

November 18, 2020

Public Utility Commission of Texas
Chairman DeAnn T. Walker
Commissioner Arthur C. D'Andrea
Commissioner Shelly Botkin
1701 N. Congress Ave.
Austin, Texas 78711

Re: *PUC Project No. 27706 – Reports of the Electric Reliability Council of Texas*

*Supplemental Status Update on Permian Basin Improvement Ideas for the
Transmission Planning Process*

Dear Chairman and Commissioners:

In April 2020, ERCOT provided its last status update to the Public Utility Commission of Texas (PUCT) on the development and review of transmission planning improvement ideas to better meet the needs of the Permian Basin area. Although the novel Coronavirus (COVID-19) pandemic impacted in-person discussions, ERCOT has continued to work with the West Texas utilities¹ and certain customers on the improvement ideas and therefore provides this supplemental status update on such activities.

Earlier this year, Oncor Electric Delivery Company LLC (Oncor) and its third-party consultant, IHS Markit (IHS), provided ERCOT, other West Texas utilities and certain customers the load forecast study titled “West Texas Forecasted Load Additions.”² After discussions with Oncor/IHS and review of the study results, ERCOT believes that the load forecast is reasonable and should be considered in the Permian Basin expansion strategy going forward. Oncor/IHS are planning to present the study results to stakeholders at the December 15, 2020 Regional Planning Group (RPG) meeting.

The attached presentation provides a general overview of the past and ongoing efforts between ERCOT and the West Texas utilities to address the challenges with rapid oil and gas load growth in the area. These efforts will continue well into 2021 with opportunities for robust stakeholder discussions as items are presented at the RPG. Highlights of the presentation are:

¹ West Texas utilities are Oncor, Texas-New Mexico Power Company, AEP Texas, Inc., and LCRA Transmission Service Corp.

² ERCOT filed a public version of the study with the PUCT as part of its April 27, 2020 status update. See Item No. 439, PUC Project No. 27706, Reports of the Electric Reliability Council of Texas.

- Oil and gas load growth has continued in the area even with COVID-19 economic impacts. To prepare for this growth, ERCOT and the West Texas utilities continue to develop transmission plans to be able to serve customer demand in a timely manner. The timing of when those plans will be implemented will be determined once more information is available with regards to the long-term impacts of the economic downturn on the Permian Basin area.
- ERCOT is working with the Bureau of Economic Geology (BEG) through the Tight Oil Resource Assessment (TORA) Program to develop tools that could help us refine our electric load forecast for the Permian Basin area.
- Based on the 2020 Regional Transmission Plan (which shows load for 2026 summer peak exceeding the trigger point of the Delaware Basin Area Stage 1 transmission upgrade project³), ERCOT is working with relevant West Texas utilities to investigate a RPG project for adding a second circuit on the existing Big Hill – Bakersfield 345 kV transmission line. Such project will improve the capability to import power into the area.
- Based on IHS study results, ERCOT plans to work with West Texas utilities to identify lower voltage infrastructure development projects (i.e., 138 kV transmission lines) through a Local Transmission Plan that may result in future RPG projects. These projects will serve as potential circuits to connect customers to the 345 kV infrastructure.

ERCOT appreciates the PUCT's attention to these issues and will continue to work with the West Texas utilities and all interested stakeholders to meet the unique needs of the Permian Basin area.

Please do not hesitate to call me if you have any questions.

Regards,

/s/ Chad V. Seely

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³ ERCOT completed the Delaware Basin Load Integration Study in December 2019. The results of the study included a five-stage roadmap of 345 kV transmission upgrades for serving load in the area and Delaware Basin load levels that would trigger the need for each stage of upgrades. The report is posted on the ERCOT website: http://www.ercot.com/content/wcm/lists/172485/ERCOT_Delaware_Basin_Load_Integration_Study_Public_Version.zip



Permian Basin Improvements Update

November 2020

ERCOT Public

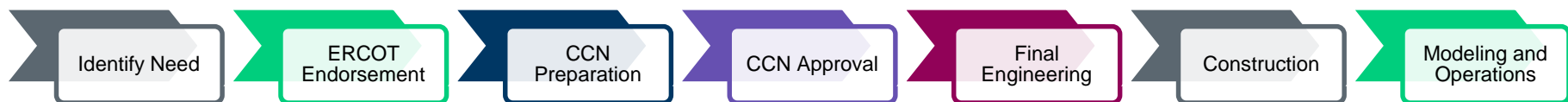
Introduction

New Load Notification (1-2 years)



Commitment for New Load

Time to Construct New Transmission (4-6 years)



- ERCOT and TSPs in the area have been continually working to address challenges and accommodate significant and rapid load growth in the area.

Load Forecast

- Since the latest load forecasts were prepared in late 2019 and early 2020, the price of oil has dropped due to a change in economic factors. This had led to slower load growth in 2020 compared to other recent years.
- How will transmission plans be affected by potential load forecast changes due to slowing growth?
 - Planners should consider long-term trends.
 - Growth is still occurring, so the question seems to be more about timing than need.
 - Studies should move forward; plans can be adjusted as needed.

BEG-ERCOT Partnership

- ERCOT joined the Bureau of Economic Geology (BEG) Tight Oil Resource Assessment (TORA) program and is engaging with BEG to develop tools that may allow ERCOT to use TORA data to produce an electric load forecast for the Permian Basin.
 - Timeline: TBD 2021

Permian Basin Transmission Expansion Strategy

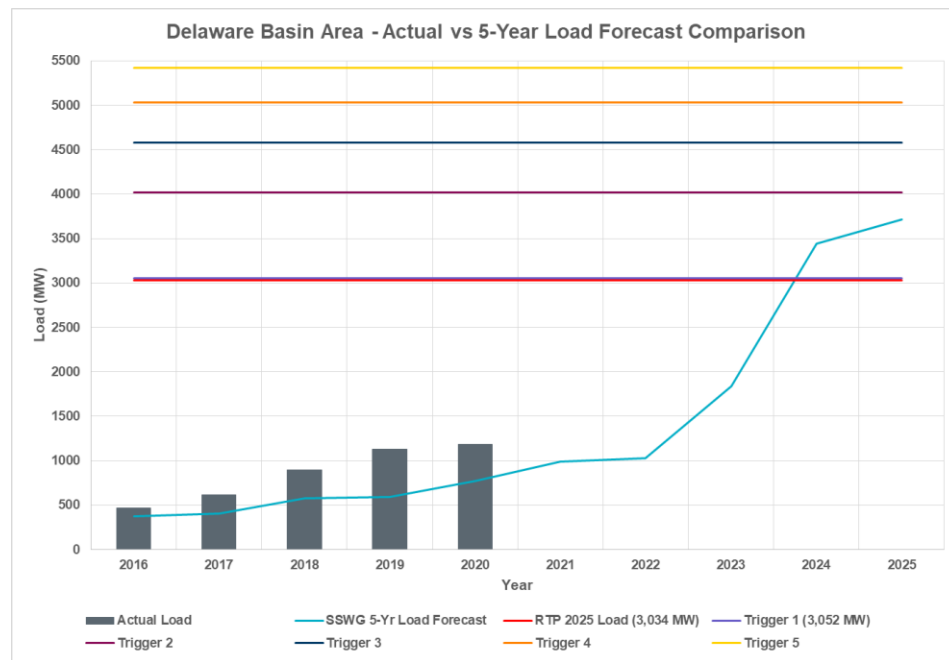
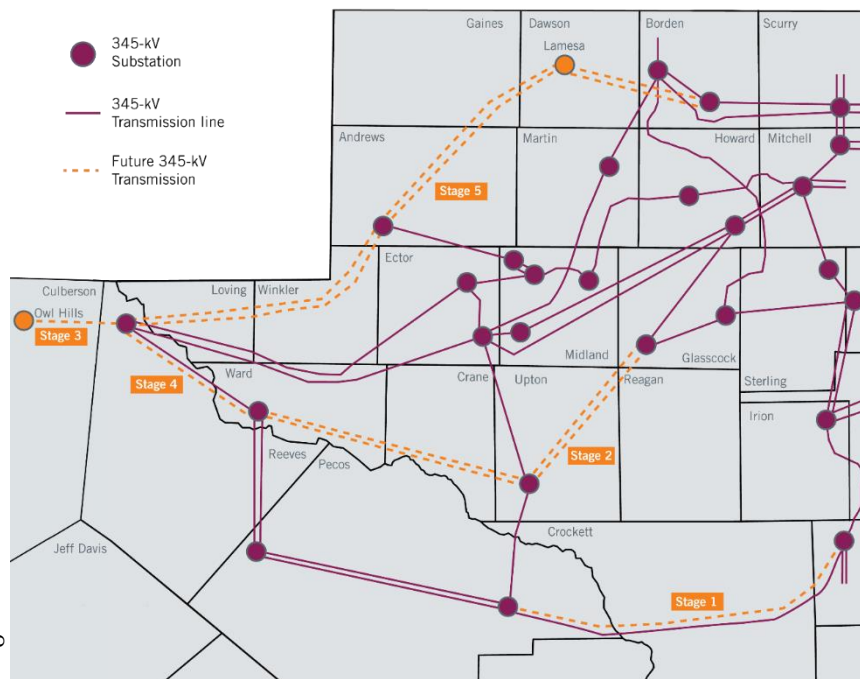
ERCOT, in consultation with West Texas TSPs, has developed a three-pronged strategy to ensure transmission infrastructure is in place in a timely manner to meet Permian Basin customer needs:

- 1. Delaware Basin Load Integration Study:** In December 2019, ERCOT completed the Delaware Basin Load Integration Study. The results of the study included a five-stage roadmap of 345-kV transmission upgrades (longest lead time infrastructure) for importing power into the area.
- 2. Create Transmission Plan for Load Connection Circuits:** ERCOT and West Texas TSPs are creating a plan to facilitate the connection of new customer loads to 138-kV transmission lines (long lead time infrastructure).
- 3. Permian Basin Improvement Ideas:** ERCOT and West Texas TSPs have implemented process improvements to remove barriers to timely construction of needed transmission improvements for the area.

7

Import Power: Delaware Basin Area Study

- As identified in the 2020 Regional Transmission Plan (to be released in late December), the Delaware Basin load for 2026 summer peak exceeds the trigger point of Stage 1 (adding a second circuit on the existing Big Hill – Bakersfield 345-kV line) upgrade.
- ERCOT and relevant TSPs are investigating a Regional Planning Group project proposal for this upgrade.



Load Connection Circuits: IHS Markit Study Results

- In the spring of 2020, Oncor and its third-party consultant, IHS Markit, provided a load forecast study for the Permian Basin. The results contained a location-specific load forecast for the region through 2030.
- ERCOT and West Texas TSPs will use the results of this study to create a plan for transmission circuits to connect new customer loads.

Improvement Ideas and Outcomes

Reflect West Texas generator characteristics in all future transmission studies (i.e., the uncertainty of solar and wind generation and the emission limits on fossil fuel generation).

- ERCOT has incorporated these assumptions into the 2020 Regional Transmission Plan.

Change ERCOT processes with West Texas utilities to perform parallel studies of Tier 1 and 2 projects.

- ERCOT coordinates with TSPs regularly on RPG Tier 1 and 2 projects in the Delaware Basin, with the intent to complete the independent review in a timely manner.

Review West Texas utility third-party consultant study on planning load forecast for Far West weather zones.

Consider a temporary ERCOT study process to accelerate and/or perform additional analysis of the Delaware Basin Load Integration Study for lower voltage infrastructure development projects (i.e., 138-kV transmission lines).

- The TSPs in the area and ERCOT are making collaborative efforts to review the IHS Markit study results to identify lower voltage infrastructure development projects (i.e., 138-kV transmission lines).

Consider the Delaware Basin Load Integration Study in whole or in part as a major transmission infrastructure improvement project.

- See slide 6.

Use the TSP forecast scenario when performing Far West transmission studies, in addition to the scenarios used by ERCOT for all planning studies.

- ERCOT plans to implement this in the next Regional Planning Group project independent review.

Recent RPG Projects in the Permian Basin

Transmission Improvement Project	Endorsement or Acceptance Date	RPG Project Tier	RPG Project Cost	Anticipated Service Date
Riverton-Sand Lake 138-kV line (new)	November 2016	Tier 2	\$40.2M	In-service in December 2019
Far West Texas Project 1.0 (New Odessa-Riverton and Bakersfield-Solstice 345-kV lines)	June 2017	Tier 1	\$336M	December 2020
Far West Dynamic Reactive Devices	June 2018	Tier 1	\$327.5M	In-service in May 2019 and December 2019
Far West Texas Project 2.0 (1) Riverton-Sand Lake 345-kV (2) Sand Lake-Solstice 345-kV (3) Kyle Ranch-Riverton 138-kV (4) Horseshoe Springs-Riverton 138-kV	June 2018			November 2020 ⁽¹⁾
				December 2020 ⁽²⁾
				Fall 2020 ⁽³⁾
				December 2020 ⁽⁴⁾
Wolf to Moss 138-kV Line High Temperature Upgrade	September 2019	Tier 3	\$39.8M	In-service in March 2020
Permian Basin Area Upgrades	September 2019			In-service in May 2020
Ward and Winkler County Transmission Improvement Project	October 2019	Tier 2	\$63.3M	December 2021
Quarry Field 345-kV Switch Project	June 2020	Tier 3	\$29M	May 2021
Big Spring - Buzzard Draw 69-kV Line Conversion to 138-kV	July 2020	Tier 3	\$32M	November 2021
Horseshoe Springs Switch – Riverton Switch 138-kV Second Circuit Project	August 2020	Tier 3	\$52.3M	May 2021
Tall City – Telephone Road 138-kV Line Rebuild Project	In RPG Comment Period (due by Oct. 6, 2020)	Tier 3	\$23.5M	Fall 2021

11