

Oncor West Texas 345 kV Infrastructure Rebuild Project

Overview for ERCOT RPG Meeting 1/17/2024

Oncor Electric Delivery

WE DELIVER.



Project Overview

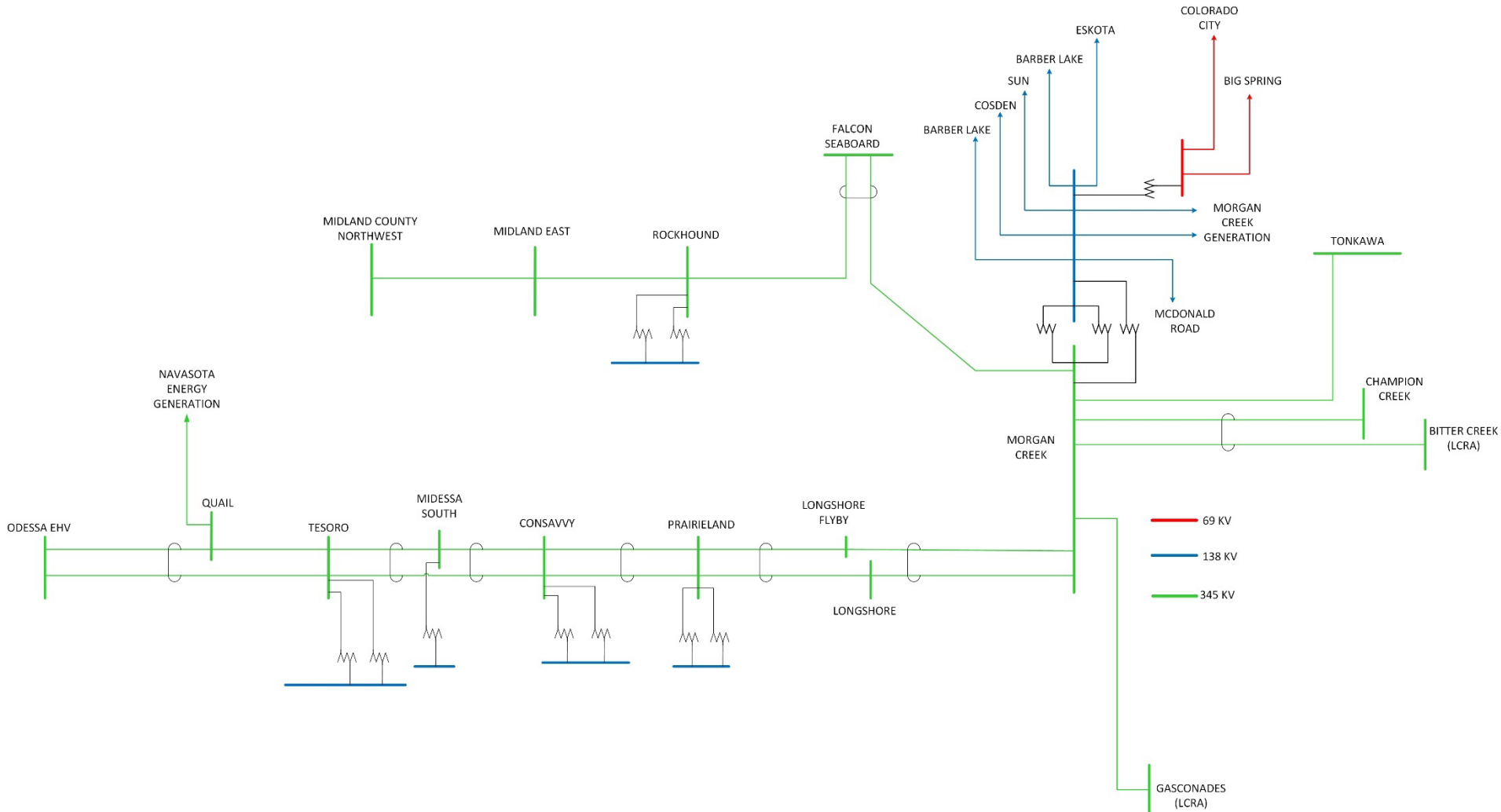
- Multiple P1, P3, EP3, EP6 and P7 contingencies cause thermal violations on multiple sections of the two major 345 kV ‘trunks’ to West Texas
- Oncor proposes to rebuild the two major 345 kV transmission ‘trunks’ supplying power to West Texas
 - More than 200 miles of 345 kV transmission line rebuilds
 - Four new 345 kV Switching Stations
 - Six new 600 MVA, 345/138 kV Autotransformers
 - Total cost of Proposed RPG Project - \$ 1.21 billion
- All of the components of included in Oncor’s West Texas 345 kV Infrastructure Rebuild RPG Project are found in the ‘Preferred Projects’ of the ERCOT Permian Basin Load Interconnection Study

ERCOT IHS Preferred Reliability Upgrades

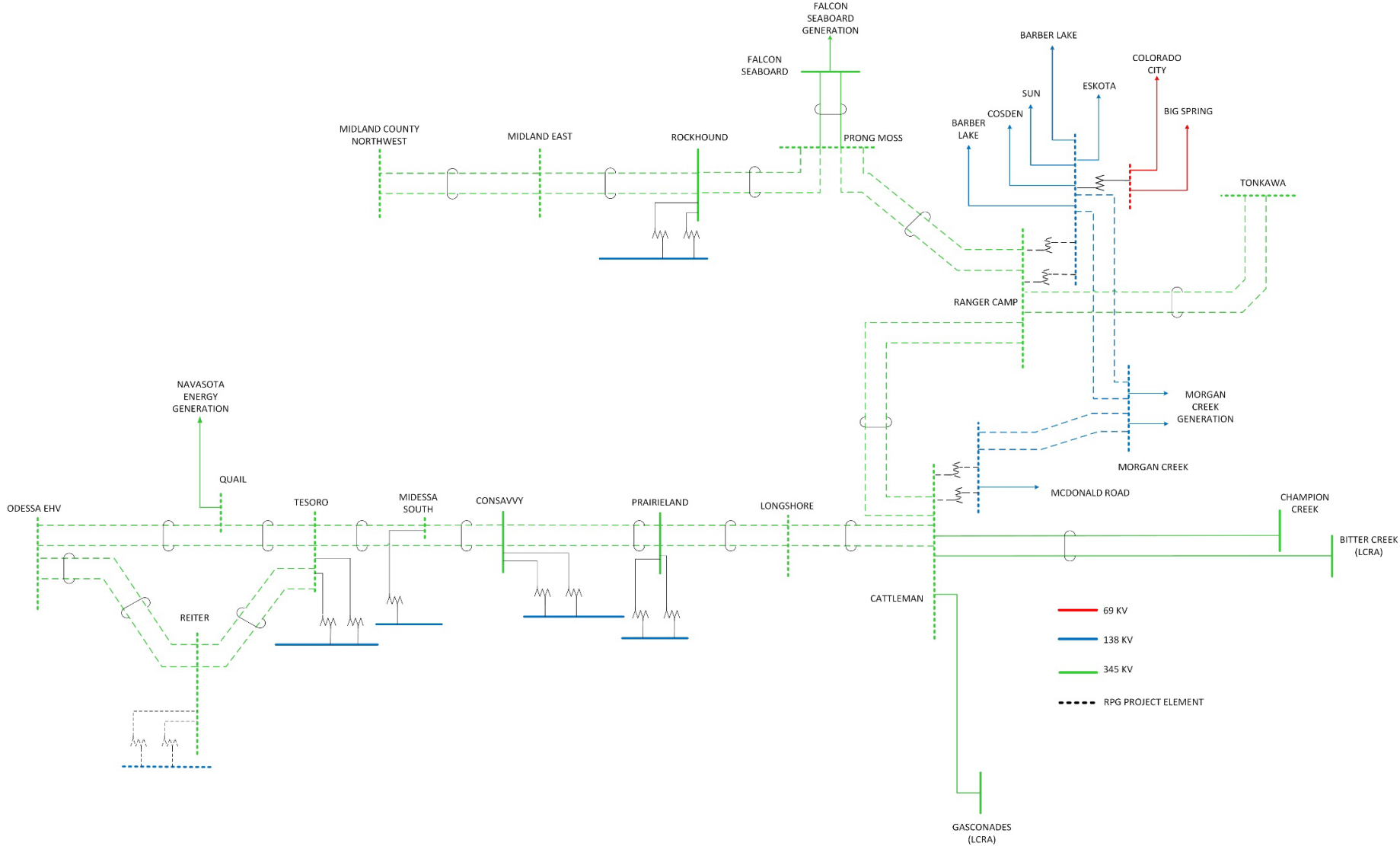
Table E.1 Preferred Reliability Upgrades

Project ID	Preferred Transmission Upgrades (Note: Assumed ratings can be found in Section 6)	Year of Study Case with Reliability Need Starting to Appear
1	Rebuild existing Morgan Creek – Tonkawa 345-kV line using double-circuit capable structures and add a 2 nd circuit	2025
2	Rebuild existing Midland East – Falcon Seaboard 345-kV line using double-circuit capable structures and add a 2 nd circuit	2025
2	Rebuild existing Morgan Creek – Falcon Seaboard 345-kV line using double-circuit capable structures and add a 2 nd circuit	2030
2	Rebuild existing Midland East – Midland County NW 345-kV line using double-circuit capable structures and add a 2 nd circuit	2025
3	Upgrade existing Morgan Creek – Longshore 345-kV line	2030
3	Upgrade existing Morgan Creek – Longshore Fly 345-kV line	2025
3	Establish a new 345/138-kV substation at Consavvy with two new 345/138-kV transformers; Loop existing Longshore – Midessa South 345-kV line into Consavvy and upgrade Longshore – Consavvy 345-kV line; Loop existing South Midland – Pronghorn 138-kV line and Midland East – Spraberry 138-kV line into Consavvy	2025
3	Upgrade Consavvy – Midessa South 345-kV line	2025
3	Upgrade existing Longshore Fly – Quail 345-kV line	2025
3	Loop existing Grelton – Odessa EHV 345-kV line into Consavvy	2025
3	Upgrade existing Midessa South – Odessa EHV 345-kV line	2025
3	Upgrade existing Quail – Odessa EHV 345-kV line	2025
3	Upgrade existing Midessa South 345/138-kV transformer and add a 2 nd Midessa South 345/138-kV transformer	2025
18	Add Verhalen – New Load 90108 138-kV line	2025
24	Establish a new IH20 345-kV Substation and install two new 345/138-kV transformers	2030
24	Loop existing Solstice – Sand Lake 345-kV double-circuit line at the new IH20 345-kV Substation	2030
25	Establish a new 345/138-kV Reiter Substation with two new 345/138-kV transformers; Establish a new 345-kV Quail East Substation; Add a new Quail East – Reiter 345-kV double-circuit line	2025

Project Vicinity – Pre-Project



Project Vicinity – Post-Project



Progress

- Anticipating multiple CCN applications/submittals
- Construction expected to begin in 2025
- Anticipated to take 4 – 5 years to complete entire set of projects in the Proposed RPG Submittal
- Proposed RPG Submittal cleared RPG phase 11/29/23
 - ERCOT Independent Review to be complete by 4/26/24

QUESTIONS

