



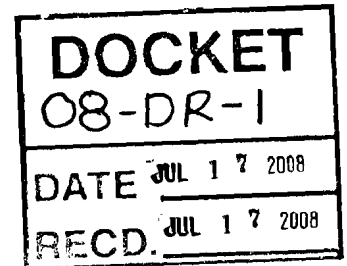
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*For Control When It Counts*

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Subject: CEC Enabling Technologies Workshop

Docket 08-DR-01 Load Management Standards: Customer Education and Needs

Respected Members of the California Energy Commission:

Corporate Systems Engineering (CSE) has been providing Demand Side Management technologies to Electrical utilities for nearly 30 years. Most of Southern California Edison's programs, such as the Summer Discount Program, Agricultural Pumping-Interruptible, and Time-of-use Interruptible programs are supported by CSE's technology. CSE has also provided Demand Side resources for many other utilities such as Tampa Electric, Sacramento Municipal, and Nevada Power. This experience leads us to ask the California Energy Commission to consider the following points when contemplating rulemaking for Advanced Metering Infrastructure and Demand Response initiatives:

- 1) The fastest path to full scale Demand Response is to provide transparent, fair, equitable, and full valuation for a unit of energy, regardless of whether it is supply side or demand side.
- 2) If equal access for Demand Side assets is provided at the California Independent Systems Operator (Cal-ISO) as compared to Generation (Supply) Side, then true competition will be injected into the energy market.
- 3) This full valuation would provide a reliable "feedback" or relief mechanism to prevent runaway prices for generation. (If the price gets high enough, people will shut things off if they get paid what it is worth at the highest strike price.)
- 4) Full valuation means paying for the reduced load in all the same ways that generation is compensated. For instance, this would include
  - Capacity Payments
  - Locational Marginal Pricing (LMP) for where the load is reduced.
  - Line losses that won't now occur between the generation plant and load source.
  - Value of offset Transmission/Distribution charges
  - Value of the delay in building additional capacity assets
  - Many other economic benefits such as increased system percentage of renewable sources. (Only so much of the generation can be Wind/Solar because of the need to balance with fast reacting peaking generation. If that balance is provided by Demand Side products, then determine the value of that and include it in the valuation).
  - Reduction in carbon footprint

- 5) Existing programs for Demand Side assets are emergency and/or reliability based. Allowing these programs to be utilized for Transmission/Distribution relief provides a tremendous increase in the value of those assets.
- 6) Allowing the ISO to utilize these assets as a ramping tool (both in, and out) provides even further economic return.

- 7) There aren't rules preventing any of the above, but rules ensuring the availability of the above would provide the reassurance necessary to encourage the long term investment required for full deployment of potential demand side resources.
- 8) Price response alone, (simply sending a price signal) denies the ISO the ability to implement the full range of economic value that could be enjoyed without reducing any of the investment required.
- 9) Advanced Metering is NOT required for any of this. Two-way technology can be deployed today for nearly the same cost as the previous one-way technologies. Although this is completely compatible with full AMI deployment, 100% Measurement and Verification can be provided without ANY AMI investments whatsoever.
- 10) Price response alone also creates a significant system integrity issue for the Cal-ISO. Simply randomizing when units turn-on or turn-off became obsolete in Demand Side assets over 20 years ago. If new equipment is being funded in the rate base, then the electrical grid should be able to be operated in a much more efficient manner as a result and the savings returned to the rate payers. This can be done with technology available today, but not if the only control mechanism is price, and then randomization within groups.

In closing, the capacity versus demand shortfall is only approximately 4 percent of the time according to the Cal-ISO. Managing the demand efficiently during this 4 percent is far more cost effective than investing in assets that will only be utilized 4 percent. Simply allowing the utilities to install smart meters and adjusting the price to consumers provides the highest cost solution with the lowest amount of benefit when compared to the Demand Side approaches listed above. If the investment is going to be made to install technology, then the highest return of benefits to the rate payers needs to be assured.

Respectfully submitted,

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