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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of Rocky Mountain Power's Proposed Revisions to Electric Service Schedule No. 37, Avoided Cost Purchases from Qualifying Facilities	**DOCKET NO. 14-035-T04** **Utah Clean Energy Exhibit 2.0**

REBUTTAL TESTIMONY OF SARAH WRIGHT
ON BEHALF OF
UTAH CLEAN ENERGY

August 29, 2014

RESPECTFULLY SUBMITTED,
Utah Clean Energy

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INTRODUCTION

Q: Please state your name and business address.

A: My name is Sarah Wright. My business address is 1014 2nd Ave, Salt Lake City, Utah 84103.

Q: Are you the same Sarah Wright who filed direct testimony on behalf of Utah Clean Energy in this matter on August 12, 2014?

A: Yes.

Q: What is the purpose of your rebuttal testimony in this Docket?

A: I respond to arguments raised in the direct testimony of Dr. Abdinasir Abdulle (for the Division of Public Utilities or "Division") and Mr. Bela Vastag (for the Office of Consumer Services or "Office"). I have limited my rebuttal testimony to specific issues, and my silence on a given topic should not be construed as agreement. I first address the apparent assumption of both the Division and the Office that consistency between Schedules 37 and 38 is more important than actual costs, ratepayer indifference or discrimination among QFs. Second, I make clarifications about reincorporating carbon costs into avoided cost pricing. Finally, I address the Division's concern that Schedule 37 QF's may be 'profit maximizing' for low capacity factor resources.

RESPONSES TO THE DIVISION AND OFFICE

Consistency between Schedules 37 and 38

Q: What do the Division and the Office assert regarding consistency between avoided cost pricing under schedules 37 and 38?

A: The Office "asserts that there should be consistency in the methods for developing pricing for all QFs whether under Schedule 37 or Schedule 38"[1] and justifies its support of the Rocky Mountain Power's ("the Company") proposal entirely upon that basis.[2] While the Division acknowledges that there is a size difference between QFs under Schedules 37 and 38, Mr. Abdulle *defines* ratepayer indifference in terms of treating QFs the same *regardless* of size differences: "The Division believes that with the exception of some simplifications that are already in place, all QFs should be treated equally and their avoided costs should be calculated the same way regardless of their sizes. That is, avoided costs should be calculated for all QFs in a manner that ratepayer indifference is maintained."[3]

Q: What is your response to this consistency argument?

A: It is not clear to me why consistency is more important than actual avoided costs. For example, there is no evidence on the record that small QFs, which may interconnect at the distribution system level, impose any integration costs. Nevertheless, both the Office and the Division support imposing integration costs upon small QFs simply because large QFs are charged integration costs. The Division and the Office do not seem to have considered the fact that, in treating all QFs the same regardless of size, the Commission would effectively discriminate against small QFs by imposing costs upon them that are unwarranted. In this way, ratepayers would be subsidized by small QFs, rather than indifferent.

[1] OCS Direct—Vastag, lines 69-71.
[2] *See* OCS Direct—Vastag, lines 112-28. The Office bases its support of the Company's proposal on 1) prioritizing consistency between Schedule 37 and 38 and 2) maintaining ratepayer indifference, which, the Office explains, is demonstrated by consistency between Schedules 37 and 38.
[3] DPU Exhibit 1.0—Direct Testimony of Adbinasir Abdulle, Ph.D., lines 58-61.

Q: Are there ways in which Schedules 37 and 38 pricing differ that were not addressed by the Division or Office?

A: Yes, energy prices are calculated differently for each method. The Schedule 37 method calculates an average energy price for summer and winter on- and off-peak periods in the GRID model using a 10 MW flat profile, whereas the Schedule 38 method uses actual supply curves for specific QF resources in GRID in order to calculate rather granular avoided costs. This difference alone, for example, will result in a lower, less accurate energy value for solar resources under Schedule 37 relative to the more resource-specific Schedule 38 method.

Q: Why does the Schedule 37 method result in a lower energy price than the Schedule 38 method for solar QFs?

A: Given that solar provides most of its energy during the period of highest load (and therefore the most expensive) hours, the Schedule 38 method better captures the actual value of solar energy by accounting for its supply curve in GRID. In contrast, Schedule 37 likely results in a lower rate because the 'peak period' includes lower value hours, artificially lowering the estimate of average avoided energy costs. Therefore the average cost for the on-peak period under the Schedule 37 method will be lower than the average value of the energy calculated using the schedule 38 method.

It is unfair to QFs to support "consistency" only in select areas that reduce avoided cost pricing. For example, the Office says that $0.08/kWh (on a 20 year levelized basis) violates ratepayer indifference because it is higher than Schedule 38 prices, which

have generally been in the $0.05-0.06/kWh range.[4] The Office does not indicate whether the Company's proposed Schedule 37 avoided cost rates in the $0.03-0.04/kWh range also violate ratepayer indifference because they are *lower* than Schedule 38 prices generally.

Q: What is your conclusion about consistency between Schedules 37 and 38?

A: If consistency between Schedule 37 and 38 is the primary objective in setting Schedule 37 avoided cost rates, then we must do a much more thorough review and comparison of the Schedule 37 and 38 methods than has been presented here to ensure we are not further sacrificing accuracy in Schedule 37 prices. Being *selectively* consistent defeats the objective of consistency. Moreover, consistency between the methods has never been the priority in setting Schedule 37 avoided cost rates. Schedules 37 and 38 have never been set in the same manner. In fact, Schedules 37 and 38 were always intended to recognize the differences between small and large QFs and be calculated differently.

It defies logic to change certain, but not all, components of the Schedule 37 method to be "consistent" with Schedule 38 in ways that may decrease the accuracy of an already simplified pricing method. Schedule 38 has the benefit of being more resource-specific and granular for larger and more sophisticated developers. Schedule 37's method is simpler because it is intended to be more transparent and accessible for small developers. Charging integration costs and denying the capacity payment option are two changes that are inappropriate for Schedule 37, and I recommend that the Commission

[4] *See* OCS Direct—Vastag, lines 97-109.

deny them, although I do recommend that the capacity payment method be improved to reflect the capacity value of the Schedule 37 QF. I refer the Commission to my direct testimony which discusses these topics in more detail.

Carbon Costs

Q: What do the Office and the Division recommend regarding the inclusion of a carbon price in avoided cost rates?

A: The Office supports extracting a carbon price from Schedule 37 avoided costs in order to be consistent with Schedule 38.The Division found that the Commission's order on the inclusion of carbon costs in Schedule 38 avoided costs was ambiguous. The Division explains the issue in this way:

> What the Commission order does not specifically address is whether the IRP process's price view or a more basic forward price curve should be used for QF purposes. The question was whether an *incremental* adder should be applied to a specific type of resource based on its specific environmental benefits to the system. The Company's removal of the carbon tax from its IRP price view would accomplish something different than merely avoiding an incremental adder as proposed by UCE. Indeed, it would impact all QFs, regardless of resources type by *removing the Company's best estimate of market prices in later years*. Rather than merely forbidding an adder for certain types of resources, it would change the price for all proposed QFs. If the Company's best projection of its future prices is arrived at through the IRP process, the Company's proposal here ignores price components that the Company views as important in other contexts.[5]

Q: What is your response?

A: I laid out Utah Clean Energy's position on this matter in my direct testimony, but I want to clarify here that carbon prices impact avoided costs both directly and indirectly, impacting operating costs as well as forward looking gas prices and market prices, among

[5] DPU Exhibit 1.0— Direct Testimony of Adbinasir Abdulle, Ph.D., lines 133-144 (emphasis added).

other assumptions. For example, changing the power price forecast back to a forecast that includes carbon costs will not fully re-incorporate carbon costs into avoided cost pricing.

All data files that were altered to remove carbon in GRID, not just power prices, must be adjusted back to include a carbon cost. For example, a no carbon gas price would be lower than a gas price with a carbon price. The lower gas price would reduce the production costs of thermal resources and hence the avoided cost for those resources. So, for the sufficiency period, just adding a carbon price back into power prices would not capture all of the effects of removing carbon from the GRID runs. For the deficiency period, the cost of production from a gas plant would also be understated, which would lower the avoided cost of energy.

As stated in my direst testimony, Utah Clean Energy supports adding the carbon price back in to *all* assumptions (or GRID data sets) from which it was extracted by the Company in calculating its proposed avoided costs prices.

Capacity Value

Q: The Division argues that the capacity payment option does not take the capacity factor into consideration in the calculation of the capacity payment under Schedule 37? Do you think that the capacity factor should be a determining factor in the capacity payment calculation?

A: No, as I explained in my testimony in Docket 12-035-100, energy resources can be characterized by both a capacity factor and a capacity value. The capacity *factor* is used to estimate the amount of *energy* that the resource will produce and the capacity value is a reliability-based calculation that assigns a value to a resource based on its ability to reduce the probability of a loss of load event (LOLE) and maintain system

reliability. The Commission confirmed this in its order in Docket No. 12-035-100 by ordering resource capacity valuation based on loss of load considerations. Capacity *value*, not factor, should be used to calculate the capacity payment.

Q: The Division goes on further to state that, "the problem with option 1 is that it does not factor in the capacity factor of the renewable resource. That is, the same capacity payment will be offered for high and low capacity factor renewable resources. This will result in profit maximizing, low capacity factor renewable resources choosing this option every time in order to receive additional compensation that the Division believes is not deserved."[6] Is this a valid concern?

A: While I have not done empirical analysis on this issue, the Division's concerns may be valid, and I acknowledged this in my direct testimony. Further, the proposal that I put forth in my direct testimony to use the Commission-approved capacity values to adjust capacity payments would address this concern. For example, the capacity payment for wind would be adjusted using its approved capacity value of 20.5 percent, thereby addressing this issue.

CONCLUSION

Q: Please review your recommendations for Schedule 37 pricing for small QFs?

A: As explained in my direct testimony, I recommend the following:

- Schedule 37 pricing should not include integration charges;
- Avoided cost pricing should include carbon costs consistent with the Company's base case IRP assumptions;

[6] DPU Exhibit 1.0— Direct Testimony of Adbinasir Abdulle, Ph.D., 176-184.

- Schedule 37 pricing should include a capacity payment in the resource sufficiency period based on the costs of a simple cycle combustion turbine; and
- Schedule 37 should continue to include the capacity and energy payment option, modified to reflect the capacity *value* of renewable resources.

Q: Does that conclude your testimony?

A: Yes.