



WETT Bearkat Area Transmission Improvements Project-ERCOT Independent Review Update

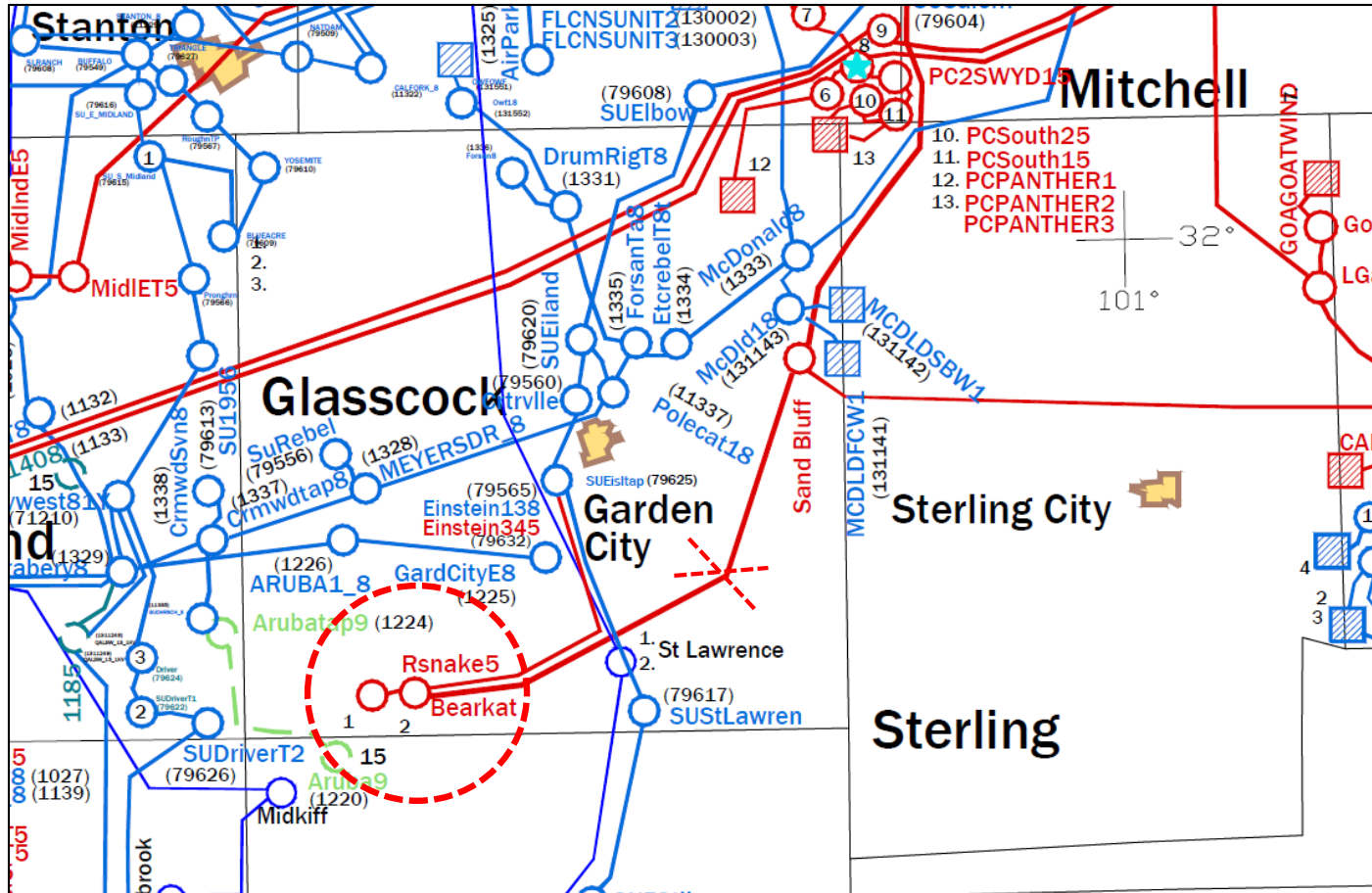
ERCOT Transmission Planning

Regional Planning Group
July 25, 2018

Bearkat Status Update

- **Wind Energy Transmission Texas (WETT) submitted Bearkat Area Transmission Improvements project for Regional Planning Group review. This is a Tier 1 project that is estimated to cost \$ 69.87 million.**
<http://www.ercot.com/calendar/2017/10/19/108887-RPG>
- **ERCOT provided scope updates and study assumptions at the February RPG**
<http://www.ercot.com/calendar/2018/2/27/138675-RPG>
- **ERCOT presented preliminary results and future steps at the April RPG**
[http://www.ercot.com/content/wcm/key_documents_lists/138684/Bearkat Update 04 24 2018 RPG.pdf](http://www.ercot.com/content/wcm/key_documents_lists/138684/Bearkat_Update_04_24_2018_RPG.pdf)
- **ERCOT presented results from weather sensitivity and outage probability analysis at the May RPG**
[http://www.ercot.com/content/wcm/key_documents_lists/138688/Bearkat Update 05 22 2018 RPG.pdf](http://www.ercot.com/content/wcm/key_documents_lists/138688/Bearkat_Update_05_22_2018_RPG.pdf)

Bearkat - Topology



Updates to Base Study Case

- ERCOT studied the economic models to assess the performance of project options with
 - Kontiki wind modeled at the Bearkat substation in the base case (met PG requirement 6.9 in May 2018)

Project Name	Projected COD	Fuel	Capacity	County
Kontiki Wind A	09/2019	Wind	255	Glasscock
Kontiki Wind B	09/2020	Wind	255	Glasscock

- Oncor's RPG Approved Far West Texas 2 project

Economic Evaluation of Alternatives

Please refer to the Appendix for project option descriptions

Project	Annual PC Savings (M\$)	Total Capital Cost for Option (M\$)	Benefit/Cost Ratio	Meets Benefit/Cost Ratio of 15%
Opt 1	25.58	54.95	0.47	YES
Opt 2	31.75	55.61	0.57	YES
Opt 3	33.86	58.06	0.58	YES
Opt 4	35.15	69.87	0.50	YES
Opt 5	35.57	80.54	0.44	YES
Opt 6	36.78	93.47	0.39	YES
Opt 7	33.46	102.15	0.33	YES
Opt 8	35.93	106.50	0.34	YES

Additional Project Alternative

- In addition to the eight project options proposed by WETT, ERCOT evaluated the economic benefit of adding a new approximately 90-mile 345-kV single circuit line (double circuit capable) from the Bearkat station to the 345-kV Bakersfield station (option 9)

Project	Annual PC Savings (M\$)	Total Capital Cost for Option (M\$)	Benefit/Cost Ratio	Meets Benefit/Cost Ratio of 15%
Opt 9	34.56	~162	0.21	YES

Next Steps

- ERCOT is currently studying additional reliability benefits of project options from a stability perspective to finalize transmission improvements for the Bearkat area

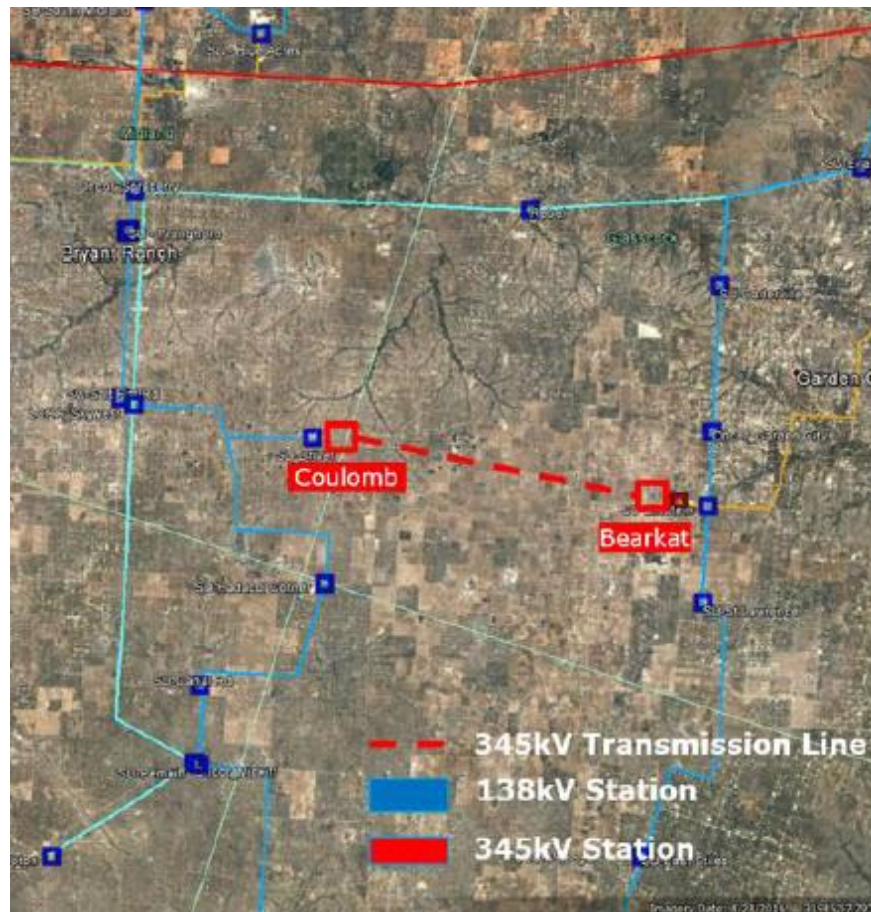
Deliverables

- **Tentative Timeline**
 - EIR recommendation to TAC – September, 2018
 - BOD Endorsement – October, 2018

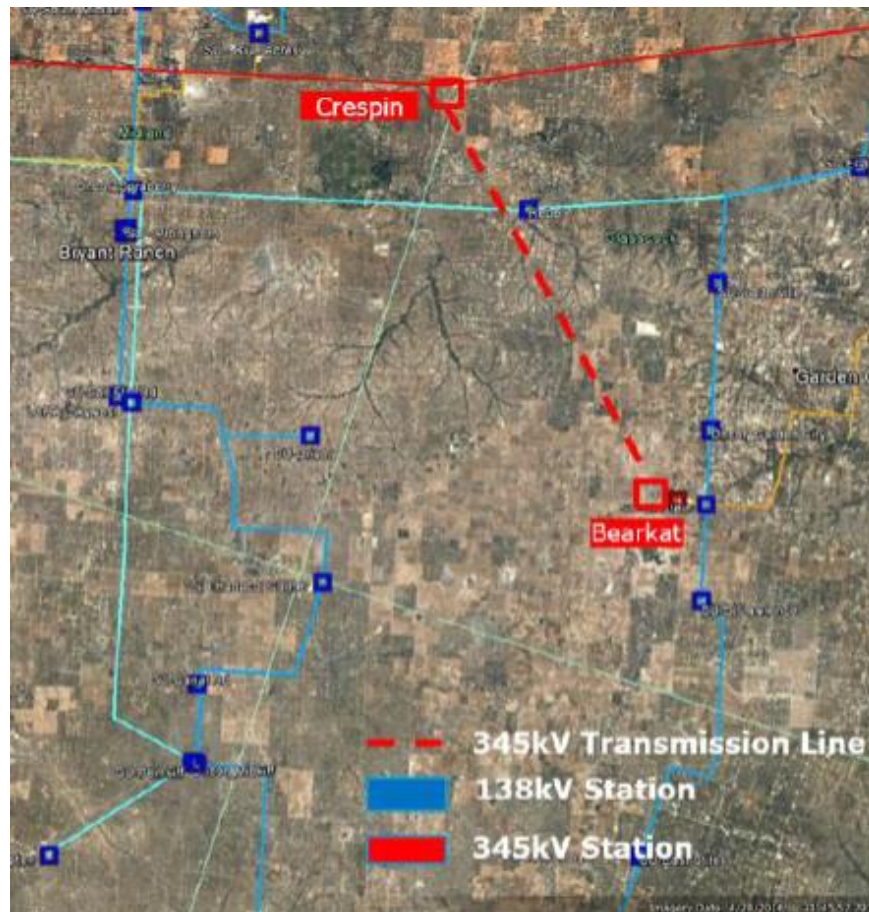


Stakeholder Comments Also Welcomed to Sun Wook Kang:
SunWook.Kang@ercot.com

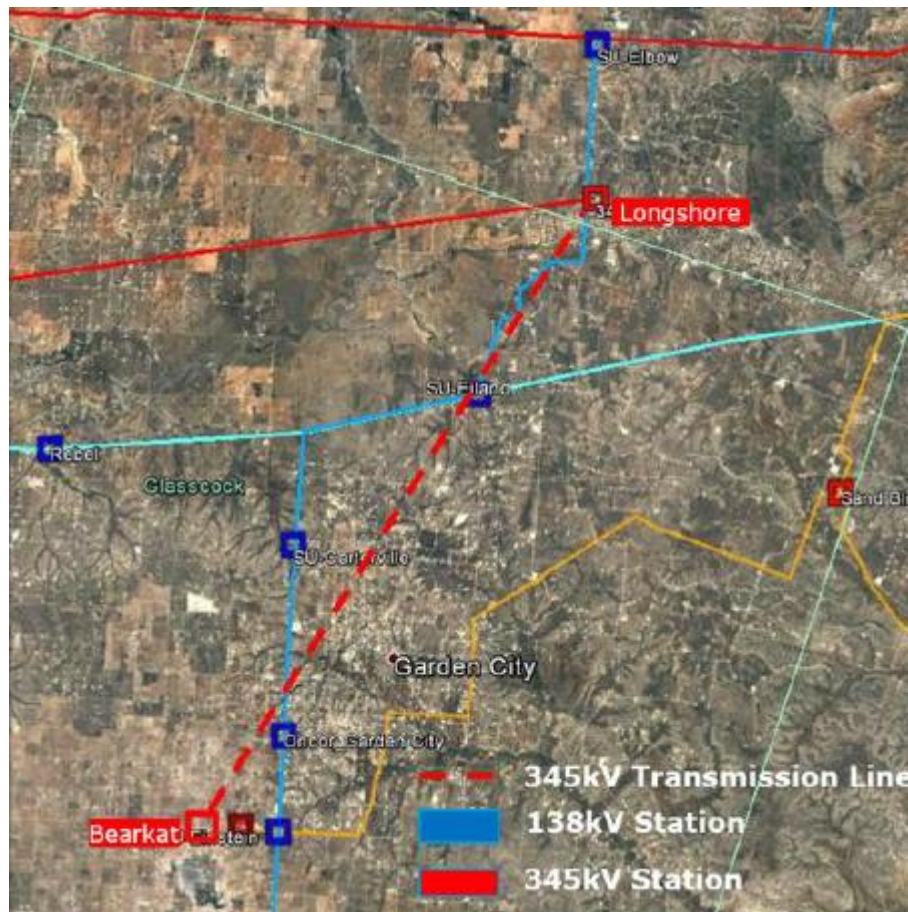
Appendix – Transmission Option 1 (Presented by WETT at 08/22/2017 RPG)



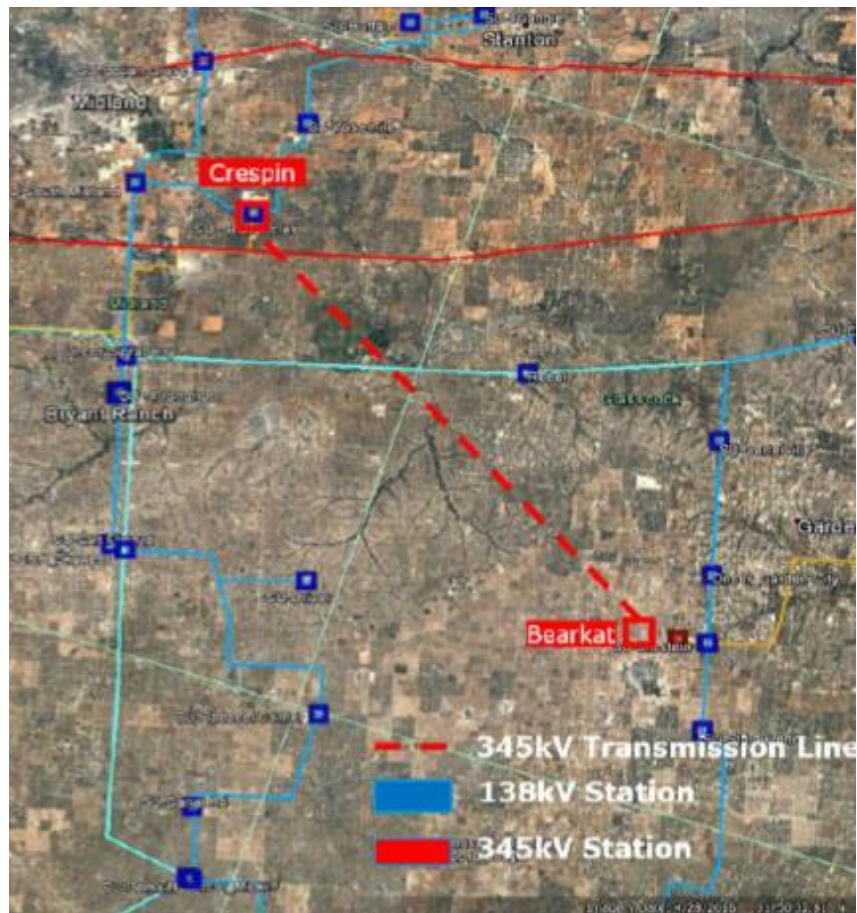
Appendix – Transmission Option 2 (Presented by WETT at 08/22/2017 RPG)



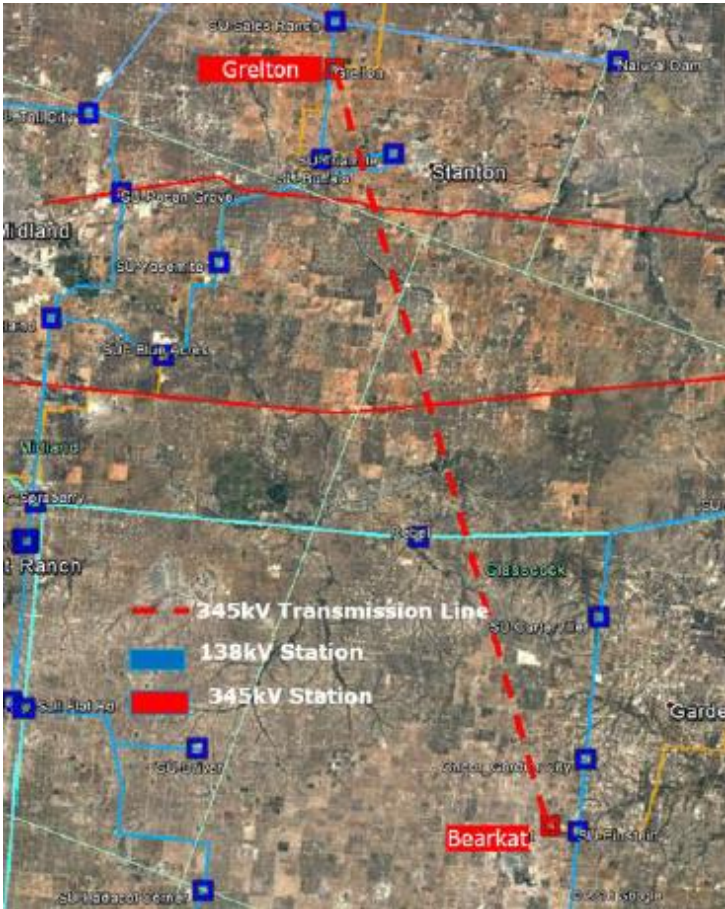
Appendix – Transmission Option 3 (Presented by WETT at 08/22/2017 RPG)



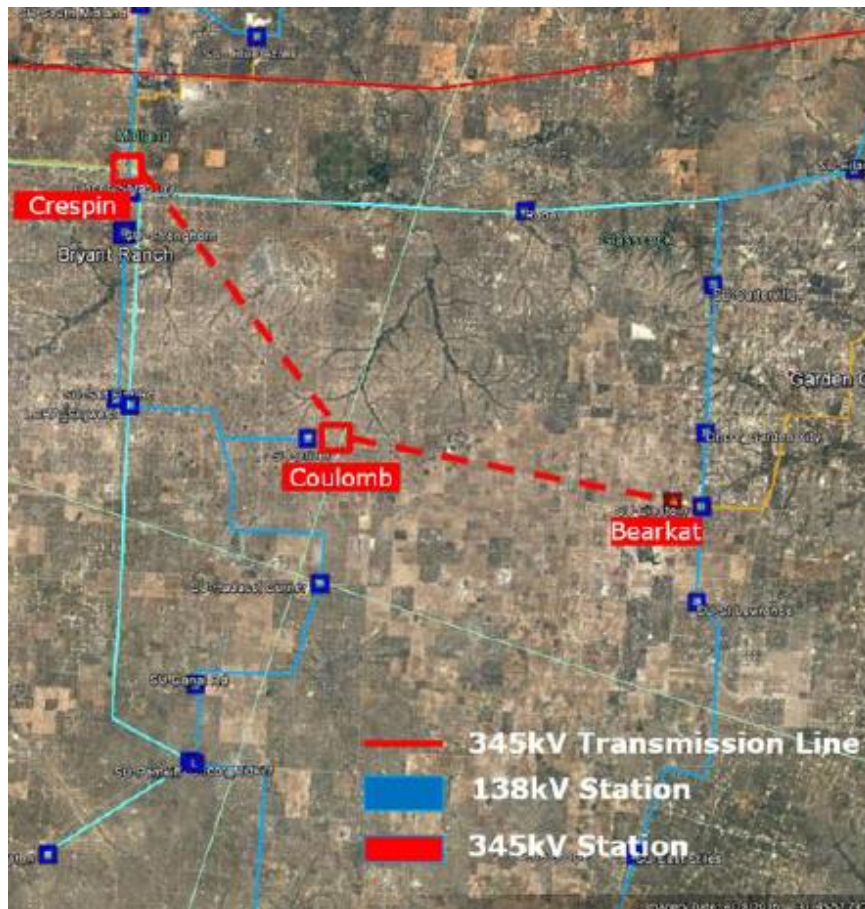
Appendix – Transmission Option 4 (Presented by WETT at 08/22/2017 RPG)



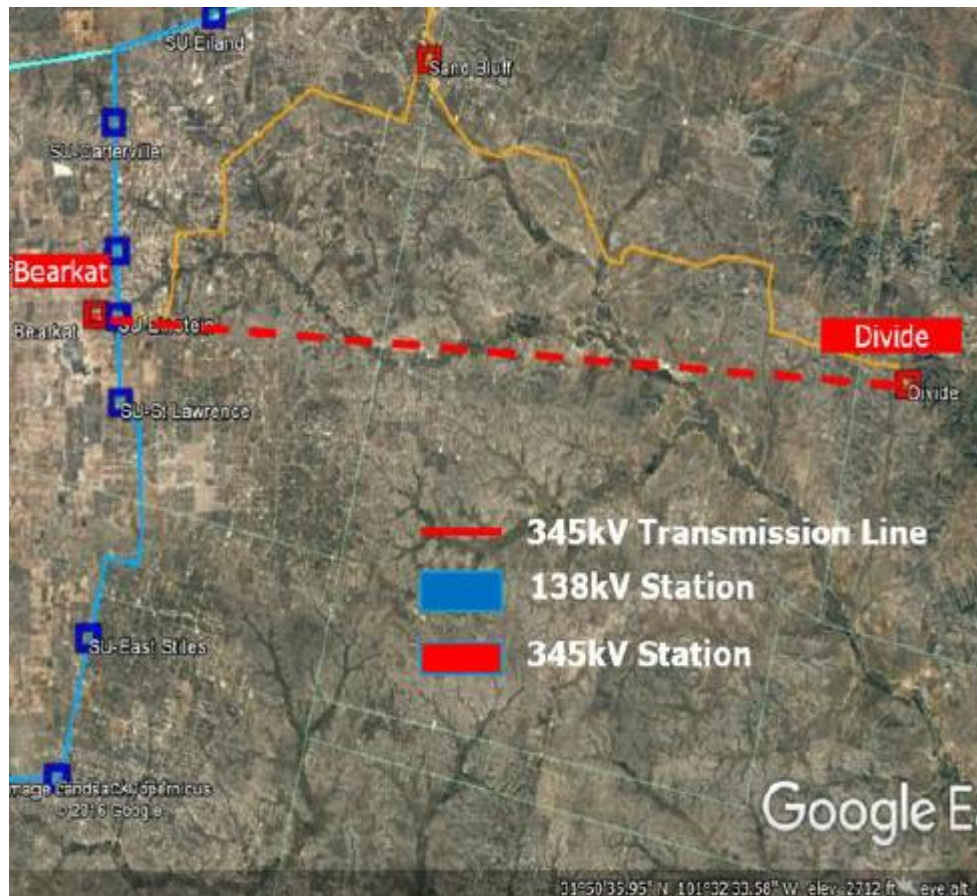
Appendix – Transmission Option 5 (Presented by WETT at 08/22/2017 RPG)



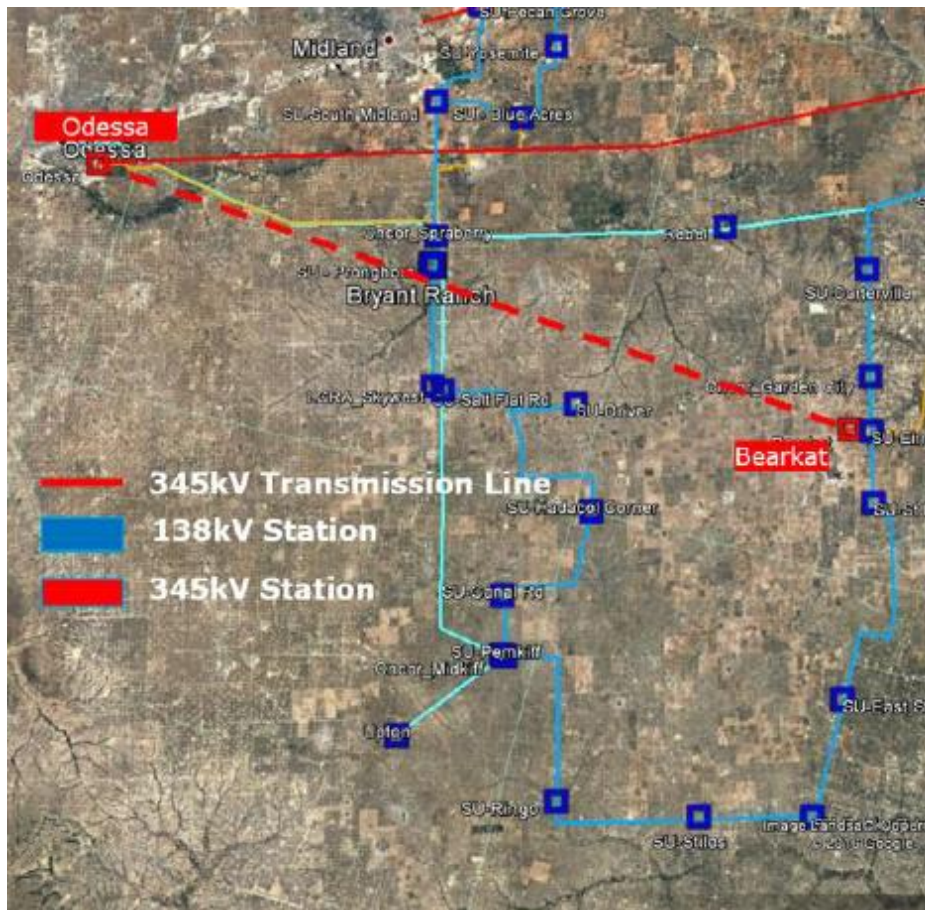
Appendix – Transmission Option 6 (Presented by WETT at 08/22/2017 RPG)



Appendix – Transmission Option 7 (Presented by WETT at 08/22/2017 RPG)



Appendix – Transmission Option 8 (Presented by WETT at 08/22/2017 RPG)



Appendix – Transmission Option 9 (Additional Option Tested by ERCOT)

