North Carolina Transmission Planning Collaborative Oversight / Steering Committee (OSC) Meeting Highlights December 12, 2019 ElectriCities Office 1427 Meadow Wood Boulevard Raleigh, NC 10:00 AM - 11:30 AM ET

Mark Byrd, Chairman

Duke Energy Progress
Bill Quaintance

Duke Energy Progress

Louis Fondacci NCEMC

Bob Pierce (on phone)
Orvane Piper
Duke Energy Carolinas
Duke Energy Carolinas

Marty BerlandElectriCitiesKevin JosupaitElectriCities

Rich Wodyka Consultant Administrator

Administrative

OSC Meeting Minutes and Highlights

- The October 15, 2019 OSC Meeting Minutes and Highlights were reviewed and approved.
- The November 19, 2019 OSC Meeting Minutes and Highlights were reviewed and approved.

Other Items

NCTPC Website

• Mark Byrd reported that he has contracted with GO DADDY to add additional storage to the NCTPC website server which he believes has resolved the issues we have had with the website. The additional cost was \$10/ month which increases the annual fee to \$600/year. Bob Pierce and Mark will confirm with Edgar Bell on how this fee is being paid and they will report back to the OSC.

• The OSC discussed the use of the of the NCTPC website. Rich Wodyka explained the background on the use of the restricted side of the website. After discussion, the OSC agreed to maintain the restricted side for the administration of the website.

TAG Meeting Presentations

Rich Wodyka led the OSC review and discussion of the proposed TAG
meeting draft presentations. Rich identified the stakeholders that have
registered to participate in the TAG meeting.

2019 Study Report Presentation

- Orvane Piper led the OSC review and discussion of the 2019 study report presentation. Orvane noted that the 2019 study analysis includes our standard reliability analysis for 2024 summer, 2024 2025 winter along with the 2029 summer. Orvane reported that Duke and Progress have completed the analysis for the various study scenarios related to the annual reliability study as well as the resource supply scenarios identified in the approved 2019 study scope of work.
- Orvane reviewed and highlighted the reliability study results. The results indicated that one new project will be included in the 2019 Collaborative Transmission Plan. This new project is an upgrade of the Cokesabury 100kV line with an estimated cost of \$20 Million.
- Orvane highlighted the 2019 preliminary study results that examined the impacts of 14 different hypothetical transfers into, out of and through the DEC and DEP systems. For the CPLE-DUK, PJM-DUK, PJM-DUK/CPLE, SOCO-CPLE, SOCO-DUK, and the TVA-DUK transfers, an upgrade of the Clark Hill 115 kV line would be required with an estimated cost of \$66 Million. For all the other transfers, there were no major issues identified that were not already previously identified for the base reliability studies.
- Orvane highlighted the local economic studies, cases that examined the impacts of 2 hypothetical generation sites in the DEC footprint. The first case was a hypothetical resource supply option scenario, using both a 2024 Summer and 2024/2025 Winter study cases, that evaluated a hypothetical 10 MW solar + 20 MWh / 10 MW battery storage system in Davidson County connected to DEC's 100 kV Buck to Beckerdite line. There were no additional projects identified beyond what was identified in base reliability results for 2024 Summer and 2024/2025 Winter. The only cost would be to interconnect the

facility via tap to 100 kV line with an estimated cost of \$3 Million. The second case was a resource supply option scenario, using a 2029 Summer study case, that evaluated a hypothetical 2,200 MW Combined Cycle 2x1 (H/J-class) resource supply option located in Davidson County connected to DEC's 230 kV Buck to Beckerdite line. There were numerous new and upgraded facilities required with an estimated cost of \$184 Million.

• Rich Wodyka noted that the TAG members will be requested to provide any feedback on the draft 2019 study report by January 6, 2019.

2020 Study Scope Discussion Presentation

- Mark Byrd led the OSC discussion on the scope of work for 2020. Mark noted that the 2020 study analysis would include our standard reliability analysis for 2025 summer, 2025 2026 winter along with the 2030 summer. Mark discussed past alternate study scenarios and OSC will request input from the TAG on any suggested study scenarios as well as input on Local Economic Study Requests and Public Policy Study requests.
- Mark noted that Rich Wodyka will be sending out the request for TAG input on the 2020 Study Scope along with the instructions and forms associated with Local Economic Study Requests and Public Policy Study requests in early January. TAG will be requested to submit their input on these items to Rich Wodyka by February 4, 2020.
- The OSC also discussed ideas for the 2020 scope of work. It was noted that offshore wind activities associated with PJM were recently announced and it may be time to revisit the previous NCTPC offshore wind analysis. Other ideas discussed were the previous load reduction analysis and the impact of renewable resources on the transmission system. The OSC will discuss the 2020 Study Scope item again at the January meeting.

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 the SERC LTWG has recently completed their work on 2019 steady state series MMWG models. They continue to work on dynamics models. • Bob reported that SERC 2024 summer study has been finalized and the results showed acceptable levels of transfer capability with no projects being required in DEC or DEP. The study report will be available in April 2020.

SERTP Activities

• Bob reported that the SERTP 4th Quarter Meeting was being held today, December 12th in Atlanta. He noted that the SERTP will be discussing the 2019 Economic Planning Studies results and the study assumptions to be used in next year's SERTP transmission plan.

NERC Activities

- Bob reported on the NERC draft guideline on fuel assurance and fuel-related reliability risk analysis for the bulk power system. The draft guideline is out for industry review and comment.
- Bob also discussed the current NERC activities associated with DER/IBR's and storage.

EIPC Activities

• Bob reported that the EIPC report for the 2028 Summer and Winter roll-up integration cases is now available for review online at https://eipconline.com.

TAG Work Plans Presentations

2019 TAG Work Plan

• Rich Wodyka reviewed his planned update of the TAG 2019 work plan. Today's TAG meeting will complete the activities associated with the 2019 TAG Work Plan.

2020 TAG Work Plan

• Rich Wodyka reviewed and discussed the proposed work plan for the 2020 TAG activities. He noted that the 2020 plan is essentially the same work plan that was utilized for the 2019 TAG activities.

Regional Studies Reports

SERTP Activities Update

• Bob Pierce reported on the SERTP activities as part of his TAG presentation review. No additional discussion.

PWG Items

SERC LTWG Update

Bob reported on the SERC LTWG activities as part of his TAG presentation review. No additional discussion.

CTCA Studies Update

• No report on CTCA studies.

EIPC Update

• Mark Byrd reported that the EIPC Transmission Analysis Working Group is working with the EIPC Production Cost TF on a high renewable analysis study using 2028 study cases to evaluate renewable supply options. Each region is currently determining the renewable scenario for their region to be included in the analysis.

NERC Activities Update

• Bob reported on the NERC activities as part of his TAG presentation review. No additional discussion.

PWG Minutes

• There were no comments or questions on the last PWG meeting minutes distributed by Lee Adams.

Future OSC Meeting Schedule

• The OSC discussed holding the March 23rd date for the next TAG meeting. After discussion, the OSC tentatively agreed the March 23rd date for both the OSC and TAG meetings. The format of the meetings will be determined later. The OSC also confirmed the date and times for the January and February OSC meetings listed below.

Date	Time	Location
January 16, 2020	10:00 am - 11:30 am	Conference Call
February 19, 2020	10:00 am - 11:30 am	Conference Call
March 23, 2020	OSC 10:00 am - 11:30 am TAG 1:30 pm - 3:00 pm	TBD Webinar or In-person