

APPEAL OF SOUTH TEXAS	§	
ELECTRIC COOPERATIVE, INC. OF	§	
TECHNICAL ADVISORY	§	
COMMITTEE'S ACTION	§	
CONCERNING SECTION 3.6 OF	§	BEFORE THE ERCOT
ERCOT BUSINESS PRACTICE:	§	
SETTING THE SHADOW PRICE	§	BOARD OF DIRECTORS
CAPS AND POWER BALANCE	§	
PENALTIES IN SECURITY	§	
CONSTAINED ECONOMIC	§	
DISPATCH	§	

SOUTH TEXAS ELECTRIC COOPERATIVE INC.'S  
APPEAL AND POSITION STATEMENT

Comes Now South Texas Electric Cooperative, Inc. (STEC) and provides its position statement concerning its appeal of the Technical Advisory Committee's (TAC's) action concerning Section 3.6 of ERCOT Business Practice: Setting the Shadow Price Caps and Power Balance Penalties In Security Constrained Economic Dispatch (SCED). The purpose of the position statement is to provide the members of the ERCOT Board and TAC's Advocate in advance of the December Board meeting the reasons for the appeal, bullet points of the presentation Frederick John Meyer will make on behalf of STEC at the December board meeting and the remedy it is seeking from the Board.

STEC is appealing the TAC decision of October 11, 2011 on the basis that loads in ERCOT are held captive to inflated costs caused by excessively high Shadow Price Caps in instances where SCED cannot resolve a non-competitive constraint. In such instances, loads (especially those which have little to no impact on the constraint) are currently not provided opportunities to avoid these higher costs as they will manifest themselves in either increased forward pricing, increased CRR pricing, or increased DAM or RTM pricing. Furthermore, in instances in which a transmission project has been identified which would result in the constraint being resolvable by SCED, high

Shadow Price Caps serve little or no purpose other than to enrich the incumbent generators in the interim period between the identification of the constraint and the implementation of the project. STEC's appeal focuses on attempting to protect loads from this forward exposure. STEC has proposed language that would eliminate the reset of the Shadow Price Cap and the net margin value until one of the following conditions are met:

1. The identified transmission project is implemented;
2. sufficient new Generation Resources are constructed and placed in service with a negative shift factor relative to the SCED irresolvable constraint; or
3. Load is allowed to offer into SCED that has an opportunity to receive LMPs comparable to those of Generation Resources of similar shift factors and ERCOT, in its sole judgment, estimates there is sufficient Load located behind the constraint which is capable of offering into SCED and which meets the ERCOT requirements to participate in SCED.

### **JUSTIFICATION OF STEC PROPOSAL**

1. Adequate price signals for markets are important to induce corrective market action if the cost is justified and a feasible action can be implemented by the market.
2. Adequate price signals behind the constraint allow the market and participants to respond to:
  - incent load to reduce by offering into SCED
  - incent new generation to locate and construct
  - justify new transmission construction in the needed locations
  - keep existing generators feasible

3. When transmission line expansion is pending construction to relieve an irresolvable constraint for economic or reliability reasons, then the price signal importance diminishes significantly. For instance:

- transmission line expansion is already justified
- new generation will not build for 2-3 years of revenue
- load behind the constraint currently cannot offer into SCED
- keeping existing generation behind the constraint can be handled similar to RMR if necessary

4. Why is STEC concerned?

- Serious winter events similar to the February, 2011 event could cost considerably more.

Approximately \$80 million last February on 7.3 hours of SCED irresolvable congestion.<sup>1</sup> This would have been much higher had ERCOT not intervened after the seventh hour and thus allowed SCED to continue to attempt to resolve the irresolvable constraint.

Approximately \$200 – \$240 million dollars if WMS/TAC proposal were in effect during the February 2011 irresolvable period.

- Over the last three years, instances in which actual power flow is in excess of the Valley import limit has been growing at a rate of 6 – 10 hours per year.<sup>2</sup> This trend is expected to continue with load in the Valley area projected to grow at an annual rate of approximately 4%.

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<sup>1</sup> Hours are as found in ERCOT's Valley Import Constraint\_Tac.ppt presentation of May 5, 2011, at 10.

<sup>2</sup> Data provided by the Independent Market Monitor and contained in STEC's presentation of Oct. 6, 2011 to the TAC.

--- Through March 8, 2011, hours in which actual flow is in excess of the Valley Import limit, excluding the February event, is 23.25 hours.<sup>3</sup> Most of these hours were irresolvable by SCED.

--- Outages of existing transmission for projected transmission expansion are likely to increase hours of irresolvable SCED congestion

--- 25 hours of irresolvable SCED congestion for the Valley constraint is not unreasonable for the next few years, especially with any load growth in the Valley.

--- Cost of 25 hours of SCED irresolvable congestion for the first year is estimated at approximately \$158 to \$224 Million depending on when the trigger mechanism is met

--- Cost in subsequent years is estimated to be approximately the same for the WMS/TAC method whereas the cost in subsequent years for the STEC proposal is estimated to be approximately \$18 to \$ 30 Million depending on when the trigger mechanism is met

--- New generation (controllable) is not expected to be built in the Valley.<sup>4</sup>

--- Loads are unable to offer into SCED to relieve congestion

### **STEC PROPOSAL**

STEC proposes that Section 3.6.2: *Methodology for Setting the Constraint Shadow Price Cap for a Non-Competitive Constraint That Is Irresolvable In SCED* be modified to state as follows:

#### **3.6.2 Methodology for Setting the Constraint Shadow Price Cap for a Non-Competitive Constraint that is Irresolvable in SCED**

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<sup>3</sup> Data provided by the Independent Market Monitor and contained in STEC's presentation of Oct. 6, 2011 to the TAC.

<sup>4</sup> Sep 2011 System Planning Monthly Status Report as reported at the Oct. 13, 2011 ROS meeting.

The Shadow Price Cap for a non-competitive constraint that has met the trigger conditions described in Section 3.6.1 will be determined as follows.

The Shadow Price Cap on this constraint will initially be set to the minimum of E or F as follows:

- E. The current value of the Generic Shadow Price Cap as determined in Section 3.5, and
- F. The Maximum of the either the largest value of the Mitigated Offer Cap for Generation Resource C, as determined above, divided by the absolute value of its shift factor impact on the constraint or \$2000 per MW.

This calculation is performed one time in the Operating Day during which the trigger conditions described in Section 3.6.1 have been met and, subject to the value of the non-competitive constraint net margin described below and the exceptions noted in 3.6.2(i), this Shadow Price Cap will remain in effect for the remainder of the calendar year or for the month in which a competitive constraint has been determined to be non-competitive in accordance with Protocol Section 3.19.2, Monthly Competitiveness Test.

Unless the exceptions noted in 3.6.2(i) are applicable, when the value of a non-competitive constraint, which has met the trigger conditions described in Section 3.6.1 accumulates a net margin, as determined in 3.6.3 below, that exceeds \$95,000 /MW at any time during the remainder of the calendar year following the determination that the non-competitive constraint is irresolvable by SCED, the Shadow Price Cap for this

constraint in the next Operating Day will be set to minimum of either \$2,000/MWh or G, below, for the remainder of the calendar year:

G. The Maximum of either the largest value of the Mitigated Offer Cap for Generation Resource C, as determined above, divided by the absolute value of its shift factor on the constraint or the currently effective LCAP pursuant to PUC Substantive Rule 25.505 (g).

For a competitive constraint that has been determined to be a non-competitive constraint for a month in accordance with Protocol Section 3.19.2 and that has met the trigger conditions described in Section 3.6.1, the Shadow Price Cap for this constraint will be determined in accordance with this section. For any month during which the constraint is determined to be competitive, the Shadow Price Cap will be set in accordance with Section 3.5. The constraint's net margin for competitive constraints determined to be a non-competitive for a month shall only be determined during those months in which the constraint is determined to be non-competitive.

ERCOT shall periodically review each non-competitive constraint that has met the trigger conditions pursuant to Section 3.6.1, and determine if the constraint is resolvable by SCED.

Additionally, at the end of the calendar year, ERCOT shall identify those non-competitive constraints that have met the trigger conditions described in Section 3.6.1 in the current calendar year, that have a Shadow Price Cap in SCED determined in accordance with this section, that are not subject to the exceptions in 3.6.2(i) and that

are also deemed to be non-competitive in accordance with Protocol 3.19(5) during the next calendar year. For these non-competitive constraints, ERCOT will:

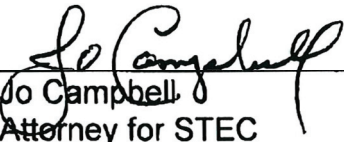
- Again determine Generation Resource C and D, as described in item C and D above; and,
- Reset the Shadow Price Cap for each of the SCED irresolvable non-competitive constraints to the minimum of E or F above for that constraint. These changes shall become effective in January of the next year.

Exceptions to this methodology shall be as follows:

- (i) In instances where there are identified transmission projects to address a non-competitive constraint that is irresolvable in SCED that meets the trigger conditions in 3.6.1, the Shadow Price Cap shall be set in accordance with this section 3.6.2 subject to the \$95,000 /MW net margin threshold and neither the Shadow Price Cap nor the net margin value shall be reset until ERCOT deems the constraint resolvable by SCED until at least one of the following conditions are met:
  - (1) completion of the necessary identified transmission projects,
  - (2) sufficient new Generation Resources are constructed and placed in service with a negative shift factor relative to the SCED irresolvable constraint, or
  - (3) Load is allowed to offer into SCED that has an opportunity to receive LMPs comparable to those of Generation Resources of similar shift factors and ERCOT, in its sole judgment, estimates there is sufficient Load located behind the constraint which is capable of offering into SCED and which meets the ERCOT requirements to participate in SCED.

STEC respectfully requests that the Board approve the language underlined above be added to Section 3.6.2: *Methodology for Setting the Constraint Shadow Price Cap for a Non-Competitive Constraint That Is Irresolvable In SCED.*

Respectfully submitted,



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Jo Campbell  
Attorney for STEC  
State Bar No. 03707800  
PO Box 154415  
Waco, Texas 76715  
(254) 799-2978  
(254) 799-2217 (facsimile)  
E-mail: [jocampbell@stec.org](mailto:jocampbell@stec.org)