



Oncor – Arlington Reliability Enhancement Project – ERCOT Independent Review (EIR) Status Update

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RPG Meeting
December 13, 2023

Recap

- Oncor submitted the Arlington Reliability Enhancement Project for Regional Planning Group (RPG) review in August 2023
 - This Tier 2 project is estimated to cost \$73 million and will require a Certificate of Convenience and Necessity (CCN)
 - Estimated in-service date
 - May 2026
- ERCOT provided study scope and status updates at the November RPG meeting
 - <https://www.ercot.com/calendar/11142023-RPG-Meeting>
- ERCOT completed its Independent Review (EIR) and will present the recommended option today

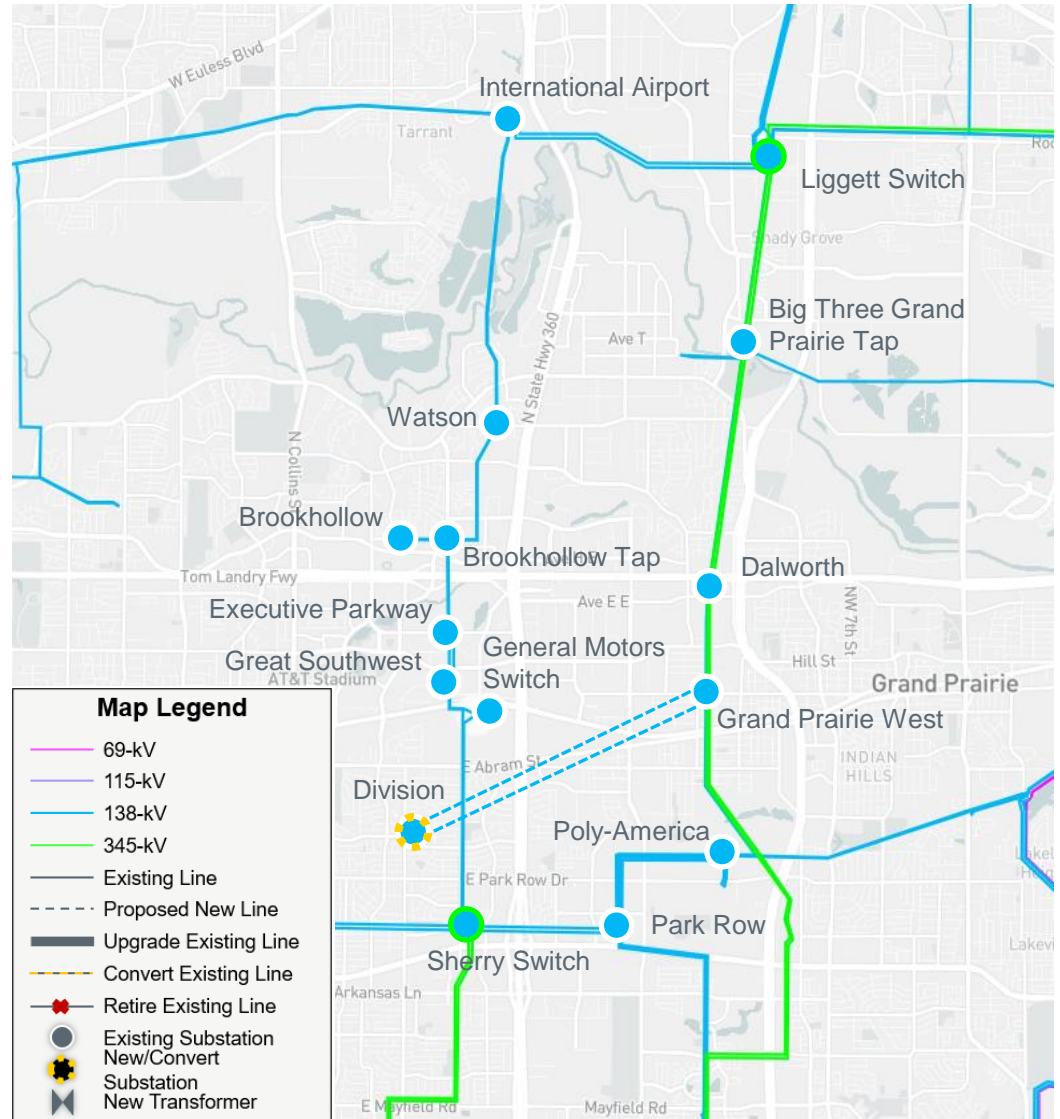
Recap – Option 1 – Proposed Project by Oncor

- Construct new 138-kV load-serving station (Division) between Sherry Switch and Great Southwest
- Construct new 0.6-mile Division to Executive Parkway/Sherry Switch 138-kV double circuit transmission line
- Construct new 2.4-mile Great Southwest to North of Grand Prairie West and General Motors Switch to North or South of Grand Prairie West 138-kV double circuit transmission line
- Add two 138-kV sectionalizing switches at Brookhollow



Recap – Option 2 – Alternative Project by Oncor

- Construct new 138-kV load-serving station (Division) between Sherry Switch and Great Southwest
- Construct new 3.6-mile Division to North or South of Grand Prairie West 138-kV double circuit transmission line



Option 3 – Alternative Project by ERCOT

- Construct new 138-kV load-serving station (Division) between Sherry Switch and Great Southwest
- Construct new 0.6-mile Division to Executive Parkway/Sherry Switch 138-kV double circuit transmission line
- Construct new 2.4-mile Great Southwest to Grand Prairie West and General Motors Switch to Grand Prairie West 138-kV double circuit transmission line
- Add a 646-MVA 345/138-kV 3-winding autotransformer at Grand Prairie West that taps the parallel 345-kV transmission line from Venus to Liggett
- Add two 138-kV sectionalizing switches at Brookhollow



Results of Reliability Assessment – Options

	N-1		G-1 + N-1		X-1 + N-1	
	Thermal Violations	Voltage Violations	Thermal Violations	Voltage Violations	Thermal Violations	Voltage Violations
Option 1N	None	None	None	None	None	None
Option 1S	None	None	None	None	None	None
Option 2N	None	None	None	None	None	None
Option 2S	None	None	None	None	None	None
Option 3	None	None	None	None	None	None

Long Term Load Serving Capability Assessment

- Adjusted load up in substations in the Study Area (Arlington area)
- Adjusted conforming load down outside of the North Central weather zone to balance power
- Based on N-1 contingency limits

Option	Incremental Load Serving Capability (MW)
1	43
2	48
3	1

Comparison of Options

	Option 1	Option 2	Option 3
Meets ERCOT and NERC Reliability Criteria	Yes	Yes	Yes
Meets Oncor's Planning Criteria Requirement	Yes (Better)	Yes (Partially)	Yes (Better)
Better Long-Term Load Serving Capability	Yes	Yes	No
Requires CCN (miles)	Yes (~3)	Yes (~3.6)	Yes (~3)
Project Feasibility	Yes	Yes	Yes
Cost Estimate* (\$M)	73	71	>93**

* Cost estimates were provided by Oncor

** Option 3 cost reflects Option 1 cost plus the cost of the transformer and new switching station facilities

- Only options 1 and 3 provide the sectionalizing capability to fully restore load most efficiently in the Arlington area

Preferred Option

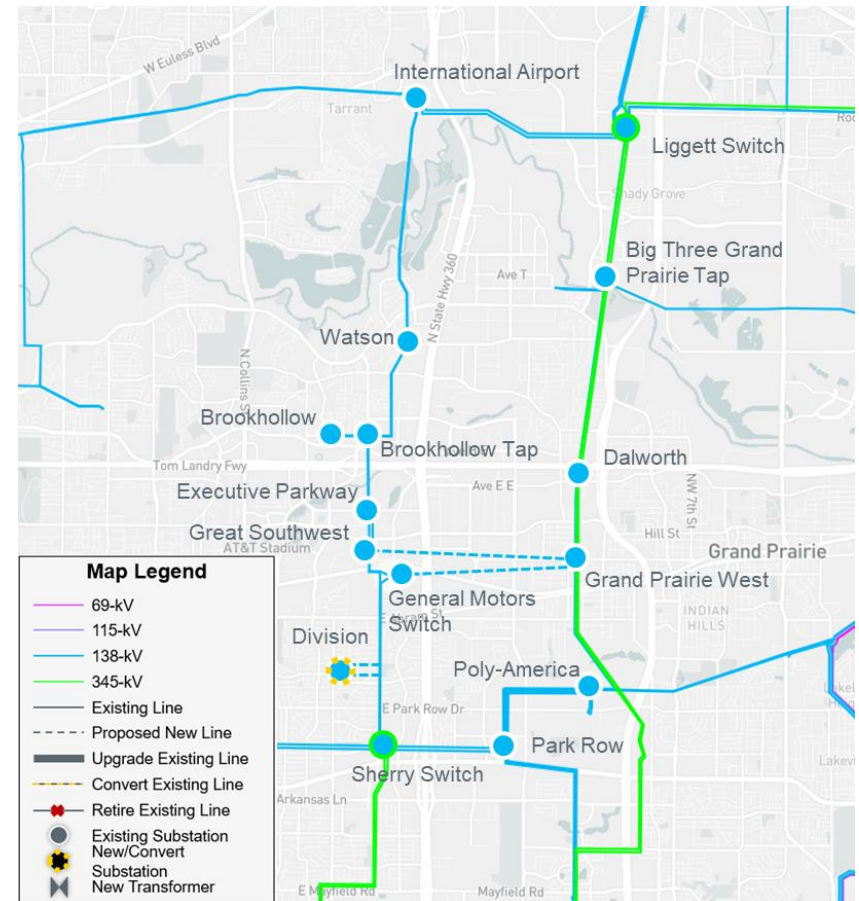
- Option 1 is selected as the preferred option
 - Most economical option that fully addresses Oncor's Planning criteria with no reliability issues
 - Provides better Long Term Load Serving Capability than Option 3

Congestion Analysis

- Congestion analysis was performed for Option 1 using the 2022 RTP 2027 Final Economic case
- Option 1 did not result in any new congestion within the study area

ERCOT Recommendation

- ERCOT recommends Option 1
 - Estimated Cost: \$73 Million
 - Estimated In-Service Date: May 2026
 - Construct new 138-kV load-serving station (Division) between Sherry Switch and Great Southwest
 - Construct new 0.6-mile Division to Executive Parkway/Sherry Switch 138-kV double circuit transmission line
 - Construct new 2.4-mile Great Southwest to North of Grand Prairie West and General Motors Switch to North or South of Grand Prairie West 138-kV double circuit transmission line
 - Add two 138-kV sectionalizing switches at Brookhollow



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 Oncor's Planning criteria

Next Step and Tentative Timeline

- Tentative Timelines
 - EIR Report will be posted in the MIS
 - Q4 2023

Thank you!



Stakeholder comments also welcomed through:

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