

ERCOT Update on Implementation of Amendments to PUC Rule 25.101 in Project No. 53403

## Project No. 53403 - Review of Key Changes to Rule 25.101

- Economic planning criteria
- Reliability-driven project evaluation
  - The historical load, forecasted load growth, and additional load currently seeking interconnection need to be incorporated
  - The forecasted load growth and additional load currently seeking interconnection must be substantiated by quantifiable evidence of projected load growth.
- Resiliency as a "plus factor" for projects that do not demonstrate sufficient economic or reliability benefits
- New biennial grid reliability and resiliency assessment

Project No. 53403 - Review of Chapter 25.101



#### **Economic Criteria Overview**

- ERCOT, in consultation with commission staff, must develop a congestion cost savings test
- Prior to the effective date of the above test developed by ERCOT, ERCOT may immediately, without updating its Protocols, utilize the generator revenue reduction test as the congestion cost savings test
- Production cost savings test remains the same
- ERCOT may recommend, and the commission may approve, a transmission line in the ERCOT region that demonstrates sufficient savings under either a congestion cost savings test or a production cost savings test



### Economic Criteria – Revenue Requirement

- Congestion cost savings are compared with the average of the first three years' annual revenue requirement of the proposed project
- Production cost savings are still compared with the firstyear annual revenue requirement of the proposed project
- Based on the <u>financial assumptions review performed in</u>
   October 2020, the first-year annual revenue requirement is
   13.2% and the average of the first three years' annual
   revenue requirement is 12.9%



### **Economic Criteria Implementation Plan**

- ERCOT will implement the generator revenue reduction test as the congestion cost savings test immediately
  - All RPG economic-driven projects
  - 2023 RTP
- ERCOT will work with stakeholders on the development of the congestion cost savings test required by the rule
  - ERCOT intends to hire a consulting firm to help identify the industry's best practices
  - ERCOT will sponsor an NPRR to incorporate the congestion cost savings test in the Protocols
- No revision request is required to incorporate the generator revenue reduction test in the Protocols during the development of the congestion cost savings test



### **Reliability Driven Project Evaluation**

- ERCOT has a process in place that aligns with the updates in the substantive rule
  - Planning Guide Section 3.1.7, Steady State Transmission Planning Load Forecast, outlines the load review process
- ERCOT plans to implement additional reviews for large load (>= 75 MW) in the start cases for planning studies



### Resiliency as "Plus Factor"

- ERCOT may recommend, and the commission may approve, a transmission project that is submitted as an economic or reliability project and does not demonstrate sufficient economic savings or reliability benefits to merit approval on those grounds if ERCOT determines the line would address a resiliency issue identified in the grid reliability and resiliency assessment. In determining whether to approve such a project the commission will consider:
  - (I) the margin by which the transmission project was unable to demonstrate sufficient economic savings or reliability benefits to merit approval on those grounds;
  - (II) whether the resiliency benefits the transmission project would provide by reducing the impacts to customers of potential outages caused by regional extreme weather scenarios are sufficient to compensate for the project's inability to demonstrate sufficient economic savings or reliability benefits to merit approval on those grounds.
  - (III) the cost effectiveness of the transmission project's ability to address the resiliency issue identified by ERCOT compared to other possible solutions,
  - (IV) other factors listed in PURA § 37.056(c), as appropriate.



## Implementation Plan for Resiliency as "Plus Factor"

- Resiliency was considered in RPG reviews
  - Lower Rio Grande Valley System Enhancement Project endorsed in 2021
  - LCRA TSC Oncor WETT Bearkat North McCamey Sand Lake 345-kV
    Transmission Line Addition Project endorsed in 2022
- ERCOT will work with stakeholders to capture the changes from the amended rule
  - ERCOT will sponsor revision request to incorporate any needed criteria changes



### Grid Reliability and Resiliency Assessment

- ERCOT will sponsor a PGRR to include the new biennial assessment
- ERCOT will start the scope discussion with stakeholders to kick off the first grid reliability and resiliency assessment
- ERCOT plans to complete the assessment by December 2024



# NPRR1070 – Planning Criteria for GTC Exit Solutions

- NPRR1070 was sponsored by EDF Renewables and Pattern Energy in March 2021 and was previously tabled pending the PUCT rulemaking on economic criteria
- NPRR1070 proposes the following considerations for GTC exit solution evaluation based on the language from the 10/7/2021 EDF Renewables and Pattern Energy comment:
  - Consideration of outages
  - Consideration of security margins for stability limits
  - Consideration of the delayed or avoided reliability project cost
  - Consideration of the supply deliverability under extreme weather conditions



#### **NPRR1070 Overview**

- Consideration of outages
  - Outages have been incorporated in ERCOT's economic driven project evaluation since 2017.
  - ERCOT published a whitepaper in 2017 with the technical details of the implementation

**ERCOT** whitepaper on economic project evaluation

- Consideration of security margins for stability limits
  - This is currently a standard practice in both ERCOT economic and reliability project evaluation
- Consideration of the delayed or avoided reliability project cost
  - This is not currently considered in ERCOT economic project evaluation
- Consideration of the supply deliverability under extreme weather conditions
  - This touches the concept from the updated substantive rule for the consideration of resiliency as a "plus factor" for projects do not demonstrate sufficient economic or reliability benefit



### NPRR1070 – ERCOT Proposal

- Place NPRR1070 on hold and discuss the concepts proposed by NPRR1070 in the forthcoming ERCOTsponsored revision requests
  - Consideration of outages and security margins for stability limits may be memorialized in a binding document as part of the ERCOT economic planning criteria revision request
  - Consideration of the delayed or avoided reliability project cost will be discussed in the ERCOT revision request to change the economic planning criteria
  - Consideration of the supply deliverability under extreme weather conditions will be discussed in the ERCOT revision request to introduce resiliency as a "plus factor"



### **Questions and Comments?**

Ping.Yan@ercot.com

gnanaprabhu.gnanam@ercot.com

