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 June 10, 2013 Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-Party Meeting in rulemaking docket 10-12-007 ("ACR"). Snohomish PUD submits the following comments to the California Public Utilities Commission ("Commission") in accordance with the provisions of the June 10 ruling by Commissioner Peterman. The ACR seeks to set procurement targets for load-serving entities for cost-effective and commercially available energy storage systems that are not yet fully deployed in California. Snohomish PUD believes that emerging storage technologies have the potential to meet the ACR's goals of grid optimization, integration of renewable energy and the reduction of greenhouse gases, but agrees that 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.

II. COMMENTS

Like a number of other electric utilities, Snohomish PUD is already convinced that energy storage has the potential to increase and optimize the value of its distribution system, and will assist in integrating distributed renewable generation. There are still many barriers, however, that prevent load-serving utilities like Snohomish PUD from making use of energy storage in operating its electric system. While there may be commercially available advanced technology batteries for use in the distribution system context, for example, they tend to be proprietary "black-box" solutions that are not cost-effective for utilities to deploy widely, and there are no common, non-proprietary physical, electrical and communication standards that will enable utilities to easily integrate such technologies with their existing control systems and to integrate different storage technologies with one another. There also is a significant lack of commercial operating experience by the utilities with the various technologies in light of how relatively new these technologies are to the market. Snohomish PUD appreciates the comments provided in Phase 1 of this proceeding that describe the myriad of barriers that hinder the widespread use of storage technologies, and also appreciates the Commission's effort to address some of these barriers in an effort to bring grid-connected energy storage to utility scale. Snohomish supports the ACR's overall goal of market transformation in the energy storage space to address these barriers, but suggests that the Commission must take into account that energy storage is a set of nascent technologies. If the Commission adopts an energy storage procurement target proposal, a key emphasis should be on developing the type of open, nonproprietary standards that will enable the needed interoperability of energy storage technologies with the segments of the electric system infrastructure that they support.

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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. 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 communication protocols and standards for connecting and operating energy storage with their information technology and operational technology systems. This project demonstrates how the Commission can support the growth and development of standards for the energy storage industry.

The Commission should not and need not play a direct role in specifying standards for the energy storage industry. However, the Commission can play a significant role in promoting the industry's adoption of standards. The Commission can more clearly identify the lack of such standards as a barrier limiting the growth of the industry, and can include evaluation of the applicability and benefits of standards-based storage in the procurement of utility-owned energy storage and third-party owned energy storage.

Snohomish PUD also suggests that in establishing procurement targets, the Commission should give the utilities as much flexibility as possible to maximize opportunities for implementing the best or most useful proposals and integrating the benefits each energy storage project represents. The ACR does not currently propose a methodology for evaluating the costeffectiveness of energy storage. Thus, Snohomish PUD suggests that as this information

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becomes available that the Commission develop a set of cost-effectiveness models for the use cases that can be applied by the utilities for meeting storage procurement goals. At a minimum, until these methodologies are developed, the Commission should not apply strict procurement targets to utilities. Snohomish PUD suggests that the Commission consider treating the procurement targets for utilities as goals rather than mandates, and not penalizing underachievement of the targets. Further, Snohomish PUD supports additional flexibility in allowing procurement among use-case "buckets" of energy storage (transmission, distribution, and customer-sited), and not limiting the utilities to a percentage of utility-owned storage proposals. The utilities should have discretion to decide what technologies to deploy, and what standards are appropriate. 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 ACR, but should not create mandates that could harm utilities as they work to deploy this new technology. Snohomish PUD appreciates the opportunity to comment on the ACR and looks forward to working with the Commission to implement a successful storage program.

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Respectfully Submitted,

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