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**TO:** **jgoodin@caiso.com**

**FROM:** California Public Utilities Commission (CPUC)
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**RE:** Comments on April 8, 2009 Presentation Regarding Demand Response Barriers Study

**DATE:** 4/17/2009

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The CPUC staff appreciates the opportunity to review the input stakeholders have provided to FSC and E3 regarding the potential barriers to direct bid-in of California retail customers into CAISO's markets as DR. The CPUC staff understands that the responses provided in the April 8th, 2009 presentation are those of market participants and do not necessarily reflect the views of CAISO. With that in mind, the CPUC staff will limit its comments to matters where 1) there appears be a lack of clarity in the response as presented by FSC and E3, 2) there appears to be a misunderstanding by the stakeholder, 3) the CPUC staff either views the barrier differently or as not a barrier at all, 4) the CPUC staff comments may be able to add clarity, or 5) a barrier is not addressed.

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- The CPUC staff believes that the only barrier on this slide that is properly categorized as "poorly aligned with CAISO markets" is the issue of Emergency-Triggered DR (ETDR). ETDR programs are being addressed in the CPUC's DR Order instituting Rulemaking (R.07-01-041). The CPUC staff is aware of these arguments and will consider all parties input when making decisions on these matters.
- The CPUC staff is aware that other retail DR programs (economic, price-responsive programs that are not emergency-triggered) may not align well with CAISO markets at this time. The CPUC is, however, working with CAISO and other stakeholders to remedy such problems where appropriate.
- More frequent calls may, in fact, lead customers to drop out of DR programs, but this problem is not an alignment problem. This is a "Customer Participation" issue.

- If Curtailment Service Providers (CSPs) are permitted to bid DR directly into the CAISO market, then the IOU preferences for "triggers that are predictable and transparent to customers" should not present a barrier. A preference for these types of triggers might mean that IOUs would not operate as a CSP, but it should not prevent a third party from bidding directly into CAISO markets. Again, this is not an alignment barrier between the CPUC programs and CAISO markets, but simply a matter of what the IOUs like versus what could happen with CSPs.

Slide 20

- The first three arguments made on this slide are not specific to DR resources. These same statements can be made for traditional generating resources. For the fourth bullet point, the barrier is not clear. It seems to imply that capacity market rules that are based on capability and performance are somehow disadvantageous to DR. This issue should be better clarified.

Slide 21

- This slide does not clearly explain the nature of the perceived barrier. The arguments for the two options for a capacity market are well known, but the CPUC staff would like additional explanation regarding how either a bilateral capacity market or a centralized market may pose barriers to direct bid-in demand.

Slide 22

- The CPUC staff agrees that AS markets may be an important revenue stream for DR resources. CPUC staff is concerned, however, that DR will face an additional barrier even if WECC allows DR to qualify for regulation and spinning reserves. Currently, because of WECC requirements, all CAISO AS products must respond within ten minutes. This short response time could prohibit DR resources from participating in CAISO's markets, as well as automatically disallowing residential customers who have hourly interval meters. This is a WECC imposed barrier and not necessarily a CAISO barrier. Therefore, CPUC staff believes that WECC should consider creating a thirty minute operating reserve product (similar to the product being used in Eastern Markets), which could increase the number of DR resources available to the CAISO. The CPUC staff understands the reliability concerns that WECC must balance when creating reliability standards, but CPUC staff believes that the existence of this product in Eastern Markets suggests that a thirty minute product may provide additional reliability resources.

Slide 23

- The CPUC staff believes that gaming and cost shifting issues are two very different concerns, and that these issues should therefore be addressed separately. Both issues are matters that the CPUC takes very seriously, and CPUC staff works diligently to identify and remedy these problems. CPUC staff expects that the CAISO and the DMM is doing likewise.
- The CPUC staff seeks additional clarity about the first bullet on this slide, which claims that some customers will not be able to choose nodal pricing. It is the

CPUC staff's understanding that the CAISO envisions that CSP's would likely be permitted to enroll any customers that have or are willing to install any technology necessary to facilitate DR service. Therefore, all customers would have the opportunity to choose nodal, or at least CLAP, pricing for DR services. Additionally, the CPUC staff understands that DR services will be separated from load for settlement purposes.

- The fourth bullet on this slide is unclear. It states "MRTU move to only three LAPs makes problem worse." It is unclear, however, which problem is being referenced.
- The CPUC staff does not believe that some DR resources ability to game the system will necessarily prevent others from participating. Gaming will likely reduce participation only to the extent that one DR customer's gaming has negative impacts on another DR customer. Furthermore, it can argued that if one party is involved in gaming that leads to cost shifting, then other participants not only have to attempt to bid in their DR, but must also learn from the gaming of others to shift costs back off of themselves.

Slide 24

- The CPUC staff is concerned that CSPs and ESPs are presumed to be the same type of entity in this slide. This presumption raises significant concerns for the CPUC. The California's suspension of Direct Access under AB1X prohibits the ability of ESPs to serve new customers. The CPUC will likely soon consider whether CSPs would be providing a service that is distinct from that of an ESP with respect to the current bar on the expansion of Direct Access. The issue of whether an ESP could also act as a CSP has also not yet been addressed by the state. The distinction between an ESP and a CSP is a point that needs greater clarity. This is particularly important because the CPUC has not yet made a determination, pursuant to Order 719, if there are any state rules or regulations that prohibit DR's direct participation in the ISO's markets.
- The CPUC staff agrees that CSPs would be in a very interesting position in California. Not only would they try to balance their role as a customer/competitor, they are also in a position to see how the IOUs are using DR resources while managing a DR portfolio of their own. This benefit would arise from potentially managing the IOUs aggregator-run contracts that are bid into in the CAISO market, allowing the CSP to strategically schedule their other resources.
- The CPUC staff believes that some consumers will likely shy away from energy-only revenues. Those resources that are well suited to provide DR will likely see benefits of doing so, and will still attempt to participate in retail DR programs and/or direct bid-in. For example, the energy payments could provide monthly revenues similar to a monthly capacity payment when the customer responds, but offers no payment and requires no penalty for non-response. Under this payment mechanism, customers will be better off staying in DR programs and simply responding when they are able and willing.
- It is unclear to the CPUC staff how the hybrid market may hinder CSP growth and development. The California energy market is a hybrid in many ways. The

specific "hybrid" attribute referred to is unclear. This bullet could be referring to either the difference between wholesale and retail pricing/rate making, or to a dual DR market comprised of CPUC funded IOU programs and non-CPUC funded CSPs. If the comment is addressing the difference between wholesale and retail pricing/rate making then the hybrid system can actually be used the advantage of the CSPs if CSP are selling DR into the CAISO market and being accepted primarily when prices are high (i.e., higher than the average cost pricing used for retail rates). If the concern is that CSPs cannot fairly compete with the IOUs ratepayer funded DR programs, then the concern could be better framed. This outcome is not inherent in the "hybrid market," but rather has come about through the historical development of CPUC DR programs over the years. As DR develops in both the wholesale and retail markets, the CPUC will continue to adjust its policy to attempt to maximize the benefits of DR resources. Stakeholders that feel this is a concern should provide greater detail about how the hybrid market is a barrier so that potential solutions may be analyzed.

Slide 25

- The CPUC and the CAISO must work together on numerous matters to allow both agencies to fulfill their goals effectively. Any differences that exist between the CPUC and FERC/CAISO are not irreconcilable. Currently, staff from both agencies work collaboratively and continue to resolve barriers to broader DR use and acceptance.
- The CPUC staff agrees that "timely" does not necessarily mean "quick." California has determined, through its Loading Order,[1] that DR is a very important resource. The CPUC staff is concerned, however, that forcing wholesale DR towards implementation by a set deadline could have inadvertent negative consequences. The CPUC staff does not want to have to completely rework direct wholesale DR participation shortly after its introduction or damage the public or political image of wholesale DR generally by creating a hastily-constructed mechanism.
- The second bullet seems to imply that DR resources will not be able to compete with other resources in the CAISO market. EE and DR provide CAISO with numerous benefits, including smoother load profiles and reduced long-term load growth rates. The CPUC staff is unclear as to how EE policies create barriers to direct bid-in DR resources. Therefore, the CPUC staff seeks further clarity on this point. Furthermore, this bullet seems to imply that the CPUC is funding DR resources that will still not be able to compete with traditional generating resources. Therefore, the CPUC staff seeks further explanation on this point. Furthermore, the CPUC and CAISO continue to work together to find the proper balance of resources to fulfill California's short and long-term energy needs.
- Through tools such as LTPP and RA, the CPUC staff expects that effective long term planning will prevent most short term problems. Additionally, for the rare instances in which the CPUC's procurement programs do not address short term

[1] The Loading Order is in the Energy Action Plan, and can be found at http://www.cpuc.ca.gov/NR/rdonlyres/58ADCD6A-7FE6-4B32-8C70-7C85CB31EBE7/0/2008_EAP_UPDATE.PDF

grid operational needs, the CPUC support various CAISO backstop procurement mechanisms such as RCST, ICPM, and Exceptional Dispatch.

Slide 28

- The CPUC is in the process of developing a DR Cost Effectiveness Protocol for CPUC authorized DR programs. Once this protocol is in place, the CPUC will be able to compare the cost effectiveness of various resources and authorize the best portfolio. The CPUC is attempting to achieve a delicate balance between creating a robust DR market and finding cost effective DR resources while the DR market is in its infancy. However, it should be noted that the California's Loading Order focuses on cost effective DR and price responsive."[2]

Slide 31

- The CPUC recognizes the numerous concerns regarding customer education, and continues to fund programs aimed at overcoming these barriers.

Slide 32

- The first bullet implies that complexities of participating in the RA/Capacity market will act as a deterrent to direct bid-in participation and that the CPUC and utilities 'protect' customers now. It is unclear what actions towards protection of consumers by the CPUC and utilities may create barriers to direct participation. The CPUC staff understands that protections such as use-limits and the number of times a unit can be called in a given period will still be honored by CAISO, and that the "protections" attributed to the CPUC and utilities in this bullet will continue to be honored by CAISO.
- Though few customers may have the sophistication to understand the nuances of the wholesale and retail electricity markets, the CPUC staff anticipates that they will not need to. CPUC staff believes that only end use customers that wish to be their own SC will have to understand the details of the wholesale and retail electricity markets. Most end use customers will simply have to understand the terms of payment and performance obligations detailed in the contract with a CSP. This appears to be an area of for great value to be added by aggregators. CPUC staff believes the items on this slide can be equally viewed as both a hurdle and an opportunity.

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- Are the infrastructure costs associated with mapping customers restricted to IOUs? Will CSP's face similar challenges as they gain and lose customers?
- Though creating the necessary data and communication links will take time, the CPUC staff expects that the Participating Load Pilot, which is scheduled to commence in the summer of 2009, will help the CAISO and market participants to develop this infrastructure.

Slide 37

- The CPUC staff believes that any DR resource that wishes to receive a capacity payment must adhere to the Load Impact Protocols. The load impact protocols

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[2] Ibid

are the only way the CPUC is able to verify the load reduction capabilities of a DR resource. However, the CPUC staff is unclear how adherence to the Load Impact Protocols creates a barrier to direct bid-in demand.