TAG Meeting
June 21, 2023

Webinar
TAG Meeting Agenda

1. Administrative Items – Rich Wodyka
2. 2023 Study Activities and Study Scope Update – Orvane Piper
3. NCTPC 2022 Collaborative Transmission Plan Mid-year Update – Bill Quaintance
4. Duke Energy Red-Zone Transmission Expansion Plan Projects (RZEP 2.0) – Sammy Roberts
5. Transmission Planning Process Attachment N-1 Report – Sammy Roberts
6. Regional Studies Update – Bob Pierce
8. TAG Open Forum – Rich Wodyka
2023 Study Activities and Study Scope

Orvane Piper – Duke Energy Carolinas
Studies for 2023

- **Reliability Study**
  - Assess DEC and DEP transmission systems' reliability, and develop a single Collaborative Transmission Plan

- **Public Policy Study**
  - 2 Public Policy requests received
    - Summarized on later slides
    - Study will combine aspects of both requests
Reliability Study Scope

Base Reliability

- Peak load
  - Summer (2028, 2033)
  - Winter (2028/29, 2033/34)
  - “All Firm Transmission” cases, which consider all confirmed long-term firm transmission reservations with rollover rights applicable to the study years
- Does not include generation without an executed Interconnection Agreement
- Generation economically dispatched
- Generation down cases created from common Base Cases
Public Policy Study

NC Public Staff Request

- Focused on Carbon Plan and additional 230 kV and/or 500 kV transmission that may be needed long-term
- Retirement of coal generation and integration of new resources
  - Solar (and Solar + Storage)
    - Procurement-based
  - Standalone Storage
  - Onshore and Offshore Wind
  - Combined Cycle, Combustion Turbines
- Perform comparable to Generator Interconnection study
Clean Energy Stakeholders Request

- Focused on Carbon Plan and additional transmission needed to meet 2030 targets
  - Start with Carbon Plan Near-Term Execution Plan
- 2 potential volumes of additional solar
  - 9.3 GW
  - 12.5 GW
- 3 potential distributions (for location) of additional solar
  - Queue-based
  - Zone-based
  - Procurement-based
Public Policy Study

➢ 2023 Public Policy Study
  – 2033 Summer Peak, 2033/34 Winter Peak
  – Modified version of Portfolio P1
    – Retirement of fossil generation
      – DEC: Allen 1-5, Cliffside 5, Lee 3, Marshall 1-4
      – DEP: Roxboro 1-4, Mayo 1, Weatherspoon CTs, Blewett CTs
Public Policy Study

2023 Public Policy Study (continued)

- Modified version of Portfolio P1 (continued)
  - Incremental 12.5 GW of solar and solar + storage
    - 70% DEP, 30% DEC
    - Locations based on historical Generator Interconnection Requests
    - 9.3 GW scenario will be evaluated after 12.5 GW scenario
  - Onshore wind
  - Offshore wind (DEP)
    - New Bern
2023 Public Policy Study (continued)

- Modified version of Portfolio P1 (continued)
  - SMR (DEC)
    - Marshall
  - CC and CT
    - DEC: Marshall
    - DEP: Roxboro
  - Additional CTs, as needed, at existing generating facilities
Public Policy Study

- 2023 Public Policy Study (continued)
  - Modified version of Portfolio P1 (continued)
    - Pumped Storage Hydro (DEC)
      - Bad Creek
    - Standalone Batteries
    - Batteries Paired With Solar
1. Assumptions Selected
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
Assumptions Selected

- Study Years for reliability analyses, select from:
  - Near-term: 2028 Summer, 2028/29 Winter
  - Long-term: 2033 Summer, 2033/34 Winter

- 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 2022 series of MMWG cases
- Latest updates to detailed models for DEC and DEP systems will be included
- Planned transmission additions from updated 2022 Plan will be included in relevant models

Technical Analysis Performed

- 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
Questions?
NCTPC 2022 Collaborative Transmission Plan Update

Bill Quaintance
Duke Energy Progress
Reliability Projects:

- 5 project cost estimates went up, and 12 went down, by at least $1M
- 3 projects were accelerated, and 7 were delayed
- Total Reliability Project Cost estimate dropped from $936M to $897M
## Reliability Projects in 2022 Plan

<table>
<thead>
<tr>
<th>Reliability Project</th>
<th>TO</th>
<th>Planned I/S Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windmere 100 kV Line (Dan River-Sadler), Construct</td>
<td>DEC</td>
<td>Accelerated 6/1/2023</td>
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<tr>
<td>Wilkes 230/100 kV Tie Station, Construct</td>
<td>DEC</td>
<td>Accelerated 6/1/2024</td>
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<tr>
<td>Wateree 100 kV Line (Great Falls-Wateree), Upgrade</td>
<td>DEC</td>
<td>Delayed 6/1/2024</td>
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<tr>
<td>Silas 100 kV Line (Mocksville-Idols Tap), Upgrade</td>
<td>DEC</td>
<td>6/1/2025</td>
</tr>
<tr>
<td>Cokesbury 100 kV Line (Coronaca–Hodges), Upgrade</td>
<td>DEC</td>
<td>Delayed 12/1/2025</td>
</tr>
</tbody>
</table>

Changes from 2022 Plan are shown in Red
# Reliability Projects in 2022 Plan

<table>
<thead>
<tr>
<th>Reliability Project</th>
<th>TO</th>
<th>Planned I/S Date</th>
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</thead>
<tbody>
<tr>
<td>South Point 100 kV Switching Station, Construct</td>
<td>DEC</td>
<td>12/1/2025</td>
</tr>
<tr>
<td>North Greenville 230 kV Tie Station, Upgrade</td>
<td>DEC</td>
<td>Accelerated 12/1/2025</td>
</tr>
<tr>
<td>Coronaca 100 kV Line (Coronaca-Creto), Upgrade and Construct</td>
<td>DEC</td>
<td>Delayed 12/1/2026</td>
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<tr>
<td>Wylie 100 kV Line (Wylie-Arrowood Retail), Upgrade</td>
<td>DEC</td>
<td>12/1/2026</td>
</tr>
<tr>
<td>Monroe 100 kV Line (Lancaster-Monroe), Upgrade</td>
<td>DEC</td>
<td>12/1/2027</td>
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Changes from 2022 Plan are shown in Red
## Reliability Projects in 2022 Plan

<table>
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<th>Planned I/S Date</th>
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<td>Sandy Ridge 230 kV Line (Newport-Morning Star), Upgrade</td>
<td>DEC</td>
<td>Delayed 12/1/2029</td>
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<tr>
<td>Davidson River 100 kV Line (North Greenville-Marietta), Upgrade</td>
<td>DEC</td>
<td>12/1/2030 (was TBD)</td>
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<td>Morning Star 230 kV Tie Station, Upgrade</td>
<td>DEC</td>
<td>Delayed 12/1/2032</td>
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<tr>
<td>Westport 230 kV Line (McGuire-Marshall), Upgrade</td>
<td>DEC</td>
<td>TBD</td>
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<tr>
<td>Harley 100 kV Line (Tiger-Campobello), Upgrade</td>
<td>DEC</td>
<td>TBD</td>
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<tr>
<td>Skybrook 100 kV Line (Winecoff-Eastfield Retail), Upgrade</td>
<td>DEC</td>
<td>TBD</td>
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# Reliability Projects in 2022 Plan

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<th>Reliability Project</th>
<th>TO</th>
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<tbody>
<tr>
<td>Asheboro–Asheboro East 115 kV North Line, Reconductor</td>
<td>DEP</td>
<td>12/1/2022</td>
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<td>Wateree Hydro Plant, Upgrade</td>
<td>DEP</td>
<td>Delayed 12/1/2023</td>
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<tr>
<td>Craggy–Enka 230 kV Line, Construct</td>
<td>DEP</td>
<td>12/1/2024</td>
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<tr>
<td>Castle Hayne–Folkstone 115 kV Line, Rebuild</td>
<td>DEP</td>
<td>12/1/2025</td>
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<tr>
<td>Carthage 230/115 kV Substation, Construct</td>
<td>DEP</td>
<td>Delayed 6/1/2026</td>
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Changes from 2022 Plan are shown in Red
Reliability Projects in 2022 Plan

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<th>Reliability Project</th>
<th>TO</th>
<th>Planned I/S Date</th>
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<tbody>
<tr>
<td>Holly Ridge North 115 kV Switching Station, Construct</td>
<td>DEP</td>
<td>12/1/2026</td>
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<tr>
<td>Durham–RTP 230 kV Line, Reconducter</td>
<td>DEP</td>
<td>TBD</td>
</tr>
<tr>
<td>Falls 230 kV Sub, Construct SVC</td>
<td>DEP</td>
<td>TBD</td>
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</tbody>
</table>

Changes from 2022 Plan are shown in Red
2023 Mid-Year Update to the 2022 Collaborative Transmission Plan

Public Policy Projects:

- 9 project cost estimates went up, and 5 went down
- 3 projects were accelerated (none were delayed)
- 1 project was added
- Total Public Policy Project Cost estimates increased from $554M to $576M
### Public Policy Projects in 2022 Plan

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<tr>
<th>Reliability Project</th>
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<td>Newberry 115 kV Line (Bush River-DESC), Upgrade</td>
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<tr>
<td>Lee 100 kV Line (Lee-Shady Grove), Upgrade</td>
<td>DEC</td>
<td>Accelerated 12/1/2025</td>
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<tr>
<td>Piedmont 100 kV Line (Lee-Shady Grove), Upgrade</td>
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<td>12/1/2026</td>
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<tr>
<td>Clinton 100 kV Line (Bush River-Laurens), Upgrade</td>
<td>DEC</td>
<td>12/1/2026</td>
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Changes from 2022 Plan are shown in Red
## Public Policy Projects in 2022 Plan

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<th>Reliability Project</th>
<th>TO</th>
<th>Planned I/S Date</th>
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<tr>
<td>Fayetteville–Fayetteville Dupont 115 kV Line, Rebuild 3.2-mile section</td>
<td>DEP</td>
<td>12/1/2024</td>
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<tr>
<td>Erwin – Fayetteville 115 kV Line, Rebuild</td>
<td>DEP</td>
<td>6/1/2025</td>
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<tr>
<td>Weatherspoon-Marion 115 kV Line, Rebuild</td>
<td>DEP</td>
<td>12/1/2025</td>
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<tr>
<td>Cape Fear – West End 230 kV Line, Rebuild</td>
<td>DEP</td>
<td>6/1/2026</td>
</tr>
<tr>
<td>Erwin – Fayetteville East 230 kV Line, Rebuild</td>
<td>DEP</td>
<td>6/1/2026</td>
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Changes from 2022 Plan are shown in Red
### Public Policy Projects in 2022 Plan

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<th>Planned I/S Date</th>
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<tr>
<td>Milburnie 230 kV Substation, Upgrade</td>
<td>DEP</td>
<td>6/1/2026</td>
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<tr>
<td>Robinson Plant-Rockingham 230 kV Line, Rebuild</td>
<td>DEP</td>
<td>6/1/2026</td>
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<tr>
<td>Fayetteville-Fayetteville Dupont 115 kV Line, Rebuild 4.9-mile section</td>
<td>DEP</td>
<td>6/1/2026</td>
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<td>Camden Junction-Wateree 115 kV Line, Rebuild</td>
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<td>12/1/2026</td>
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<td>Camden - Camden Dupont 115kV Line, Rebuild</td>
<td>DEP</td>
<td>New 12/1/2026</td>
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<tr>
<td>Robinson Plant-Rockingham 115 kV Line, Rebuild</td>
<td>DEP</td>
<td>Accelerated 6/1/2027</td>
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Changes from 2022 Plan are shown in Red
Proposed Updates to the Collaborative Plan at Mid-Year

- One (1) new Red Zone Transmission Expansion Plan project is proposed to be added to the Collaborative Plan at mid-year.

- The justification for this project is based on the need to reduce transmission system constraints impacting Duke Energy’s ability to connect renewable generation, ensure system reliability, and achieve public policy.

- This project has been identified as constraints in prior generation interconnection studies.
From Transmission Panel Rebuttal Testimony, p 11,12: While Duke Energy agrees that Project #14—the Camden–Camden Dupont 115 kV line upgrade—may be able to be postponed at this time, Duke Energy will pay close attention to this upgrade being needed in the near-term if identified in the 2022 DISIS Phase 1 Study.

The Companies acknowledge that Project #14, the Camden-Camden Dupont 115 kV line upgrade, may be able to be postponed at this time, but nevertheless continue to believe that this project will be necessary for timely execution of the Carbon Plan.

1727 MW of solar facilities in the 2022 DISIS Phase 1 Study impacted the Camden-Camden Dupont 115 kV line loading

CBA for this line determined to be 10.5

<table>
<thead>
<tr>
<th>ID</th>
<th>MW Output (MW)</th>
<th>DFAX (%)</th>
<th>Loading Impact (%)</th>
<th>MW Impact (MW)</th>
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<td>570382</td>
<td>75</td>
<td>3.747</td>
<td>2.625</td>
<td>2.810</td>
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**Total MW Impact:** 47.372
**Additional Red Zone Upgrade**

Reconductor Camden – Camden Dupont 115 kV line
- 0.73 miles
- Includes end station equipment upgrades
- Enables addition of renewable resources
Duke Energy Red-Zone Transmission Expansion Plan Projects (RZEP 2.0)

Sammy Roberts
Duke Energy Progress
## DEC RZEP 2.0 Proposed Projects

<table>
<thead>
<tr>
<th>Transmission Line/Transformer</th>
<th>Segment (Upgrade Identified in 2022 DISIS Phase 1 Study)</th>
<th>Present Rating (MVA)</th>
<th>Loading (%)</th>
<th>Length (mi)</th>
<th>Upgrade Details</th>
<th>Estimated Cost ($M)</th>
<th>Estimated Lead Time (months)</th>
<th>Future Rating (MVA)</th>
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</thead>
<tbody>
<tr>
<td>Broadway B/W 100 kV</td>
<td>Belton Tie-WS Lee Combined Cycle</td>
<td>132</td>
<td>107.12</td>
<td>6.41</td>
<td>Reconductor to 1272 ACSR</td>
<td>24.662</td>
<td>42</td>
<td>282</td>
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<tr>
<td>Bush River 115/100 kV</td>
<td>N/A</td>
<td>50</td>
<td>107.55</td>
<td>N/A</td>
<td>Replace Banks 7 &amp; 8</td>
<td>5.321</td>
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<td>168</td>
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<td>Champion B/W 100 kV</td>
<td>Bush River- ID569756</td>
<td>135</td>
<td>146.53</td>
<td>1.08</td>
<td>Reconductor to 1272 ACSR</td>
<td>4.193</td>
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<td>Champion B/W 100 kV</td>
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<td>135</td>
<td>138.95</td>
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<td>Reconductor to 1272 ACSR</td>
<td>5.863</td>
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<td>Champion B/W 100 kV</td>
<td>ID569164-Customer Delivery</td>
<td>135</td>
<td>113.68</td>
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<td>Reconductor to 1272 ACSR</td>
<td>14.405</td>
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<td>Champion B/W 100 kV</td>
<td>Customer Delivery- Newberry PV</td>
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<td>96.17</td>
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<td>Reconductor to 1272 ACSR</td>
<td>7.106</td>
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Total RZEP 2.0 Cost:  61.550
## DEP RZEP 2.0 Proposed Projects

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<thead>
<tr>
<th>Transmission Line/Transformer</th>
<th>Present Rating (MVA)</th>
<th>Loading (%)</th>
<th>Length (mi)</th>
<th>Upgrade Summary</th>
<th>Estimated Cost ($M)</th>
<th>Estimated Lead Time (months)</th>
<th>Future Rating (MVA)</th>
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</thead>
<tbody>
<tr>
<td>Clayton Industrial - Selma 115 kV (Clayton Industrial - Smithfield)</td>
<td>201</td>
<td>104.6</td>
<td>6.02</td>
<td>Reconductor with 1590 ACSR or equivalent</td>
<td>17.804</td>
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<td>310</td>
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<td>Clayton Industrial - Selma 115 kV (Smithfield - Selma)</td>
<td>201</td>
<td>107.5</td>
<td>3.36</td>
<td>Reconductor with 1590 ACSR or equivalent</td>
<td>9.937</td>
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<td>310</td>
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<td>Lilesville - Oakboro 230 kV Black (Lilesville - Wadesboro Tap)</td>
<td>397</td>
<td>134.5</td>
<td>8.97</td>
<td>Reconductor with 6-1590 ACSR</td>
<td>16.381</td>
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<td>1195</td>
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<td>Lilesville - Oakboro 230 kV Black (Wadesboro Tap - Ansonville)</td>
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<td>134.5</td>
<td>7.38</td>
<td>Reconductor with 6-1590 ACSR</td>
<td>13.478</td>
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<td>Lilesville - Oakboro 230 kV Black (Ansonville - Oakboro)</td>
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<td>132.7</td>
<td>13.48</td>
<td>Reconductor with 6-1590 ACSR, 5.13 miles in DEC</td>
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<td>125.6</td>
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<td>Reconductor with 6-1590 ACSR</td>
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<td>122.6</td>
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<td>Reconductor with 6-1590 ACSR</td>
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Total RZEP 2.0 Cost: 136.695
Questions?
Transmission Planning Process
Attachment N-1 Report

Sammy Roberts
Duke Energy Progress
NCTPC Planning Study Process Changes

Track with FERC NOPR and Other Regions’ Local Transmission Planning Processes to enable least cost planning for resources and load

Proposed NCTPC Transmission Planning Process Changes

- Adopt attributes from FERC NOPR on Regional Transmission Planning Processes
  - Transparency and Coordination
  - Strategic Transmission Planning

- Suggest that a TAG Participant can submit NCTPC form with supplemental information as required to SERTP if PWG determines a regional study is needed

- Change name to Carolinas Planning Collaborative (CPC) and continue invitation for other wholesale LSEs within the DEC and DEP transmission system footprints with local transmission plan approval authority
Proposed NCTPC Transmission Planning Process Changes

Transparency and Coordination with the Local Transmission Planning Process

TAG Stakeholder Meetings

- **Assumptions Meeting** – NCTPC to review the criteria, assumptions, and methodology the PWG intends to use to identify needs and transmission solutions to include in the Local Transmission Plan.

- **Needs Meeting** – NCTPC will review the identified system needs and the drivers of those needs, based on the application of its criteria, assumptions, and methodology in the Study Scope Document.
  
  - Models and sufficient information will be made available, subject to CEII and confidentiality restrictions, to enable TAG participants to replicate the results of planning studies reviewed at the Needs Meeting.

- **Solutions Meeting** - NCTPC will review potential solutions and any alternatives considered as studied and identified by the PWG.
Proposed NCTPC Transmission Planning Process Changes

Four pathways with the Local Transmission Planning process...

1) Local Projects that are necessary to preserve reliability and comply with applicable reliability standards ("Local Reliability Projects"),

2) Local Projects that will increase transmission access to potential supply resources inside and outside the Control Areas of the Companies based on TAG participant requested economic studies ("Local Economic Projects")

3) Local Projects to satisfy Public Policy Requirements ("Public Policy Projects"); and/or

4) Local Projects that will integrate new generation resources and/or loads and provide other benefits in a least cost manner ("Multi-value Strategic Transmission Projects").
Results of Local Transmission Planning Process Changes

- A Carolinas Transmission Expansion Plan (CTEP) report reflecting the NCTPC study results will be published annually.
- The CTEP is a local transmission plan that will be developed throughout the year considering input from OSC, PWG, and TAG stakeholder participants.
- This report will reflect needed and coordinated transmission system expansion for:
  - local reliability requirements
  - economic transfers
  - public policy impacts
  - resource supply additions and retirements
  - load additions and changes (demand-side)
  - aging infrastructure replacement
- Strategic transmission planning, conducted at least once every three years for identified scenarios, will also be an input into the CTEP.
NCTPC Planning Study Process Changes

Solutions Template

- Reason(s) for Need:
- Proposed Solution:
- Estimated Transmission Project Cost:
- Alternatives Considered:
- Projected In-Service:
- Project Status:
Illustrative Example

- **Reason(s) for Need:** Aging Infrastructure; Adding 20 MVA Delivery Point for Transmission Customer; Contingency overload identified in Winter 26/27 study
- **Other Considerations:**
- **Proposed Solution:** Rebuild Castle Hayne – Folkstone 115kV line and replace 21 miles of 556 ACSR and 5 miles of bundled 2/0 copper conductor on wooden H-frame structures with 1272 ACSR.
- **Estimated Transmission Project Cost:** $95.5M
- **Alternatives Considered:** 1) New 230 line – incurs significant cost and time transitioning 115kV delivery points to 230kV; 2) request interconnection of a 25 MW battery at Vista 115kV substation - will not resolve resiliency issue with 5 miles of bundled 2/0 copper conductor nor provide capability for load growth and renewable resources.
- **Projected In-Service:** 12/1/2026
- **Project Status:** Scoping/Design
# NCTPC Planning Study Process Changes

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>March 15 2023</td>
<td>Reviewed and Collected Input on Local Transmission Planning Process Change High-level Road Map with PWG, OSC and TAG and incorporated feedback</td>
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<tr>
<td>June 21 2023</td>
<td>Present and Collect Input on Proposed Local Transmission Planning Process Changes from PWG, OSC and TAG</td>
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<tr>
<td>August 2023</td>
<td>Incorporate Descriptions of Revised Local Transmission Planning Process Changes into the Carbon Plan Filing</td>
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<tr>
<td>October 2023</td>
<td>File Changes to Attachment N-1 of the OATT with FERC to Align with Local Transmission Plan Process Changes</td>
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<tr>
<td>2024</td>
<td>Implement Local Transmission Planning Process Changes Accepted by FERC</td>
</tr>
</tbody>
</table>

*March 15, June 21, August, October 2023, and 2024 are placeholders for specific dates.*
Questions?
Regional Studies Reports

Bob Pierce
Duke Energy Carolinas
SERC Long-Term Working Group Update
SERC Long-Term Working Group

- Completed 2023 series of LTWG cases
- Beginning submittal of MMWG case data
- Working on determination of 2023 study scope
SERTP

- 2nd Quarter Meeting June 29th - Chattanooga
  - Preliminary Expansion Plan presentation

- Economic Planning Studies being performed
  - MISO to TVA – 2900 MW, 2028W
  - South GA to North GA – 1600 MW, 2028S
  - TVA to North GA – 1600 MW, 2028S
  - MISO to LGE/KU - 1242 MW, 2028S
  - SOCO to DEC – 500 MW, 2033
http://www.southeasternrtp.com/
NERC
**Announcement**

Two-thirds of North America Faces Reliability Challenges in the Event of Widespread Heatwaves

May 17, 2023

**ATLANTA** – NERC’s *2023 Summer Reliability Assessment* warns that two-thirds of North America is at risk of energy shortfalls this summer during periods of extreme demand. While there are no high-risk areas in this year’s assessment, the number of areas identified as being at elevated risk has increased. The assessment finds that, while resources are adequate for normal summer peak demand, if summer temperatures spike, seven areas — the U.S. West, SPP and MISO, ERCOT, SERC Central, New England and Ontario — may face supply shortages during higher demand levels.

“Increased, rapid deployment of wind, solar and batteries have made a positive impact,” said Mark Olson, NERC’s manager of Reliability Assessments. “However, generator retirements continue to increase the risks associated with extreme summer temperatures, which factors into potential supply shortages in the western two-thirds of North America if summer temperatures spike.”
This year’s assessment, which is summarized in a [2023 Summer Reliability Assessment Video](#), finds that:

- Areas in the U.S. West are at elevated risk due to wide-area heat events that can drive above-normal demand and strain resources and the transmission network.
- In SPP and MISO, wind energy output will be key to meeting normal summer peak and extreme demand levels due to little excess firm capacity.
- The risk of drought and high temperatures in ERCOT may challenge system resources and may result in emergency procedures, including the need for operator-controlled load shedding during periods of low wind and high generator outages.
- The SERC Central region is forecasting higher peak demand and less supply capacity, creating challenges for operators to maintain reserves in extreme scenarios.
- New England has lower available capacity than last year, resulting in a higher likelihood of system operators using emergency procedures to manage extreme demand conditions.
- In Ontario, extended nuclear refurbishment has reduced available capacity, limiting system reserves needed to manage peak demand.
SEC. 322. INTERREGIONAL TRANSFER CAPABILITY DETERMINATION STUDY.

(a) IN GENERAL.—The Electric Reliability Organization, in consultation with each regional entity and each transmitting utility that has facilities interconnected with a transmitting utility in a neighboring transmission planning region, shall conduct a study of total transfer capability between transmission planning regions that contains the following:

(1) Current total transfer capability, between each pair of neighboring transmission planning regions.
(2) A recommendation of prudent additions to total transfer capability between each pair of neighboring transmission planning regions that would demonstrably strengthen reliability within and among such neighboring transmission planning regions.

(3) Recommendations to meet and maintain total transfer capability together with such recommended prudent additions to total transfer capability between each pair of neighboring transmission planning regions.

(b) PUBLICATION.—Not later than 18 months after the date of enactment of this Act, the North American Electric Reliability Corporation shall deliver a study to Federal Energy Regulatory Commission.
Questions
2023 TAG Work Plan

Rich Wodyka
Administrator
2023 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

Coordinated Plan Development
- Combine Reliability and Local Economic Study and Public Policy Results
  - OSC publishes DRAFT Plan
  - TAG review and comment

TAG Meetings
- 1st Quarter
- 2nd Quarter
- 3rd Quarter
- 4th Quarter
January - February – March

*Fourth Quarter TAG Meeting – January 18, 2023*

- **2022 Study Update**
  - Receive Final DRAFT of 2022 Collaborative Transmission Plan Report

- TAG is invited to provide any additional comments or questions to the OSC on the 2022 Collaborative Transmission Plan.
  - Provide input by **February 8, 2023** to Rich Wodyka (rich.wodyka@gmail.com)
January - February – March

2023 Study – Finalize Study Scope of Work

✓ Receive request from OSC to provide input on proposed Local Economic Study scenarios and interfaces for study (Request sent on January 3rd)
  – TAG requested to provide input to the OSC on proposed Local Economic Study scenarios and interfaces for study
  – Provide input by February 8, 2023 to Rich Wodyka (rich.wodyka@gmail.com)

✓ Receive request from OSC to provide input in identifying any public policies that are driving the need for local transmission (Request sent on January 3rd)
  – TAG requested to provide input to the OSC in identifying any public policies that are driving the need for local transmission for study
  – Provide input by February 8, 2023 to Rich Wodyka (rich.wodyka@gmail.com)

• Receive final 2023 Study Scope of Work for review and comment
  – TAG review and provide comments to the OSC on the final 2023 Study Scope of Work
January - February – March

- First Quarter TAG Meeting – March 15, 2023

- 2023 Study Update
  ✓ Receive a progress report on the 2023 Study Activities
  ✓ Receive an update on the 2023 Study Scope of Work and any study scenarios that are driving the need for local transmission
April - May – June

Second Quarter TAG Meeting – June 21, 2023

- **2023 Study Update**
  - Receive a progress report on Study Activities
  - Receive final 2023 Study Scope of Work for review and comment
  - Receive mid-year update status of the upgrades in the 2022 Collaborative Plan
  - Receive a report on the Duke Energy Red-Zone Transmission Expansion Plan Projects (RZEP 2.0)
  - Receive a progress report on the Transmission Planning Process Attachment N-1 activities
Third Quarter TAG Meeting – TBD

2023 Study Update

- Receive a progress report on the Study Activities and Preliminary Study 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

➢ 2023 Study Update

  • TAG will receive feedback from the OSC on any alternative solutions that were proposed by TAG members

  • Receive and discuss Final DRAFT of the 2023 Collaborative Transmission Plan Report

➢ 2024 Study Scope

  • Discuss potential Study Scope scenarios for 2024 studies
Questions ?
TAG
Open Forum Discussion

Comments or Questions?