

Temperature sensitive demand response loads have the following concerns regarding participating in the ERCOT markets:

- 1) Simplicity
- 2) Certainty of reasonable economic return within their main capability periods
- 3) Dispatch requirements that can be achieved
- 4) An appropriate M&V methodology employed to measure compliance
- 5) Not overly burdensome compliance measures

Some have suggested that the best way to accomplish this is through a new summer only product that can best be described as a capacity product used to reduce system peaks. While it is likely very true that a capacity market will spur greater levels of demand response (as seen in other regions with a capacity market, such as PJM), it seems inappropriate to venture to far down that path at this point in ERCOT for three reasons: 1) ERCOT currently is an energy only market and any products developed for immediate consideration should fit the known design, 2) the PUCT is currently evaluating alternative market structures and as such it is premature to create additional markets without their guidance, and 3) the current products, ERS specifically, can be modified in such a way to not only incorporate temperature sensitive loads but also correct some failings that have inhibited growth amongst commercial and industrial loads.

ERS currently requires ERS Loads to forecast load up to five months into the future in order to develop their curtailable volume obligations – the contract capacity. This has been a source of difficulty for loads as business activity cannot always be accurately predicted. There are some very reasonable operational reasons for requiring this to be done, however. The recent changes made to ERS in relation to compliance, most specifically looking first at a QSE portfolio, has helped ameliorate some of these problems. For temperature sensitive loads, however, this may not be sufficient. The significant swings in possible weather will significantly impact the availability over a season and the performance in a single event. A different approach should be taken.

The simplest method is to set a reference point volume for residential loads. This is just an estimated average kW drop per household and would correspond with the current contract period and time period construct currently in place for ERS. The numbers below are just an example but the final numbers used would be based upon expectations on realistic performance levels during high risk periods. This realistic estimation can be gleaned from studies done both nationally and within Texas. By using high risk period estimates, these estimates would initially be set high enough to incent participation and cover unknown performance. The numbers could be refined as we learn more through experience. A QSE would use these estimates as a basis of their contract capacity and ERCOT would use this value as a basis of procurement and for budgeting.

Example of kW curtailments per household:

	NBH	BH1	BH2	BH3
Oct-Jan	2	2	1	1
Feb-May	2	2	2	2
Jun-Sept	3	4	5	5

Example: QSE 1 has 2,000 residential accounts participating all year long. The MWs used for Contract Capacity would be as follows:

	NBH	BH1	BH2	BH3
Oct-Jan	4	4	2	2
Feb-May	4	4	4	4
Jun-Sept	6	8	10	10

The MW values above are simply a matter of multiplying the number of households times the estimated kW drop. While the current four month contract periods of ERS may not be ideal to support retail churn and rapid smart

meter deployments by NOIEs, the relatively short 4 month periods should limit MWs that are sidelined until the next contract period. Current substitution rules should further alleviate churn issues.

Payment would be based upon actual performance measured during any tests/events and measured performance would be the 100% compliance (in other words, no suspensions/NOVs). Performance could not exceed the reference volumes (thus keeping ERCOTs budgeting process whole – and a reason to start with high reference values). ERCOT could schedule these tests at periods deemed most at risk for deployment – this would help optimize the volume levels. The only concern that is outstanding would be compliance concerns during actual events for QSEs that have abnormally low response. A threshold metric would need to be developed to account for deployment failures rather than low performance due to current weather. Availability would be ignored for residential, temperature sensitive loads due to the unknowable future weather.

ERCOT should clearly spell out the volumes, by time period and by contract period, that it plans to procure over the next 1-2 years. This gives proper indication to spur investment, allow for planning, and doesn't subject ERCOT to second-guessing over last minute changes. I do not mean to suggest ERCOT can't change these volumes...if a target is set 2 years out and plants are mothballed after the announcement, then clearly ERCOT should change the volume. Likewise, if load forecasts significantly change or new plants come on line or back from mothball, ERCOT should reduce volumes -- not randomly, not last minute, but in a reasonable fashion.

This solves the quantity issue. The next issue is price. This should be easy and would solve many problems; but it would require ERCOT to overcome their determined resistance. The simple answer is to move to a clearing market and set clear, known offer prices. This is consistent with other ERCOT markets. This provides clarity. This doesn't make it overly complicated in a way that is detrimental to investment. The clearing prices should be high enough to get needed investment. ERCOT should not try to pick winners by offering one price to one group and a different price to another (residential vs. commercial vs. industrial or new vs. old). Again, this is consistent with ERCOT markets. These markets were developed like this for a very good reason. The attempts to deviate from them are not grounded in sound reasoning to depart from this. The clearing prices could be set to reflect some level of anticipated risk (and again, these should be known well in advance). The example prices below are roughly based upon a \$MW/yr estimate of CONE:

	NBH	BH1	BH2	BH3
Oct-Jan	\$10	\$10	\$10	\$10
Feb-May	\$10	\$10	\$10	\$10
Jun-Sept	\$10	\$10	\$60	\$60

These \$/MWh hour prices could be further shaped to account for periods deemed less risky if necessary, but that would increase complexity. This example places a high value during summer peak – which would also provide the necessary dollars to 1) spur residential development, and 2) retain the MWs that emigrate to TDSP programs.

The suggestions above should now provide the valuation necessary for a “capacity” product without the need to create a new program, keeps a focus on reliability and addresses all the critical needs listed at the onset except the achievable dispatch requirements (which may require only minor changes to current ERS requirements). The changes would spur additional MWs to participate outside the residential sector due to more certainty and solve unresolved problems around subjective pricing and MWs flowing to other programs.