Witness OCS - 1R

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of Rocky Mountain Power for Approval of Changes to Renewable Avoided Cost Methodology for Qualifying Facilities Projects Larger than Three Megawatts	:	Docket No. 12-035-100
	:	Phase 2
	:	All Other Issues

REBUTTAL TESTIMONY OF

RANDALL J. FALKENBERG

ON BEHALF OF THE

OFFICE OF CONSUMER SERVICES

May 15, 2013

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Randall J. Falkenberg, PMB 362, 8343 Roswell Road, Sandy Springs, Georgia 30350. I am the same witness who filed direct testimony in this proceeding.

Q. WHAT IS THE PURPOSE OF THIS REBUTTAL TESTIMONY?

A. I provide limited comments on the direct testimony of Utah Clean Energy witness Wright, Division of Public Utilities ("DPU") witness Abdulle and Energy of Utah witness Vrba.

Utah Clean Energy Witness Wright

Q. ON PAGE 21, STARTING WITH LINE 377, MS. WRIGHT ADVOCATES AN ALTERNATIVE METHOD(S) BE USED FOR THE DETERMINATION OF THE CAPACITY VALUE OF WIND AND SOLAR AND PROVIDES A NATIONAL RENEWABLE ENERGY LABORATORY ("NREL") REPORT IN SUPPORT OF HER POSITION. PLEASE COMMENT.

A. Ms. Wright proposes use of the Effective Load Carrying Capability ("ELCC") or the Equivalent Conventional Power ("ECP") models for determination of the capacity value of renewable QFs. Both methods seek to capture the reliability value of the renewable resources, through use of a Loss of Load Probability ("LOLP"), or Loss of Load Expectation ("LOLE") modeling approach. I agree these methods are superior to the Company's proposal, and the method I proposed in my direct testimony is conceptually similar to the ELCC method. The main difference is that I used the Days of Dependence on Supplemental Capacity Resources ("DSCR") reliability metric in my analysis simply because the data was more readily available to compute it.

Most of the NREL methods reported in Table 1 of Ms. Wright's direct testimony seem to produce similar results. Some may be possible to implement with the models the Company is using now, and the method ultimately selected will probably have more to do with which is most feasible with the Company's models.

Q. MS. WRIGHT'S TABLE 1 SHOWS RESULTS FOR A VARIETY OF METHODS AS REPORTED IN THE NREL STUDY. DO YOU BELIEVE THESE FIGURES CAN BE DIRECTLY APPLIED TO PACIFICORP?

A. No. While the figures do provide credible evidence that the solar capacity values are much higher than the Company's method supports, they are based on the loads and resources of the entire Western Grid, not a single company such as PacifiCorp. Consequently, they are not necessarily directly applicable to the PacifiCorp system.

Q. THE NREL REPORT DISCUSSES A NUMBER OF APPROXIMATION METHODS. CAN YOU PROVIDE RESULTS BASED ON ANY OF THOSE METHODS?

A**.** The simple Capacity Factor approximation method referenced in Section 2.4.1 of the NREL report can be estimated using the data currently available. This approach simply would average the capacity contribution during the highest 500 hours over the five year period. For solar energy facilities using the Company's simulated data the result would be 49.6% (energy oriented) and 59.1% (peak oriented). For wind the result is 20.5% based on the actual data for the East Control Area. At present the data necessary to do the LOLP weighting methods is not available. According to the NREL report, the Capacity Factor method is actually an approximation to the ELCC method, which I've endorsed.

Q. WHAT IS YOUR RECOMMENDATION?

A. The solar figures referenced above would be a reasonable set of values to use for this case. My own analysis supports a lower figure for wind, 13.8%, but the 20.5% figure is a more reasonable alternative than the Company's result. In terms of the impact on overall wind avoided costs, it makes little difference which method is used as the sufficiency period does not end until 2024.

Ultimately, I believe these approximations could be used now, but a better study should be performed using one of the NREL methods and the results made available to the parties for review and comment.

Q. ON PAGE 26, LINES 429-436 MS. WRIGHT RECOMMENDS THAT RENEWABLE QUALIFYING FACILITIES ("QF") SHOULD RECEIVE A CAPACITY CREDIT EVEN DURING TIMES OF RESOURCE SUFFICIENCY. DO YOU AGREE WITH HER POSITION?

A. No. Ms. Wright points out that PacifiCorp is now relying heavily on Front Office Transactions ("FOTs".) As a result she concludes that the Company has a need for capacity. However, she does not acknowledge the fact that in the Company's avoided cost methodology, the GRID model study already reflects the capacity costs associated with Front Office Transactions. This can be seen by comparing column 5 and column 3 in Table 1 on page 11 of Mr. Duvall's direct testimony for the years prior to the deficiency period. The Company modeling incorporates the capacity contribution during the sufficiency period by including additional FOTs in the GRID study in the "without QF" case. The Company's method appropriately reflects the capacity costs in the sufficiency period, given the assumptions used.[1]

Q. ON PAGE 17 STARTING AT LINE 290, MS. WRIGHT SUGGESTS THAT THE MARKET PROXY METHOD COULD CONTINUE TO BE USED WHEN RENEWABLES ARE PART OF THE IRP PREFERRED PORTFOLIO. SHE PROPOSES A NUMBER OF ALTERNATIVE APPROACHES FOR MODIFYING THE MARKET PROXY METHOD. PLEASE COMMENT.

A. To the extent that renewable resources do become part of the least cost plan at some point, then avoided cost determinations for renewable resources should be based on the avoided costs specific to those resources. Rather than continue the Market Proxy method as Ms. Wright proposes, this should be done with the PDDRR method using the IRP data for

[1] Note, that I am not endorsing those assumptions or the GRID model be accepted carte blanche. The validity of the GRID inputs is a matter to be determined in proceedings related to the quarterly avoided cost updates.

renewable resources the same as is currently done for thermal. This case has illustrated the fact that avoided cost methodologies can become outdated, or rendered impractical due to changed circumstances. The Market Proxy method now does appear to be a rather impractical approach, given the current situation. It only worked properly under a very narrow set of circumstances, which existed for a time in the past (rapid wind expansion, robust resource acquisition with wind being part of the preferred plan) that may never occur again. As DPU witness Dr. Abdulle has pointed out, there is even some debate as to whether the market proxy method was ever appropriate or reasonable.

The other alternatives Ms. Wright proposes are neither practical, nor avoided cost as defined by PURPA. Ms. Wright proposes to use the average cost of the Company's other wind power purchase agreements ("PPA") or the average of reported wind contract prices in the region.

The use of the Company's average wind PPA price would be subject to the problem that it includes a number of different contracts of different vintages. This would be like paying a non-renewable QF based on the average or embedded cost of all of the Company's existing generation. This is not avoided costs, but rather average cost. The same would be true of the regionally reported prices, with the additional problems of verification and the decision as to what contracts should be included or not. Further, the reported prices would not be representative of PacifiCorp's avoided costs, but rather the average costs of other utilities.

DPU Witness Abdulle

Q. DR. ABDULLE RECOMMENDS THE CAPACITY VALUE FOR INTERMITTENT RESOURCES BE UPDATED AT LEAST ANNUALLY. DO YOU AGREE?

A. Yes. There should be a specific schedule for the Company to perform these updates annually as new load and supply forecasts are developed and circumstances or conditions change. A robust calculation of avoided costs cannot be developed using outdated assumptions.

Q. DR. ABDULLE PROPOSES TO USE SOLAR INTEGRATION COSTS EQUAL TO 50-65% OF THOSE FOR WIND. DO YOU AGREE?

A. The Office of Consumer Services continues to recommend that a Solar Integration cost study be performed. However, until that is done, his proposal is an acceptable compromise, though this should not be viewed as a precedential decision.

Q. STARTING ON PAGE 19 AT LINE 359 DR. ABDULLE ADDRESSES THE COMPANY'S EXCLUSION OF RENEWABLE PORTFOLIO STANDARD ("RPS") WIND AND SOLAR RESOURCES FROM THE GRID MODEL STUDY. HE OFFERS NO OPINION CONCERNING THIS ISSUE BUT RECOMMENDS ANOTHER DOCKET BE OPENED TO DECIDE THE PROPER MODELING METHODS. DO YOU AGREE?

A. No. In my direct testimony I explained why the Company's approach is appropriate. Excluding those hypothetical RPS facilities actually serves to increase the avoided energy costs determined in the GRID model because it results in an increase in the output of thermal resources. This goes hand in hand with the approach of basing avoided costs on the least cost resources for Utah ratepayers. The record in this docket should be more than adequate for the Commission to decide this issue.

Energy of Utah Witness Vrba

Q. ON PAGE 6 AT LINE 94 MR. VRBA INDICATES THAT UTAH'S IN-STATE RENEWABLE GENERATION IS ONLY 1% OF DEMAND. PLEASE COMMENT.

A. Mr. Vrba is correct that there is now very little wind generation installed in Utah. This can be explained by noting that other states have better wind potential or sites that can be developed at lower cost. Utah does have a number of wind QFs in the development stage

and PacifiCorp has substantial wind resources elsewhere on the system. The Company is an integrated system so the average system level of renewable generation (around 10% in 2013) can be viewed as the amount of renewable energy used for serving Utah customers. If renewable QF projects currently in the development stage in Utah come to fruition, that figure will increase.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.