Holistic Approach to Congestion Irresolvable in SCED

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Direct Energy Position Statement Regarding STEC Appeal

Direct Energy appreciates the opportunity to provide this position statement regarding the STEC appeal of the 10/11/11 TAC action regarding the holistic approach to congestion irresolvable in SCED. Direct Energy supports the TAC recommendation and requests that the Board of Directors reject the appeal. The TAC recommendation is the result of approximately six months of stakeholder discussions culminating with a strong endorsement by the TAC of the recommendation. Direct Energy believes the TAC recommendation provides a solution that is consistent with the ERCOT market design by relying on scarcity pricing concepts in PUC Subst. R. 505 and marginal cost pricing concepts in PUC Subst. R. 501. STEC's appeal is an attempt to excessively mitigate price presumably for the benefit of STEC. Excessive price mitigation may appear attractive to consumers in the short term, but excessive price mitigation will deter generation investment and price responsive demand that will in the long term expose consumers to potential harm through higher energy prices and less reliable supply due to insufficient generation.

STEC Data Is Based Upon Flawed Assumptions:

The data presented by STEC is a flawed attempt to present the TAC recommendation as a decision designed to increase cost to consumers. STEC's calculation is based upon key assumptions that facts refute.

1. The STEC calculation assumes that all consumers are purchasing energy in the real-time market. History shows this assumption is incorrect. Data actually supports the opposite conclusion – most consumers are purchasing energy in the bilateral and/or day-ahead market to hedge real-time electricity price exposure. In fact, hedged energy has exceeded the day ahead load forecast during some months in 2011.[1] Therefore, STEC's cost calculation is not based upon an accurate assumption regarding consumer exposure to real-time energy prices. To highlight how STEC's flawed assumption drives the result of the analysis, the Board should consider the cost to consumers under an assumption that all South Load Zone is completely hedged and not exposed to real-time energy prices. In

[1] See for example the Wholesale Market Operations Update presented at the ERCOT Board of Directors Meeting on March 22, 2011 on page 2 at http://www.ercot.com/content/meetings/board/keydocs/2011/0322/Item_05c_-_Wholesale_Market_Operations_Report.pdf.

that scenario, the cost to South Load Zone consumers of the TAC recommendation theoretically would be zero. Direct Energy is not offering this scenario as fact; rather, Direct Energy offers this scenario to highlight how STEC's cost calculation is nothing more than a theoretical cost.

2. STEC also assumes the Valley Import Constraint will violate for approximately 50 hours per year. It is true that the Valley Import Constraint has violated for approximately 50 hours to date in 2011. However, approximately 40 of those hours occurred during the extreme weather event in February. Direct Energy believes it is not reasonable to assume extreme weather conditions will exist every year in the STEC analysis. Based upon data available to Direct Energy, Direct Energy understands the Valley Import Constraint in 2009 and 2010 violated for significantly less than 50 hours and it is reasonable to assume the Valley Import Constraint could violate less than 50 hours in the future.
3. The STEC data does not offset the congestion cost with revenues allocated to load from the sale of Congestion Revenue Rights (CRR). If the day-ahead market and the real-time market perfectly converged, then the total CCR Revenues would completely offset the total congestion cost. Direct Energy acknowledges that it is unlikely that the markets will perfectly converge; however, STEC's failure to include CRR revenue as an offset to the congestion cost is not reasonable.

TAC Recommendation Strikes the Right Balance and Supports ERCOT Market Design:

Direct Energy believes the TAC recommendation strikes an appropriate balance between ensuring efficient pricing outcomes during a scarcity condition, observing the applicable system-wide offer cap levels, ensuring reliable system operations, and preventing inefficient dispatch.[2]

TAC recommendation provides efficient pricing outcomes:

Direct Energy believes the crux of this issue is to determine the efficient price signal to send to the market when a constraint is irresolvable in SCED. An efficient price signal should provide existing generation an incentive to perform when needed and provide generation developers an adequate incentive to build. When a constraint is irresolvable that means there is a shortage of generation available to relieve the constraint. Direct Energy believes the shadow price cap value when congestion is irresolvable in SCED should be consistent with the marginal cost pricing concepts in PUC Subst. R. 501. The marginal cost of reliably serving load in the Valley when all generation resources are exhausted is to curtail load. Direct Energy's support for the $2000 minimum shadow price cap for irresolvable constraints was partially based upon a belief the shadow price cap should be set at a value that reflects value of lost load. Direct Energy believes a reasonable, conservative assumption for value of lost load is a proxy value for demand response. In making this determination, Direct Energy researched the value of demand response programs offered statewide by TDSPs. The average value in $ per MWh paid by TDSPs for the right to curtail load in 2010 was approximately $2000 per MWh.[3] This is a conservative assumption because it assumes the TDSPs maximized the curtailment hours permitted in the program.

[2] See the principles for setting an appropriate shadow price cap discussed during stakeholder deliberations regarding the initial shadow price cap levels for the nodal market at http://www.ercot.com/content/meetings/tac/keydocs/2008/1106/11._CMWG_20080827_Penalty_Factors_Comment.doc.

[3] Direct Energy will make this analysis available upon request.

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TAC recommendation is consistent with system-wide offer cap levels:

An efficient price signal for a shortage/scarcity condition must be consistent with the system-wide offer cap levels. The TAC recommendation adopts $2000 per MWh as the initial minimum shadow price cap level for constraints deemed irresolvable. The current system-wide offer cap level pursuant to PUC Subst. R. 25.505 is $3000 per MWh. Therefore, $2000 per MWh is consistent with PUC Subst. R. 25.505 and is less than the $3000 per MWh shortage price signal that occurs today when the power balance penalty curve sets the price during system-wide scarcity intervals. Direct Energy believes fundamentally there is not a difference between system-wide scarcity and local scarcity and the price signal for each condition should be consistent.

TAC recommendation ensures reliable system operations and prevents inefficient dispatch:

Direct Energy believes the TAC recommendation ensures that ERCOT will continue to dispatch efficiently available generation to relieve the irresolvable constraint. The TAC recommendation achieves this result by continuing the shadow price cap at the level that is necessary to dispatch existing generation to relieve the constraint. The shadow price cap necessary to dispatch generation is determined by dividing the Mitigated Offer Cap of the unit with the lowest shift factor impact on the constraint by the shift factor of the unit with the lowest shift factor that relieves the constraint. Direct Energy believes the TAC recommendation also prevents inefficient dispatch by applying a shift factor cutoff of 2% (0.02) for constraints that have been deemed irresolvable by ERCOT.

TAC recommendation balances the interests of market participants and protects consumers:

The TAC recommendation balances the interests of the market as reflected by the 23 – 5 vote in favor of the recommendation. In the case of the Valley Import Constraint, a shadow price cap value of $2000 per MWh represents a 60% reduction from the initial shadow price cap value of $5000 per MWh. Moreover, if the net margin threshold of $95,000 per MW/year is exceeded, then consumers are further protected through the reduction of the shadow price cap level to the currently effective LCAP pursuant to PUC Subst. R. 25.505 for the remainder of the calendar year. The $95,000 per MW/year net margin threshold was selected because it represents the annualized fixed cost recovery needed for peaking units.[4] The net margin threshold protects consumers from excessive wealth transfer to generation by dropping the shadow price cap to a lower value after the price signal has provided an adequate annualized opportunity for generation development.[5]

Conclusion:

Direct Energy supports the TAC recommendation regarding the holistic approach to congestion irresolvable in SCED and requests that the Board reject the STEC appeal. Direct Energy will be available at the Board meeting to answer any questions regarding this position statement.

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[4] See the 2010 ERCOT State of the Market Report, page 49 at http://www.puc.state.tx.us/industry/electric/reports/ERCOT_annual_reports/2010annualreport.pdf.

[5] It also is informative to consider that under the current $350 per MWh interim shadow price cap in the Valley that the Valley Import Constraint would need to violate for over 270 hours in a year to exceed the $95,000 per MW/year net margin threshold. This compares to the approximate 50 hours the Valley Import Constraint has violated to date this year. Direct Energy believes this highlights how a shadow price cap of $350 per MWh is not sufficient to incent generation performance and development and therefore is not an efficient price signal.