



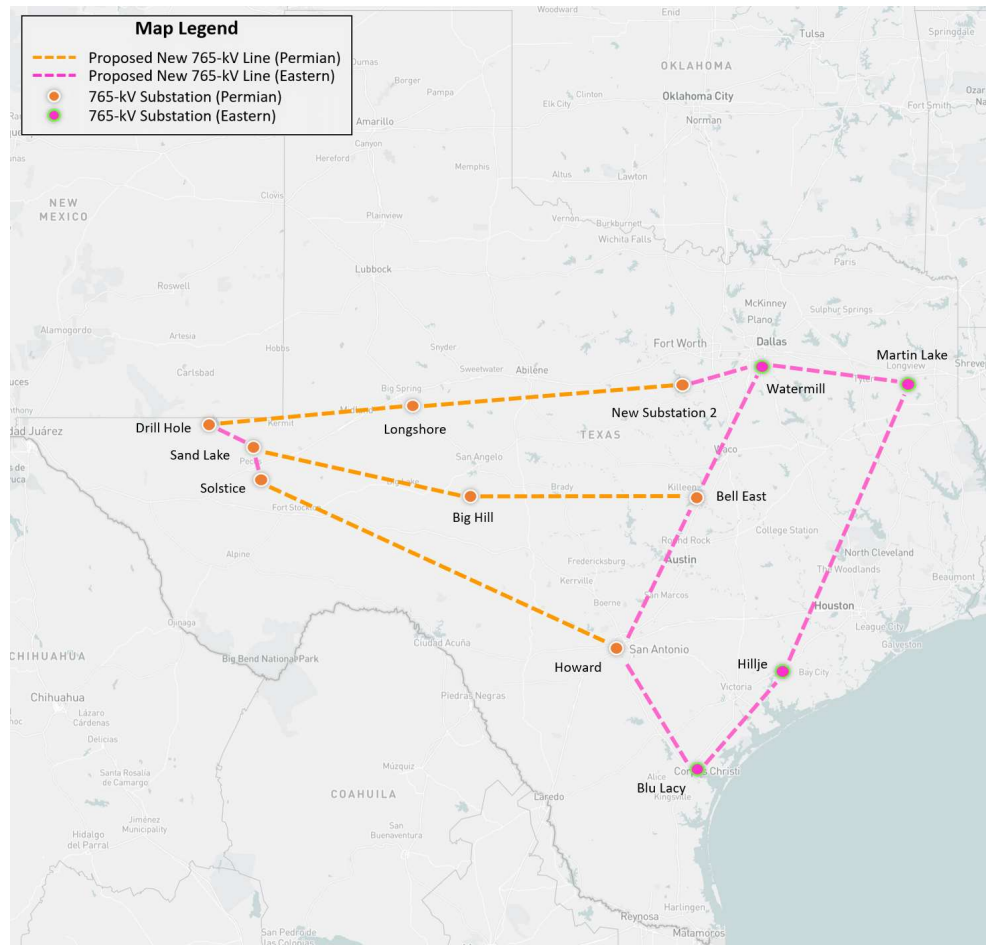
TX 765 kV STEP Eastern Backbone RPG Project

Joint TSPs: AEP Texas; CPS Energy; Oncor Electric Delivery; CenterPoint Energy Houston Electric

Background

- ERCOT's 2024 Regional Transmission Plan (RTP) identified a Texas 765 kV Strategic Transmission Expansion Plan (TX 765 kV STEP)
- PUCT approved Permian Basin Reliability Plan to build first set of 765 kV import lines
- This TX 765 kV STEP Eastern Backbone RPG submittal constitutes the remaining projects ERCOT identified in the TX 765 kV STEP
- Joint TSPs submitted the TX 765 kV STEP Eastern Backbone RPG as a Tier 1 project

TX 765 kV STEP Eastern Backbone



Analysis

- Steady-state: Steady State analysis was performed via the 2024 765kV STEP RTP.
- Stability: Each TSP performed Stability analysis of their systems to verify the reliability of the 765 kV STEP Eastern Backbone.
- Short circuit: The short circuit analysis will be performed on the 765kV network as well as the underlying 345kV and 138kV networks by each TSP at the appropriate time. Any short circuit projects identified will be included in future RPG submittals, as necessary.
- SSR Screening: The TX 765kV STEP Eastern Backbone RPG did not create any new or shorter paths leading to generation sources becoming radial with series capacitors in the event of fewer than 14 concurrent transmission outages.
- Alternative options: ERCOT evaluated alternative options during the 2024 RTP (for 345kV and 765kV) and recommended the TX 765 kV STEP.

Cost Estimate

From	From TSP	To	To TSP	Total Cost (Million)
Hillje	CEHE	Martin Lake	Oncor	\$ 2,181.0
Hillje	CEHE	Blu Lacy	AEPTX	\$ 1,117.6
Watermill	Oncor	Martin Lake	Oncor	\$ 937.0
Watermill	Oncor	Bell East**	Oncor	\$ 865.3
Watermill	Oncor	New Substation 2 ("Dinosaur")**	Oncor	\$ 529.5
Bell East**	Oncor	Howard**	CPS	\$ 1,085.2
Howard**	CPS	Blu Lacy	AEPTX	\$ 897.0
Construct Blu Lacy 765/345 kV substation			AEPTX	\$ 500.0
Construct Hillje 765/345 kV substation			CEHE	\$ 476.0
Construct Martin Lake 765/345 kV substation			Oncor	\$ 326.0
Construct Watermill 765/345 kV substation			Oncor	\$ 470.0
Total 765 kV STEP Eastern Backbone Cost				\$ 9,384.6

** substation expansion costs are included in the line costs

Questions?

