North Carolina Transmission Planning Collaborative Oversight / Steering Committee (OSC) Meeting Highlights July 19, 2016 NCEMC Office 3400 Sumner Boulevard Raleigh, NC 10:00 AM - 11:30 PM ET

Edgar Bell, Chair Bob Pierce Orvane Piper Ejovi Ovhori Mark Byrd Marty Berland Luis Fondacci John Lemire James Manning Rich Wodyka Duke Energy Carolinas Duke Energy Carolinas Duke Energy Carolinas Duke Energy Carolinas Duke Energy Progress ElectriCities NCEMC NCEMC NCEMC Consultant Administrator

Administrative

- The June 14, 2016 OSC Meeting Minutes and Highlights were reviewed and approved.
- The OSC discussed the invitation from the NC Energy Policy Council for the NCTPC to provide an overview on our planning activities to this group on September 14th at their meeting in Raleigh. After discussion, the OSC agreed to support this request.

TAG Meeting Presentations

• Rich Wodyka led the OSC review and discussion of the proposed TAG meeting presentations for later in the afternoon.

2016 Study Activities Update

• Orvane Piper reported on the 2016 study process and current activities. Orvane highlighted the 2016 study scope and assumptions. The NERC planning standards were reviewed as the basis for the NCTPC screening process and performance requirements for transmission planning analysis.

• Orvane presented an overview of the preliminary study results for the 2016 base reliability analysis. He highlighted projects that meet the criteria for inclusion in the collaborative transmission plan versus those projects (minor transmission upgrades or ancillary equipment upgrades) that fall below the NCTPC threshold (\$10M) for inclusion as well as issues that are solved through operating guides. The full set of study results will be presented at he next TAG meeting in September.

NCTPC 2015 Collaborative Transmission Plan

• Mark Byrd reviewed the 2016 mid-year update to the 2015 Transmission Plan. He highlighted the following changes: one DEC project was completed in late 2015; four DEP project cost estimates increased and one decreased (net change of + \$3M); and the total reliability project cost estimates changed from \$156M to \$144M. In addition, Mark reported that two DEP projects will be added to the 2016 plan in response to OATT request to interconnect two combined cycle generating units at Asheville Plant. After review and discussion, the OSC directed Rich Wodyka to distribute and post the 2016 mid-year update report to the TAG after the meeting this afternoon.

Regional Studies Updates

SERC LTSG Update

• Bob Pierce reported that the SERC has completed their 2016 LTSG series cases. LTSG has begun building their 2016 series of MMWG cases and they have updated the 2015 series 2016 Winter MMWG models for the ERAG study including providing the supporting data for 2016 RAWG study.

EIPC Update

• Bob Pierce reported that the EIPC is building a library of industry studies for stakeholder education in lieu of an EIPC study this year.

SERTP

• Bob Pierce reported on the SERTP activities. The SERTP group 2nd Quarter Meeting was held on June 21st in Atlanta. The group reported that they have completed the development of 2016 series of models through 2026 Winter. They also provided their preliminary 2016 Transmission Expansion Plan for stakeholder review and comment.

PJM

- Bob Pierce reported on the PJM related activities. PJM and SERTP have begun inter-regional coordination required under Order 1000. They have begun coordination on issues such as model development, data and project information exchange planning cycles, interregional transmission projects.
- Bob reported that PJM has released their 2019/2020 BRA results. Duke has reviewed PJM's 2019 BRA results and does not see the need for additional analysis. The level of import is much lower for 2019 than in 2016, the year that PJM and the NCTPC jointly studied.
- Bob discussed the PJM RTEP process. He noted that the PJM RTEP allows for stakeholder proposals for correction of reliability projects. He highlighted the magnitude of the proposals received by PJM under this RTEP process.

NERC Update

- Bob Pierce reported that the DER integration is getting a lot of attention from FERC, NERC and the NATF to understand their operation and capabilities, as well as to determine how to properly assess their impact on grid reliability.
- Bob also reported that under the new NERC MOD standards the MMWG models and processes are being impacted by newly effective standards.

TAG 2016 Work Plan

• Rich Wodyka reviewed the updated work plan for the 2016 TAG activities. He highlighted the minor modifications to the plan from changes in the study schedule activities.

PWG Items and Regional Updates

• All PWG items and Regional Updates were covered by the OSC under the discussions of the TAG meeting presentations.

NCTPC/PJM/MISO Joint Transmission Study

• John Lemire led the OSC discussion on ATC issues related to the interface with PJM. NCEMC agreed to share the information and data that they collected with the other companies to illustrate their issues and concerns. The OSC directed the PWG to review this information and report back to the OSC on the NCEMC issues. Edgar Bell agreed to discuss the NCEMC issues with the Duke Energy Operations group and report back to the OSC on these discussions.

Future OSC Meeting Schedule

• The OSC reviewed and approved the meeting dates and times listed below. The OSC will determine whether the September 12 OSC/TAG meeting will be a face-to-face meeting or a webinar at the August 12th OSC meeting.

Date	Time	Location
August 12, 2016	10 am - 12 pm	Conference Call
September 12, 2016	10 am - 3 pm	OSC/TAG TBD
October 13, 2016	1 pm - 3 pm	Conference Call