DIVISION OF RATEPAYER ADVOCATES

CALIFORNIA PUBLIC UTILITIES COMMISSION

**COMMENTS OF THE DIVISION OF RATEPAYER ADVOCATES
ON THE CALIFORNIA ENERGY COMMISSION'S**

**IEPR COMMITTEE WORKSHOP ON
ENERGY STORAGE FOR RENEWABLE INTEGRATION**

CEC DOCKET NO. 11-IEP-1N

The Division of Ratepayer Advocates (DRA) submits the following comments on the California Energy Commission's Integrated Energy Policy Report (IEPR) Committee's Workshop on Energy Storage for Renewable Integration held on April 28, 2011.

While DRA supports energy storage in concept, it cautions the CEC to take extreme care to not start any program that could lead to cost increases for ratepayers without delivering commensurate benefits. As DRA has stated within the California Public Utility Commission's (CPUC) storage proceeding, R.10-12-007, DRA recommends: 1) California should not mandate that load serving entities procure a target amount of energy storage, but rather should consider individual applications within the long term procurement proceeding; 2) California should take gradual steps towards developing energy storage regulations; and 3) when evaluating specific applications, the viability and cost of energy storage options must be compared to other options.

1. Load Serving Entities should not be required to procure specific levels of energy storage

The State should not mandate any specific storage procurement targets or minimums for Load Serving Entities (LSE's), as it has for renewable generation. Instead, the CPUC, within the context of the long term procurement proceeding (LTPP) should identify any specific applications or proposed needs for different types and quantities of storage.

On a system level, the amount of storage needed to support renewable integration, if any, varies depending on what baseline assumptions are employed the analysis. There are currently many uncertainties regarding the quantities, type, location and timing of renewable generation coming online. These uncertainties make it impractical and unwise to mandate a specific level of storage procurement in the future.

Rather than mandating generic storage purchase requirements for LSEs, the CPUC should identify or update assessments of storage needs through its procurement process (the LTPP). After the CPUC determines specific storage needs, it can direct each LSE to procure (or approve applications for) the right types and amount of storage applicable to the LSE's identified needs, through competitive bidding processes. Mandating (or even recommending) a general megawatt storage procurement target will likely not result in a least cost solution for the ratepayers. The LSE's should instead seek specific storage applications that are viable, cost-effective, and tailored to meet their own specific integration needs identified in the LTPP.

2. California should take gradual steps towards developing energy storage procurement targets

The process of developing recommendations (or requirements) for energy storage should first focus on identifying key applications, technologies, and optimum locations for storage. Through the IEPR, the CEC can assist the CPUC in identifying and prioritizing key storage applications, such as:

- generation and system-level applications that can provide benefits for renewable integration, and transmission and distribution systems;
- storage technologies that can provide multiple benefits across categories, or "stacking" capability;
- technologies with higher capability of discharge capacity and energy delivery; and
- the most cost-effective storage options compared to other alternatives.

This identification and prioritization process should take place within the LTPP to address specific needs on a case-by-case basis, and not be based on a preset, general amount of storage or storage technology. This process would also contribute useful information to the CPUC's storage proceeding (R.10-12-007).

3. The viability, value and costs of energy storage should be evaluated on a case-by-case basis as compared to other options.

Energy storage applications should be compared not only with other storage applications, but with other, non-storage options. In some cases there may not be a viable alternative to energy storage to fulfill an identified need (e.g. storage may be the most viable option to prevent curtailment of wind generation during conditions of system over-generation). In other cases, more cost-effective alternatives may be available to support integration needs. Storage should be viewed as one way, but not the only way, to meet renewable integration and other system needs.

Further, several factors can impact the analysis of the benefits, needs, and cost-effectiveness of storage applications on a case-by-case basis. For example, the availability of green house gas credits might lead an LSE to favor storage over generation as a procurement option. Another example is that growing penetration of distributed generation in particular locations, especially photovoltaic technology, may lead an LSE to determine that it needs a specific storage application to support the distribution system and the distributed generation. Customer-owned storage, such as grid-connected

batteries for electric vehicles, could also potentially provide a cost-effective way to meet specific identified storage needs compared to developing utility-owned storage.

Finally, just as other options should be considered and compared with energy storage, energy storage should be considered and compared with other options in their own respective proceedings, such as new transmission/distribution and generation facilities.

In summary, DRA thanks the CEC for organizing the workshop and appreciates the opportunity to provide comments on the CEC's IEPR process as it relates to storage. For questions on this issue please contact:

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