BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Pursuant to Assembly Bill 2514 to Consider the Adoption of Procurement Targets for Viable and Cost-Effective Energy Storage Systems.	Rulemaking 10-12-007 (Filed December 16, 2010)

COMMENTS OF PUBLIC UTILITY DISTRICT NO. 1 OF SNOHOMISH COUNTY

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I. INTRODUCTION

The Public Utility District No. 1 of Snohomish County ("Snohomish PUD") appreciates this opportunity to file comments on the September 3, 2013 Proposed Decision of Commissioner Peterman, Adopting Energy Storage Procurement Framework and Design Program, Docket 10-12-007 ("Proposed Decision"). Snohomish PUD submits the following comments to the California Public Utilities Commission ("Commission") in accordance with the provisions of the September 3 Proposed Decision.

The Proposed Decision seeks to set procurement targets, policies and mechanisms, for load-serving entities to acquire electric energy storage systems. Snohomish PUD reiterates prior comments that many of the energy storage systems available today are not cost-effective or widely available, and that any scheme adopting aggressive procurement targets must take into account the operational needs of the utility, or it risks becoming a very expensive experiment at the cost of the ratepayer. Although Snohomish PUD believes emerging storage technologies have the potential to meet the Proposed Decision's goals of grid optimization, integration of renewable energy and the reduction of greenhouse gases, there remain challenges to

implementing storage technologies that can meet these goals. In many cases, these new technologies are not cost-effective for large-scale deployment for utilities and lack electrical, physical and communication standards that are open and non-proprietary, that would enable the storage systems to be interoperable, modular and scalable. These barriers make it increasingly difficult for utilities to integrate energy storage technologies into their existing control systems.

In addition, Snohomish PUD is very concerned that the limitations on utility ownership of energy storage systems set out in the Proposed Decision have the potential to compromise the reliability of the electric system, and interfere with regulated utilities' ability to effectively meet federal reliability requirements.

II. COMMENTS

Utilities such as Snohomish PUD need to be able to operate, maintain, upgrade and expand energy storage assets similar to other equipment, such as substations and transformers. They also rely on having an organized supply chain with multiple suppliers. The current energy storage market cannot meet these needs. Snohomish PUD is one of the few consumer-owned utilities in the Pacific Northwest that is investing in the development of energy storage systems. However, these investments are strategically targeted. Rather than buying conventional "black-box," proprietary storage systems that are only suited for very limited uses, or throwing money at the development of a new type of storage technology project we are not certain will work, Snohomish PUD is investing in the development of information technology infrastructure, and electrical, physical and communications standards that will enable a variety of energy storage technologies to work effectively within the electric system.

In 2012, Snohomish PUD and 1Energy Systems, Inc., launched the Modular Energy Storage Architecture ("MESA") initiative, the primary purpose of which is to help the industry

develop such open industry standards to move the energy storage market toward component-based solutions that are more scalable and cost effective than what is currently on the market. The MESA initiative brings the project suppliers to work together to define communications protocols and standards for connecting and operating energy storage with their information technology and operational technology systems.

Snohomish PUD appreciates the changes in the Proposed Decision as compared to the initial proposal that provide flexibility to conduct effective solicitations and to respond to unreasonable costs, such as the deferment of up to 80% of each procurement target to later solicitations, the ability to use a Request for Offer process to solicit storage projects, and the ability to use other cost-effectiveness models than the EPRI and DNV KEMA models originally proposed. However, there remain aspects of the Proposed Decision that have the potential to waste ratepayer dollars without accomplishing the desired goal of market transformation.

To accomplish market transformation, storage systems must be capable of delivering the real operational functionality within the grid domain in which they are deployed, and the industry must be mature enough for costs to stabilize, be predictable and start to come down. Utilities must be able to effectively use the storage on an instantaneous basis as part of operating the electric system. A key to this level of operational function is the development of common electric, physical and communication standards that will enable storage to be more effectively integrated into the operation of the electric system. Snohomish PUD believes that there are several aspects of the Proposed Decision that have the potential to interfere with that goal.

The requirement that no more than fifty percent of the storage be utility-owned is one such barrier. If a utility is required to connect and allow operation of a third party-owned energy storage system within its generation, transmission or distribution grid domains, the utility faces

risk of compromise of its system data acquisition and control architecture, cybersecurity risks, and risk to its ability to comply with mandatory federal reliability requirements from the North American Electric Reliability Corporation. If the utility acts to protect its system controls, it risks not being able to utilize the potential functionality that an energy storage system could provide.

Another potential barrier is the apparent requirement that a single methodology be developed to determine cost-effectiveness, when cost-effectiveness must take into account the unique characteristics of the region, the customer base, the utility, market conditions, or other factors. The Proposed Decision indicates that utilities will be allowed to propose their own methodologies to evaluate the cost and benefits of bids, but will need to work with the Commission to develop a consistent evaluation protocol. It would be helpful for the Commission to clarify whether this common protocol will still permit these types of individualized factors to be considered.

Additionally, Snohomish PUD believes that the needs of a utility must be taken into consideration in any requirement for procurement of storage systems that are, in effect, acting as resources, whether they function as capacity or energy. Though the Proposed Decision indicates that system need is not required to be considered, Snohomish PUD maintains that consideration of system need is inherent in the concept of cost-effectiveness, which is clearly a requirement of AB 2514. To impose a mandate for procurement in a vacuum, independent of need, or of real cost-effectiveness, is to risk waste of ratepayer dollars. If history is any guide, the accelerated mandate to procure energy storage systems in the absence of need or cost effectiveness will result in multiple contracts for high priced systems at ratepayer expense. For these reasons, the Commission should provide clarification that an inability to meet system need should be

included as grounds for deferring portions of a procurement target. Moreover, until the storage system technology and market are better developed, the Commission should consider treating the procurement targets as goals rather than mandates, and the utilities should have discretion to decide what technologies to deploy.

If the load serving utilities can demonstrate that the energy storage projects generated by these procurement targets affirmatively benefit their long-term operational needs, it will provide greater impetus for the growth of the industry as a whole.

III. CONCLUSION

While their use is increasing, energy storage technologies remain emerging technologies. As a result, Snohomish PUD believes the Commission should ensure there is adequate flexibility for utilities to utilize and integrate these technologies into their system that is cost-effective and minimizes barriers. The Commission should employ procurement goals to advance the goals of Proposed Decision, but should not create mandates that could harm utilities as they work to deploy this new technology. Snohomish PUD appreciates this opportunity to comment on the Proposed Decision.

Respectfully submitted,

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