



**Date:** January 10, 2012  
**To:** Board of Directors  
**From:** Jeff Billo, Manager of Mid-Term Planning  
**Subject:** Cross Valley 345kV Regional Planning Group Project

**Issue for the ERCOT Board of Directors**

**ERCOT Board of Directors Meeting Date:** January 17, 2012

**Agenda Item No.:** 10

**Issue:**

Whether the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) should: (1) endorse the need for the Cross Valley 345 kV Regional Planning Group (RPG) Project to meet the reliability requirements for the ERCOT System which ERCOT staff has independently reviewed and recommends for Board endorsement and TAC has voted to support; and (2) deem the North Edinburg-Loma Alta 345 kV line critical to reliability of the ERCOT System pursuant to Public Utility Commission of Texas Substantive Rule 25.101(b)(3)(D).

**Background/History:**

Sharyland Utilities and Brownsville Public Utilities Board (BPUB) submitted a project to meet the reliability needs of Brownsville and the surrounding areas. ERCOT performed an Independent Review and found that ERCOT planning reliability criteria would be exceeded by 2016 without system upgrades. ERCOT analyzed the proposed project as well as several alternative projects. Of these, Option 5 was identified as the preferred option for the Cross Valley 345kV Project. The improvements included in Option 5 are described as follows:

- Construct a new La Palma-Palo Alto 138 kV line (~12 miles) on new ROW with a rating of at least 215 MVA;
- Construct a new North Edinburg-Loma Alta 345 kV line (double circuit capable with one circuit in place) routed in proximity to the existing South McAllen Substation (~106.5 miles) on new ROW; and
- Construct a new 345 kV bus at the Loma Alta station with one 345/138 kV autotransformer.

The cost estimate for these improvements is \$274.7 million. Option 5 would resolve the reliability criteria exceedances identified in the study. BPUB requested that ERCOT deem the North Edinburg-Loma Alta 345 kV line critical to reliability pursuant to the Public Utility Commission of Texas Substantive Rule 25.101(b)(3)(D) in order to mitigate reliability risk as soon as possible.

**Key Factors Influencing Issue:**

1. A Cross Valley 345 kV line is needed to meet the reliability requirements for the ERCOT System (specifically, to prevent a large amount of load shed in the Brownsville area under N-1-1 contingency conditions).
2. BPUB projected a large industrial load addition to their system. RPG could not come to a consensus on the appropriateness of including this load addition in the analysis. ERCOT



performed the Independent Review with and without the load addition.

3. ERCOT relies on the TDSPs to provide forecasts of discrete load addition assumptions in the planning models. Hence, the recommendation in the ERCOT Independent Review of Option 5 was based on the assumption of 250 MW of industrial load additions in Brownsville.
4. TAC voted to recommend Option 5.

**Alternatives:**

1. Endorse the need for the Cross Valley 345 kV RPG Project to meet reliability requirements in the ERCOT System as recommended by ERCOT staff and as supported by TAC and deem the North Edinburg to Loma Alta 345 kV line critical to reliability of the ERCOT System pursuant to Public Utility Commission of Texas Substantive Rule 25.101(b)(3)(D).
2. Remand to ERCOT staff with instructions.

**Conclusion/Recommendation:**

ERCOT staff respectfully recommends that the Board of Directors: (1) endorse the need for the Cross Valley 345 kV RPG Project to meet the reliability requirements for the ERCOT System which ERCOT staff has independently reviewed and recommends for Board endorsement and TAC has voted to support; and (2) deem the North Edinburg-Loma Alta 345 kV line critical to reliability of the ERCOT System pursuant to Public Utility Commission of Texas Substantive Rule 25.101(b)(3)(D).



**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**  
**BOARD OF DIRECTORS RESOLUTION**

WHEREAS, after due consideration of the alternatives, the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) deems it desirable and in the best interest of ERCOT to: (1) endorse the need for the Cross Valley 345 kV Regional Planning Group (RPG) Project to meet the reliability requirements for the ERCOT System which ERCOT staff has independently reviewed and recommends for Board endorsement and TAC has voted to support; and (2) deem the North Edinburg-Loma Alta 345 kV line critical to reliability of the ERCOT System pursuant to Public Utility Commission of Texas Substantive Rule 25.101(b)(3)(D);

THEREFORE, BE IT RESOLVED, that the Board hereby: (1) endorses the need for the Cross Valley 345 kV RPG Project to meet the reliability requirements for the ERCOT System which ERCOT staff has independently reviewed and recommends for Board endorsement and TAC has voted to support; and (2) deems the North Edinburg-Loma Alta 345 kV line critical to reliability of the ERCOT System pursuant to Public Utility Commission of Texas Substantive Rule 25.101(b)(3)(D).

**CORPORATE SECRETARY'S CERTIFICATE**

I, Vickie G. Leady, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its January 17, 2012 meeting, the ERCOT Board passed a motion approving the above Resolution by \_\_\_\_\_.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_\_ day of January, 2012.

\_\_\_\_\_  
Vickie G. Leady  
Assistant Corporate Secretary