

SCE Comments on Energy Storage and Distributed Energy Resources Phase 3

Submitted by	Company	Date Submitted
Aditya Chauhan aditya.chauhan@sce.com	Southern California Edison	7/27/2018

Southern California Edison (SCE) provides the following comments on the California Independent System Operator (CAISO) Draft Final on Energy Storage and Distributed Energy Resources Phase 3 (ESDER)¹.

SCE does not support the CAISO's EVSE sub-metering proposal

The CAISO and other stakeholders have not provided substantive arguments that Users will not be able to exploit the EVSE proposal

As noted in SCE's prior comments, allowing a resource to exploit an identified loophole will not provide the system with the full load drop that the CAISO expects but will, inappropriately, pay the resource for the full expected load drop². Also, as noted in prior comments, the experiences of stakeholders are anecdotal and do not substitute for empirical data demonstrating that there is no trend of EVs being switched from EVSE to non-EVSE charging points.

Further, the CAISO should also clarify why it believes that auto-DR technology leads to a low likelihood of moving load between the master and sub-meter. Does having auto-DR mean that an EV owner cannot unplug their EV from the Supply Equipment (SE) during a dispatch? If that is not the case, then it is incorrect to cite auto-DR as support against moving load between the master and sub-meter.

One stakeholder stated that an EV owner would usually be unaware of their vehicle being dispatched for DR. That is an incorrect assumption. For example, Tesla, Nissan,

¹ <http://www.caiso.com/Documents/DraftFinalProposal-EnergyStorage-DistributedEnergyResourcesPhase3.pdf>

² <http://www.caiso.com/Documents/SCEComments-EnergyStorage-DistributedEnergyResourcesPhase3-Jun252018.pdf>

Chevy provide applications that allow owners to know charging status. If an EV is dispatched, a monitoring owner will know it. This coupled with the fact that DR dispatches are not ephemeral events³ means that EV owners will have the opportunity to know when their vehicles are not charging and have sufficient time to use a host facility charging point as an alternative.

Finally, there is no reason to believe that just because anecdotal evidence suggests users will not make such switching today, that technology will not evolve to the point of making such switching occur without user intervention⁴. It seems a relatively simple task to develop a charging station fed from two power sources; one that is sub-metered and a second that is not. It is also not difficult to imagine that same device having the demand response signal routed to it. Once the signal is triggered, the device switches the charging source from the sub-meter to a circuit not on the sub-meter.

Demand response has been utilized for a lengthy period of time. Metering and measurement has been well established to ensure that the entity requesting the reduction in load (CAISO or Utility Distribution Company) receives the requested reduction. Sub-metering without consideration for overall load from the facility cannot be verified to have produced the load reduction requested.

The CAISO has developed a single case in which sub-metering was acceptable. SCE participated in this process and agreed that the specific application was viable. However, in that application, the energy storage device was hard-wired to the sub-meter (i.e. it could not be charged off of a separate circuit that was not sub-metered). In addition, the process continued to utilize base-line evaluation methodologies based on the entire facility load and only utilized sub-meter information in very specific cases. Moving away from this methodology can lead to payment where no load reduction is experienced. As such, the proposal is not just and reasonable.

Should the CAISO be unable to provide empirical support for its position, the alternative is to measure host main meter baselines to gauge load during events applying to the submetered resource. Note that this is the basic intent of DR, to provide a service based on the entire load facility.

³ In SCE's experience through a commercial DR pilot, EVs are dispatched between an hour to five hours.

⁴ Redundant power already has widespread use in a variety of applications.

The uniqueness of a resource should be accounted for rather than assuming it will comport to a traditional approach

There is no feasible manner for the CAISO to audit resources, given the large magnitude to which EVSE sub-metering can grow in commercial space, let alone residential space. Given the inability of the CAISO to reasonably audit and the clear incentives provided in this proposal, relying on attestations is not an appropriate manner to regulate behavior. Market participants are already beholden to the CAISO tariff. An additional signature stating such is insufficient to establish just and reasonable rules to govern market behavior. The problem lies in the mobility of the storage resources connected to the EVSEs, the EVs. The mobility results in no dedicated sub-meter connection to the resource⁵. The CAISO should account for this as it would account for any non-conventional technology for which it has to formulate new policy.

The CAISO should work toward using state-of-charge (SOC) management as a viable use-limitation representation tool

While SCE supports the representation of longer term use-limitations, such as monthly or annual, through contracts, the CAISO should recognize that managing shorter term use-limitations cannot be solely the responsibility of the SC. Contracts can neither anticipate bidding behavior for a resource, nor would it be appropriate to share between a resource owner and the contracting SC. SCE urges the CAISO to work with stakeholders in using SOC management to manage short-term use-limitations.

SCE does not agree that weather sensitivity should be deferred

Conditions impacting a large amount of CAISO-integrated MW capacity of DR need to be addressed by the CAISO. These include issues such as weather sensitivity. While the CAISO tied weather sensitivity to RA impact and proposed deferring the topic, SCE does not agree. Addressing limitations due to weather sensitivity should still be addressed in ESDER 3, as well as in the relevant CPUC proceedings (e.g. the RA OIR).

⁵ One stakeholder claimed their commercial charging stations were hardwired. This can only, at best, apply to the EVSE. The EV itself is always mobile. Consider a scenario where there are multiple EVSEs on site. The facility has some SEs on a DR program. During an event, what prevents the EVs connected to the SEs on a DR program from being switched to SEs that are not on a DR program?

Among such limitations are run-time parameters. SCE does not anticipate any problems with the CAISO optimizing a resource over a time window, however, along with other stakeholders, sees the need for the CAISO to better recognize run-time use limitations. For example, the Capacity Bidding Program is one example of a DR program that has a limit on maximum number of event hours per day (6 hours in its case), which cannot be properly addressed with the existing parameters. This is especially true for weather sensitive resources, such as the Summer Discount Plan – where using the parameters such as the Maximum Daily Energy Limit does not adequately represent the hourly program limitations to the CAISO.

The impacted resources present hundreds of MW in the CAISO market, and should be considered a higher priority than emerging technologies which do not have a significant market presence at this time.