Carolinas Transmission Planning Collaborative Oversight / Steering Committee (OSC) Meeting Highlights January 28, 2025 Webex / Teleconference Meeting 10:00 AM - 12:00 PM ET

Avni Patel, Chair

Bob Pierce

Duke Energy Carolinas

Matt Knudson

Duke Energy Carolinas

Duke Energy Carolinas

Duke Energy Progress

Bill Quaintance

Duke Energy Progress

John Lemire NCEC

Marty BerlandElectriCitiesMark OliverElectriCities

Chris Ware (Guest) CEPCI
Connor Hudson (Guest) CEPCI

Rich Wodyka Consultant Administrator

OSC Agenda

• Avni Patel opened the OSC Meeting with a safety message and highlighted the meeting agenda.

Eighth Participation Agreement Execution

• Avni Patel led the OSC discussion on the signing status of the Eighth Participation Agreement. NCEC and ElectriCities are still working to complete the signing process. Once the signing process is completed, CEPCI will officially become the fifth CTPC Participant effective January 1, 2025.

OSC approval of new OSC member

• The OSC review and approval of Chris Ware of CEPCI to join the OSC has been postponed until after the signing of the Eighth Participation Agreement Execution is completed.

OSC approval of new PWG member

- The OSC review and approval of Connor Hudson of CEPCI to join the PWG has been postponed until after the signing of the Eighth Participation Agreement Execution is completed.
- John Lemire reported that NCEC has made some staff adjustments which has resulted in having Trenton Ricklefs, Engineer II in Grid Infrastructure, taking over for Chris Walton as the NCEC representatives on the PWG. After review and discussion, the OSC approved the addition of Trenton Ricklefs to replace Chris Walton as the NCEC member on the PWG. The OSC thanked Chris for his involvement in the PWG and welcomed Trenton to the PWG.

OSC Meeting Minutes and Highlights

• The December 18, 2025 OSC Meeting Minutes and Highlights were reviewed and approved.

TAG Meeting Presentations

- Rich Wodyka reviewed the TAG agenda for the afternoon meeting starting at 1:30 pm. The TAG meeting agenda includes a report on the 2024 Reliability Study Results and Study Report, a report on the Multi Value Strategic Transmission (MVST) Planning Process activities and schedule, discussion on the 2025 Study Scope, an update on the Duke RZEP 2.0 project activities, an update on Regional Study Activities, and a TAG update on activities and upcoming schedule.
- Rich also identified the number of TAG stakeholders that have registered to participate in the afternoon meeting.

2024 CTPC Reliability Study Results and Study Report Presentation

- Sid DeSouza and Matt Knudson led the OSC review and discussion of the 2024 CTPC Reliability Study Results and the Study Report. Sid highlighted the basic elements of the 2024 study scope and provide an overview of the study process.
- Sid reported on the 2024 DEP Reliability Study results. The 2024 Transmission Plan includes 15 new DEP reliability projects. He then led the OSC review on the details of these projects. He reported that the cost estimate for the 15 new DEP projects is \$67M.
- Matt reported on the 2024 DEC Reliability Study results. The 2024 Transmission Plan includes 37 new DEC reliability projects. He then led the OSC review on the

- details of these projects. He reported that the cost estimate for the 37 new DEC projects is \$297.8M.
- Sid reported on the 2024 DEP Public Policy Study results. The 2024 Transmission Plan includes 3 new DEP reliability projects. He then led the OSC review on the details of these projects. He reported that the cost estimate for the 3 new DEP projects is \$256M.
- Matt reported on the 2024 DEC Public Policy Study results. The 2024 Transmission Plan includes 4 new DEP reliability projects. He then led the OSC review on the details of these projects. He reported that the cost estimate for the 4 new DEC projects is \$126M.
- Sid highlighted that the 2024 Plan includes 99 projects with an estimated cost of \$2.955B as compared to the original 2023 Plan that included 73 projects with an estimated cost of \$2.440B.
- Matt concluded with a review of the 2024 Local Economic Study results that identified 4 DEC projects to accommodate the eight different hypothetical transfers that were evaluated. The total cost of these 4 DEC projects was estimated to be \$152M but they are not included as additions to the 2024 Plan.

Multi Value Strategic Transmission (MVST) Planning Process Presentation

• Brant Werts led the OSC review and discussion on status of the MVST Planning Process activities presentation. He highlighted the final MVST Study Scope adjustments that were made since the last review with the TAG. He then highlighted various elements of the MVST models being developed. He concluded with a review of the upcoming MVST timeline of activities.

2025 Study Scope Discussion Presentation

- Bill Quaintance led the OSC review and discussion of the 2025 Study Scope presentation. Bill highlighted the basic elements of the 2024 Study and previewed the key elements of the proposed 2025 Base Reliability analysis parameters. He noted some of the previous hypothetical study scenarios that the CTPC has performed. He reviewed the elements of the 2024 Local Economic Study Requests and how the CTPC incorporated the 2024 Public Policy Study Requests into the MVDST Study Process.
- Bill noted that TAG input was requested on Local Economic and Public Policy scenarios on January 6th and the deadline to propose study scenarios was Friday -

January 24th. He reported that two Local Economic Study Requests and one Public Policy Study request have been suggested with additional details pending.

RZEP Project Status Update Presentation

• Sammy Roberts led the OSC review and discussion of the RZEP Project status presentation. Sammy reviewed the status of the RZEP 1.0 projects including the updated in-service dates and estimated costs. He noted the various studies that support the RZEP projects. He identified the new DEC / DEP RZEP 2.0 projects with the in-service dates and estimated costs. He highlighted the 2023 IRP orders from both the NCUC and SCPSC that supports the development of these RZEP projects.

Regional Studies Report Presentation

• Bob Pierce led the OSC review and discussion of the presentation on the various regional study activities.

SERC LTWG Update

- Bob reported that SERC LTWG is working on 2025 series of LTWG cases.

SERTP Update

- Bob reported that the SERTP 1st Quarter Meeting will be held on March 25th in Birmingham, AL.
- He also reported that the SERTP continues to work on FERC Order 1920 process to understand all the requirements of the order and to develop a compliance filing.

NERC Activities Update

- Bob reported on the ongoing Interregional Transfer Capability Study (ITCS) noting that industry comments are due by February 25th. NERC has initiated a pilot study for the 2025 Long Term Reliability Assessment that will have similarities to the ITCS and require support from the regions.
- Bob reported on FERC Order FERC Order 901 in which the Commission cited multiple NERC and Regional Entity resources on inverter-based resource issues, including reliability guidelines, white papers, reliability assessments, technical reports, event reports, NERC alerts, and other resources, as underscoring the need for mandatory Reliability Standards to address reliability concerns related to IBRs at "all stages of interconnection, planning, and operations."

- Bob highlighted the recent FERC Order 901 NERC Technical Workshop held in Phoenix, AZ on January 14-17. Industry discussions primarily revolved around the following:
 - 1. Establishing dynamic study modeling requirements, refining verification and validation processes (not meant to address EMT modeling).
 - 2. FERC directive to mandate "generic" model types for interconnection-wide studies is problematic.
 - 3. Challenges with verifying modeling data submitted by developers with current tools and requirements.
 - 4. NERC plans to standardize dynamic model types by creating an acceptable model library database.
 - 5. Need to prioritize model accuracy while balancing the need for standardization with accommodations for unique OEM designs.
 - 6. Need for iterative processes that engage GO/OEM to verify accuracy of models throughout the interconnection life-cycle and post-commissioning.
- Bob reported on the NERC Incident Review considering simultaneous voltagesensitive load reductions. He highlighted the actions that TOPs and Transmission Planners (TP) should start taking to avoid significant issues in the future:
 - Require dynamic response models of large loads in their facility interconnection requirements.
 - Perform studies to determine the potential magnitude of load loss for system disturbances (faults).
 - Study the impact that these large load losses would have on the system.
 - Take into consideration the potential for voltage-sensitive load loss when configuring automatic re-closing schemes.
 - Actively monitor to detect load losses coincident with system faults.
 - TOPs: Ensure that operating agreements with large loads include ramp rates when connecting/reconnecting large loads to the system.
- Bob noted the critical questions that NERC identified that must be resolved:
 - Should large loads be a NERC registered entity?
 - Should NERC Reliability Standard modifications be developed for large load interconnection requirements?
 - What studies should TOPs perform to "consider" the impacts of large load operation?
 - What is the definition of a large load?

TAG Activities Schedule Update Presentation

• Rich Wodyka led the OSC review and discussion of the presentation on the upcoming TAG activities schedule. He confirmed that the MVST Needs report and the MVST Benefits review would be included in the 1st Quarter TAG meeting that is now tentatively scheduled for March 20th. He then previewed the rest of the 2025 TAG activities indicating that the specific meeting dates are yet to be determined.

TAG Meeting Presentations Distribution and Posting

• After the review and discussion of the set of TAG presentations, the OSC instructed Rich Wodyka to update the presentations as discussed. Rich will then send out the final set of presentations prior to the TAG meeting to those who have registered for the meeting and also post them on the CTPC website under the TAG meeting materials for the January 28th TAG meeting after the meeting.

2024 CTPC Base Reliability Study Report

- Rich Wodyka reported on the status of the 2024 Study Report. He noted that the report development is progressing but there needs more reviews to address the comments that need to be resolved and the various highlighted values that need to be verified. Rich encouraged the OSC and PWG to continue their reviews.
- Rich proposed a review schedule to get the 2024 Study Report in Final Draft form. He proposed a goal to complete the Report development by the end of week February 7th so it can be reviewed and approved by the OSC then distributed to the TAG for their final review and comment. The OSC agreed with Rich's proposed goal to get the development of the Final Draft of the 2024 Study Report completed and approved by the OSC.
- Rich requested the OSC assign PR reps to work with him on the development of the Press Release for 2024 Study Report. The OSC agreed to assign PR reps to work with Rich and send him their names.

Attachment N-1 Update

• Bob Pierce reported that Duke is in the process evaluating the changes necessary to the Participation Agreement and the CTPC supporting documents that will be necessary to support the Duke Energy 1 Utility merger. Bob indicated that he expects to provide the OSC additional information in the March timeframe on what changes will be proposed.

Multi Value Strategic Transmission (MVST) Planning Process Study activities

Avni Patel inquired whether anyone has received any feedback on the response that
was provided to John Burns of CCEBA on the MVST ERIS Scenario. No one has
received any additional feedback from CCEBA.

RZEP Project Status

Avni Patel inquired whether anyone has received any feedback on the response that
was provided to the Public Staff letter on proposed RZEP 2.0 projects from Dustin
Metz. No one has received any additional feedback from the Public Staff.

CTPC Website Update

• Brant Werts reported on the progress being made on the <u>CarolinasTPC.org</u> website. He noted that a new update to the website is planned for the end of the month that should resolve a number of the issues that have been identified. This will include the ability for the TAG stakeholders to register on the website and have them register directly for future TAG meetings on the site as well. Brant indicated he is working on the documentation needed to provide to the TAG stakeholders on how to register on the website. He will alert the OSC and PWG member when this website update occurs.

Regional Updates

SERTP Update

• Report was covered under TAG presentation review and discussion.

SERC LTWG Update

• Report was covered under TAG presentation review and discussion.

EIPC Activities Update

No report.

NERC Activities Update

Report was covered under TAG presentation review and discussion.

PWG Minutes

No update.

Other Items

Project Updates

• No update.

2025 OSC and TAG Meeting Schedule

• The OSC reviewed the upcoming meeting dates and times for the February and March OSC and TAG meeting dates and times. After discussion, the OSC confirmed the following OSC and TAG meeting dates and times.

February 20, 2025	10:00 am - 12:00 pm	OSC Meeting Webex
March 20, 2025	OSC - 10:00 am - 12:00 pm TAG - 01:30 pm - 3:00 pm	OSC / TAG Meetings Webex