve upon the adequacy and reliability of the existing grid, further enhancing future system resilience to withstand extreme events and prevent outages. In addition, we will continue to ensure continued reliability of our systems by evaluating reliability risks and mitigating solutions such as the addition of zero-emitting load following resources, like advanced nuclear and hydrogen, which will be critically important to achieve the energy transition and to reach net-zero and flexible generation to accommodate increased penetration of variable renewable resources.

Duke Energy founded its vulnerable customer team to better aid underserved and low-income customers. One example of this is a new centralized agency team that works directly with assistance agencies across our service territories to make it as easy as possible for them to help our customers. In 2021, more than $100 million was applied to the energy bills of customers in need. Employee donations, customer donations, state and federal dollars, hundreds of local agencies, Duke Energy Foundation grants, and countless others helped answer the call for assistance.

Duke Energy is focused on attracting and retaining an appropriately skilled workforce, identifying talent in the organization, and providing coaching and development to build a strong pipeline of leaders. We also provide learning solutions for upskilling and reskilling employees to support business transformation and are leveraging technology and innovation more than ever before.

We are guided by our vision of an inclusive environment where all people are valued, respected and encouraged to reach their full potential, and we pursue a strategy that integrates diversity and inclusion into everything we do. This goes beyond race and gender and includes diversity of thought, work and life experiences, perspectives, and cultures. We work hard to help ensure all employees feel that they have an equitable and inclusive experience, leveraging our employee resource groups as well as diversity and inclusion councils.

Project Prioritization

Duke Energy prioritizes projects that focus on grid resiliency, enabling the grid to incorporate additional clean energy and decarbonization solutions to achieve a carbon-free power sector in tandem with projects that will generate the greatest community economic benefit in reducing the likelihood and consequences of disruptive events. Investments in modernized grid infrastructure enable consumer access to lower-cost energy and accommodate increased electrification, increased penetrations of variable renewable electricity, distributed energy resources, and other system evolutions that will be required over the coming decades. Specifically, we encourage the DOE to qualify such investments for federal funding and prioritize specific grid resiliency projects including but not limited to: Self-Optimizing Grid, Targeted Undergrounding, Feeder and Lateral Hardening, Voltage Optimization, Integration of Renewables & Distributed Energy Resources, Transmission Hardening and Resiliency, Transmission System Intelligence, and Vegetation Management.

A. Self-Optimizing Grid (SOG)

The current grid has limited ability to reroute or rapidly restore power and limited ability to optimize for the growing penetrations of distributed energy resources (DER). The Self-Optimizing Grid (SOG) program is established to address both of these issues. The SOG program consists of three (3) major components: grid capacity, grid connectivity, and automation and intelligence. The SOG program redesigns key portions of the distribution system and transforms it into a dynamic smart-thinking, self-healing grid. The SOG program enables the grid to have the ability to automatically reroute power around trouble areas, like a tree on a power line, to quickly restore power to the maximum number of customers and rapidly dispatch line crews directly to the source of the outage. Self-healing technologies can reduce outage impacts by as much as 75%.

Our SOG Capacity projects focus on expanding substation and distribution line capacity to allow for two-way power flow. SOG Connectivity projects create tie points between circuits. SOG Automation projects provide intelligence and control for the Self-Optimizing Grid. Automation projects enable the grid to dynamically reconfigure around trouble and better manage local DER. The Advanced Distribution Management System (ADMS) is the application that orchestrates and manages the SOG Automation projects. This software leverages the intelligence from the grid with information from substation equipment, intelligent switches and distributed energy resources to optimize power flow and minimize the impact to customers when faults occur. ADMS is the centralized system for managing the grid.

B. Targeted Undergrounding (UG)

Overhead power line segments with a history of unusually high numbers of outages drive a disproportionate amount of momentary interruptions and outages that affect Duke Energy's customers. When these segments of lines fail, they cause problems for electricity customers directly served by them as well as customers upstream. Lines targeted to be moved underground are typically the most resource-intensive parts of the grid to repair after a major storm. Equipment on these line segments can experience shortened equipment life and additional equipment-related service interruptions.

The goal of Duke Energy's UG program is to maximize the number of outage events eliminated. onverting outage-prone parts of the system from overhead to underground enables our response teams to restore service more quickly and cost-effectively for all customers. Addressing areas with outlier outage performance improves service while lowering maintenance and restoration costs for all customers. Criteria for consideration in the selection of targeted communities include: performance of overhead lines, age of assets, service location (e.g., lines located in backyard where accessibility is limited) and vegetation impacts (e.g., heavily vegetated – often costly and difficult to trim). Following targeted undergrounding deployments, customers will see relief from the frequent service interruptions they once experienced.

C. Feeder and Lateral Hardening

Feeder and Lateral Hardening enables the feeder backbone and branch lines to better withstand extreme weather events. This includes strengthening structures, updating basic insulation levels to current standards, updating conductor to current standards, relocating difficult to access facilities, relocating or undergrounding facilities to address clearance encroachments, and replacing oil filled equipment as appropriate, and incorporates the Company's pole inspection and replacement activities. It also includes undergrounding of the laterals most prone to damage during extreme weather events and overhead hardening of those laterals less prone to damage.

D. Voltage Optimization

Integrated Volt/VAR Control (IVVC) allows the distribution system to optimize voltage and reactive power needs. The program employs remotely operated substation and distribution line devices such as voltage regulators and capacitors. The settings for thousands of these controllable field devices are optimized and dispatched via a distribution management system. IVVC capabilities enable a grid operator to lower voltage as a way of reducing peak demand (peak shaving), thereby reducing the need to generate or purchase additional power at peak prices or protecting the system from exceeding its load limitations. Current distribution system demand response programs use the peak shaving mode of IVVC to support emergency load reduction. Another operational mode enabled by IVVC capabilities on the distribution system is Conservation Voltage Reduction (CVR). CVR uses IVVC during periods of more typical electricity demand to reduce overall energy consumption and system losses.

E. Integration of Renewables and Distributed Energy Resources (DERs)

Distributed energy resources (DERs) are resources sited close to customers that can provide all or some of their electric power needs or can be used by the system to either reduce demand

(such as energy efficiency) or meet the energy, capacity or ancillary service needs of the grid. The resources are small in scale, connected to the distribution system, and close to load. Examples of different DER types include solar photovoltaic (PV), wind, combined heat and power (CHP), energy storage, demand response (DR), grid-interactive buildings and other flexible loads, electric vehicles (EVs), microgrids, and energy efficiency (EE). Duke Energy needs more modern tools to optimize and blend transmission and distribution connected renewables to facilitate efficient energy usage, such as when overproduction from solar generation occurs.

F. Transmission Hardening and Resiliency

The transmission system is an essential part of Duke Energy's power delivery network, and any disruption in the flow of electricity across the system can interrupt service for thousands of customers across entire regions. Our transmission hardening and resiliency program works to address unique challenges to harden the system to reduce impacts to customers while enhancing their electric service experience. More specifically, programs related to targeted line strengthening for extreme weather protect high-voltage transmission circuits from extreme weather by upgrading vulnerable wooden structures to steel, as well as lattice tower replacements. Substations are essential components of the transmission system and often serve as the off ramps from the high-voltage transmission energy highway to the distribution system that carries power throughout a community. Substation outages and disruptions can result in large-scale outage events that can potentially last a long duration. New technologies and smart capabilities are driving the need to update substations to meet the expanded needs of customers and the desire to enable more renewables and innovative technologies on the grid.

G. Transmission System Intelligence

Transmission system intelligence programs are critical to provide grid operators and engineers with enhanced information to respond to changing conditions that challenge reliability. Transmission system intelligence programs include initiatives pertaining to: 1) the replacement of electromechanical relays with remotely operated digital relays, 2) the implementation of intelligence and monitoring technology capable of providing asset health data and driving predictive maintenance programs and 3) the deployment of remote monitoring and control functionality for substation and line devices enabling rapid service restoration. Remote asset monitoring allows proactive decisions to be made when equipment health is threatened, and remote operated switches play a vital part in sectionalizing transmission lines to limit the customer impact of faults from external causes and equipment failures.

H. Vegetation Management

Vegetation management along distribution and transmission rights of way helps reduce power outages for customers and enhances safety for our employees and contractors. It is imperative to work proactively with customers, property owners, homeowner associations and community leaders to keep them informed of vegetation and right-of-way management activities in their area. Duke Energy uses an inspection process that identifies vegetation that could be a hazard to the lines and ensures that vegetation management activities follow our pruning and clearance specifications. We regularly use tree-trimming contractors to conduct much of our vegetation management work. These qualified contractors are required to follow industry standards and

guidelines for safety, quality, and tree health. As a regulated public utility, Duke Energy must balance the needs of our customers with the need to control costs and provide safe and reliable electric service. As an example, in Duke Energy Carolinas this means 2.5 million customers and 65,000 miles of overhead transmission and distribution lines.

Environmental Justice, Diversity, Equity & Inclusion

At Duke Energy, we believe environmental justice is a business imperative, fundamental to our operations and a pillar of meaningful stakeholder engagement. As a company, Duke Energy has taken significant steps forward to internalize our environmental justice principles.[4] Investment in grid resilience offers an opportunity to integrate impactful practices and strategies to address equity, environmental justice and a just transition in addition to 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 an eligible use of funds.

We continue to evolve the use of data and analytics to identify when and where to invest based on local needs. Through a variety of internal and external tools, a wide range of demographics, insights and data points are being evaluated and considered as we build our strategy for infrastructure and the clean energy transformation and the impacts to disadvantaged communities. The tools include but are not limited to the Department's Energy Justice Dashboard (BETA), Climate and Economic Justice Screening Tool, U.S. Environmental Protection Agency's EJScreen tool, DOE's Low-Income Energy Affordability Data (LEAD) Tool, other state-level justice screening tools, customer data, and proprietary stakeholder mapping tools. These strategies and tools allow us to maximize customer benefit by transitioning from a programmatic to a project-based execution approach around our disadvantaged communities.

Conclusion

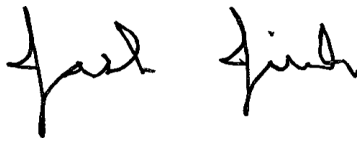
Again, Duke Energy appreciates the opportunity to provide input on DOE's implementation plan for formula grants to states and Indian tribes for preventing outages and enhancing the resilience of the electric grid, in accordance with the Infrastructure Investment and Jobs Act (IIJA). The energy landscape is evolving at an ever-increasing pace, and the convergence of technology, policy, climate and customer preferences is creating new challenges and opportunities for the utility industry as we work to deliver a reliable, affordable and increasingly clean product to the communities that depend on us. Duke Energy will continue to invest in our grid, people, processes and technology to achieve carbon reduction, improve the customer experience, strengthen grid resiliency, and deliver on our commitments. As an essential service provider of one of the largest electric grids in the nation, we recognize the responsibility before us and welcome the opportunity to further partner with DOE to prevent outages and enhance the resilience of the electric grid.

[4]Duke 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

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Update on Responses to RFIs, 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 10th day of June, 2022.



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