



Item 10: Electric Transmission Texas (ETT) Update on CREZ Work

Kip Fox

President, ETT

Managing Director, AEP Service Corporation

Board of Directors Meeting

ERCOT Public

October 8, 2019




ETT Update On CREZ Work

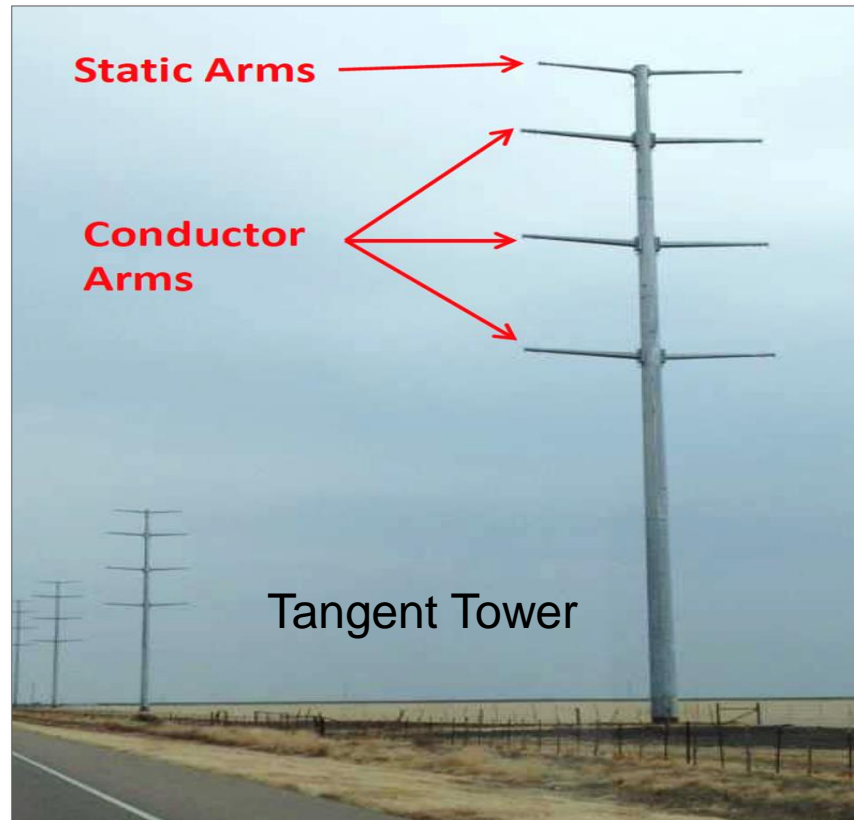
ERCOT Board of Directors Update| October 2019

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President, ETT
Managing Director, AEP Service Corporation**

What is the Issue?

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- **ETT observed cracking on CREZ static and conductor arms; baseplates and flanges.**
 - **ETT pursued a resolution and reached settlements with suppliers.**
 - Concern for safety of the public.
 - Concern for long-term reliability of the grid.
 - A critical long-term asset.
 - Prudent action to protect ratepayers and avoid additional material and O&M cost.
 - **A full inspection and arm replacement (as necessary) of more than 2,630 tangent towers began July 10, 2016.**
 - **An additional 113 running angle poles need to have their baseplates, brackets and flanges inspected for cracking.**

Tower Structure

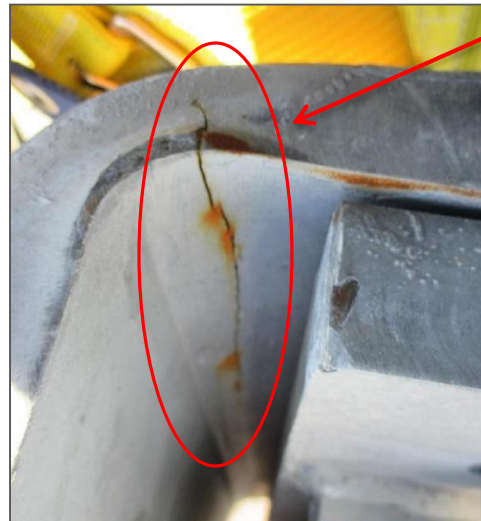


	Structures	Arms
By structure type		
TOTAL TANGENTS	2,630	21,040
TOTAL ANGLES's	113	904
TOTAL DEAD ENDS's	149	0
TOTAL	2,892	21,944

Examples of Cracks




Cracked





Why the Long Outages?

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- **Replacing over 6,042 arms, inspection and field repair of 984 flange joints and 198 base flanges, drone inspection & photographing of 21,944 arms.**
 - **If the wind exceeds the safe operating conditions for the equipment being used, for safety concerns, work is stopped. This condition is called a “Wind Out.”**
 - Wind Outs / weather have reduced crew productivity.
 - **Due to safety concerns the work cannot be done when the line is energized requiring a full outage on the two circuits.**
 - **Timely provision for line clearances is required to meet the schedule – including constraints for interconnections, land owner issues, other outages and agricultural seasonal restrictions.**



Key Actions to Minimize Outage Impact

- **Daily outage scheduling (ERCOT reliability tool)**
- **4 hour or less return to service commitment to ERCOT**
- **6 day /10 hour work schedule**
- **Returning lines to service if high wind/weather/other issue occur over a 4 day period**
 - Returned lines to service 28 days from January to September
- **New crane type for safe operation in 30 mph winds (OSHA safety limit 25 mph before change)**
- **Scaffolding on towers**
 - No longer “wind-out” condition, welders can work in up to 55 mph winds
 - Improved safety
 - Improved weld quality
- **Over 90 dedicated contract and support personnel**

Additional Information

- Latest updates can be found at: <http://ettexas.com/Regulatory> under Non-discriminatory Access to Products and Services tab
- Updates at CMWG and WMS on a quarterly or as requested basis
- Changes to the outage scheduler communicated through the CMWG and WMS exploders within 24 hour of change.
- ETT will respond to questions and post answers on our website. Questions should be emailed to Mr. Blake Gross at bagross@aep.com

ETT thanks ERCOT, the PUCT, PUCT Staff, Land Owners, and Contractors and Employees for counsel, work and support in getting the job done safely.