SNOHOMISH COUNTY PUD
PUBLIC UTILITY DISTRICT NO. 1

Providing quality water, power and service at a competitive price that our customers value

July 15, 2011

Submitted via email to records@utc.wa.gov / WUTC Records Center

Executive Director and Secretary
Washington Utilities and Transportation Commission
1300 South Evergreen Park Drive SW
PO Box 47250
Olympia, WA 98504-7250

Subject: **Comments of Snohomish Public Utility District No. 1**
Study of the Potential for Distributed Energy in Washington State
Docket UE-110667

Commissioners:

Snohomish Public Utility District No. 1 ("Snohomish PUD") appreciates the opportunity to provide general comments to the Commission on issues identified in the June 24, 2011 notice regarding Docket UE-110667, *Study of the Potential for Distributed Energy in Washington State*. Snohomish PUD offers the following comments for consideration:

Snohomish PUD is the largest public utility district and second largest municipally-owned utility in the Pacific Northwest, and has publicly stated it is committed to the development of new generation and storage technologies, including distributed generation. Snohomish PUD has a diverse portfolio of clean, renewable resources that include hydroelectric power, wind, landfill gas, and biomass.

In our adopted 2010 Integrated Resource Plan, new resource additions were identified to meet the utility's load growth not met by cost-effective conservation. These resource additions include: small hydroelectric resources; landfill gas and biomass; utility-scale solar; geothermal and tidal energy projects; and customer-owned or distributed generation resources. Our utility also has several efforts and programs underway to acquire, construct, and develop or support the development of renewable energy resources.

More recently, Snohomish PUD has launched a new initiative to develop and implement a distributed energy storage and resource management demonstration project. The core elements of this project include deployment of several energy storage devices and

development of a Distributed Energy Resource Management software package. The overall goal of the project is to:

- Assess costs/benefits of energy storage devices like lithium-ion and advanced lead-acid batteries; and

- Encourage industry technology development for scalable energy storage appliance platforms and distributed energy resource management software to better integrate storage with other utility systems.

As the Commission learns more about the opportunities and challenges with regard to developing distributed energy, Snohomish PUD has many success stories, insights and relevant experiences that may prove helpful.

General Cross-Cutting Issues

Financial Incentives

Establishing financial subsidies or incentives at the state level to encourage the development of distributed generation resources for Snohomish PUD takes away local governance and decision-making authority that has been reserved by our ratepayers to the Snohomish PUD Commissioners. In addition, financial incentives – which may or may not be above the market price for these resources – could result in windfall profits to the developers, at ratepayers' expense.

Regionally the need for new resource has diminished with the economic downturn, but the desire to develop new resources remains. Simply put, there is a surplus of resource at this time. Consideration must be given to utilities that have a large number of distributed generators wanting to interconnect, but the utility itself may not need the additional resources at that time to serve their load. Creating incentives to stimulate local resource development ahead of utility need puts the utility potentially in the position of having to purchase the energy, only to resell that same energy at a loss in the wholesale power market. The end result is higher electric rates and risk to utility ratepayers.

Interconnection

Snohomish PUD has a process in place to assist developers evaluate the requirements to interconnect new generation resources to the utility's electric system. The geographic

location and operating characteristics of a proposed resource require engineering and system studies to determine what impact that resource will have when interconnected.

Several components of the interconnection process and resultant agreement could be standardized. However, the type of resource and its geographic point of interconnection will determine whether or not the interconnection will be standard or unique. For example, a two (2) MW generator interconnecting at the end of a feeder in a remote part of the utility's service territory will likely require additional equipment and interconnection facilities, than will a 200 kW generator located near a major substation. In the event additional equipment is needed to construct the interconnection facilities, longer lead times may be required, ultimately affecting the developer's project schedule.

Based on the variety of considerations identified above, it is important that utilities be allowed to maintain flexibility to develop their interconnection processes appropriate to each resource and system configuration.

Permitting

Permitting and regulation are barriers for wave, tidal and micro-hydro technologies. The *U.S. Marine and Hydrokinetic (MHK) Renewable Energy Roadmap – "15 by 30"* (July 2011) states the federal government recognizes that the permitting and regulation of MHK projects is a "significant barrier" to the industry's commercialization. The roadmap recommends agencies and stakeholders first approach the deployment of single devices and small arrays so that until proven otherwise, would have small impact projects with minimal environmental effects. The roadmap then supports adaptive management as solution to confirm initial assessments of low impact, monitoring for long-term impacts that are undiscovered, and applauds agencies that have already streamlined their permitting process.

Through Snohomish PUD's own experience with permitting and developing renewable energy projects, we believe a more efficient permitting process must be developed to promote the utilization of these resources. Current practices and processes among various agencies are duplicative, and in some instances are poorly coordinated, creating unnecessary schedule delays and added expense, when such monies could have instead been put toward developing such projects.

Technology-Specific Issues

With regard to the state of technology for generating electricity from wave, tidal and micro-hydro technologies, the *U.S. Marine and Hydrokinetic (MHK) Renewable Energy Roadmap – "15 by 30,"* published in July 2011 states,

> *"Clean, sustainable MHK renewable energy from free-flowing waves, tides, currents, and ocean thermal gradients has the potential to provide up to 10% of our nation's electricity."*

However, the technologies for tidal energy are still in their infancy. Only a few large scale test devices have been installed and operated, and only two have been successfully connected to the grid and operated for any period of time. MHK energy is considered to be about 20 years behind wind as a resource, although the gap could narrow if initial demonstration projects prove to be successful.

Snohomish PUD's own efforts are focused on deploying two utility scale tidal energy turbines in Puget Sound in 2013. The project's objective is to provide data to inform analysis regarding the technical, economic, social, and environmental viability of tidal energy. Currently, Snohomish PUD is the only utility in the U.S. leading with a serious MHK project, and is one of only two MHK projects to be awarded a $10 million grant from the U.S. Department of Energy.

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Snohomish PUD appreciates the opportunity and the Commission's willingness to consider these comments. We look forward to the work sessions and further discussion as the Commission works through the study.

Sincerely,

Anna Miles
Senior Manager, Power Supply

cc: Steve Klein, General Manager