



**Rayburn Electric Cooperative (REC) –
Tawakoni Area Transmission Project
ERCOT Independent Review (EIR) Status
Update**

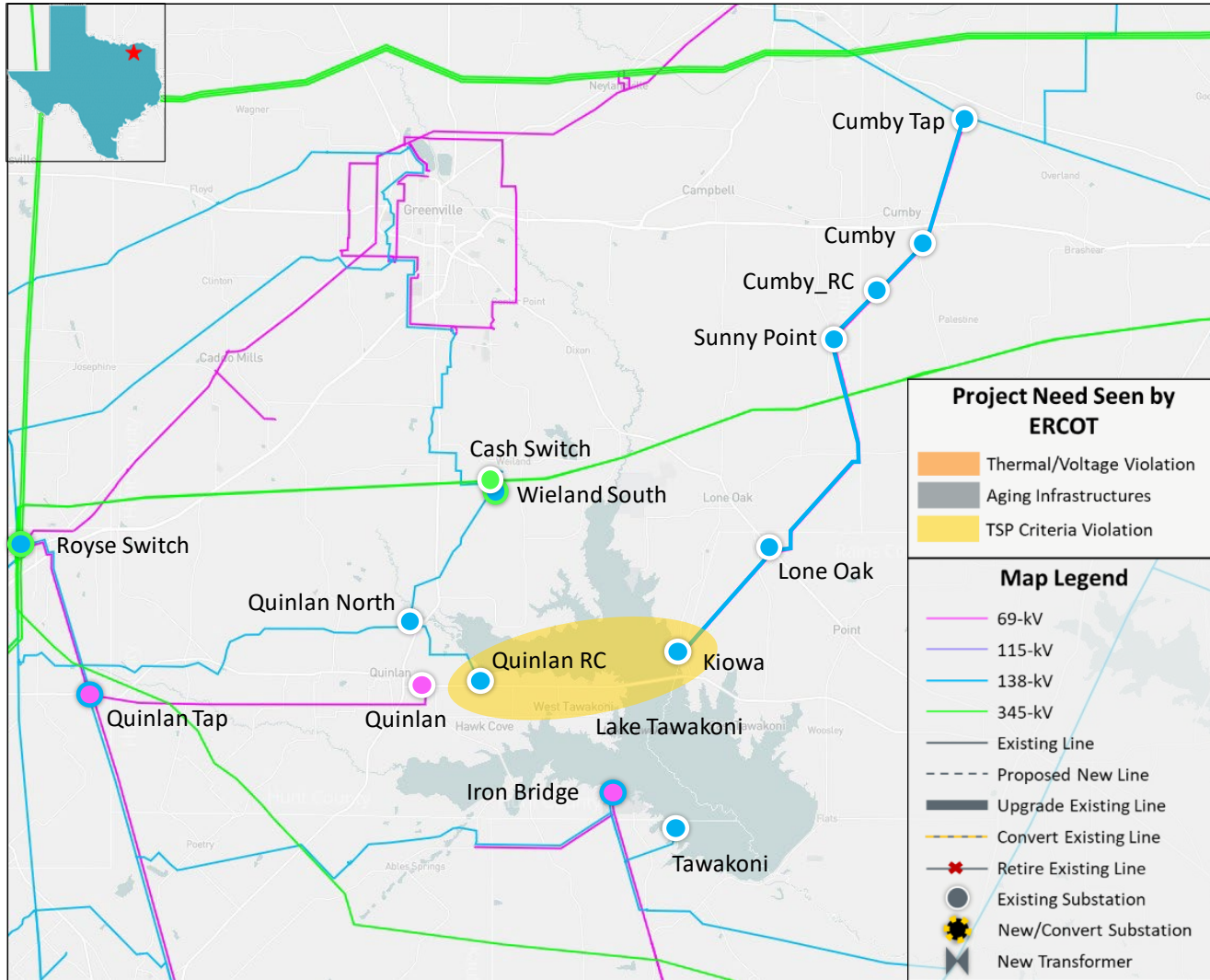
Tanzila Ahmed

RPG Meeting
November 8, 2022

Recap

- Rayburn Electric Cooperative (REC) submitted the Tawakoni Area Transmission Project for Regional Planning Group (RPG) review in August 2022 to address REC's Planning criteria violation in the Lake Tawakoni area
 - Submitted as Tier 2 project, requiring a Convenience and Necessity (CCN), and estimated to cost at \$27.5 million
 - Proposed in-service date of June 2024
- REC presented the project at the August RPG meeting
 - <https://www.ercot.com/calendar/event?id=1650552175738>
- ERCOT provided the study scope and status updates at the September and October RPG meetings
 - <https://www.ercot.com/calendar/event?id=1627677925573>
 - <https://www.ercot.com/calendar/event?id=1627677951500>
- ERCOT has completed its Independent review and will present the preferred option today

Recap - Study Area Map with Project Need



NOTE: This project is contingent on completion of the projects (TPIT No 64310, 64484, and 65366) to convert the existing Kiowa to Cumby Tap 69-kV lines to 138-kV

Comparison of Short-listed Options 1, 2 & 4

	Option 1	Option 2	Option 4
Met ERCOT and NERC Reliability Criteria	Yes	Yes	Yes
Met REC's Planning Criteria Requirement	Yes	Yes	Yes
Improved Long-term Load Serving Performance	Yes	Yes	Yes
Requires CCN (miles)	Yes (~8)	Yes (~17)	Yes (~10)
Expected In-Service Date (Year)	2024	2026	2025
Capital Cost Estimates*	\$42.4 M	\$107.3 M	\$81.7 M

* Cost estimates were provided by REC and Oncor

- All three short-listed options resolve REC's Planning criteria violation with no reliability issues
- Options 2 and 4 requires additional new right of ways
- Based on feedback from Oncor, Options 2 and 4 will require longer time for project completion and additional lands to upgrade the existing substations

Preferred Option

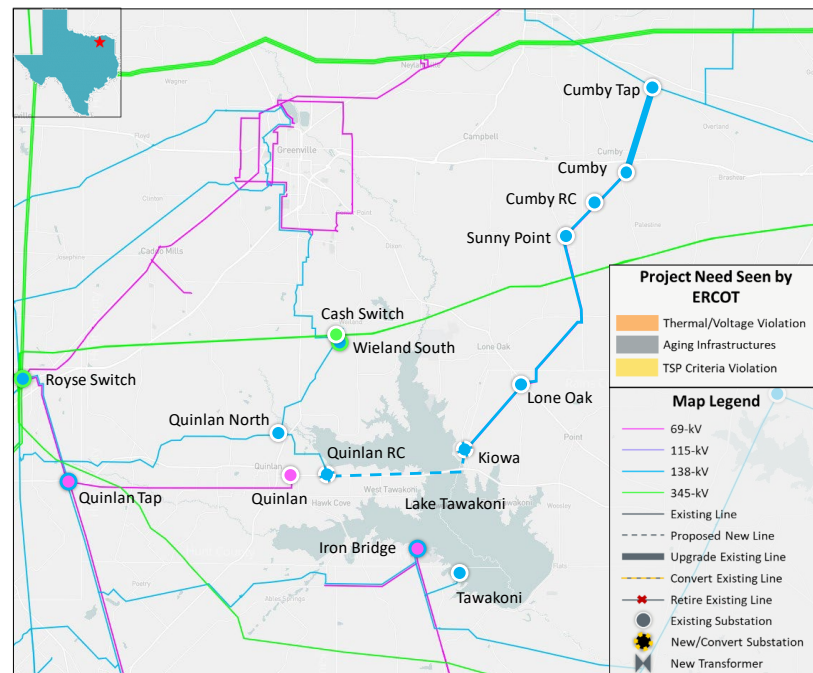
- Option 1 (REC preferred option) is selected as the preferred option based on the following considerations
 - Addresses the REC's Planning criteria violation with no reliability issues
 - Is the least cost option
 - Requires less new right of way compared to Options 2 and 4
 - Meets the proposed in-service year compared to Options 2 and 4

Congestion Analysis

- Congestion analysis was performed for preferred Option 1 using the 2021 RTP 2026 Final Economic case
- Option 1 did not result in any new congestions within the study area

ERCOT Recommendation

- ERCOT recommends Option 1 as the preferred solution
 - Estimated Cost: \$42.4 Million
 - Estimated In-Service Date: June 2024
 - Upgrade the existing Quinlan RC 138-kV Substation
 - Upgrade the existing Kiowa 138-kV Substation
 - Construct a new 138-kV transmission line (~8 miles of new right of way) from Quinlan RC to Kiowa Substations with an emergency rating of at least 596 MVA
 - Requires CCN
 - Upgrade the existing 138-kV transmission line from Cumby Substation to Cumby Tap Substation (4.5 miles) with an emergency rating of at least 248 MVA



NOTE: This project is contingent on completion of the projects (TPIT No 64310, 64484, and 65366) to convert the existing Kiowa to Cumby Tap 69-kV lines to 138-kV

RPG Acceptance and ERCOT Endorsement

- ERCOT Protocol Section 3.11.4.9(4)
 - (4) If a TSP asserts a need for a proposed Tier 1 or Tier 2 project based in part or in whole on its own planning criteria, then ERCOT's independent review shall also consider whether a reliability need exists under the TSP's criteria. If ERCOT identifies a reliability need under the TSP's criteria, then ERCOT shall recommend a project that would address that need as well as any reliability need identified under NERC or ERCOT criteria, but shall explicitly state in the independent review report that ERCOT has assumed the TSP's criteria are valid and that an assessment of the validity of the TSP's criteria is beyond the scope of ERCOT's responsibility. ERCOT or the ERCOT Board may provide a qualified endorsement of such a project if ERCOT determines that it is justified in part under ERCOT or NERC criteria, as described in paragraph (1) above. However, neither ERCOT nor the ERCOT Board shall endorse a project that is determined to be needed solely to meet a TSP's criteria.
- In accordance with Protocol Section 3.11.4.9(4), ERCOT will not endorse this project as it is needed solely to meet REC's Planning criteria

Next Step and Tentative Timeline

- Tentative Timelines
 - EIR Report to be posted in the MIS
 - Q4 2022

Thank you!



Stakeholder comments also welcomed through:

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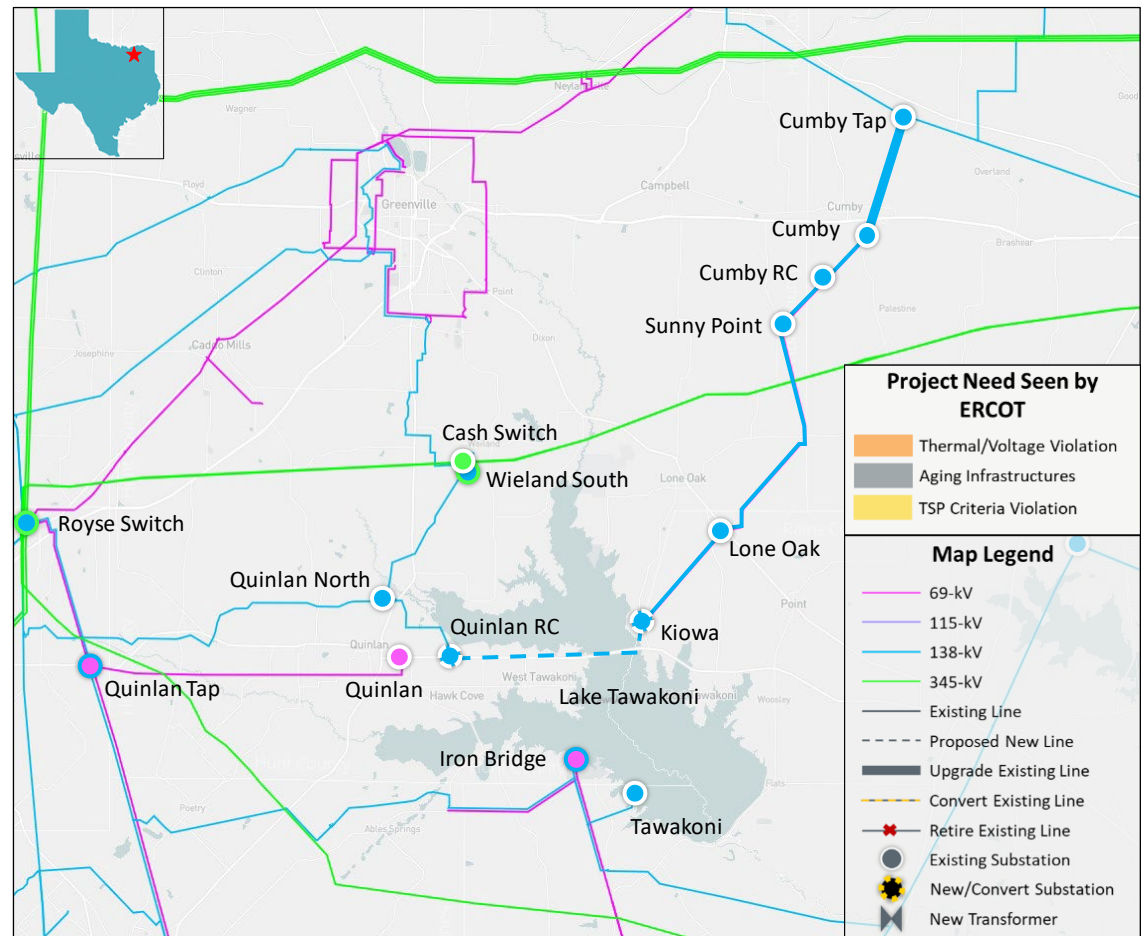
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Appendix

Short-listed Options Maps

Option 1 (Proposed Project by REC)

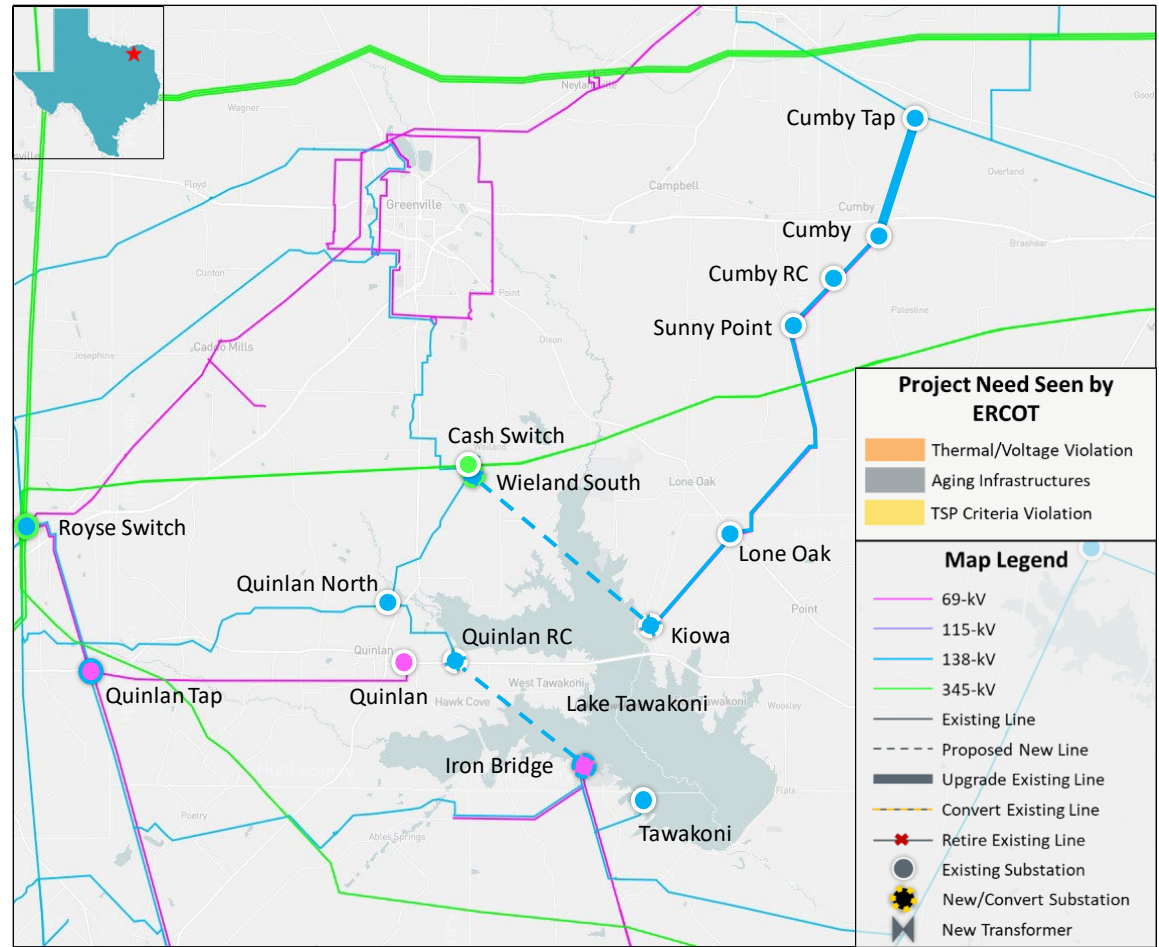
- Upgrade the existing Quinlan RC 138-kV Substation
- Upgrade the existing Kiowa 138-kV Substation
- Construct a new 138-kV transmission line from Quinlan RC to Kiowa (8 miles)
- Upgrade the existing 138-kV transmission line from Cumby to Cumby Tap (4.5 miles)



NOTE: This option is contingent on completion of the projects (TPIT No 64310, 64484, and 65366) to convert the existing Kiowa to Cumby Tap 69-kV lines to 138-kV

Option 2

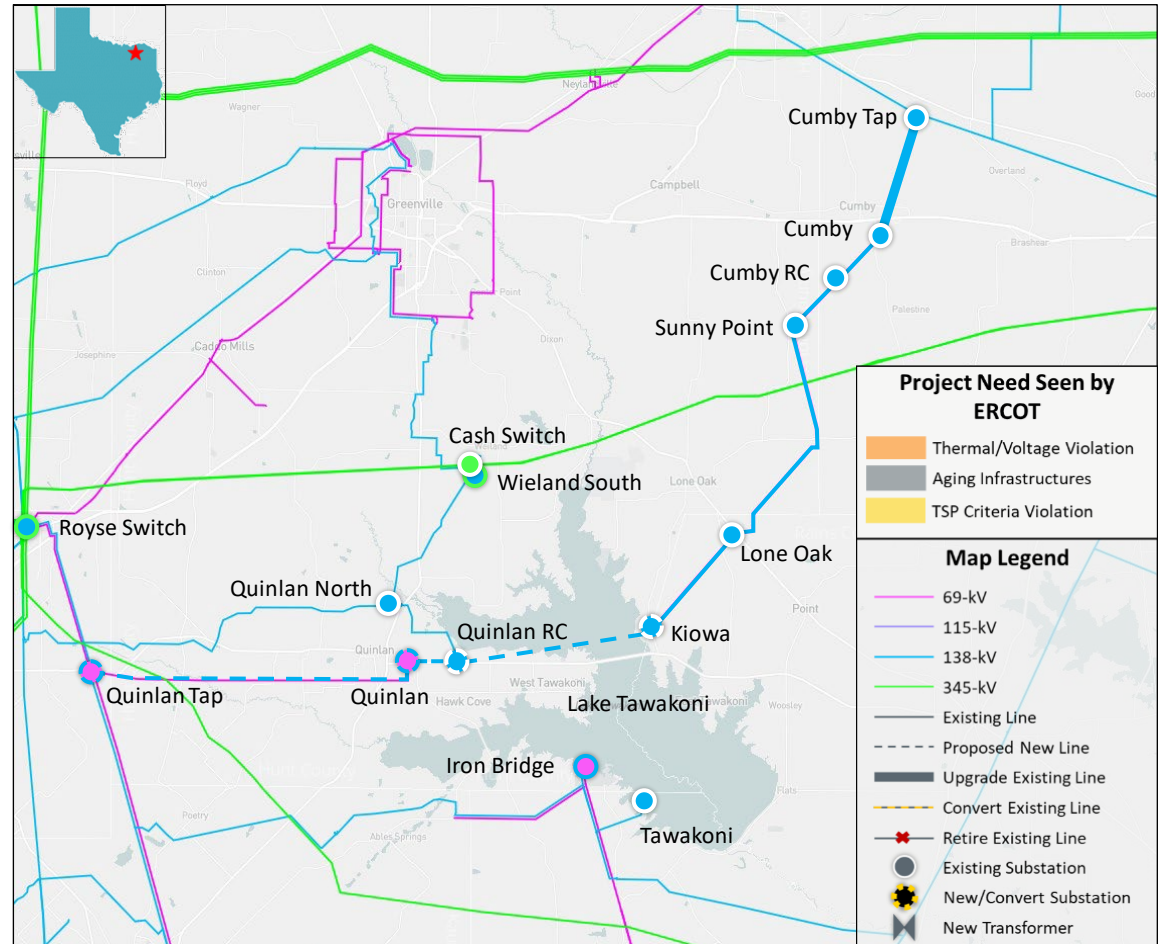
- Upgrade the existing Quinlan RC 138-kV Substation
- Construct a new 138-kV transmission line from Quinlan RC to Iron Bridge (7.07 miles)
- Upgrade the existing Kiowa 138-kV Substation
- Construct a new 138-kV transmission line from Kiowa to Wieland South (10.16 miles)
- Upgrade the existing 138-kV transmission line from Cumby to Cumby Tap (4.5 miles)



NOTE: This option is contingent on completion of the projects (TPIT No 64310, 64484, and 65366) to convert the existing Kiowa to Cumby Tap 69-kV lines to 138-kV

Option 4

- Upgrade the existing Quinlan RC 138-kV Substation
- Upgrade the existing Kiowa 138-kV Substation
- Construct a new 138-kV transmission line from Quinlan RC to Kiowa (8 miles)
- Convert the existing Quinlan 69-kV Substation to 138-kV Substation
- Construct a new 138-kV transmission line from Quinlan RC to Quinlan (2.14 miles)
- Convert the existing Quinlan to Quinlan Tap from 69-kV to 138-kV transmission line (11.28 miles)
- Upgrade the existing 138-kV transmission line from Cumby to Cumby Tap (4.5 miles)



NOTE: This option is contingent on completion of the projects (TPIT No 64310, 64484, and 65366) to convert the existing Kiowa to Cumby Tap 69-kV lines to 138-kV