Witness OCS-1S

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Review of Electric Service Schedule No. 38, Qualifying Facilities Procedures, and Other Related Procedural Issues	**)**	**Docket No. 14-035-140**
	)	
	)	**SurRebuttal Testimony of Philip Hayet**
	)	**On Behalf of the Utah Office of Consumer Services**

June 11, 2015

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, COMPANY, BUSINESS ADDRESS, AND TITLE.

A. My name is Philip Hayet. My business address is 570 Colonial Park Drive, Suite 305, Roswell, Georgia, 30075. I am Vice President of J. Kennedy and Associates, Inc. (Kennedy and Associates), and I am appearing on behalf of the Office of Consumer Services ("Office").

Q. DID YOU PREVIOUSLY FILE TESTIMONY IN THIS DOCKET?

A. Yes, I filed Rebuttal Testimony on May 28, 2015 on behalf of the Office.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my testimony is to respond to the Rebuttal Testimony of Mr. Ken Dragoon that was filed on behalf of Utah Clean Energy.

II. RESPONSE TO MR. DRAGOON'S TESTIMONY

Q. PLEASE SUMMARIZE MR. DRAGOON'S CONCERN.

A. In essence, Mr. Dragoon believes that PacifiCorp's ("Company") capacity contribution values are too low, and he attributes this to the fact that there are too many LOLP events in the month of April and in the winter months (December, January and February). In his Direct Testimony, Mr. Dragoon performed his own analysis, eliminating the LOLP events entirely from those months, which showed that solar capacity contribution values increased.

Q. HAS MR. DRAGOON BEEN ABLE TO IDENTIFY ANY ERRONEOUS RESULTS THAT WOULD SUPPORT THE REMOVAL OF LOLP EVENTS FROM THESE MONTHS?

A. No, he has only expressed surprise concerning the large number of LOLP events in April and the winter months; however, he has not identified anything that he found to be erroneous.

Q. DID MR. DRAGOON RAISE ANY NEW ISSUES IN HIS REBUTTAL TESTIMONY ABOUT HIS CONCERN THAT THERE IS TOO MUCH MAINTENANCE SCHEDULED IN APRIL?

A. No, he did not. He simply mentioned once again that the Company's PaR model has more maintenance scheduled in April than in any other month, and he reiterated his recommendation that "Merely spreading the maintenance out a bit would eliminate the April loss of load events, which would have a significant impact on the resulting solar resource capacity value."[1]

Q. IN REITERATING HIS RECOMMENDATION OF "MERELY SPREADING THE MAINTENANCE OUT A BIT", DID MR. DRAGOON EVALUATE ANY OF THE FACTORS THAT PACIFICORP CONSIDERS WHEN IT DEVELOPS MAINTENANCE SCHEDULES?

A. No, he simply reiterated his recommendation. In responding to DR OCS 4.1, related to the Company's 2017 maintenance schedule, PacifiCorp discussed factors it considers in developing maintenance schedules, which include work required to maintain reliability, availability of equipment, availability of labor, costs of replacement power, etc. Mr.

[1] Ken Dragoon Rebuttal, UCE, page 9, line 162.

Dragoon actually noted some of these factors in his Direct Testimony, yet he seems to set these considerations aside when he recommends that the maintenance dates should be shifted.

Q. ARE YOU CONCERNED THAT PACIFICORP MAY HAVE SCHEDULED MAINTENANCE IMPROPERLY IN ITS CAPACITY CONTRIBUTION STUDY?

A. No I am not. As I discussed in my Rebuttal Testimony, I do believe it is important to utilize reasonable assumptions in developing maintenance schedules for modeling studies, however, just because there is more maintenance scheduled in April than in other months, does not automatically mean that the Company's maintenance schedules are flawed. April is one of the Company's lowest load months, and it would not be unreasonable to find the most maintenance scheduled in one of its lowest load months.

Q. DID MR. DRAGOON RAISE ANY NEW ISSUES ABOUT HIS CONCERN THAT TOO MANY LOLP EVENTS OCCURRED IN THE WINTER MONTHS?

A. Yes, he did. Mr. Dragoon had noticed that there were a large number of LOLP events in the winter months, and he initially assumed those were occurring on the West side of the system. Mr. Dragoon's Direct Testimony caused me concern because in essence he was asserting that it would be appropriate for PacifiCorp to conduct modeling analyses considering the East and West sides of the System independently, which I strongly objected to. As I explained, modeling studies such as this should treat PacifiCorp as a single system, which is consistent with the way it is operated. In other words, PacifiCorp acquires resources to serve System loads, and it commits and dispatches units to serve System requirements. It now appears that Mr. Dragoon has determined that the West side was not responsible for the wintertime LOLP events in PacifiCorp's PaR analysis, and his

testimony did not repeat his prior recommendation that the Company's analysis should be modeled such that only East side resources should be used to meet East side loads.

Q. DID MR. DRAGOON RECOGNIZE THAT THE WINTERTIME LOLP EVENTS ACTUALLY OCCURRED ON THE EAST SIDE?

A. Yes, he did; and, he noted that the wintertime shortages are located in Wyoming, as I discussed in my Rebuttal Testimony. Now, however, Mr. Dragoon's concern is that solar resources would not be able to serve load in Wyoming at times when congestion occurs, and he asserts that a "fair application would be to discount loss of load events occurring in regions where there were binding transmission constraints."[2]

Q. DO YOU BELIEVE THAT IT WOULD BE REASONABLE TO DISCOUNT LOSS OF LOAD EVENTS WHEN BINDING TRANSMISSION CONSTRAINTS OCCUR, IN OTHER WORDS, WHEN TRANSMISSION CONGESTION OCCURS?

A. No I do not. LOLP events occur in both the summertime and wintertime periods in Wyoming. By Mr. Dragoon's logic, PacifiCorp would have to discount LOLP events during the summertime period too, when congestion occurs, and that is exactly when solar resources provide their greatest value. Discounting the LOLP events in the summertime could possibly result in even lower solar capacity contribution values than what PacifiCorp determined.

Q. DID MR. DRAGOON IDENTIFY ANY ERRONEOUS RESULTS WITH REGARD TO THE WINTERTIME LOLP EVENTS?

[2] Ken Dragoon Rebuttal, page 12, line 243.

A. No he did not. Though he did point to items in which he thought potential problems could exist, he provided no evidence to support his concerns. For example, he raised the possibility that 2017 was a poor choice of year to use to determine capacity contribution values. He stated that 2017 is in the "resource sufficiency period – a time when the Company is not short on capacity. It would be more logical to choose a year in the insufficiency period for the calculation"[3]

Q. DO YOU AGREE WITH MR. DRAGOON?

A. No I do not. While Mr. Dragoon did not state what year he thought would be appropriate to use, I disagree with the idea that PacifiCorp should necessarily pick a year much further out than two years. First, this would set a rather arbitrary precedence. For example, the timing of the Company's resource deficiency period changes with each IRP cycle. Therefore, when updating capacity contribution values, this could mean PacifiCorp would have to go out five years in one study, and perhaps ten years in another study performed at a different time. Second, it seems misguided to possibly calculate capacity contribution values of the System ten years out for use in payments to Solar Qualifying Facilities that would be used in the near term.

Q. WHAT ELSE DID MR. DRAGOON RAISE AS POTENTIAL CONCERNS REGARDING PACIFICORP'S CAPACITY CONTRIBUTION STUDY?

A. His concerns included the possibility that PacifiCorp may have improperly modeled Wyoming loads, that he "…could not replicate the value the Company used in its

[3] Id at page 11, line 228.

normalization process"[4], and he questioned whether the Colorado LOLP events should have been included in performing the Company's study.[5]

Q. HOW DO YOU RESPOND TO THESE POTENTIAL CONCERNS?

A. With regard to his concern about modeling the Wyoming load, again Mr. Dragoon has provided no analysis to suggest that the Company's development of the Wyoming load was improper, and I fail to believe that PacifiCorp in this study would have set the Wyoming load too high or somehow increased the variability of the Wyoming load compared to other loads on the System. PacifiCorp's load forecasts are scrutinized both in IRPs, such as the ongoing 2015 IRP, and in rate cases; therefore, I do not believe that the load forecast could possibly account for what seems to be giving Mr. Dragoon discomfort in regards to the Company's LOLP results.

Q. HOW DO YOU RESPOND TO HIS CONCERN ABOUT BEING ABLE TO REPLICATE THE VALUE THE COMPANY USED IN ITS NORMALIZATION PROCESS?

A. I understand Mr. Dragoon's concern, however, while it took a few iterations, I was able to match the Company's results. For example, I determined that I had to remove LOLP events from areas that had no retail load, which I discuss further below. Also, in developing the total count of LOLP events, which PacifiCorp reported equaled 715,[6] I recognized that, first, for each hour and each of the 500 iterations evaluated in PaR, energy not served ("ENS") had to be added up across each of the areas to derive ENS by hour for the System. Then a count had to be taken of each hour in which ENS occurred to determine the total

[4] Id at page 6, line 114.
[5] Id at page 10, line 196.
[6] PacifiCorp Direct Testimony, Docket No. 12-035-100, October 9, 2014, Exhibit RMP _(RTL-1), 2014 Wind and Solar Capacity Contribution Study, page 3, footnote 3.

number of LOLP events. After determining the proper sequence of steps, I was ultimately able to match the Company's results.

Q. FINALLY, HOW DO YOU RESPOND TO HIS CONCERN ABOUT THE COLORADO LOLP RESULTS?

A. Mr. Dragoon's concern about whether the Colorado LOLP results should be included in the Company's LOLP analysis is misplaced because the only way that PacifiCorp's reliability can be affected is if there is an insufficient amount of power available that can reach one of PacifiCorp's retail load areas. In reality, there can be no unserved energy in an area that does not have retail load. The Colorado area that PacifiCorp models in PaR is an example of an area that has no retail load.[7]

The Colorado area is set up as a generation area that is included in the PaR model to incorporate PacifiCorp's share of the jointly owned Craig and Hayden units in the dispatch of PacifiCorp's resources. PacifiCorp models an exchange energy contract in that area to reflect a contract with a utility in Colorado. Given this modeling, at times when the Craig and/or Hayden units suffer forced or planned outages, unserved energy can be reported by PaR model in the Colorado area. However, since there is no retail load in the Colorado area, any LOLP events reported in that area is meaningless and should be ignored as PacifiCorp has done.

Q. ARE RESOURCES LOCATED IN THE COLORADO AREA MODELED IN PAR ABLE TO IMPACT THE RELIABILITY OF PACIFICORP'S SYSTEM?

A. Yes, though not because LOLP events are reported in the Colorado area. To the extent that the Craig and/or Hayden units are available to serve load, and to the extent that transmission

[7] PacifiCorp's response to discovery request OCS 4.2.

capacity exists between the Colorado area and PacifiCorp' System, then PaR will determine that those units can help to support the reliability of PacifiCorp's System. However, at times when the Craig and/or Hayden units encounter forced outages or are on planned outages, then PaR will determine they are unable to be dispatched to serve PacifiCorp load, and they are unable to help support the reliability of the PacifiCorp System. But when this occurs, it is appropriate that the impact of the Hayden and Craig outages should and would show up in another area modeled in PaR that has retail load. The fact that LOLP events are reported in the Colorado area should be ignored.

In summary, PaR will consider the availability of the units located in the Colorado area, along with the availability of all other System resources in order to determine the reliability of the System in being able to meet retail loads. However, the fact that PaR will report LOLP events in the Colorado area should be ignored because those LOLP events do not consider PacifiCorp's retail load and are not a true measure of the reliability of PacifiCorp's System.

III. CONCLUSIONS

Q. WHAT ARE YOUR CONCLUSIONS AND RECOMMENDATIONS?

A. In my Rebuttal and Sur-Rebuttal Testimonies, I have attempted to provide reasonable explanations for many of the concerns that Mr. Dragoon has raised. I do believe that all studies can be improved upon. In time, new methodologies can be identified and better data assumptions developed, but with regard to this capacity contribution study, I believe that PacifiCorp has followed the Commission's requirements and accurately developed

capacity contribution values. I believe the Commission should adopt the Company's proposed capacity contribution values for wind and solar resources.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.