

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-100, SUB 165

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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| In the Matter of | | |
| 2020 Biennial Integrated Resource Plans and |) | ORDER SCHEDULING |
| Related 2020 REPS Compliance Plans |) | TECHNICAL CONFERENCE |
| |) | AND REQUIRING FILING OF |
| |) | REPORT |

BY THE PRESIDING COMMISSIONER: Duke Energy Progress, LLC (DEP), Duke Energy Carolinas, LLC (DEC, and collectively with DEP sometimes the Duke Utilities), and Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina (DENC) each have filed 2020 biennial integrated resource plans (IRPs), and 2020 REPS Compliance Plans as required by N.C. Gen. Stat. § 62-110.1(c) and Commission Rule R8-60.

The Duke Utilities are engaged in an initiative to develop and implement what they have called the Integrated System and Operations Planning (ISOP) project. As was stated in the Companies' 2020 IRPs, advancements in planning tools through the ISOP initiative open new possibilities for analysis to help identify transmission and distribution infrastructure opportunities from a more holistic perspective. In their IRPs the Duke Utilities continue to view this effort as an important and necessary evolution in electric utility planning processes to address trends in technology development, declining cost projections for energy storage and renewable resources, and customer adoption of electric demand modifying resources, such as roof-top solar and electric vehicles. Further, their IRPs state that analysis of the distribution and transmission systems will need to account for increasing variability of generation and two-way power flows on the distribution system, which requires significant changes to modeling inputs and tools. The Duke Utilities state that they remain committed to the goal of implementing the basic elements of ISOP in their 2022 IRPs for the Carolinas.

The Duke Utilities have hosted four stakeholder engagement sessions since December 2019 with the goal of educating and soliciting feedback from interested parties on their ISOP initiative. These sessions focused on communicating the purpose and key elements of ISOP, discussing approaches to comparable efforts across the country, and gathering stakeholder perspectives on various attributes of the ISOP initiative. The sessions also served as platforms for interested parties to ask questions and provide input on activities related to ISOP. The Commission finds that the information the Duke Utilities have made available on the ISOP website is helpful to the Commission for understanding the planning and implementation of ISOP. However, the Commission concludes that it would also be helpful for the Commission to hear the

Duke Utilities summarize their ISOP work directly, with an opportunity for questions and for exploration of issues raised during the stakeholder sessions. Accordingly, as provided in this Order a technical conference will be scheduled to provide a forum for this discussion. The technical conference should build upon the initial ISOP presentations made to the Commission on August 28, 2019, and should focus primarily on execution of ISOP's processes and tools over the past twelve months, lessons learned over that time, and the development timeline going forward.

The Commission accepts the Duke Utilities' position stated in their IRPs that in order to develop pathways to meet clean energy objectives in the manner envisioned in their ISOPs it is critical to consider the mix of both centralized and distributed energy supply resources in use over the planning period, and to examine the interactions of different energy resources with the delivery systems to ensure that energy can be efficiently managed and delivered on the grid. The Commission understands that the Company is moving forward with deploying the EnCompass suite of resource planning models from Anchor Power Solutions to address these enhanced planning needs. It will be helpful at the technical conference for the Duke Utilities to describe the enhancements associated with the new planning models and how they enable the sharing of data and inputs between the IRP process and the utilities' existing distribution and transmission planning functions. In addition, an exploration of the Morecast tool, which will provide circuit-level forecasts for the Carolinas' distribution system should be included in this discussion.

The Duke Utilities state in their IRPs that the utilities are collaborating with the North Carolina Electric Membership Corporation (NCEMC) to exchange ideas related to ISOP in general and in particular, concerning ways to improve coordination between the NCEMC customers' distribution operator and the utilities' transmission operators. The parties have developed a plan for coordinated testing of the NCEMC wholesale customer's advanced demand response (DR) and distributed energy resources (DER) program for reliability coordination and local loading relief effects at the distribution and transmission levels. The parties have also agreed to continue this collaboration beyond these initial steps as the ISOP process evolves to ensure that planning and operations are aligned. The Duke Utilities intend to pursue additional ISOP-related interactions with other distribution operators within their respective balancing areas as future opportunities are identified through the normal course of outreach to these stakeholders.

The Commission recognizes the significant distribution systems operated and maintained by municipal and co-operative electricity suppliers in North Carolina in addition to those operated and maintained by the investor owned utilities. The Commission strongly supports collaboration between these several distribution and transmission operators in order to promote greater alignment of resources and distribution system planning across the entire grid network in North Carolina. At the technical conference it would be helpful for Duke to address more specifically the value to be derived from such collaboration, including work underway in collaboration with NCEMC. The Commission would also find it helpful to hear directly on this subject from

NCEMC and other distribution operators interested in participating in the technical conference.

The Duke Utilities also state in their IRPs that as part of broader industry engagements the ISOP and Advanced Distribution Planning (ADP) teams have participated in a multi-utility collaborative study led by the Smart Electric Power Alliance (SEPA) on Integrated Distribution Planning. The utilities note that the feedback they received in this forum, along with review of SEPA's draft publication, increased their confidence in their approach to ADP. The Commission understands that the SEPA Report entitled "Integrated Distribution Planning: A Framework for the Future" was completed in September 2020. The Commission is interested in reviewing the final report and requests that the Duke Utilities file that report in this docket. The Commission also concludes that it would be helpful at the technical conference for the Duke Utilities to summarize how their involvement with SEPA's multi-utility collaborative study has changed or affected their approaches to ADP.

In its 2020 IRP DENC also discusses the need for a modern distribution grid. The IRP states that over the next five years the Company will continue to assess its distribution system, adapt the distribution grid to meet the needs of a modernized system, and implement solutions and programs to meet the needs of its customers both today and in the future. Based on the IRP DENC proposes to continue to develop integrated distribution planning capabilities. The IRP includes an Integrated Distribution Planning White Paper (white paper) that provides a detailed overview of the Company's current distribution planning process, the limitations of the current process, and the integrated distribution planning (IDP) process that the Company plans to implement going forward. The DENC white paper addresses most of the same trends, issues, and opportunities as does the Duke ISOP initiative. The Commission finds the white paper informative but would also find it helpful at the technical conference for DENC to summarize the IDP process that the company plans to implement and be available for questions from the Commission and staff concerning the IDP effort. As discussed above relative to the Duke Utilities' ISOP initiative, the Commission is also interested in having the company speak to the value of and potential avenues for collaboration with respect to transmission and distribution planning with other distribution system operators who receive service from or otherwise rely on DENC's transmission system.

Finally, during 2019 and 2020 the Commission along with the Public Staff and State Energy Office participated in a joint NARUC-NASEO Task Force on Comprehensive Electricity Planning. The Task Force was a collaborative initiative of NARUC and NASEO to organize a professionally-facilitated workshop series over two years, providing a guided educational process for NARUC and NASEO members to develop new approaches that better align distribution system planning and resource planning processes. This Task Force recently completed its work, and Task Force outputs will be made available to the states in the first quarter of 2021. These will include a Blueprint for State Action, which will summarize the Task Force's work and offer practical ways to accelerate state actions in aligning electricity system planning approaches, building upon the experience of Task Force members. The Duke Utilities'

ISOP effort is fully aligned with the objectives of the Task Force, and presentations made by the Duke Utilities were useful to the work of the Task Force. The work of the Task Force and its findings and conclusions can provide a broader national context to assist the Commission in its review of the ISOP and IDP components of the Duke and DENC 2020 IRPs. To this end the Commission will invite two of the North Carolina members of Task Force, Chris Ayers, Executive Director of the Public Staff, and Sushma Masemore, Deputy Assistant Secretary for Environment & State Energy Director, to attend the technical conference and present concerning the work of the Task Force.

IT IS, THEREFORE, ORDERED as follows:

1. That a technical conference shall be held by the Commission on March 9, 2021, at 1:00 p.m., for the Commission to review and consider the following topics, sequenced accordingly for purposes of presentation: (1) the outputs of the NARUC/NASEO Task Force on Comprehensive Electricity Planning; (2) the progress and status of and the next steps in the Duke Utilities' ISOP initiative, including information on the participation of the Duke Utilities in the SEPA collaborative; (3) Dominion's integrated distribution planning process (IDP); and (4) the value of and opportunities for involving the owners of distribution systems who are wholesale customers of Duke or Dominion in the ISOP and/or IDP initiatives of these utilities.

2. That this technical conference shall be conducted remotely via Webex.

3. That on or before January 19, 2021, the Duke Utilities shall file a copy of the SEPA Report in this docket.

4. That as directed herein representatives of Duke, Dominion, the Public Staff, and State Energy Office shall be recognized and shall participate as presenters at the scheduled technical conference. NCEMC, Electricities, and other distribution system operators wishing to make presentations to the Commission at the technical conference shall file a motion for leave to do so no later than the close of business on January 22, 2021.

5. That on or before January 29, 2021, all persons planning to participate in the technical conference either as a presenter or joining on Webex as attendees shall provide the name, phone number, and email address of each person to be invited to the Webex conference. This information should be sent on the participant's or attendee's behalf directly to the Commission via email at ncucwebex@ncuc.net.

ISSUED BY ORDER OF THE COMMISSION.

This the 12th day of January 2021.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in black ink that reads "Kimberley A. Campbell". The signature is written in a cursive style with a large initial 'K' and a distinct 'A'.

Kimberley A. Campbell, Chief Clerk