

# TAG Meeting March 23, 2020

## Webinar

## **TAG Meeting Agenda**

- 1. Administrative Items Rich Wodyka
- 2. 2020 Study Activities and Study Scope – Mark Byrd
- 3. Regional Studies Update Bob Pierce
- 4. 2020 TAG Work Plan Rich Wodyka
- 5. TAG Open Forum Rich Wodyka



# 2020 Study Activities and Study Scope

## Mark Byrd Duke Energy Progress



# **Studies for 2020**

- Annual Reliability Study
  - Assess DEC and DEP transmission systems' reliability and develop a single Collaborative Transmission Plan
- Local Economic Studies / Public Planning Studies
  - Assess rapid high load growth scenario for the Union
    / Cabarrus County load area.
  - Assess off-shore wind development and the impact on the NC transmission system.



# Rapid high load growth scenario for the Union / Cabarrus County load area

#### Scope is still being refined but current proposal is:

- The eastern side of the greater Charlotte area is experiencing rapid growth (Union, Cabarrus Counties)
- Study request to look at the effect of a high load growth case (5-6% growth) on the transmission system in the 2025 and 2030 summer models (winter peaks are much lower due to natural gas in the area)
- Renewable generation in the models will include sites already interconnected with the DEC system and exclude sites without an executed Interconnection Agreement in DEC



## SE Wind Coalition Public Policy Request for NC Offshore Wind Study

Scope is still being refined but current proposal is:

- Analyze the potential for 2,400 MW of wind generation injecting into Dominion's Landstown 230 kV area to be wheeled into DEC/DEP
- Separately, determine 3 least cost injection points somewhere along the NC coast
- Also, determine the transmission cost breakpoints for varying amounts of generation injection at those sites up to 5000 MW

# **Study Process Steps**

**1. Assumptions Selected** 

Completed

- 2. Study Criteria Established
- 3. Study Methodologies Selected
- 4. Models and Cases Developed
- 5. Technical Analysis Performed
- 6. Problems Identified and Solutions Developed
- 7. Collaborative Plan Projects Selected
- 8. Study Report Prepared

# **Study Assumptions Selected**

- > Study Year's for reliability analyses:
  - Near-term: 2025 Summer, 2025/2026 Winter
  - Longer-term: 2030 Summer
- > LSEs provided:
  - Input for load forecasts and resource supply assumptions
  - Dispatch order for their resources
- Adjustments may be made based on additional coordination with neighboring transmission systems



# **Study Criteria Established**

- NERC Reliability Standards
  - Current standards for base study screening
  - Current SERC Requirements
- Individual company criteria



# **Study Methodologies Selected**

- > Thermal Power Flow Analysis
- Each system (DEC and DEP) will be tested for impact of other system's contingencies



## **Models and Cases Developed**

- Start with 2019 series MMWG cases
- Latest updates to detailed models for DEC and DEP systems will be included
- Planned transmission additions from updated
  2019 Plan will be included in models

# **Technical Analysis**

Conduct thermal screenings of the cases



# Problems Identified and Solutions Developed

- Identify limitations and develop potential alternative solutions for further testing and evaluation
- Estimate project costs and schedule



## **Collaborative Plan Projects Selected**

#### Compare all alternatives and select preferred solutions

## **Study Report Prepared**

Prepare draft report and distribute to TAG for review and comment





# **Regional Studies Reports**

## Bob Pierce Duke Energy Carolinas



# SERC Long Term Working Group Update



# SERC Long Term Working Group

➤ Have begun work on 2020 series of LTWG cases

NERC has decided to retain control of the MMWG model building effort. Proposal had been to turn over to the EIPC.



#### SERTP





- 1st Quarter Meeting will be held on March 25<sup>th</sup> in Birmingham, AL
- Determine Economic Planning Studies to be performed for 2020
- Training session on Inverter Based Generation by Bill Quaintance 19



## http://www.southeasternrtp.com/



## **FERC/NERC Update**



## **TPL-001-5**

FERC approved effective 4/13/20

#### > Addresses:

- The study of single points of failure of protection systems; and
- Planned maintenance outages and stability analysis for spare equipment strategies.



## **TPL-001-5**

- For more common scenarios (*i.e.*, planning events), develop a corrective action plan if it determines through studies that its system would experience performance issues.
- For less common scenarios that could result in potentially severe impacts such as cascading (*i.e.*, extreme events), conduct a comprehensive analysis to understand both the potential impacts on its system and the types of actions that could reduce or mitigate those impacts.



## **TPL-001-5**

In the NOPR, the Commission proposed to direct NERC to modify the standard to require corrective action plans for protection system single points of failure in combination with a three-phase fault if planning studies indicate potential cascading. Based on industry comment, FERC decided not to adopt the proposed directive.





# 2020 TAG Work Plan

Rich Wodyka Administrator



#### **2020 NCTPC Overview Schedule**

#### **Reliability Planning Process**



- > Evaluate current reliability problems and transmission upgrade plans
  - > Perform analysis, identify problems, and develop solutions
    - Review Reliability Study Results

#### Local Economic Planning Process

- Propose and select Local Economic Studies and Public Policy Study scenarios
  - Perform analysis, identify problems, and develop solutions
    - Review Local Economic Study and Public Policy Results



#### January - February – March

- > 2020 Study Finalize Study Scope of Work
  - Receive request from OSC to provide input on proposed Local Economic Study scenarios and interfaces for study
    - TAG provide input to the OSC on proposed Local Economic Study scenarios and interfaces for study No TAG requests received
  - Receive request from OSC to provide input in identifying any public policies that are driving the need for local transmission
    - TAG provide input to the OSC in identifying any public policies that are driving the need for local transmission for study - Request from Southeastern Wind Coalition received

#### Receive final 2020 Reliability Study Scope for comment

TAG review and provide comments to the OSC on the final 2020 Study Scope

#### January - February – March

#### <u>First Quarter TAG Meeting – March 23rd</u>

#### > 2020 Study Update

- Receive a report on the Local Economic Study scope and any Public Policy scenarios that are driving the need for local transmission for study
- ✓ Receive a progress report on the Reliability Planning study activities and the final draft of the 2020 Study Scope

#### April - May – June

<u>Second Quarter TAG Meeting – TBD</u>

- > 2020 Study Update
  - Receive a progress report on study activities
  - Receive update status of the upgrades in the 2019 Collaborative Plan

#### July - August – September

#### <u> Third Quarter TAG Meeting – TBD</u>

#### > 2020 Study Update

- Receive a progress report on the study activities and preliminary results
- TAG is requested to provide feedback to the OSC on the technical analysis performed, the problems identified as well as proposing alternative solutions to the problems identified

#### **October - November - December**

#### Fourth Quarter TAG Meeting – TBD

- > 2020 Selection of Solutions
  - TAG will receive feedback from the OSC on any alternative solutions that were proposed by TAG members
- > 2020 Study Update
  - Receive and discuss final draft of the 2020 Collaborative
    Transmission Plan Report
  - Discuss potential study scope for 2021 studies





# TAG Open Forum Discussion

# Comments or Questions ?