



July 27, 2010

VIA ELECTRONIC MAIL

Mr. David Danner
Executive Director and Secretary
Washington Utilities and Transportation Committee
1300 South Evergreen Park Drive S.W.
Post Office Box 47250
Olympia, Washington 98504-7250

Subject: Inquiry on Regulatory Treatment of Renewable Energy Resources - Docket UE-100849

Dear Mr. Danner:

On May 19, 2010, the Washington Utilities and Transportation Commission ("Commission") issued a Notice of Opportunity to File Written Comments in the above-referenced docket. On July 1, 2010, the Commission provided a Consolidated List of Issues ("List") and requested interested persons to file comments in this proceeding by addressing the issues identified on the List. Comments on the List were due by July 22, 2010. The Commission also provided an opportunity for interested persons to provide reply comments by August 5, 2010. The following are our reply comments.

General

1) *Definitions:*

A. What is "*distributed generation*" as applied to solar PV projects?

Several interested parties submitted comments on this issue. We agree with comments made by Avista with respect to how solar PV output should be measured for purposes of determining qualification as distributed generation. In its comments, Avista noted that although "*a PV solar project initially generates its output as direct current (D/C) * * * [A] solar PV system converts D/C energy into A/C energy by using an inverter. The inverter is an integral part of the Solar PV system and output should be measured based on its A/C output.*" We agree with these

comments, which are consistent with the comments we provided to the Commission on June 14, 2010.

In our prior comments, we suggested that the one way to conclude that the maximum capacity of a project is not more than 5 MW is to limit the permitted output at the inverter (electronic equipment that converts DC power to AC power) so that no more than 5 MW of power is delivered to the grid. If the system production is ready to exceed 5 MW, the inverters halt or clip the surplus energy so it is not delivered. By clipping the power that exits the high side of the inverter, regardless of how much power the facility produces, the amount exiting the inverter on the AC side should never rise above 5 MW. Using this "operating procedures" method would allow installation of more solar panels than the original design engineering method.

In their joint comments, Renewable Northwest Project, NW Energy Coalition, Climate Solutions, Cascade Chapter of the Sierra Club, and Washington Environmental Council (collectively referred to as the "Policy Group") suggests that "using DC would be administratively simpler, but using AC gives perhaps a more accurate measure of the true "generating capacity" of the PV resource." We agree that a measure based on AC is more accurate but do not agree that using DC would be necessarily simpler. It would be quite easy to obtain a certification from the project owner or engineer of the maximum output based on a hardware or software limitation, which in the case of PV would be inverter clipping.

In its June 11, 2010, comments to the Commission, Steel Rives, on behalf of Energy Northwest, proposed that language similar to that found in Oregon Administrative Rule 860-084-0020, related to measuring PV capacity on the AC side of the inverter, should be adopted. We do not agree that this should be the only method available for compliance. The Oregon approach measures AC output based on a formulaic conversion of nameplate capacity rating as reported by the manufacturer. Using a factor to account for inverter and other system component losses is not as accurate as relying on limits on system output resulting from clipping the power on the AC side.

From the standpoint of practicality, efficiency and economics, inverter clipping proves to be the most sensible way to achieve a generation capacity of not more than five megawatts of AC power. From a design and engineering standpoint, clipping is a simple procedure: in simplest terms the maximum output of the inverter is merely limited to the desired level – in this case five megawatts – regardless of the DC generation of the facility.

The Commission should expressly approve an original design engineering method and an operating procedures method for satisfying the requirements of "not more than five megawatts."

B. What is an *"integrated cluster of renewable resources"*?

In its comments, the Policy Group advocates for a definition of "distributed generation" similar to that adopted by the Department of Commerce, and suggests that this definition is "intended to clarify what is meant by an "integrated cluster." This fails to address the ambiguity that arises

from the definition of "integrated cluster" that was adopted by the Department of Commerce. Those rules provide that "[i]f several five-megawatt or smaller projects are located in the same immediate area but are owned or controlled by different developers, each qualifies as a separate, independent distributed generation project * * *." WAC 194-37-040(12). This rule recognizes that separately owned facilities cannot be combined to prevent a facility from qualifying as distributed generation.

According to the Department of Commerce rule, an "integrated cluster of eligible renewable resources means colocated projects owned or controlled by the same entity that feed into the same substation." WAC 194-37-040(16). The Commission should not adopt this definition, but should instead adopt a definition for "integrated cluster" that enables utilities and developers to apply a bright line test.

We do not agree with the following comment submitted by Avista: "No renewable generation project(s) should be eligible for distributed generation benefits * * * where shared interconnection facilities transmit more than 5 MW to the grid." This suggestion fails to address the reality of development in rural areas.

The particular substation into which a facility feeds is not an appropriate factor to consider when the substation is owned by the local utility. This is especially true with respect to small generating facilities and development in rural areas because a single substation could service several small projects and 100 square miles or more. Unlike large generating facilities, which often require a new substation for interconnection, small generating facilities generally connect to distribution lines that may carry the power 10 miles or more to the nearest substation.

To eliminate ambiguity, an integrated cluster should only be considered in cases where two or more facilities are on the same or an adjacent parcel or parcels, sharing a common property line. Projects which are nearby but not immediately next to each other should not be at risk for integration.

The Commission should adopt a rule that defines an "integrated cluster of renewable resources" as "two or more projects that are (a) developed on the same or adjacent parcels that share a common property line, and (b) are owned or controlled by the same entity."

Thank you for considering these issues and positions. We look forward to participating in the upcoming workshop.

Best Regards,



David W. Brown
Senior Principal