Obsidian
RENEWABLES, LLC
WWW.OBSIDIANRENEWABLES.COM

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Oregon Public Utility Commission
Salem, Oregon

Docket UM-2011; electronically filed

Further Comments of Obsidian Renewables LLC for Oregon Public Utility Docket UM 2011

OPUC Staff and Workshop Participants,

Obsidian Renewables offers these additional comments in Docket UM 2011, the Capacity Investigation:

1. **This Docket is Important.** Our region's electric utilities have, for decades, obtained their energy from generating resources that also supply capacity and predictably satisfy resource adequacy requirements. These historic generators are hydro, coal, oil, and natural gas. Going forward, we know the generating assets in this region are going to include increasing amounts of solar, wind, batteries and other storage.

   Increased generator intermittency and a loss of baseload generators will require an investment focus on assets and strategies that can supply the capacity currently being supplied by fossil fuels. To develop those investments in an open and competitive marketplace, it is necessary for stakeholders and other decision-makers to have common understandings about how capacity is valued, acquired and paid for.

2. **We Have an Actual Case Study that can Provide Valuable Information to this Investigation.** Portland General Electric is completing its Wheatridge solar plus battery storage project in the Columbia Basin south of Hermiston. To us, it is an exciting project, and we are pleased PGE is finishing it. Wheatridge solar plus battery storage provides two principal benefits to PGE, renewable energy and capacity.

   We are informed by PGE's recent IRP update what it understands the capacity value of the solar alone to be. PGE's soon to be filed avoided costs for solar will inform what it understands the value per megawatt hour of solar energy and capacity without batteries to be. If PGE will provide (and staff will verify) a pro-forma revenue requirement (i.e. what ratepayers will be obligated to pay) for the Wheatridge solar plus battery storage project, and if we then back out the value data for solar without batteries from the avoided cost filing, we are left with the revenue requirement for the additional capacity the batteries provide. If PGE can then share what it calculates the amount of that capacity to be, we will have a value of capacity data point that can be examined.

   Obsidian proposes that when this data is available to this docket, a workshop be held where the data is reviewed and staff asks participants if they think a competitive market could provide similar capacity at a similar or lower cost.

3. **<u>Let's Drop the Focus on Solar 1.0 and Turn the Focus to Solar 2.0.</u>** Solar 1.0 is solar farms built to industry standards. Solar 1.0 is pretty well understood, except perhaps the importance of overbuild ratios to overall energy delivery. A forward-looking docket like UM 2011 should be investigating Solar 2.0, which is a greatly improved product for meeting capacity and increased energy needs.

   Solar 2.0 is solar plus batteries, plus improved predictive scheduling software, more sophisticated plant controller technology and a significant amount of dispatchability by the receiving utility, if it so chooses. Wheatridge solar plus battery storage is Oregon's beta version of Solar 2.0, and the region should learn a great deal from studying it. All solar developers in the region that Obsidian knows (and we know pretty much everyone) is interested in developing solar with batteries, now. We know from studies in California and elsewhere that solar farms coupled with batteries provide more value to utilities than stand along solar. The technology, while improving, is ready to install in projects being developed today. Let's not look backwards to study tomorrow's challenge.

   This docket should greatly limit its interest in studying and valuing the capacity of solar 1.0, and rather should focus its study on the value the capacity of solar 2.0.

4. **<u>The Independent Competitive Market Needs to be at Economic Parity with Utility Shareholders, the Level Playing Field</u>.** If an investor-owned utility makes a prudent investment in a capacity asset, the costs of that asset enter the revenue requirement when constructed. It seems probable that while a utility might plan to acquire energy on a just-in-time basis (because energy cannot be economically stored), it seems prudent to acquire capacity somewhat in advance of need, because predictions on need and construction schedules can both be off. Paying an IPP for capacity only when the utility becomes "deficient" or when it is expected the utility will become "deficient" is not economic parity.

   Obsidian asserts that PGE, with Wheatridge Solar and with its soon to be released RFP is now acquiring capacity and should therefore be expected to pay competitive IPP projects for their capacity as soon as those projects are in service. Obsidian also asserts that PacifiCorp is acquiring capacity now with its RFP process and similarly should be expected to pay competitive IPP projects for their capacity as soon as those projects are in service.

   Payments for capacity should not be tied to energy sufficiency or renewable energy sufficiency or deficiency. They are just different things.

   We look forward to participating in these workshops.

   Obsidian Renewables LLC

   /S/ David W Brown

   David W. Brown
   Senior Principal