



Lawrence B. Somers  
Deputy General Counsel  
Mailing Address:  
NCRH 20 / P.O. Box 1551  
Raleigh, NC 27602

o: 919.546.6722  
f: 919.546.2694

bo.somers@duke-energy.com

OFFICIAL COPY

Jan 21 2020

January 21, 2020

**VIA ELECTRONIC FILING**

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

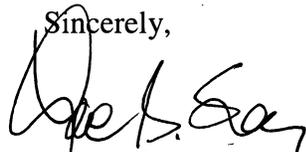
**RE: Joint Report of Duke Energy Progress, LLC, Duke Energy Carolinas, LLC and Public Staff on ISOP Workshop  
Docket No. E-100, Sub 157**

Dear Ms. Campbell:

Pursuant to the Commission's November 14, 2019 *Order Requiring Report on ISOP Workshop*, I enclose the joint report of Duke Energy Progress, LLC ("DEP"), Duke Energy Carolinas, LLC ("DEC") and the Public Staff summarizing the December 10, 2019 Integrated Systems and Operations Planning ("ISOP") workshop facilitated by ICF. DEC and DEP will provide additional updates to the Commission following subsequent stakeholder sessions scheduled in the coming months.

Thank you for your attention to this matter. If you have any questions, please let me know.

Sincerely,



Lawrence B. Somers

cc: Parties of Record



# Duke Energy Integrated System and Operations Planning Stakeholder Engagement

## Interim Report

### 1. Stakeholder Workshop Details

- Duke Energy (Duke) hosted its first Integrated System and Operations Planning (ISOP) stakeholder workshop on December 10, 2019 from 10:00am – 3:00pm at the North Carolina Museum of Natural Sciences in Raleigh, North Carolina.
- The stakeholder workshop was facilitated by ICF.
- Excluding Duke and ICF staff, the stakeholder workshop featured 50 in-person attendees and 24 webinar attendees. The following provides a high-level categorization of in-person attendees:

Stakeholder Category	Total In-Person Attendees
Academic/Research	7
Environmental	5
Government	3
Large Customer	8
Low/Fixed Income	3
Public Staff (NC & SC)	11
Renewable/DER	5
Wholesale	5
Other/Unknown	3

- After opening remarks from Cari Boyce (Duke) about the importance of the ISOP initiative and Duke’s desire to seek stakeholder input as Duke evolves the ISOP processes, Tom Mimmagh (ICF) provided an overview of similar efforts in other states, including drivers and best practices.
- Mark Oliver (Duke) explained to stakeholders what the drivers, objectives, and estimated timeline and milestones are for ISOP. The timeline was outlined in broad strokes as follows:
  - 2020 IRP: Introduction of “Morecast” for development and testing of downstream tools
  - 2021 IRP Update: Testing of 8760 Distribution Planning; Transmission Planning (PSSE + PROMOD)
  - 2022 IRP: Improved methods for evaluating non-wires alternatives (NWA)/non-traditional solutions (NTS)



- Beyond 2022: Leverage ISOP for improved evaluation of emerging technologies and resources to enhance scenario planning
- Duke staff then presented on five key ISOP elements:
  - Enhanced Forecasting (Rudy Bombien, Duke)
  - Advanced Distribution Planning (Clif Cates, Duke)
  - Non-Traditional Solutions (Mike Rib, Duke)
  - Generation-Transmission-Distribution Coordination (Mike Rib, Duke)
  - Feed-in to Integrated Resource Plan (Mike Rib, Duke)

The Duke presenters fielded stakeholder questions and comments, which included:

- How do limits to the regulatory construct impact the efforts around ISOP?
- Can you provide some real examples of NWAs?
- What will be the impact of doing multi-hour assessments? Does Duke plan on using its own technology to reduce peak demand?
- Tom Mimmagh from ICF used the word “uncertainty,” and today we’re spending money on grid improvements; how do you help the regulator be comfortable that the money we spend today won’t be stranded in the future?
- How will the load from large wholesale customers be incorporated into models?
- With NC having the second most PURPA projects in the country, how will Morecast and ISOP look at existing qualifying facilities, including the potential to pair them with storage? How will you incorporate smart inverters?
- What’s the best way to involve stakeholders over time?
- There’s a level of detail that could go into these models, but realistically that’s impossible to achieve; there needs to be a parallel process to capitalize on low-hanging energy efficiency and demand response opportunities.
- What have other jurisdictions done for forecasting methodologies? Does the utility propose something, or does the regulator move first and require a specific methodology?
- Maria Scheller (ICF) moderated two separate panels to provide stakeholders an opportunity to share their perspectives, priorities, and objectives for ISOP, and answer questions from the audience.
  - Session 1: Customer and Advocate Perspectives

Panelists:

- David Beard, Pacolet Milliken
- Charlie Bayless, North Carolina Electric Membership Corporation
- Teresa Arnold, SC AARP



- Dustin Metz, NCUC Public Staff

Questions for the panelists included:

- How could ISOP further the information given to regulators about how to target cost-effective energy efficiency?
  - Are there any concerns that as ISOP becomes increasingly complex, it will be increasingly difficult for stakeholders to intervene?
  - Have you looked at what other states are doing? Texas for instance only has an energy market, and no capacity market – not necessarily suggesting that’s the best path forward here. Funds gathered from customer bills could be used to pay for distributed storage in lieu of new generation.
  - What ideas do you have to make behind-the-meter resources available to those who can’t afford to purchase them directly themselves?
  - Any thoughts about how we engage customers to be more open about participating in energy efficiency?
- Session 2: Environmental and Developer Perspectives

Panelists:

- Dave Rogers, Sierra Club
- Mike Wallace, Ecoplexus
- Isaac Panzarella, NC State Clean Energy Technology Center

Questions for the panelists included:

- There’s not currently much transparency into locational value. How can ISOP help with this?
  - How much control are you willing to give to the utility?
  - Do you see a need to break down silos amongst stakeholders to help us participate most effectively?
- Mark Oliver (Duke) facilitated a wrap-up Q&A discussion at the end of the workshop to address areas of interest and provide further information on next steps. Questions and comments included:
    - The previous Duke IRP included a lot of natural gas (generation); will there be a mechanism saying how much is needed and then open it up for an RFP or a competitive procurement before they commit to building something? How does it work with the carbon goals?
    - Is there anything in particular that resonated with you today that you think will inspire you to change your plan moving forward?
    - How will benefits be transparently demonstrated to ratepayers?
    - Are you open about what you will do with new data to make it more transparent/useful for customers?



- Would be very helpful to charter a working group focused on addressing energy efficiency barriers and potential.
- Will Duke put forward what it thinks are the most significant regulatory barriers?
- Cari Boyce (Duke) wrapped up the workshop by summarizing key takeaways and confirming an interest in maintaining further engagement with stakeholders.
- Duke recorded the segments of the workshop featuring ICF and Duke presentations and will make them publicly available for stakeholders via a forthcoming Reference Information Portal. Q&A portions of the workshop were not recorded to avoid a potential dampening effect on open and constructive discussion.

## 2. Key Themes During the Workshop

- Stakeholders supported the need to implement ISOP and integrate planning tools and processes. They expressed appreciation for Duke proactively addressing this initiative with them and believe there are additional opportunities to more directly define how ISOP will create value.
- There was agreement that while ISOP could add transparency into the processes governing investment decisions across generation, transmission, and distribution, the processes remain highly complex and interrelated to other ongoing efforts within Duke (e.g., interconnection process reform; Integrated Resource Plans; etc.). Duke should continue to share information to help stakeholders—including those with a non-technical background—understand the key components and outputs of ISOP. There was agreement that a set of objectives and guiding principles could help satisfy this desire for transparency and understandability.
- Stakeholders caveated excitement for ISOP with the need to actively analyze the potential for stranded costs due to investment decisions while ISOP-related tools and processes were being developed. Duke explained that ISOP tools will leverage the functionalities afforded by foundational Grid Improvement Plan (GIP) investments.
- Duke addressed stakeholder interest in non-traditional solutions (NTS) by clarifying that while customer programs and energy storage have the potential in the future to serve as NTS, there is still significant work needed to develop analytic tools and regulatory framework for these resource types to effectively defer or displace traditional utility investments. However, Duke's all-source competitive procurements may be a nearer-term mechanism to enable certain new technologies, such as energy storage.
- Stakeholders expressed strong interest in having additional conversations in smaller groups in advance of the second stakeholder workshop scheduled for March 2020. These sessions/webinars would focus on more specific topics related to ISOP and allow stakeholders to

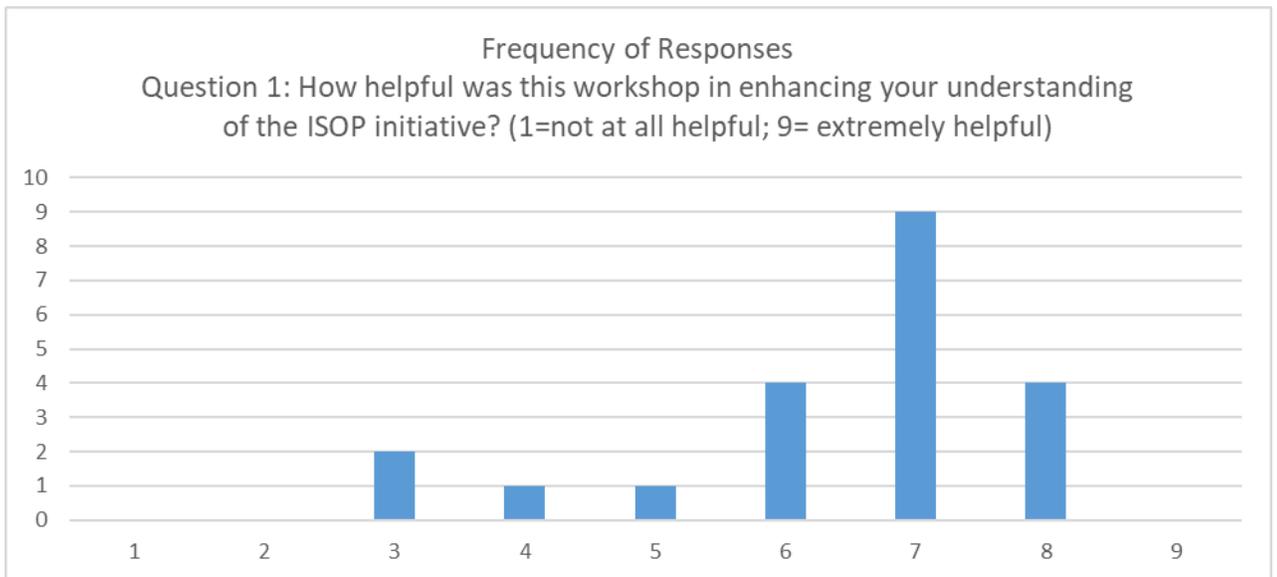


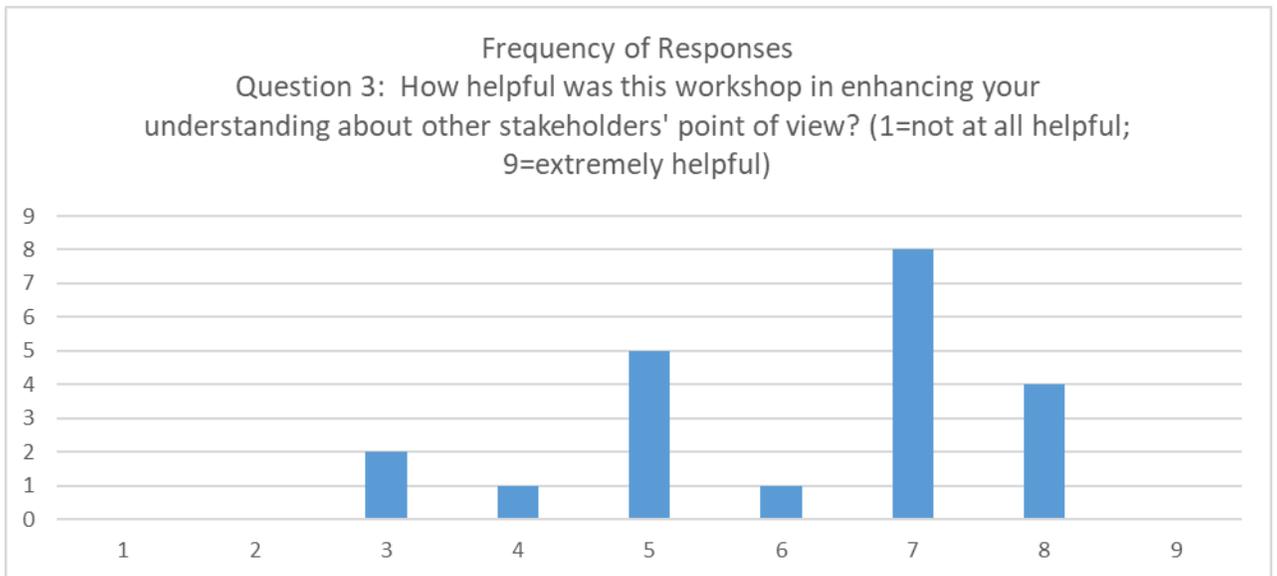
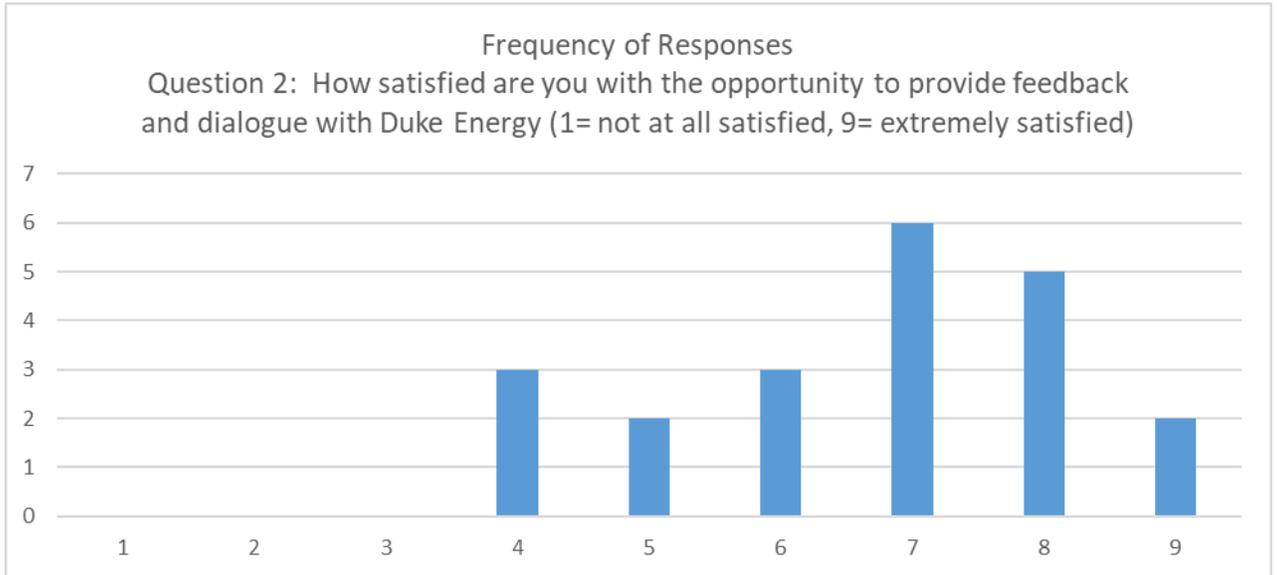
participate for those topics most relevant to them (e.g., high-level overview of ISOP; review of Duke modeling tools and outputs; data use cases; NTS and customer program barriers, cost trends, and best practices; etc.).

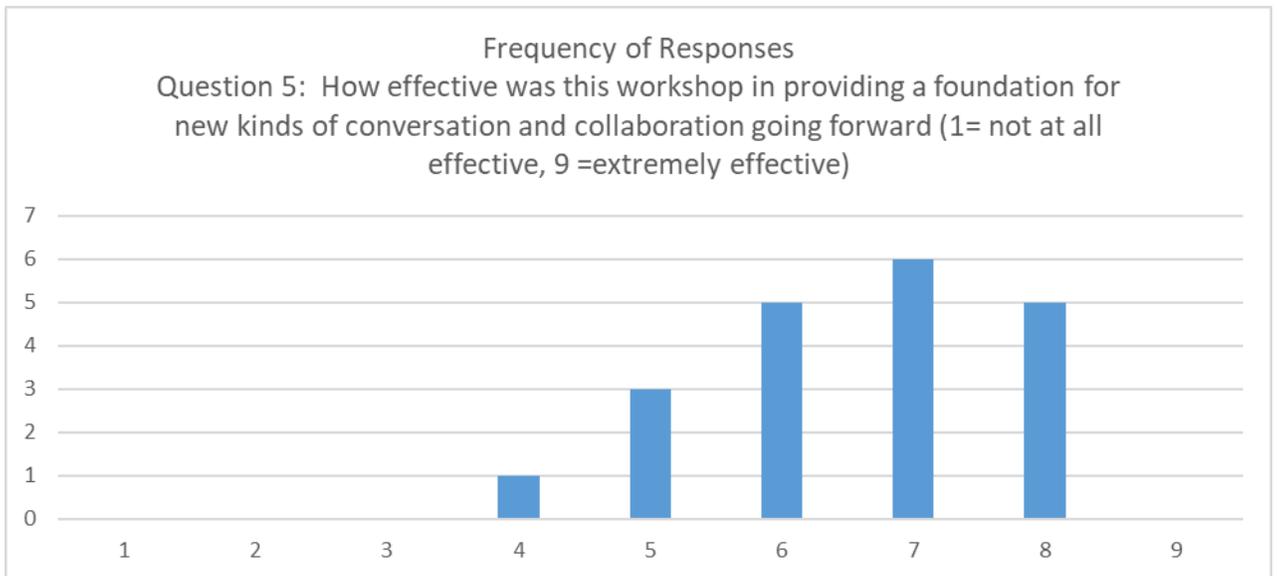
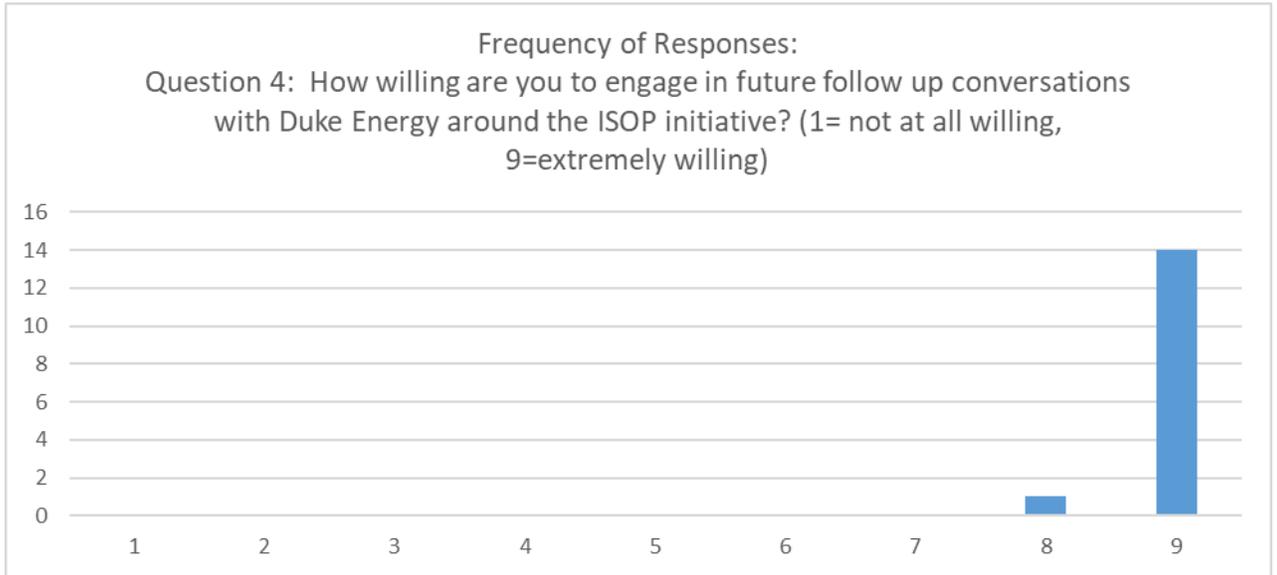
### 3. Areas for Future Focus

- Clarifying which questions/issues ISOP can address; ISOP will not be a “silver bullet” for addressing all stakeholder interests.
- Exploring use cases, challenges, and progress for implementing NTS, including differences between large-scale resources and smaller, customer-sited distributed energy resources (DER).
- Analyzing key opportunities and barriers for developing more locationally granular costs and benefits.

### 4. Stakeholder Survey Results







- Question 6: What specific topics from today’s session would you like to see covered in greater depth at subsequent webinar or meetings?
  - Stakeholder answers included the following themes:
    - Data and model availability, enhancements, and timelines
    - Regulatory barriers to enabling ISOP success
    - NTS opportunities, including the role of customer programs and storage



- Question 7: What did you like best about today’s workshop?
  - Stakeholder answers included the following themes:
    - The openness from Duke was refreshing after previous stakeholder experiences
    - The ample time built-in for questions
    - The direct engagement of Duke personnel who are involved in the Grid Improvement Plan
    - The presentations on how things have been done elsewhere and what it might take to do things in a more integrated fashion in the Carolinas
  
- Question 8: Do you have suggestions for improving the next workshop or other ideas for the stakeholder engagement process:
  - Stakeholder answers included the following themes:
    - More time for discussion and asking questions of Duke staff; less one-way presenting
  
- Question 9: Is there anything else you’d like to tell us that we haven’t asked about?
  - Stakeholder answers included the following themes:
    - Logistics:
      - It was hard to follow the speakers via phone
    - Process:
      - The approach seemed too superficial; there is a need to diver deeper
      - For each topic, consider giving a specific example of where Duke is on the issue, with some sample analysis or results
    - Stakeholder engagement:
      - Pleased to see Duke Energy reach out broadly to stakeholders about the ISOP process.
      - Is Duke ready to accept the stakeholders it is inviting in to its ISOP process as capable partners who should be listened to, especially when their perspectives are at odds with Duke's status as the primary provider (and controller) of energy generation, transmission, and distribution in the Carolinas?
    - Organizational structure and change:
      - How is Duke being restructured/reorganized to integrate the generation, transmission, and distribution planning functions and avoid the persistent “stove-piping”?



- The discussions made it evident that Duke will need to make a major "organizational culture shift" from the uni-directional provision of safe, dependable energy to multifaceted coordination with a quickly growing multitude of small and larger energy providers emerging across the Carolinas; this is not just a significant technical and funding challenge, but also a challenge to Duke's decades-old business model.
  - Is Duke, as an organization, able to shift its traditional business model to one that allows for a more open, more uncertain, and less controllable planning and implementation model in order to make these changes quickly?
  - Who in the company is a champion for the vision of a next-generation energy system that prioritizes a rapidly increasing share of renewables (solar, wind, water, geothermal, storage)?
  - How is Duke encouraging and enabling the next-gen energy system innovators and champions within the company? Where that talent doesn't exist internally, what is Duke doing to bring the people who have the knowledge, skills, and vision to implement a next-gen energy system for the Carolinas in-house?
- Climate / carbon goals:
    - How does the goal for a declining (and eventually net-zero) carbon future stack up against competing priorities within the company?
    - How can Duke become a leader of policy and technical innovations that lead us more quickly to a low- to zero-carbon future, rather than one that doesn't act until regulators force it to?
    - Duke can no longer rely on incremental changes to its business planning processes; it needs to take bold steps to achieve the climate goals it has set for itself.
  - Customer engagement:
    - What can Duke do to use behavioral economic methods to encourage certain customer behaviors that benefit the grid, ratepayers, and the environment (e.g., time of use energy pricing, more proactive energy efficiency programs, opting out of (rather than into) peak shaving programs, etc.)?

CERTIFICATE OF SERVICE

I certify that a copy of the Joint Report of Duke Energy Progress, LLC, Duke Energy Carolinas, LLC and the Public Staff on the ISOP Workshop, in Docket No. E-100, Sub 157, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to the following parties of record:

David Drooz  
Lucy Edmondson  
Tim Dodge  
Public Staff  
North Carolina Utilities Commission  
4326 Mail Service Center  
Raleigh, NC 27699-4326  
[david.drooz@psncuc.nc.gov](mailto:david.drooz@psncuc.nc.gov)  
[lucy.edmondson@psncuc.nc.gov](mailto:lucy.edmondson@psncuc.nc.gov)  
[tim.dodge@psncuc.nc.gov](mailto:tim.dodge@psncuc.nc.gov)

Andrea Kells  
McGuire Woods, LLP  
434 Fayetteville Street, Ste. 2600  
Raleigh, NC 27601  
[akells@mcguirewoods.com](mailto:akells@mcguirewoods.com)

Horace Payne  
Dominion North Carolina Power  
P.O. Box 26532  
Richmond, VA 23261  
[horace.p.payne@dom.com](mailto:horace.p.payne@dom.com)

Diane Huis  
NC Electric Membership Corp.  
3400 Sumner Blvd.  
Raleigh, NC 27616  
[diane.huis@ncemcs.com](mailto:diane.huis@ncemcs.com)

Peter H. Ledford  
Benjamin Smith  
NC Sustainable Energy Association  
4800 Six Forks Road, Ste. 300  
Raleigh, NC 27609  
[peter@energync.org](mailto:peter@energync.org)  
[ben@energync.org](mailto:ben@energync.org)

Christopher M. Carmody  
NC Clean Energy Business Alliance  
811 Ninth St., Ste. 120-158  
Durham, NC 27705  
[Director@nceeba.com](mailto:Director@nceeba.com)

Karen Kemerait  
Smith Moore Leatherwood LLP  
434 Fayetteville St. Ste. 2800  
Raleigh, NC 27601  
[karen.kemerait@smithmoorelaw.com](mailto:karen.kemerait@smithmoorelaw.com)

Michael D. Youth  
Richard Feathers  
NCEMC  
P.O. Box 27306  
Raleigh, NC 27611  
[michael.youth@ncemcs.com](mailto:michael.youth@ncemcs.com)  
[rick.feathers@ncemcs.com](mailto:rick.feathers@ncemcs.com)

Sharon Miller  
CUCA  
1708 Trawick Rd, Ste. 210  
Raleigh, NC 27604  
[smiller@cucainc.org](mailto:smiller@cucainc.org)

Erik Stuebe  
c/o Ecoplexus Inc.  
101 Second St., Ste. 1250  
San Francisco, CA 94105  
[interconnection@ecoplexus.com](mailto:interconnection@ecoplexus.com)

David Neal  
Gudrun Thompson  
SELCC  
601 W. Rosemary St., Ste. 220  
Chapel Hill, NC 27516  
[dneal@selcnc.org](mailto:dneal@selcnc.org)  
[gthompson@selcnc.org](mailto:gthompson@selcnc.org)

Dan Whittle  
EDF  
4000 Westchase Blvd., Ste. 510  
Raleigh, NC 27607  
[dwhittle@edf.org](mailto:dwhittle@edf.org)

Sam Warfield  
Broad River Energy, LLC  
3 Waterway Square Place, Ste. 475  
The Woodlands, TX 77380  
[swarfield@arroyoenergygroup.com](mailto:swarfield@arroyoenergygroup.com)

Paul Esformes  
Ecoplexus  
807 E. Main St., Ste. 6-050  
Durham, NC 27701  
[pesformes@ecoplexus.com](mailto:pesformes@ecoplexus.com)

Ralph McDonald  
Warren Hicks  
Bailey & Dixon, LLP  
Counsel for CIGFUR  
PO Box 1351  
Raleigh, NC 27602-1351  
[rmcdonald@bdixon.com](mailto:rmcdonald@bdixon.com)  
[whicks@bdixon.com](mailto:whicks@bdixon.com)

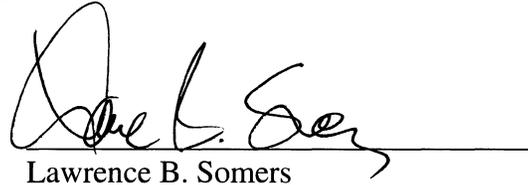
Matthew Quinn  
Lewis & Roberts  
3700 Glenwood Ave, Ste. 410  
Raleigh, NC 27612  
[mdq@lewis-roberts.com](mailto:mdq@lewis-roberts.com)

Margaret A. Force  
Jennifer T. Harrod  
Teresa Townsend  
NC Dept. of Justice  
114 W. Edenton St.  
Raleigh, NC 27603  
[pforce@ncdoj.gov](mailto:pforce@ncdoj.gov)  
[jharrod@ncdoj.gov](mailto:jharrod@ncdoj.gov)  
[ttownsend@ncdoj.gov](mailto:ttownsend@ncdoj.gov)

Robert Page  
Crisp, Page & Currin, LLP  
4010 Barrett Dr., Ste. 205  
Raleigh, NC 27609  
[rpage@crisppage.com](mailto:rpage@crisppage.com)

M. Gray Styers  
Fox Rothschild LLP  
434 Fayetteville St., Ste. 2800  
Raleigh, NC 27601  
[gstyers@foxrothschild.com](mailto:gstyers@foxrothschild.com)

This is the 21<sup>st</sup> day of January, 2020.

A handwritten signature in black ink, appearing to read "Lawrence B. Somers", is written over a horizontal line.

Lawrence B. Somers  
Deputy General Counsel  
Duke Energy Corporation  
P.O. Box 1551/NCRH 20  
Raleigh, North Carolina 27602  
Tel 919.546.6722  
[bo.somers@duke-energy.com](mailto:bo.somers@duke-energy.com)