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April 29, 2013

**VIA ELECTRONIC FILING & U.S. MAIL**

Oregon Public Utility Commission
Attn: Filing Center
550 Capitol Street, N.E., #215
P.O. Box 2148
Salem, Oregon 97308-2148

Re: In the Matter of Public Utility Commission of Oregon Investigation Into Qualifying Facility Contracting and Pricing
**Docket No. UM-1610**

Dear Filing Center:

Enclosed please find the original and five (5) copies of the Reply Testimony of David Brown on behalf of Obsidian Renewables, LLC in the above-referenced docket.

Thank you for your assistance with this filing. Should you have any questions, please feel free to contact me.

Very truly yours,

Chad M. Stokes

CMS:sk
Enclosures

cc: UM-1610 Service List

# BEFORE THE PUBLIC UTILITY COMMISSION

# OF THE STATE OF OREGON

## REPLY TESTIMONY OF DAVID BROWN

## ON BEHALF OF

## OBSIDIAN RENEWABLES, LLC

## APRIL 29, 2013

## INTRODUCTION

**Q. PLEASE STATE YOUR NAME, AND CURRENT EMPLOYMENT POSITION OR TITLE.**

A. My name is David Brown. I am the Senior Principal at Obsidian Renewables LLC ("Obsidian"). Obsidian is in the business of developing renewable generating facilities, many of which are and will be located in the State of Oregon. Although Obsidian is not limited to a single generating technology, Obsidian does have experience in developing utility-scale solar projects in Oregon.

**Q. IS YOUR TESTIMONY BASED ON YOUR PERSONAL KNOWLEDGE AND EXPERIENCE?**

A. Yes, my testimony is based on my personal knowledge gained through my experience as a developer of renewable generating facilities.

**Q. DID YOU RELY ON SOURCES OF INFORMATION THAT YOU REGARD AS RELIABLE AND ARE ORDINARILY AND CUSTOMARILY USED AND RELIED ON BY THOSE INVOLVED IN THE ELECTRIC INDUSTRY?**

A. Yes.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to reply to three topics discussed by the purchasing utilities (Idaho Power, PacifiCorp and PGE) and by the Commission Staff in their respective opening testimony. The issues include:

(I) Issue 1A: "What is the most appropriate methodology for calculating avoided cost prices?" My testimony supports Staff's conclusion that Commission Order 11-505 establishes the appropriate methodology for calculating a renewable avoided cost rate ("Renewable Rate"). The Commission should prioritize making that Renewable Rate available to QF developers as quickly as practicable.

(II) Issue 4A: "Should the costs associated with the integration of intermittent resources (both avoided and incurred) be included in the calculation of avoided

cost prices or otherwise be accounted for in the standard contract?" My testimony on this issue is that the Commission should reject a one-size-fits-all approach to integration costs that is based solely on wind resources. Purchasing utilities should only be permitted to recover actual integration costs, and the actual costs will vary based on the generating technology and on the physical location of the resource. Solar generation is far less intermittent in the desert compared to coastal zones.

(III) Issue 5A. "Should the Commission change the 10 MW cap for the standard contract?" My testimony is that the Commission should reject the proposal of the purchasing utilities to reduce the eligibility threshold for standard contracts from 10MW to 100kW or even 3MW. It is clear that such a change would have a significant chilling effect on renewable energy development and production in this state. Solar generation is far more cost effective at 10MW compared to 3MW.

**Q. HOW IS YOUR REPLY TESTIMONY ORGANIZED?**

A. My reply testimony is organized by each of the three topics described above.

## ISSUE 1.A: WHAT IS THE MOST APPROPRIATE METHODOLOGY FOR CALCULATING AVOIDED COST PRICES?

**Q. HAVE YOU REVIEWED THE OTHER PARTIES' INITIAL TESTIMONY CONCERNING THE RENEWABLE RATE CALCULATION?**

A. Yes. I have reviewed the other parties' testimony concerning the methodology for calculating avoided costs, particularly renewable avoided costs. I understand that Staff's recommendation is to continue using the method set forth in Commission Order 11-505 to calculate renewable avoided costs as modified to account for capacity contributions to peak load for different QF types. Staff/100/Bless/4. PGE also testifies that the Commission should retain the current method. PGE/Macfarlane-Morton/12, 15. PacifiCorp testifies that the

method for calculating the avoided costs for small generating facilities should remain largely unchanged. PacifiCorp/Dickman/2-3.

**Q. DO YOU AGREE WITH THE TESTIMONY ADVOCATING FOR CONTINUED USE OF THE EXISTING PROXY METHOD?**

A. Yes. I believe the that proxy approach set forth in Order 11-505 establishes a Renewable Rate methodology that is fair both to the purchasing utilities' ratepayers and to QF developers at this time. My only concern is with any further delay in implementing the Renewable Rate while this investigation remains pending.

**Q. DO ANY OF THE PARTIES ADDRESS IN THEIR TESTIMONY THE TIMING OF THE AVAILABILITY OF THE RENEWABLE RATE?**

A. No. The status of the purchasing utilities' Renewable Rates while this investigation remains pending is unclear. Although Obsidian was not a party to previous proceedings, I understand that the Renewable Rate was addressed in UM 1396. As required by the Commission in Order 11-505, the purchasing utilities developed Renewable Rates based on their avoided costs. Although Renewable Rates were fully developed, I understand that they were not actually adopted by the Commission. UM 1396 remains open, but inactive. The result is considerable uncertainty as to the status of UM 1396 and the availability of the Renewable Rates developed in that docket.

**Q. WHEN SHOULD THE RENEWABLE AVOIDED COST RATE BE AVAILABLE TO QF FACILITIES?**

A. The Renewable Rates proposed by the purchasing utilities in UM1396 should be effective immediately, pending any modification required through this investigation. The uncertainty surrounding the status of the Renewable Rates is an impediment to renewable resource development. Based on their respective testimony filed in this proceeding, neither PGE, PacifiCorp nor Staff is

recommending any material changes in the method of how the Renewable Rate should be calculated. What would therefore be helpful for Obsidian and other renewable QF developers is for the Commission to clarify that a Renewable Rate is immediately available for QF contracts.

**Q. WOULD A DELAY IN THE IMPLEMENTATION OF THE RENEWABLE RATE HAVE AN ADVERSE AFFECT ON RENEWABLE POWER DEVELOPMENT?**

A. Yes. The ability to sell power output at a price that covers both operating expenses and debt service requirements is the lifeblood of renewable power development. If renewable QF developers do not know the Renewable Rate at which they can sell their power output, it is far more difficult to proceed with development. Obsidian currently has multiple projects under development. Each one of these projects represents a multi-million dollar investment in Oregon, as well continued employment for Obsidian's employees, contractors, vendors, consultants and a host of other people. These projects need definitive pricing information in order to move forward. Delays in the development process could mean the loss of financial incentives or other opportunities, loss of priority of prices with contractors and vendors and loss of status in interconnection and transmission queues.

**ISSUE 4.A: SHOULD THE COSTS ASSOCIATED WITH INTEGRATION OF INTERMITTENT RESOURCES (BOTH AVOIDED AND INCURRED) BE INCLUDED IN THE CALCULATION OF AVOIDED COST PRICES OR OTHERWISE BE ACCOUNTED FOR IN THE STANDARD CONTRACT?**

**Q. HAVE YOU READ THE OTHER PARTIES' TESTIMONY CONCERNING INTEGRATION COSTS?**

A. Yes. I understand that Staff recommends that the Commission expressly include avoided integration costs in the calculation of avoided cost prices and clarify that *actual integration costs* are the responsibility of the QF. Staff/100/Bless/2 (*emphasis added*). I understand that PGE proposes to charge its wind integration

rate to all variable QFs. PGE/Macfarlane-Morton/8, 19. PacifiCorp testifies that the avoided cost rates for intermittent resources such as wind and solar should reflect integration costs identified in PacifiCorp's most recent wind integration study. PacifiCorp/Dickman/15. Unlike PGE and PacifiCorp, however, Idaho Power proposed to implement a wind integration charge for wind QFs contracting with the company. Idaho Power/Grow/18; Idaho Power/Stokes/67-73.

**Q. DO ANY OF THE PARTIES SPECIFICALLY ADDRESS THE COSTS INCURRED TO INTEGRATE SOLAR FACILITIES?**

A. Not that I am aware of. Staff does not specifically address different generating technologies. PGE states that all variable energy resource QFs impose integration costs, but cites only to its wind integration study. PGE/Macfarlane-Morton/8. PGE presents no information specific to integrating solar facilities. Likewise, PacifiCorp admits that it has not "calculated separate integration costs for solar resources." PacifiCorp/Dickman/19. PacifiCorp further testifies that it "proposes to use its calculated wind integration costs as a proxy for integrating solar resources at this time." PacifiCorp/Dickman/19.

**Q. IS THERE ANY EVIDENCE CITED IN THE TESTIMONY OF PGE, PACIFICORP OR STAFF TO SUPPORT THE CONCLUSION THAT SOLAR INTEGRATION COSTS ARE THE SAME AS WIND INTEGRATION COSTS?**

A. No. Neither PGE, PacifiCorp or Staff provides any factual basis for concluding that solar integration costs are the same as (or even similar to) wind integration costs. To its credit, however, Idaho Power does not attempt to equate wind integration costs with the costs of integrating other intermittent generating technologies. Idaho Power/Stokes/67-73.

**Q. IN SETTING AN INTEGRATION CHARGE, SHOULD THE COMMISSION DIFFERENTIATE BETWEEN GENERATING TECHNOLOGY?**

A. Yes. In general terms, an "integration charge" is intended to recover the within-hour balancing costs incurred by utilities to integrate variable or intermittent generating resources into their electric system. The within-hour balancing costs are largely a function of the predictability of the power output of a generating facility compared to its hourly schedules. The output variability of a generating resource can vary widely by generation technology and by fuel source. In my experience, for example, solar generation in the sunny part of Oregon is highly predicable and schedulable, even on a day-ahead basis. Although solar generation is still "variable," the reality is that it can be much less variable than other intermittent technologies.

**Q. IS IT YOUR UNDERSTANDING THAT NONE OF THE PURCHASING UTILITIES HAVE PERFORMED A COST ANALYSIS FOR INTEGRATING SOLAR GENERATION?**

A. It is my understanding that the purchasing utilities have each undertaken studies only to calculate integration costs for wind resources. In its opening testimony, for example, PGE states that it "has a wind integration study which puts a price on wind integration." PGE/Macfarlane-Morton/7. But PGE does not state that it has an integration study that puts a price on any other form of generation. PacifiCorp directly admits that it has not "calculated separate integration costs for solar resources." PacifiCorp/Dickman/19.

To the extent that PGE and PacifiCorp have not specifically studied or calculated the integration costs incurred for solar projects, they will not be able to determine an integration cost designed to recover actual costs. In keeping with Staff's proposal that the purchasing utilities should be able to recover "actual costs" of integrating variable QF resources, the utilities must be able to demonstrate what

those actual costs are. They simply have not done so with respect to solar generation. In this context, therefore, the purchasing utilities should not be permitted to charge solar QFs an integration charge unless and until they have done a cost-study specific to integrating solar power.

## ISSUE 5.A SHOULD THE COMMISSION CHANGE THE 10MW CAP FOR THE STANDARD CONTRACT?

**Q. HAVE YOU REVIEWED THE PARTIES' TESTIMONY CONCERNING THE 10MW ELIGIBILITY CAP FOR THE STANDARD CONTRACT?**

A. Yes. I understand that PGE and Idaho Power are advocating that the Commission reduce the threshold for a standard contract from 10MW to 100kW. PGE/Macfarlane-Morton/3-11; Idaho Power/Stokes/44 (for wind and solar only). PacifiCorp is advocating for an eligibility threshold of 3MW. PacifiCorp/Griswold/3, 16-21. Commission Staff is advocating for no change from the 10MW threshold assuming that its modifications to the avoided cost price methodologies are adopted. Staff/100/Bless/2, 35-36.

**Q. DO YOU AGREE WITH THE PROPOSAL BY PGE AND IDAHO POWER TO REDUCE THE ELIGIBILITY FOR A STANDARD CONTRACT TO AS LOW AS 100 KW?**

A. If the threshold is reduced to 100kW, as PGE and Idaho Power have testified it should be, the end result would be that virtually all QF projects in the Oregon will be forced to negotiate individualized power sales agreements with the purchasing utility. Idaho Power admits in its testimony that reducing the cap to 100kW means that "most wind and solar QF contracts [must] be individually negotiated * * *." Idaho Power/Stokes/45. This, in turn, means that nearly every QF project in Oregon will face significant cost increases, lengthy delays, uncertainty in pricing and other critical terms, and likely also onerous contract terms and conditions intended to render QF development undesirable.

Q. **SHOULD THE OREGON COMMISSION REDUCE THE ELIGIBILITY THRESHOLD TO 100 KW SIMPLY BECAUSE THE IDAHO COMMISSION REDUCED THE ELIGIBILITY THRESHOLD TO 100 KW?**

A. No. PGE's initial testimony states that the Oregon Commission should reduce the eligibility cap to 100kW because "[t]he Idaho Commission recently reduced the cap for solar and wind QFs to 100kW leaving Oregon with a disproportionately large cap relative to the rest of the region." PGE/Macfarlane-Morton/5.

I do not agree with the basic proposition that the Oregon Commission should take a drastic action simply because the Idaho Commission has done so. The Idaho Commission was reacting, perhaps overreacting, to certain developers dividing projects into multiple small facilities in order to meet the eligibility requirements for small generators. I understand that this disaggregation of otherwise large generating facilities has resulted in Idaho Power being flooded with standard contracts in Idaho, but not in Oregon. Idaho Power/Stokes/52. Idaho Power testifies that as of "December of 2010, the Company had just under 1000 MW of QF generation under contract, nearly 700 MW of which was comprised of wind generation." Idaho Power/Grow/13. Idaho Power then admits, however, that "the majority of the Idaho Power's QF development has occurred in the state of Idaho * * *." Idaho Power/Stokes/47.

The purpose of reducing the threshold in Oregon, therefore, would not be to solve an existing problem but only to "preempt the negative effect of entering into long-term PURPA contracts at inflated standard rates." Idaho Power/Stokes/47. Putting aside the question of whether the Idaho Commission's actions were justified or not, neither Idaho Power nor PGE has made the case

that it is being inundated with standard contract QFs in Oregon, as Idaho Power seems to have been in Idaho.

**Q. DOES PURPA "RECOMMEND" A 100 KW CAP?**

A. No. PGE testified that "PURPA recommends the 100 kW cap." PGE/Macfarlane-Morton/8. I take issue this is statement. PURPA is a statute. As such, it merely prescribes what is permitted and what is not permitted under the law. It does not "recommend" anything. With respect to the eligibility threshold for standard contracts, PURPA says that the floor is 100 kW. Individual state utility commissions may establish an eligibility cap greater than 100 kW, but they may not set a cap below 100 kW. PGE's recommendation, therefore, is for this Commission to do the absolute minimum required by federal law rather than establishing a policy that is in the best interest of the State. It is clear that Oregon has enjoyed a relatively healthy industry for small renewable power development since it raised the eligibility threshold to 10MW. In my view, the 10MW eligibility threshold is working for this state and slashing it to 1% of its current level would serve only to stifle future development.

**Q. DO YOU AGREE WITH PACIFICORP'S PROPOSAL TO REDUCE THE ELIGIBILITY FOR A STANDARD CONTRACT TO 3MW?**

A. No. PacifiCorp provides no substantive basis for its proposal to reduce the 10MW threshold to 3MW. There is, for example, little more that anecdotal evidence suggesting that the sophistication and resources of the developers dramatically increases at 3MW. For example, PacifiCorp asserts that "[i]t is clear that there has been a shift from the 'mom & pop' developer to the well-staffed development firm." PacifiCorp/Griswold/19. In my view, 3MW is little more than an arbitrary number generated by PacifiCorp to solve a disaggregation problem that does not exist in Oregon.

**Q. DO YOU AGREE WITH THE STAFF RECOMMENDATION TO KEEP THE ELIGIBILITY CAP AT 10MW?**

A. Yes. The fact is that the 10MW threshold established by this Commission has worked well in terms of fostering an active QF industry in this state. Lowering the threshold would make QF development more difficult and more expensive.

**Q. DO YOU AGREE WITH STAFF'S ALTERNATIVE SUGGESTION TO REDUCE THE ELIGIBILITY CAP TO 3MW IF NO MODIFICATION TO THE PRICE CALCULATION METHODOLOGY ARE ADOPTED?**

A. No. For the same reasons that I disagree with PacifiCorp's proposal to reduce the threshold to 3MW, I also disagree with Staff's alternative proposal. To the extent that that the goal of reducing the eligibility cap is to address wind integration costs or disaggregation of facilities, then these issue can and should be addressed through more direct means.

**Q. DOES THIS CONCLUDE YOUR REPLY TESTIMONY?**

A. Yes.

## CERTIFICATE OF SERVICE

I hereby certify that I caused to be served the foregoing **REPLY TESTIMONY OF DAVID BROWN** via electronic mail and, where paper service is not waived, via postage-paid first class mail upon the following parties of record:

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Dated in Portland, Oregon, this 29th day of April, 2013.

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