

# Grid Services, Inc.

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## **Subject: Response to Demand Response Barriers Study Conference Call**

Thank you for the opportunity to comment on the information provided during the subject conference call. Grid Services, Inc. (GSI) began our involvement in Demand Management (DM) program during the run up to opening the CAISO. We were active participants in the process of developing protocols to allow loads to participate in the CAISO market. We were also active in the design of and participation in the Demand Response Program launched by the CAISO to meet energy shortfalls projected for the summer of 2000.

We applaud the decision to involve general stakeholders in the process. We are pleased with the breadth of material covered and the number of barriers identified.

We are disappointed with the decision to include only barriers identified by two interviewees. This decision puts into question compliance with the stated objective to “Insure minority views are represented and clearly identified.” GSI suggests providing a list of all responses in the appendix.

The balance of the document presents a summary of our belief that the centralized electricity market model presents a barrier to the deployment of demand programs. This is followed by a short comment on each of the barriers presented during the conference call.

### **Centralized Electricity Markets as Barrier to Demand Programs**

GSI believes that the centralized market form, structure and operation are perhaps the single largest barrier to Demand participation in the wholesale market. First, the focus on price optimization in a 10 minute window constrains all but the most flexible thermal unit. Second, the burden of participation (fees, credit, infrastructure, payment timeline) limits access to grid information on a timely basis. Third, the lack of market transparency including timely pre-operating period congestion information means that customers lack the ability to avoid congestion pricing.

The first step is to make more ISO data available to non-participants. For example,

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today the new LMP OASIS does not produce any data when queried. The old OASIS site has no data past March 31. The old OASIS data provides demand data by IOU. No data is available by either takeout point or congestion node. This significantly hampers the development of DM programs that might warn customers of impending price increases.

To clarify, let me provide an example of a central grid operator with greater transparency. Transpower is the “ISO” for the New Zealand deregulated market. On their website, they post the demand in MW for each of their load zones every 5 minutes. There is only a few minute delay from the close of the operating period and the posting of the flows. (See <http://www.systemoperator.co.nz/n1944,download=true.html>.) If additional granularity is required, the Electricity Commission will send you a DVD each month with 30 minute load data for each of 200+ GXP or Take-out Points. This information is used by a non-market participant to forecast possible congestion and trigger DM programs that avoid congestion pricing.

A second step is to create a new class of participant with less onerous participation requirements that can accommodate entities that do not need the full range of market opportunities, scheduling and settlement processes that Scheduling Coordinators enjoy.

## Market Barriers

**Existing IOU Programs.** We agree. Our experience has been that a well thought out program that recognizes and accommodates customer concerns and issues could be successfully marketed to IOU customers.

**Poor Alignment with CAISO markets.** We agree. The CAISO market has a very short term horizon (10 minutes) and assumes that all participants will be in the market and willing to be dispatched. DM in the wholesale market is a reserve product that frees generation to participate in the market and delays the introduction of additional generation that would have marginal utilization. Increased ISO transparency that would allow DM participants to forecast ISO calls can increase the predictability customers require.

**RA/Capacity market not well suited.** We agree. The lack of a multi-year power purchase agreement structure hinders both generation development and DM. One solution is for the CAISO to return responsibility for short and long term procurement to the LSE, following the protocols of non-centralized market grid operators and focus on only procuring load following services and managing reliability.

Centralized vs bilateral capacity market. We prefer bilateral markets because they allow for customized products that meet the unique requirements of each party. And they allow the flexibility to incorporate new ideas and strategies as they develop. We believe the

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Eastern market favor the generator. PJM was originally developed by State regulators with the capacity requirement introduced to compensate IOUs for generation that have above market costs under the PJM Pool system. The LSE pays an implicit capacity payment for Firm generation and then a second for the mandated Capacity.

**WECC regulation and spinning AS Markets.** We agree. FERC should direct NERC to review their rules to clarify the requirements for each service but not dictate how those requirements are met.

**Gaming and Cost-Shifting.** We agree. We cannot change to a more equitable process without data transparency and the time to execute strategies that minimize congestion and their related costs. The CAISO should publish all the historic and real time flow data and customer pricing for each of the LMP node points. Let the stakeholders find ways of profitably avoiding LMP in high-risk areas. Set a date in the future when load will be exposed by node and allow the local regulatory authorities decide how to allocate the costs.

## Regulatory Barriers

**CSP/ESP Programs.** We agree. A solution is to make DM subsidies and revenues separate from the utilities. This is a State issue. The CAISO should create a less expensive, non-SC centric process for compensating CSP/ESP for DM programs. The process should be a supplier settlement system separate from the load settlement process.

**FERC/CAISO vs CEC/CPUC.** We agree. The FERC/CAISO is mindset is supply-side focused, dispatchable thermal generator mindset. The CEC/CPUC mindset is demand focused, specifically in reducing the cost of supply to customers. A start is for the CAISO to become more transparent in the load flows, pricings and operating decisions. By transparent, we mean post load, real-time pricing and final settlement data on a public website. This will allow State bodies to develop better programs to avoid wholesale costs. For example, the State could support a program that monitored flows at congestion nodes and curtailed load when approaching flows that would trigger congestion pricing. This is a non-market solution. The State can spread the cost across the area customers because it reduces overall energy costs and postpones grid upgrades.

**Dynamic or LMP in Retail.** We agree. If the CAISO cannot tell me until tomorrow or next week what it cost me to consume today, then I agree with the State that dynamic pricing is not appropriate. If a gas station operator changed the price of gas while I pumped it into my car, we would have him arrested for fraud. The CAISO should provide sufficient transparency to forecast flows and possible congestion. When the CAISO produce an indicative electricity price far enough in advance of the operating period to allow customers

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to avoid price changes, then dynamic pricing might be appropriate.

**Costs Not Recovered In Wholesale Market.** We agree. All of the value associated with a DM program does not come from the wholesale market. DM can be used to delay generation development and grid expansion.

**Mixed signals for 5% DR, etc.** We agree. There should be no assumption at all DM value comes from the wholesale market. Many DM programs may not have any CAISO involvement. What is of concern is insuring that the CAISO does not unnecessarily constrain none market initiatives.

**Multiple Initiatives.** We agree. We propose that all FERC meetings and discussions related to Western DM projects be held either over the Internet or in the West.

## Customer Participation Barriers

**Underestimated Challenges.** We agree and disagree. *We agree* that Utilities and regulators do not have the mind set for developing out of the box solutions and that utilities are not great at marketing. *We disagree* that customers cannot understand the economics. Our experience has been that a properly constructed marketing effort results in very little trouble presenting the concept to customers.

**Complexity of Market.** We disagree. This is a marketing issue. It is a matter of identifying which product matches a customer's profile and making the program understandable from the customer's viewpoint. For example, customers are able to decide on a car or truck or SUV from the copious options available.

**CAISO Market Requirement Ill Suited.** We agree. The CAISO market is designed for dispatchable thermal generation. They have had difficulty integrating wind into their market. The CAISO needs to create layers of markets that accommodate the increasing divergent suppliers and insure that their rules do not prohibit none market DM activities.

## Infrastructure Barriers

**SC/Transmission Level Requirements.** We agree. The requirements for participation in the CAISO market are burdensome and a significant barrier to entry. A more simplified process should be adopted for entities not providing load following-regulation services.

**Customer LMP mapping.** We disagree. The process for identifying a customer's Load Takeout Point existed in 2000 when IOUs were required to identify the grid settlement point each the customers going to an ESP. The Takeout Point was assigned to the meter not the customer.

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**Limitation of AMI.** This is somewhat irrelevant. AMI have the ability to be polled at intervals of less than 1 hour. We established in 2001 that a DM service that needs to be deployed in no less than 10 minutes does not require 4-second SCADA. The solution was the polling of load meters, aggregation and providing aggregated data to the EMS system every 4-seconds. As for other technology to manage appliances, they existed for at least a decade. They will be deployed when there is sufficient incentive.

## Operational Barriers

**Load Forecasting Challenge.** We agree. There is a lack of available public data on historic and real time flows at the nodes used to calculate nodal prices. Once that data becomes available there are several load forecasting companies capable of developing and offering products that can provide the CSP with the information they need.

**Separating DR Capability.** The CAISO can create a mini-SC that function to provide the interface between them and the DM providers. Specifically, the flow of money should not have to go to the SC providing customer load settlement data.

**Lack of Operator DM Experience.** We disagree. The CAISO has direct experience with the DSM program for several summers starting in 2000. The program worked because the aggregators revenue dependent on successful curtailments

**Balancing Multiple Objectives of Baseline Methodology.** So long as the methodology basic and not We agree so long as the methodology basic and not proscriptive. One size does not fit all.

Again, thank you for the opportunity to provide comments.

Sincerely;

Michele Wynne, President