

LTSTF Discussion Matrix

Author	A	B	C	D
Description	Various	Calpine	Cross Section of Market	City of Denton (DME)
	<p>1) Implement a scarcity pricing mechanism linked to steps of EECF. ALERT = Set MCPE to MAX(SPD MCPE, 0.25xCAP) EECF Step 1 = Set MCPE to MAX(SPD MCPE, 0.5xCAP) EECF Step 2 = Set MCPE to MAX(SPD MCPE, 0.75xCAP) EECF Step 3 = Set MCPE to MAX(SPD MCPE, 1.0xCAP) 2) Increase the hourly RRS obligation to 2,500 MWs with 50% being provided by LaaR.</p>	<p>1) Increase the hourly RRS obligation to 2,700 MWs with 50% being provided by LaaR based on 1550 MWs of wind as the largest contingency and 1,150 for STP Notes: Other potential combinations could be: 1,550 (wind event) + 1,300 (STP uprate) = 2,850 MWs of RRS 1,150 (1 nuke) + 1,300 (STP uprate) = 2,450 MWs of RRS 2) Increase the hourly RRS obligation to 2,500 MWs with 50% being provided by LaaR. 3) Increase the hourly NSRS obligation to a minimum of 300 MWs</p>	<p>1) Increase the hourly RRS obligation to 2,500 MWs with 50% being provided by LaaR. 3) Increase the hourly NSRS obligation to a minimum of 300 MWs  Additional notes: the comments of the Market Monitor could be incorporated into this proposal.</p>	<p>Develop two separate new services: 1) EILS-U8 - a capacity payment based service for loads capable of deploying in 8 minutes or less, with the "button" under the control of ERCOT operations. Payment be based on telemetered data and the bid/award would structure would be similar to existing EILS program. Procurement similar to EILS contract periods. Procure 500-1000 MW. QSE "little red button" approach is an acceptable alternative. Telemetered breaker.</p>
<p><b>Does this proposal send better price signals leading up to an EECF Event?</b></p>	<p>To the extent administrative pricing takes effect during the ALERT stage, YES. Price signals of higher magnitude are directly linked to the steps of EECF (after EECF is initiated).</p>	<p>To the extent administrative pricing takes effect during the ALERT stage, YES. Price signals of higher magnitude are directly linked to the steps of EECF (after EECF is initiated).</p>	<p>To the extent administrative pricing takes effect during the ALERT stage, YES. Price signals of higher magnitude are directly linked to the steps of EECF (after EECF is initiated).</p>	<p>To the extent administrative pricing takes effect during the ALERT stage, YES. No further information is provided in this proposal.</p>
<p><b>Does this proposal bring more resources (both interruptible load and generation) online through existing ancillary services?</b></p>	<p>Yes. Specifically, 200 MW of additional Resources would be brought to the market with potential load participation of 100 MW. No information is provided as to how generators would respond to price signals in real time.</p>	<p>Yes. Specifically, 400 MW of additional Resources would be brought to the market with potential load participation of 200 MW. No information is provided as to how generators would respond to price signals in real time.</p>	<p>Yes. Specifically, 500 MW of additional Resources would be brought to the market with potential load participation of 400 MW. No information is provided as to how generators would respond to price signals in real time.</p>	<p>The capacity payment based service would bring more Load Resources to the market, but not generation resources. No information is provided as to how generators would respond to price signals in real time.</p>
<p><b>Does this proposal require a system change for implementation? If so, what systems need to be changed and what is the estimated impact?</b></p>	<p>No system change is required.</p>	<p>No system change is required.</p>	<p>No system change is required.</p>	<p>Unknown. Also includes a technology requirement for ERCOT, Load and QSE of unknown scope.</p>
<p><b>Will ERCOT support this proposal?</b>  [**Detailed response filed separately with 8-14-07 LTSTF meeting materials.**]</p>	<p>Would not oppose a price floor for energy during Alerts and EECF conditions but is not convinced that voluntary price response is a reliable substitute for contractually-committed Load response such as EILS. Additional study desirable. No judgment as to costs and benefits. Would not oppose a PRR that increases the amount of full-time operating reserves (RRS and/or NSRS) but continues to prefer that any changes should be supported by a detailed engineering study. Increasing the amount of LaaR on UFR would also require a detailed engineering study. Additional operating reserves are an acceptable operational substitute for a late-stage EECF tool such as EILS. No judgment as to costs and benefits.</p>	<p>See Proposal A.</p>	<p>See Proposal A.</p>	<p>Concerned about potentially increased legal liability (ISO-initiated direct load control is not currently in place anywhere) but willing to work with MPs on this issue as long as all market segments and the PUC are engaged. No objection to timed breaker trip requirement if the interruption signal is initiated by another party such as the QSE. Technology requirements (timed breaker and telemetry) are additional barriers to entry for new Load participation. May offer additional comments if various details are worked out. (Also see administrative pricing comments to proposals A, B and C.)</p>
<p><b>Are there benefits other than specifically mentioned above?</b></p>	<p>Yes: long-term resource adequacy, frequency response. Review outcome of AS study in the fall to see if this proposal satisfies some or all of recommendations.</p>	<p>Yes: long-term resource adequacy, frequency response. Review outcome of AS study in the fall to see if this proposal satisfies some or all of recommendations.</p>	<p>Yes: long-term resource adequacy, frequency response. Review outcome of AS study in the fall to see if this proposal satisfies some or all of recommendations.</p>	<p>Certainty of product. Potentially used for frequency disturbances.</p>
<p><b>Are there other potential detrimental impacts or negative market consequences with the implementation of this proposal?</b></p>	<p>Increased cost to serve load. Anticipated price response by load is not dispatchable by ERCOT.</p>	<p>Increased cost to serve load. Anticipated price response by load is not dispatchable by ERCOT.</p>	<p>Increased cost to serve load. Anticipated price response by load is not dispatchable by ERCOT.</p>	<p>Legal/contractual issues of undetermined scope. Developing and creating a completely new service may be complicated.</p>

LTSTF Discussion Matrix

Author	EnerNOC & Good Company--REV	F	G	H
Description		PSEG	Zarnikau/Oren	ERCOT Steel Companies--REV
	<p><u>Long Term Solution</u>  Fundamentally restructure the existing ancillary services market to mirror other markets.  Eliminate LaaRs, instead, create:  10 minute Spinning Reserves (eligible for Generators currently providing RRS, and Loads that can emulate AGC).  10 minute Nonspinning Reserves (eligible for LaaRs but no UFR requirement, other Loads that can meet PJM's 10 minute requirements, CTs that can be fully loaded in 10 minutes).  30 minute Nonspinning Reserves  EILS with a UFR.</p> <p>A LaaR can supply EITHER 10 minute nonspin OR EILS.</p> <p>We believe that opening up LaaRs to full competition would probably save the market \$30-50 million a year, enough to finance both increased 30 minute reserves &amp; a 500 MW EILS. This would provide more options to ERCOT by allowing them to utilize 30 minute Nonspin and 10 minute nonspin before 10 minute spin and still have a credible EILS program. Scarcity prices can be set to the call for each set of reserves, as in NYISO</p>	<p>Adjust prices of energy and reserves during periods of shortage after determining proper price adders through a study of ERCOT operating procedures and costs. An example based on the NYISO (in brackets) is given:  1) Set all prices equal to prices paid to EILS resources (but not less than [\$500]) if EILS is deployed  2) 30 Minute Reserves Shortage Adder: [200 MW @ \$50, 200 MW @ \$150, and remainder @ \$200]  3) 10 Minute Reserves Shortage Adder: [\$150]  4) 10 Minute Spinning Reserves Shortage Adder: [\$500]</p> <p>NEED ADDITIONAL INFORMATION FROM SPONSOR</p>	<p>Program participants contractually commit to curtail load at preset strike prices (e.g., \$750 per MWh, \$1,000 per MWh, and \$1,500 per MWh). The program participant curtails whenever the MCPE or LMPZ exceeds that price. Contracts are for a 1 year duration. Direct load control in lieu of a contractual commitment is fine.</p> <p>Participants receive a monthly reservation payment which is based on 1/12 of the annual expected costs avoided by the participant as a result of the "economic curtailments" that the participant will make as a result of their participation in the program. In addition, the load participant will be compensated if a price spike lasts less than one hour through an additional payment. Avoided losses and avoided reserves shall also be considered in the establishment of the reservation payment. If the projected reserve margin for a year was less than 15% and price duration curve would yield prices insufficient to cover the cost of a combustion turbine, then the reservation payment would be adjusted upward.</p>	<p>Improve existing EILS program:</p> <p>1) Establish a process for ERCOT determination of individual baselines in advance of the bid submission process</p> <p>2) Establish a minimum program duration requirement (i.e., 2 years)</p> <p>3) Incentivize third parties to market EILS (ERCOT staff or consultants)</p> <p>REQUIRE RULE CHANGE:  1) Reduce the 500 MW threshold (i.e., 100 MW)  2) Remove and/or increase the annual program cost cap  3) Convert to a market-clearing price structure</p>
Does this proposal send better price signals leading up to an EECF Event?	As an ad hoc administered pricing scheme, setting scarcity price sequentially as higher valued reserves are exhausted makes more sense than the current proposals.		This proposal is "compatible" with the notion of administratively-set pricing during an alert or EECF. In such cases, the high prices would trigger curtailments from the program participants. However (regardless of whether this program is adopted), price information must be provided to loads in advance so that they have sufficient time to react to the prices.	No. This proposal does not attempt to artificially modify price signals to the market. It is based upon the reality of a market that has demonstrated itself to be price inelastic and insures load response during emergency events by triggered performance obligations fixed in advance by contract.
Does this proposal bring more resources (both interruptible load and generation) online through existing ancillary services?	Yes, both more resources, and higher quality in the sense that the market gets more value per MW of reserve.		No. This program reduces demand during high prices, but does not affect ancillary services requirements.	No. EILS is not defined as an Ancillary Service and hence this proposal does not use existing Ancillary Services, but it does serve to bring additional load resources online when most needed.
Does this proposal require a system change for implementation? If so, what systems need to be changed and what is the estimated impact?	Yes.		Very minimal system changes. Qualification, testing, baseline calculations, and notification procedures developed for EILS can be adopted to this program. There is a need to provide advance notification of expected high prices, but this is being worked on by the Demand Side WG as a part of a different project.	No, with the exception of the proposal to convert to market clearing prices. Until such time as ERCOT has the resources available to deal with new system change requests, this aspect of the proposal should be deferred, with a temporary continuance of the current pay as bid mechanism.
Will ERCOT support this proposal?  [**Detailed response filed separately with 8-14-07 LTSTF meeting materials.**]	Unknown.		Many features of EILS could be migrated to support this proposal. Unsure about ability to develop projected price duration curves; potentially complex manual settlement. Additional concerns about the proposal's ability to attract load participation. Questions: criteria for duration of deployments; metering requirements; registration, bidding, M&V for aggregated Loads. Encourage MP dialogue and may file additional comments as details are developed.	Detailed responses included in separate posting. ERCOT Staff does not have control over all cited concerns but has worked to address those that it does control. Some recommendations (minimum MW threshold, cost cap, clearing price) would require PUC rule change.
Are there benefits other than specifically mentioned above?	Yes. It would open up reserves to more competition, and by a range of resources, allowing more flexible response to all levels of emergency situations by ERCOT operators instead of today's "all or nothing" LaaR dispatch.			Yes. Society as a whole will greatly benefit from a market commitment to substantially increased demand response opportunities as an alternative to the construction of more and more new power plants and transmission facilities. It is also imperative from a societal benefits standpoint that demand response encompass as broad an array of loads as possible instead of merely increasing the size of existing demand response services, which can be provided by only a small fraction of interested and available loads.
Are there other potential detrimental impacts or negative market consequences with the implementation of this proposal?	No.			No.

LTSTF Discussion Matrix

Author	I Market Monitor Comments to general issues	J Additional EILS Refinements
<p><b>Description</b></p>	<p>Make the following changes to the current market:                      For Operation Intervals where ARRS &lt; 2,500 and &gt; 2,300 MW and ERCOT OOM instructions for short supply are active:                      1) Relax all OC1 limits such that zonal constraints are not binding in SPD                      2) Set MCPE to MAX(SPD MCPE, CT Proxy Price), where a CT Proxy Price is approximately \$150-250/MWh                      3) If necessary and beneficial, ERCOT may issue individual or fleet VDIs to manage local congestion</p> <p>For Operation Intervals where ARRS &lt; 2,300 MW and ERCOT OOM instructions for short supply are active:                      1) Relax all OC1 limits such that zonal constraints are not binding                      2) Set MCPE to MAX(SPD MCPE, CAP) where CAP is equal to the applicable system-wide offer cap                      3) If necessary and beneficial, ERCOT may issue individual or fleet VDIs to manage local congestion</p>	<p>1) Lower the 500kW participation threshold                      2) Relax IDR metering requirement for M&amp;V                      3) Change business vs. non-business hours to allow temperature-sensitive load participation</p> <hr/> <p><b>EnerNOC &amp; Good Company</b></p> <p><u>Short Term Solution</u>                      Modify the existing EILS program by:                      1) Change the EILS structure to an hourly auction                      2) Significantly increase the price cap                      3) Remove the 500 MW minimum floor                      4) Dispatch EILS via electronic dispatch as well as using VDIs                      5) Increase the response requirement to 30 min</p> <p><u>Long Term Solution</u>                      Fundamentally restructure the existing ancillary services market to mirror other markets.</p>
<p><b>Does this proposal send better price signals leading up to an EECF Event?</b></p>	<p>To the extent this change incorporates administratively setting prices at EECF Step 1, NO. However, beginning in EECF Step 1 higher price signals are sent to the market than in other proposed solutions.</p>	
<p><b>Does this proposal bring more resources (both interruptible load and generation) online through existing ancillary services?</b></p>	<p>Yes. Procuring more NRS or RRS will bring more Load and Generation Resources to the market. These comments do not specify how much.</p>	
<p><b>Does this proposal require a system change for implementation? If so, what systems need to be changed and what is the estimated impact?</b></p>		
<p><b>Will ERCOT support this proposal?</b>                       [**Detailed response filed separately with 8-14-07 LTSTF meeting materials.**]</p>	<p>See administrative pricing comments to proposals A, B and C.</p>	
<p><b>Are there benefits other than specifically mentioned above?</b></p>		
<p><b>Are there other potential detrimental impacts or negative market consequences with the implementation of this proposal?</b></p>		