



# MEMO

**Date:** July 11, 2006  
**To:** ERCOT Board of Directors  
**From:** Bill Bojorquez, Director of System Planning  
**Subject:** AEPTCC/MEC Western Region Project

## Issue for the ERCOT Board of Directors

**ERCOT Board of Director Meeting Date:** July 18, 2006

**Agenda Item No.:** 8

### **Issue:**

ERCOT Board endorsement of the Western Region Project.

### **Background:**

The ERCOT Board of Directors is often asked by staff to approve the need for transmission facilities. These projects are the end product of an extensive regional planning process led by ERCOT System Planning which is open to all stakeholders. The following excerpts from Senate Bill 7 and from the PUCT substantive rules are provided as additional background this month to address frequent questions of the Board relating to ERCOT's role in the planning of the electric grid.

#### **Senate Bill 7**

##### **Sec. 31.002 Definitions**

(9) "Independent system operator" means an entity supervising the collective transmission facilities of a power region that is charged with nondiscriminatory coordination of market transactions, **systemwide transmission planning**, and network reliability. (*Emphasis added*)

##### **Sec. 39.151. Essential Organizations**

- (a) A power region must establish one or more independent organizations to perform the following functions:
- (1) ensure access to the transmission and distribution systems for all buyers and sellers of electricity on nondiscriminatory terms;
  - (2) **ensure the reliability and adequacy** of the regional electrical network; (*Emphasis added*)
  - (3) ensure that information relating to a customer's choice of retail electric provider is conveyed in a timely manner to the persons who need that information; and
  - (4) ensure that electricity production and delivery are accurately accounted for among the generators and wholesale buyers and sellers in the region.
- (b) "Independent organization" means an independent system operator or other person that is sufficiently independent of any producer or seller of electricity that its decisions will not be unduly influenced by any producer or seller



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## **PUCT Substantive Rule §25.361**

### **Electric Reliability Council of Texas (ERCOT)**

- (b) Purpose. ERCOT shall perform the functions of an independent organization under the Public Utility Regulatory Act (PURA) §39.151...
- (f) Planning. ERCOT shall conduct transmission system planning and exercise comprehensive authority over the planning of bulk transmission projects that affect the transfer capability of the ERCOT transmission system. ERCOT shall supervise and coordinate the other planning activities of TSPs.
- (1) **ERCOT shall evaluate and make a recommendation to the commission as to the need for any transmission facility** over which it has comprehensive transmission planning authority. (*Emphasis added*)
- (2) A TSP shall coordinate its transmission planning efforts with those of other TSPs, insofar as its transmission plans affect other TSPs.
- (3) ERCOT shall submit to the commission any revisions or additions to the planning guidelines and procedures prior to adoption. ERCOT may seek input from the commission as to the content and implementation of its guidelines and procedures as it deems necessary.

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### **Proposed Transmission Project:**

The current transmission system supporting American Electric Power Texas Central Company's (AEPTCC) Western Region area (area bounded by San Antonio, Del Rio, Eagle Pass and Dilley) is not sufficient to meet the reliability needs of the area.

The area has been recently studied in the Regional Planning Groups (West and South) and the following transmission upgrades have been recommended in order to meet ERCOT's reliability criteria:

- 1. Uvalde to Hamilton Road 138kV Line Rebuild**
  - Addresses contingency overloads with loss of Asherton to Escondido 138 kV path.
- 2. Del Rio 138 kV Transmission Loop Re-Conductor**
  - Address contingency overloads within Del Rio with loss of part of the transmission loop serving the city.
- 3. City Public Service Energy (CPSE) Lytle to American Electric Power Texas Central Company (AEPTCC) Lytle 138/69 kV Auto with Lytle to Big Foot 69 kV line rebuild**
  - Addresses contingency overloads on 138/69 kV autotransformers at Hondo Creek, Big Foot, Pearson, and Pleasanton.
- 4. Escondido to West Batesville 138 kV Circuit**
  - Prevents voltage collapse with loss of Asherton to Escondido 138 kV path and simultaneous loss of Eagle Pass DC Tie.

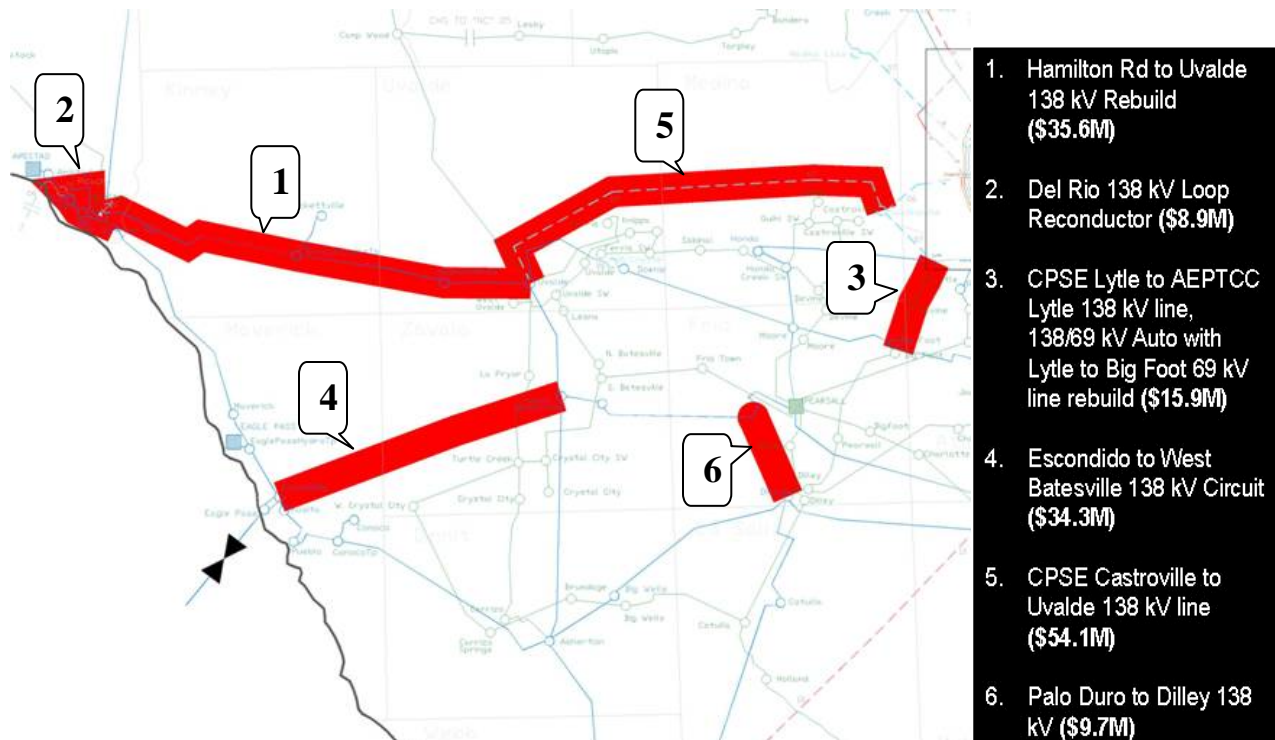
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## 5. Castroville to Uvalde 138 kV Circuit

- Address contingency overloads on San Miguel 345/138 kV autotransformer and bus ties, Moore to Coyote 138 kV circuits, and Hondo Creek autotransformer.

## 6. Palo Duro to Dilley 138 kV Circuit

- Address contingency overloads on Pearsall to Dilley 69 kV circuit.



**Figure 1: Recommended Elements in the AEPTCC/MEC Western Region Project**

These improvements are estimated to be completed by summer 2010 at a total cost of approximately \$158.5 Million (in 2006 dollars). ERCOT's Independent Review determined that the projects proposed by AEPTCC and MEC are necessary to ensure the reliability of this part of the transmission system. A detailed report of all of the findings and recommendations supported by the Regional Planning Groups is included as Attachment A.

### **Key Factor Influencing Issue:**

The Western Region project is needed to relieve numerous contingency overloads and prevent voltage collapse due to lack of generation in the study area. Generation in the area consist only of small capacity hydro plants, a 36 MVA DC Tie with CFE, and small aging units located at Pearsall.

All stakeholder comments in the regional planning process were in support of the ERCOT's recommendation for the Western Region project. In addition, the TAC voted in support of the



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project recommendation at their July 6, 2006 meeting.

**Alternatives:**

- (1) Endorse the need for the construction of the Western Region Project as recommended by ERCOT Staff and supported by TAC and Regional Planning Groups;
- (2) Remand to ERCOT staff with instructions.

**Conclusion/Recommendation:**

ERCOT staff recommends the Board endorse the need for the Western Region Project.