

**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

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In the Matter of the Application of Rocky Mountain )  
Power to Establish Export Credits for Customer )  
Generated Electricity )

Docket No. 17-035-61  
EXHIBIT No. DPU 2.0 SR  
Phase II

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Surrebuttal Testimony of  
Abdinasir M. Abdulle, Ph.D.  
Division of Public Utilities

September 15, 2020

1 **INTRODUCTION**

2 **Q. Please state your name, business address, and employment for the record.**

3 A. My name is Dr. Abdinasir M. Abdulle. My business address is Heber Wells Building –  
4 4<sup>th</sup> Floor, 160 E. 300 South, Salt Lake City, Utah 84114. I am employed by the Utah  
5 Division of Public Utilities (Division or DPU), Utah Department of Commerce, as a  
6 Utility Technical Consultant.

7 **Q. On whose behalf are you testifying in this proceeding?**

8 A. I am testifying on behalf of the Division.

9 **Q. Are you the same Abdinasir M. Abdulle who filed Direct and Rebuttal Testimonies**  
10 **in this proceeding?**

11 A. Yes, I am.

12 **SCOPE OF TESTIMONY**

13 **Q. What is the purpose of your testimony?**

14 A. The purpose of my Surrebuttal Testimony is to provide the Division's analysis, findings,  
15 and recommendations, to the Commission regarding Dr. Lee's critique of the Division's  
16 analysis of RMP's Load Research Study (LRS) data contained in the direct testimony of  
17 Division witness Mr. Davis. Any issue that is not addressed in my testimony should not  
18 be construed as an acceptance or rejection by the Division.

19 **Q. What opinions did Dr. Lee provide regarding Mr. Davis's LRS?**

20 A. Dr. Lee provided several opinions regarding Mr. Davis’s analysis and conclusions about  
21 RMP’s LRS. The opinions were based on statistical analysis Dr. Lee performed on data  
22 provided by Mr. Davis in response to a Data Request by Vote Solar. Specifically, Dr. Lee  
23 criticized the calculation of the Full Requirement, the sampling weight used to calculate  
24 total export, the resulting total export, and the sample size. For ease of reference, I am  
25 reproducing Dr. Lee’s summary of opinions from his Rebuttal Testimony.<sup>1</sup>

- 26 1. The sample used by Mr. Davis to calculate the Full Requirement  
27 (i.e., Deliveries + Production – Export) figures in his testimony is  
28 not representative of the entire RMP population;
- 29 2. The sampling weights used for calculating export totals in the  
30 Davis Testimony and supporting files are incorrect;
- 31 3. Therefore, the total export figures in the Davis Testimony are  
32 calculated incorrectly and are an inaccurate estimation of the  
33 population; and
- 34 4. The sample sizes are insufficient to meet the prescribed  
35 requirements of +/-10% of the estimated totals with a 95%  
36 confidence level as set forth by Mr. Kenneth Lee Elder in his Phase  
37 1 testimony, on behalf of RMP, which detailed his sampling plans  
38 for studied populations.

39 **Q. What justification did Dr. Lee provided for his opinion about the Full**  
40 **Requirement?**

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<sup>1</sup> Vote Solar, Rebuttal Testimony of Albert J. Lee, Ph.D., July 15, 2020, lines 47-58

41 A. Dr. Lee claims that Schedule 136 production data should have been included in the data  
42 used to calculate Full Requirements. To justify that claim, Dr. Lee performed a two  
43 sample t-test to compare the mean production of Schedules 135 and 136. He concluded  
44 that there was a significant difference between the two means. He then claims that this  
45 heterogeneity in the production capacity justifies the inclusion of Schedule 136. He  
46 concludes that the sample used by Mr. Davis is not representative.

47 **Q. What is your opinion about Dr. Lee’s claim that the sample used by Mr. Davis to**  
48 **calculate full requirement is not representative and the justification supporting it?**

49 A. The Division could not verify the statistical analysis performed by Dr. Lee and therefore,  
50 cannot support it. In Data Requests to Vote Solar throughout this proceeding, the  
51 Division asked Vote Solar to provide all the supporting documents with intact formulae  
52 including Dr. Lee’s Rebuttal Testimony and exhibits.<sup>2</sup> We could not view the documents  
53 provided by Dr. Lee due to the software he used in his analysis that the Division does not  
54 have a license for.

55 In its Phase I Order of this proceeding issued on May 21, 2018, the Commission stated:

56 *Nevertheless, we find that the information to be collected by*  
57 *PacifiCorp’s proposed LRS, as modified by this order will provide*  
58 *a reasonable basis on which to determine an appropriate export*  
59 *credit rate. We find that the most relevant information for that*

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<sup>2</sup> Division data requests DPU 1 and DPU 2 to Vote Solar, March 16, 2020 and April 16, 2020, respectively.

60 *analysis is the volume of electricity that is exported to the*  
61 *distribution system and the times when that electricity is exported.*<sup>3</sup>

62 This indicates that it is the amount and the timing of exports that are relevant in the  
63 determination of reasonable export credit. The calculation of Full Requirement would not  
64 have any impact on the export credit. Therefore, even if Dr. Lee’s claim is correct, it  
65 would not change the Division’s conclusions about the amount and timing of exports.

66 Finally, since the census of Schedule 136 is to be used in this LRS, it is cost prohibitive  
67 to install production meters for all Schedule 136 customers.

68 **Q. What is the basis of Dr. Lee’s assertion that the weights Mr. Davis used to calculate**  
69 **total export are incorrect and is the implication of that assertion?**

70 A. Dr. Lee indicated that the weights that Mr. Davis used are not sampling weights and  
71 therefore would result in underestimation of the amount of energy exported to the grid.  
72 On page 16, lines 250-251, of his Rebuttal Testimony, Dr. Lee presented a table (Table 1)  
73 comparing the annual exports when Mr. Davis’s weights are used to when (according to  
74 Dr. Lee) the correct weights are used. Dr. Lee claims the results show that Mr. Davis  
75 underestimated the annual exports.

76 **Q. What is your opinion about Dr. Lee’s claim that Mr. Davis underestimated the**  
77 **annual export by using the wrong weights?**

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<sup>3</sup> See Commission Order, Phase One, Docket No. 17-035-61, May 21, 2018, page 18, ¶ 2.  
<https://pscdocs.utah.gov/electric/17docs/1703561/3022941703561pIo5-21-2018.pdf>.

78 A. I think it is baseless. I believe that Mr. Davis calculated the weights used to determine the  
79 total export and the resulting export credit correctly. The Division could not verify the  
80 information contained in Table 1 of Dr. Lee's Rebuttal Testimony. The exhibits provided  
81 by Dr. Lee that support his analysis were not helpful to the Division. With such limited  
82 information and inability to verify Dr. Lee's numbers and conclusions back to Mr.  
83 Davis's analysis, the Division cannot respond to Dr. Lee's critique. Therefore, we cannot  
84 support it and recommend the Commission reject it.

85 **Q. How did Dr. Lee determine the sample sizes are insufficient for the prescribed**  
86 **precision and what is implication of his finding?**

87 A. Dr. Lee indicated that he calculated precision statistics using standard formulas and found  
88 that they did not meet the prescribed level of precision (+/-10% of estimated totals with a  
89 95% confidence level). Consequently, he concluded that the sample size for the Original  
90 36, Schedule 135 Residential, and Schedule 135 Commercial are insufficient to meet the  
91 required level of precision.

92 **Q. What is your comment on this?**

93 A. Because the Division could not review the analysis performed due to the statistical  
94 package used by Dr. Lee, we cannot verify the correctness of the calculations and do not  
95 support the conclusions that follow. Again, in prior proceedings, the Commission  
96 reviewed and approved RMP's LRS design. If Dr. Lee disagrees with the Commission's

97 decision, it is incumbent on him to put forth his objections in a manner that can be  
98 evaluated by other parties.

99 **Q. Do you have any other concerns?**

100 A. The Division also had problems reading the supporting documents for all the regression  
101 analysis performed by Dr. Lee in his Direct Testimony. The Division could not even  
102 verify if the assumptions for the regression analysis were met. Therefore, the Division  
103 believes that the results provided by Dr. Lee cannot be relied upon.

104 **Q. Does this conclude your rebuttal testimony?**

105 A. Yes.