North Carolina Transmission Planning Collaborative Oversight / Steering Committee (OSC) Meeting Highlights November 13, 2017 Teleconference Meeting 1:00 PM - 2:25 PM ET

John Lemire, Chairman Luis Fondacci James Manning Bob Pierce Orvane Piper Bill Quaintance Mark Byrd Jennifer Stenger Marty Berland Kevin Josupait Rich Wodyka NCEMC NCEMC NCEMC Duke Energy Carolinas Duke Energy Carolinas Duke Energy Progress Duke Energy Progress Duke Energy ElectriCities ElectriCities Consultant Administrator

Administrative

OSC Meeting Minutes and Highlights

• The October 17, 2017 OSC Meeting Minutes and Highlights were reviewed and approved as modified with the edits.

TAG Meeting Draft Agenda

• Rich Wodyka led the OSC review and discussion of the proposed December 13th TAG meeting draft agenda. The primary focus for this TAG meeting will be the presentation and review of the 2017 final study results. The agenda also includes a discussion of ideas and concepts for the 2018 study scope as well as updates on various regional study activities. The OSC approved the proposed TAG agenda and instructed Rich to distribute the agenda to the TAG stakeholders and post it in the NCTPC website.

Regional Updates

SERTP

• Bob Pierce reported on the SERTP activities. The 4th quarter meeting for the SERTP group is scheduled for December 12th. The primary purpose of this meeting will to discuss the 2017 SERTP Study Report and discuss ideas for 2018 studies.

PWG Items

PWG Minutes

• The OSC had no comments or questions regarding the last set of PWG minutes that were distributed to them for their information and review.

Update on 2017 Study Activities

- Rich Wodyka reviewed the timeline and activities for the development and review of the press release for the 2017 Study Report. He will work with the company representatives to develop the press release for OSC review and approval. He noted that Duke Energy was determining the person for this assignment. Once the Duke representative is selected, he will initiate the press release development activities as discussed.
- Orvane Piper led the OSC review and discussion of the draft of the 2017 Study Report. He discussed the study scenarios related to the annual reliability study as well as the resource supply scenarios identified in the approved 2017 study scope of work. He highlighted the additional projects that were included and the new project category definition of "Conceptual". He noted that the total project cost for the 2017 plan is still be developed and will be finalized prior to the OSC review and approval of the final report.
- John Lemire led the OSC discussion related to the alternative solutions that were evaluated as part of the analysis for the projects selected for inclusion the 2017 plan. After discussion, the OSC agreed that additional information on the alternative solutions being evaluated would be shared among the parties as part of the ongoing NCTPC study process.
- John Lemire led the OSC discussion related to the modeling of solar generation in the DEC and DEP models. After discussion, DEC and DEP

agreed to further clarify the modeling of solar generation in future NCTPC studies.

• Rich Wodyka discussed the schedule for review and approval of the 2017 Study Report. The OSC agreed to provide comments and edits on the draft report to Rich by December 1st.

SERC LTSG Update

• Orvane Piper reported that the SERC long term study group is finalizing their 2022 Summer Study Report. The report is expected to be released for review shortly. Orvane also reported that the group has approved the study scope for the renewables impact analysis for next year.

CTCA Studies Update

- Mark Byrd reported that the CTCA group met last week to discuss the study activities for next year. He reported that the group is still evaluating study options.
- Bob Pierce reported that a key item will be to continue coordination and exchange of information related to contingency impacts on the neighboring systems in future CTCA studies.

EIPC Update

- Orvane Piper reported that the EIPC is discussing a plan to replace ERAG as the entity to oversee the development of the MMWG models.
- Mark Byrd reported that the EIPC Planning Working Group has not been assigned any power flow study work this year. He noted that the production cost group is still evaluating the capabilities of the newly acquired production cost software but no production cost studies have been initiated so far. Mark also reported that EIPC is finalizing the scope of work for a frequency response study of the Eastern Interconnection to be performed next year.

NERC Update

• Bob Pierce reported that NERC TPL standard revisions were recently voted down. The primary concerns expressed by the members involved the single point of failure proposed changes involving stuck breakers. The group will revaluate the comments received to determine if compromise solution can be developed.

Challenges and Opportunities Discussion

Changing Mix of Generation

• There was no new information to discuss on the draft scope of work related to the changing mix of generation at this meeting. Discussion on this item will be continued at the next OSC meeting.

Challenge that the regulatory environment is expanding and becoming more prescriptive: new NERC standards to address system resiliency

- Based on the agreed upon rankings of the issues, the next issue for the OSC to discuss was the challenges related to process flow and the need for transparency versus rapid change. Specifically, new process requirements and rapid changes to drivers of the plan have created a tension between the need for public participation and transparency versus the need to respond quickly.
- The OSC discussed this issue. One of the key items discussed was the comparison of regional planning requirements versus local planning requirements. As a result of the discussion, the OSC agreed that it needs to continue to be aware of this tension between process requirements and rapid changes with the need for public participation and transparency. No further action on this item is required at this time.
- The OSC agreed to continue the discussion of challenges and opportunities at the next meeting. The next item to review and discuss at next months OSC meeting is the challenges related to the regulatory environment expanding and becoming more prescriptive. Specifically, new FERC process requirements for regional and inter-regional planning.

Other Business

2018 Study Scope

• Rich Wodyka led the OSC discussion on various ideas and concepts for the 2018 study scope. The OSC agreed that each company will discuss ideas for studies and send out any suggestions to the group prior to the next OSC meeting. The OSC will continue to discuss the 2018 study scope ideas at the next OSC meeting.

Future OSC Meeting Schedule

• The OSC reviewed and approved the meeting date and time listed below. The OSC confirmed that the December 13th OSC / TAG meetings will be held at the NCEMC office.

Date	Time	Location
December 13, 2017	OSC 10 am - noon TAG 1:00 pm - 3:00 pm	NCEMC Office
January 16, 2018	10:00 am - 12:00 pm	Teleconference
February 20, 2018	1:30 pm - 3:30 pm	Teleconference