North Carolina Transmission Planning Collaborative Oversight / Steering Committee (OSC) Meeting Highlights March 22, 2021 Webex / Teleconference Meeting 10:00 AM - 11:40 AM ET

Mark Byrd, Chairman Bill Quaintance Lee Adams Bob Beadle James Manning Marty Berland Kevin Josupait Bob Pierce Orvane Piper Rich Wodyka Duke Energy Progress Duke Energy Progress Duke Energy Progress NCEMC NCEMC ElectriCities ElectriCities Duke Energy Carolinas Duke Energy Carolinas Consultant Administrator

Administrative

OSC Meeting Minutes and Highlights

• The February 17, 2021 OSC Meeting Minutes and Highlights were reviewed and approved.

March TAG Meeting Presentations

• Rich Wodyka reviewed the agenda for the afternoon TAG meeting. The agenda of the TAG meeting is a review and discussion the 2020 Wind Study results, a review of the 2021 Study activities including a discussion on the potential 2021 Scope of Work, a report on regional study activities, and an update on the annual TAG work plan. He also identified the TAG stakeholders that have registered to participate in the meeting.

2020 Wind Study Report Presentation

• Bill Quaintance provided an update on the study results for the 2020 SE Wind Coalition (SEWC) public policy request for an analysis of off-shore wind development and the impact on the NC transmission system. He reviewed and

highlighted the discussion that was held on March 15th with the SEWC representatives.

- Bill reviewed the TAG presentation on the wind study results. He highlighted the study assumptions and limitations. He described the screening process to identify 29 possible injection sites and the process he utilized to identify the 3 least cost injection points along the NC coast. Finally, he identified the 3 sites that were analyzed for higher injections and the total costs for the various MW break points for the 3 different injection sites.
- The OSC reviewed and discussed the wind study results and thanked Bill for his comprehensive analysis to meet the SEWC public policy 2020 study request. Once the study results are reviewed with the TAG in the afternoon meeting then the next step will be to produce a supplemental study report to be published and distributed to the TAG for their final review.

2021 Study Scope of Work Presentation

- Mark Byrd led the OSC discussion on the scope of work for 2021. He reviewed and highlighted the discussion that was held on March 8th with the Public Staff representatives that submitted the Public Policy study request for 2021.
- Mark reviewed the TAG presentation on the 2021 study activities and the study scope of work. He noted that the 2021 study analysis would include our standard reliability analysis for 2026 summer, 2026 2027 winter along with the 2031 winter.
- Mark also noted that this is the year when we traditionally perform the resource supply options hypothetical transfer scenarios. The OSC agreed that the NCTPC would do this transfer analysis with one modification in the previously performed transfer scenarios. The OSC agreed that this year the PJM SCEG (1000 MW) hypothetical transfer would be modified to a PJM DESC / SCPSA (500 MW / 500 MW) hypothetical transfer to accommodate a request by one of the TAG stakeholders.
- Mark reviewed the four elements of the proposed Public Policy request received from the NCUC staff. The NCUC request was for the NCTPC to evaluate:
 - 1) Transmission impacts with accelerated retirement of coal generation.
 - 2) Dominion Energy's recent state law and the increase of renewable generation,

- 3) Recent increase of solar merchant power plants located in North Carolina within Dominion's service territory (PJM), and
- 4) Wind generation.

Regarding the proposed analysis of the retirement of coal units in item #1, Mark noted the retirement of coal units in the future would be carefully planned to replace that amount of generation. Some of the previously determined coal retirements would be included in the 2031 base case and any reliability issues would be identified in that analysis. The challenge is that the specific location of the replacement generation is not know at this time.

Regarding the impact of Dominion Energy's potential increase in renewable generation in item #2, Mark noted the difficulty in realistically modeling the amount that the public staff proposal suggests since the current Dominion Energy MMWG models do not have specific locations for large amounts of renewables that may be connected in Dominion.

Regarding the proposed increase of solar merchant plants being located in Dominion's NC service territory in item #3, Mark note that there could be an issue with the amount of solar that the public staff proposes to analyze. Also he noted that the current Affected System Study process is the normal process under the OATT that is used to evaluate the impacts of neighboring systems in these types of situations. Mark also noted that Duke is formally processing these solar plant connections under its existing Affected System Study process currently being performed with Dominion Energy on this NC service territory.

Finally the additional wind generation analysis in item #4, Mark noted that the current 2020 off-shore wind study analysis should cover a portion of the public staff request. The other portion for analysis of on-shore wind from the mid-west could be added into the hypothetical transfer scenarios with a change to the resource transfer of TVA - DUK from 1000 MW to 2500 MW.

After review and discussion on the portion of Mark's TAG presentation on the Public Policy request, the OSC agreed that after the TAG meeting review and discussion the OSC will need to realistically determine what we will be able to study in 2021. DEC and DEP along with the PWG will continue to evaluate and discuss what can be studied to accommodate as much as possible what has been proposed by the NCUC staff. The OSC requested that the PWG at their April meeting to finalize a recommendation on the 2021 scope of work for OSC review and approval at the April OSC meeting. The OSC will then discuss the PWG recommendation on the 2021 Study Scope at the April OSC 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 LTWG has begun working on 2021 LTWG cases.
- He noted that DEC is assisting with hosting DBU under the new LTWG process.

SERTP Update

- Bob reported that the SERTP 1st Quarter Meeting was held virtually on March 18th.
- He noted that the SERTP 2021 Economic Planning Studies were determined at this meeting.
- He also reported that there was an Energy Storage training session held.

National EHV AC/DC Grid

- Bob reviewed and highlighted a report on the need for a National EHV transmission grid developed by the Energy Systems Integration Group (ESIG). The ESIG is a non-profit organization that supports grid transformation and energy system integration and operation. He noted the link on this report for those interested in reviewing it.

TAG Work Plans Presentation

2021 TAG Work Plan

• Rich Wodyka reviewed and discussed the proposed work plan for the 2021 TAG activities. He noted that the 2021 plan is essentially the same work plan that was utilized for the 2020 TAG activities.

Regional Updates

SERTP Activities

• SERTP activities were covered under the TAG presentations report.

PWG Items

SERC LTWG Update

• SERC LTWG activities were covered under the TAG presentations report.

EIPC Update

• No items to report.

NERC Activities Update

• No items to report.

PWG Minutes

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

Other Items

• No items to report.

Future OSC Meeting Schedule

• Mark Byrd will be sending out doodle polls for establishing the OSC schedule for April, May and June meetings. The June meeting date will also include a TAG meeting in the afternoon.

Date	Time	Location
April XX, 2021	TBD	TBD
May XX, 2021	TBD	TBD
June XX, 2021	TBD	TBD