2024 Planning Cycle

Transmission Needs Driven by Public Policy Requirements

The Southeastern Regional Transmission Planning (SERTP) process received nine (9) stakeholder proposals of possible transmission needs driven by Public Policy Requirements (PPR) for the 2024 planning cycle. A description and assessment of each proposal is explained below.

Stakeholder Proposal #1

Description

- **Proposed By:** Southern Alliance for Clean Energy
- Proposed PPR(s):
 - 1. President Biden Executive Order on Tackling the Climate Crisis at Home and Abroad
 - 2. Biden Administration commitment to GHG Reduction Targets as Part of Re-entering the Paris Agreement
 - 3. President Biden Executive Order on Catalyzing Clean Energy Industries and Jobs through Federal Sustainability
 - 4. President Biden Executive Order on the Implementation of the Energy and Infrastructure Provisions of the Inflation Reduction Act

• Possible Transmission Need:

Several studies have looked at the potential to decarbonize the entire electricity sector by 2035, including all of the utilities participating in SERTP, and all include a significant buildout of regional transmission capacity, including connections between regions. But perhaps most importantly, since one of the SERTP members (TVA) is a federally-owned public power utility, it is especially important that SERTP evaluate the potential for efficient and costeffective compliance with this Executive Order and be aware of the potential for increases to transmission capacity within the region and connections to other regions to contribute to a least-cost decarbonization strategy across the region.

As one recent study by the National Renewable Energy Laboratory (NREL) shows, to decarbonize the sector by 2035 national transmission capacity in 2035 is 1.3-2.9 times the current capacity. That study includes a scenario that looks at the build-out of a national HVDC macrogrid. More information about NREL's study and a link to the full report are available here: https://www.nrel.gov/analysis/100 percent-clean-electricity-by-2035-study.html.

Summary of Assessment:

FERC has limited PPRs to public policy requirements established by "enacted statutes (i.e., passed by the legislature and signed by the executive) and regulations promulgated by a relevant jurisdiction, whether within a state or at the federal level."ⁱ Thus, the proposed PPRs do not meet FERC's requirements. However, please note that if certain government efforts, such as the Executive Orders identified here, result in load changes, those changes would be reflected in State Public Service/Utility Commission or Board of Directors IRP or similar processes and would inform the SERTP 10-Year Transmission Plan as all necessary information becomes available.

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Stakeholder Proposal #2

Description

- Proposed By: Southern Alliance for Clean Energy, Southern Renewable Energy Association
- Proposed PPR(s):
 - 1. The Fiscal Responsibility Act of 2023
- Possible Transmission Need: SERTP should study potential increases to total transfer capability between areas and with other transmission planning regions. Previous studies have recommended a level of approximately 15% if the peak load of the larger of the two areas or regions.

Summary of Assessment:

The Fiscal Responsibility Act directed NERC to complete an interregional transfer capability study due to FERC by December 2, 2024. This does not constitute a PPR driving transmission needs for further evaluation in the 2024 transmission planning cycle.

Stakeholder Proposal #3

Description

- Proposed By: Southern Alliance for Clean Energy
- Proposed PPR(s):
 - 1. February 16, 2021 TVA Board Resolution Strategic Intent and Guiding Principles, adopted by the TVA Board of Directors on May 16, 2021

• Possible Transmission Need:

TVA's Strategic Intent and Guiding Principles, which has been approved by the TVA Board, includes a commitment to expanding TVA's solar resources to 10,000 MW by 2035 (page 20-21) and retiring remaining coal units by 2035 (page 22).

To date, the assumptions TVA submits to SERTP do not appear to include these policy targets. These planned retirements and generation additions are likely to have transmission impacts beyond TVA's own service territory, and increasing transmission connections between utilities is likely to address these impacts and cost effectively integrate new generation resources and retirements over the next ten years.

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Summary of Assessment:

Board resolution documents do not meet the definition of a Public Policy.ⁱⁱ Therefore, no transmission needs for this proposed PPR have been identified for further evaluation in the 2024 transmission planning cycle.

TVA further clarifies that the document referenced for this request provides TVA's Strategic Intent and Guiding Principles and is to be used in accordance with all internal and external processes in providing the principal direction from TVA leadership in developing business strategies that provide reliable, resilient, low-cost and clean energy to the Tennessee Valley region in keeping with the TVA mission. Accordingly, TVA intends to incorporate TVA's Board resolutions into the next TVA IRP, which would inform the SERTP process as all necessary information becomes available. TVA's current IRP was completed in 2019, prior to the referenced resolution.

Stakeholder Proposal #4

Description

- **Proposed By:** Southern Renewable Energy Association
- Proposed PPR(s):
 - 1. Georgia Public Service Commission Docket #55378, Georgia Power Integrated Resource Plan (IRP). The Georgia PSC Order will be published on April 16, 2024 regarding generation additions, retirements, and load growth projections.

• Possible Transmission Need:

Data provided to SERTP participants should include the most up-to-date generation additions, retirement, and load growth. To the extent SERTP model runs have not begun, the data available in the Georgia IRP should be used to update the models.

Summary of Assessment:

Georgia Power's 2023 IRP Update referenced in this request was approved and an Order was issued by the PSC on April 16, 2024. Resources identified in the Order will be incorporated into the SERTP 10-Year Transmission Plan as they become available. As outlined in the interactive training presented at the SERTP meeting on March 19, 2024, SERTP develops base case models annually in June, August, and December. Models include the most up to date transmission information within the SERTP region and are posted to the SERTP Secure Area SharePoint site for stakeholder use. Southern Company updates its base case models in February and August each year and makes those updates available on the SERTP Secure Area SharePoint. Resources in the Georgia Power 2023 IRP Update will be reflected in the SERTP base case models as the detailed modeling information is provided by the Load Serving Entity.

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Stakeholder Proposal #5

Description

- Proposed By: Southern Alliance for Clean Energy
- Proposed PPR(s):
 - 1. The North Carolina Session Law 2021-165, also known as the North Carolina Carbon Plan

• Possible Transmission Need:

Winter, summer, and shoulder season reliability and economic needs in 5-, 10-, 15-, and 20year models on a subregional, regional, and interregional basis

Summary of Assessment:

The proposed PPR is an enacted state law specific to North Carolina. As such, in the context of the SERTP sponsors, the proposed PPR is primarily applicable to Duke Energy. The SERTP received this Public Policy Request in 2023. Consistent with our previous response, the North Carolina Carbon Plan (NCCP) Order is being considered by Duke Energy and in activities of the Carolinas (Formerly North Carolina) Transmission Planning Collaborative (CTPC). Any resulting local transmission plans have been and will be included in the SERTP process. Because of the inclusion of the local plan in the SERTP process that reflects the NCCP, no additional transmission needs for the proposed PPR have been identified for further evaluation in the 2024 transmission planning cycle.

Duke Energy provides the following examples of transmission assumptions that have become inputs into the SERTP process since the inception of the NCCP Order as referenced in the Carolinas Integrated Resource Plan: the identification of "Red Zone Expansion Plan (RZEP 1.0)" transmission upgrades through the Local Transmission Planning process outlined in the Duke Energy Carolinas and Duke Energy Progress Joint Open Access Transmission Tariff, Attachment N-1."

Submitters of Public Policy Requirements to the SERTP related to the NCCP Order should refer to, and if desired, participate in the NCTPC Transmission Advisory Group (TAG) to provide advice and recommendations on the resource decisions and any resultant transmission needs and solutions.

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Stakeholder Proposal #6

Description

- Proposed By: Southern Alliance for Clean Energy
- Proposed PPR(s):
 - 1. The TVA IRP is expected to be published by early March 2024 and will include updated data regarding generation additions, retirements, and load growth projections.

• Possible Transmission Need:

Data provided to SERTP participants should include the most up-to-date generation additions, retirement, and load growth. To the extent SERTP model runs have not begun, the data available in the TVA IRP should be used to update the models.

Summary of Assessment:

TVA has not yet released a 2024 IRP as indicated in this submission. Therefore, no transmission needs for this proposed PPR have been identified for further evaluation in the 2024 transmission planning cycle. TVA further clarifies that once future decisions have been approved in accordance with Board of Directors IRP or similar processes, they would inform the SERTP 10-Year Transmission Plan as all necessary information becomes available.

Stakeholder Proposal #7

Description

- Proposed By: Southern Alliance for Clean Energy
- Proposed PPR(s):
 - 1. Public Law No: 117-169, "Inflation Reduction Act" Significant load growth due to electrification and manufacturing/commercial growth, in addition to incentives for new renewable energy or battery storage projects is leading to significant changes to load growth forecasts, and retirement and additions changes for generation.

• Possible Transmission Need:

Increased load growth can inherently create new transmission needs, particularly for large scale facilities. The follow-on effect is load growth leads to changes in generation retirement dates, as well as changes in types and quantities and timing for new generation.

Summary of Assessment:

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The Inflation Reduction Act (IRA) does not require or direct transmission owners or providers to take specific action; therefore, no transmission needs for this proposed PPR have been identified for further evaluation in the 2024 transmission planning cycle. However, SERTP sponsors agree that the IRA does include provisions that would affect the electric utility industry and incentives for decarbonization investments and grid modernization. SERTP sponsors clarify that they consider such impacts through incorporation of their effect on load and resources as part of their State Public Service/Utility Commission or Board of Directors IRP or similar processes. Once decisions have been approved in accordance with State Public Service/Utility Commission or Board of Directors IRP 10-Year Transmission Plan as all necessary information becomes available.

Stakeholder Proposal #8

Description

- Proposed By: Southern Alliance for Clean Energy
- Proposed PPR(s):
 - 1. Executive Order 14057 Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability
- Possible Transmission Need:

In aggregate, federal agencies throughout the SERTP footprint likely represent one of the largest if not the largest customer. Federal agencies are required to procure 100 percent carbon pollution-free electricity on a net annual basis by 2030, including 50 percent 24/7 carbon pollution-free electricity. SERTP utilities will be providing carbon-free electricity to federal agencies, which will result in a change in the energy mix for each balancing authority. Each SERTP utility should quantify the amount of carbon-free electricity that will be provided and incorporate those quantities in the SERTP capacity expansion models.

Summary of Assessment:

FERC has limited PPRs to public policy requirements established by "enacted statutes (i.e., passed by the legislature and signed by the executive) and regulations promulgated by a relevant jurisdiction, whether within a state or at the federal level."^{iv} Thus, the proposed PPRs do not meet FERC's requirements. However, please note that if certain government efforts, such as the Executive Orders identified here, result in load changes, those changes would be reflected in State Public Service/Utility Commission or Board of Directors IRP or similar processes and would inform the SERTP 10-Year Transmission Plan as all necessary information becomes available.

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ⁱ Order No. 1000-A, Paragraph 319. OrderNo.1000-A.pdf (ferc.gov)

ⁱⁱ Order No. 1000-A, Paragraph 319. OrderNo.1000-A.pdf (ferc.gov)

^{III} Carolinas Resource Plan, Attachment L. Carolinas Resource Plan - Duke Energy (duke-energy.com)

^{iv} Order No. 1000-A, Paragraph 319. OrderNo.1000-A.pdf (ferc.gov)

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