

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON  
UM 1910**

In the Matter of )  
PacifiCorp, )  
Resource Value of Solar. )  
\_\_\_\_\_ )

**OPENING TESTIMONY  
OF THE  
OREGON CITIZENS' UTILITY BOARD**

March 16th, 2018



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**I. Introduction**

1 **Q. Please state your name, occupation, and business address.**

2 A. My name is William Gehrke. I am an economist employed by Oregon Citizens'  
3 Utility Board (CUB). My business address is 610 SW Broadway, Ste. 400  
4 Portland, Oregon 97205.

5 **Q. Please describe your educational background and work experience.**

6 A. I have received a Bachelor of Arts degree in Economics and a Master of Science in  
7 Applied Economics from Florida State University. I began working for CUB in  
8 2017. I have previously worked as an Economist for the Florida Department of  
9 Revenue and as a Public Utility Analyst for the Florida Public Service  
10 Commission.

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

12 A. The purpose of my testimony is to reply to PacifiCorp's (PAC) Testimony filed for  
13 Phase II of the resource value of solar (RVOS) docket.

1 **Q. How is your testimony organized?**

2 **A.** The testimony is organized as follows:

3 II. Update Frequency of RVOS

4 III. Deficiency Period: Generation Capacity

5 IV. Inflation

6 V. Conclusion

7 Exhibits

8 Gehrke/101 – Witness Qualification Sheet

9 Gehrke/102 -- PacifiCorp's Estimate Overstates Inflation

## II. Update Frequency of RVOS

10 **Q. What has the straw proposal said about the update frequency of the RVOS**  
11 **value?**

12 **A.** The initial straw proposal suggests that the RVOS be for a 25 year period of  
13 analysis and updated every two years or upon petition.<sup>1</sup>

14 **Q. What has PacificCorp stated about the update frequency of the RVOS**  
15 **value?**

16 **A.** PacifiCorp recommends implementing a shorter timeframe with more frequent  
17 updates to the RVOS value.

18 **Q. What are your thoughts on the update frequency of the RVOS value?**

19 **A.** CUB would like for there to be annual updates to the RVOS model. An annual  
20 refresh of RVOS would enable solar power to be valued more correctly. In  
21 particular, annual updates would help keep up to date more speculative elements

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<sup>1</sup> See Oregon Public Utility Commission Order 17-357, page 16.

1 such as the Environmental Compliance and Grid Services elements. Additionally,  
2 as solar matures, there is expected to be a dramatic growth in rooftop residential  
3 solar projects. Frequent updates to RVOS will enable values to be properly  
4 measured and are more representative of the market.

### III. Deficiency Period: Generation Capacity

5 **Q. How does sufficiency period apply to the calculation of capacity value?**

6 A. During the period where the utility is sufficient for capacity resources, no value is  
7 assigned to capacity. Once the utility enters a deficiency period, solar resources  
8 include the capacity value of incremental resources. PacifiCorp currently expects  
9 to be deficient in capacity beginning in the year 2028. Under the present filing,  
10 PAC RVOS values from 2018-2027 are not assigned a capacity value.

11 **Q. Has the Company installed renewable energy projects to help with future  
12 capacity?**

13 A. In PacifiCorp's 2017 Integrated Resource Plan, the Company sought to add 1100  
14 MW of wind resources. PacifiCorp, in its most recent IRP, acquired wind resources  
15 not due to need but due to an economic opportunity. This is unusual in Oregon.  
16 PacificCorp uses a variety of models to supplement their IRP. The System  
17 Optimizer Model optimizes resource additions subject to system load balance,  
18 reliability, and capacity. When PacifiCorp resource modeling determines that it  
19 needs additional capacity or energy, typically it acquires a generation resource.  
20 When a customer is installing photovoltaic generation on their roof, the utility  
21 doesn't want to assign a capacity value. However, the utility is able to build large  
22 capital projects during a sufficiency period. This behavior is unfair to customers.

1 **Q. What impact will the new resources have on the sufficiency period?**

2 A. The installation of 1100 aMW of renewable resources will move out the deficiency  
3 period. The new resources could move the deficiency period to a later date.

4 **Q. What effect does a longer sufficiency period have on the RVOS value?**

5 A. A longer sufficiency period will lower the capacity value of RVOS. The utility is  
6 allowed to have a rate of return on capital investment, but not on residential rooftop  
7 solar projects. If the utility keeps pushing the sufficiency period, then the utility  
8 has the opportunity to install utility owned capital investment and decrease the  
9 resource value of solar. The utility has every incentive to keep extending the  
10 sufficiency period for capacity.

11 **Q. What is your position for sufficiency/deficiency periods in the RVOS?**

12 A. CUB advocates for removing sufficiency and deficiency periods in the resource  
13 value of solar price. From the first year of operation, solar projects provide  
14 capacity value to the system.

#### IV. Inflation

15 **Q. What is inflation?**

16 A. Inflation is the rate at which prices for goods and services increase. A relatively  
17 constant level of inflation allows business to plan for the future. In financial  
18 models, inflation is commonly used as an escalation factor.

19 **Q. What are consumer price indexes?**

20 A. A consumer price index (CPI) is a measure of how price changes between any two  
21 periods. CPI's are created by measuring the price of a fixed basket of goods and  
22 services over a period of time. If the value of the consumer price index increases,

1 inflation has occurred for that basket of goods and services. If the value of the  
2 consumer price index decreases, deflation has occurred for that basket of goods and  
3 services.

4 In the United States, the U.S. Bureau of Labor Statistics is responsible for  
5 measuring CPI . The most commonly used consumer index is CPI-U, which is the  
6 consumer price index for All Urban Consumers. General inflation is often  
7 measured by CPI-U and the index is commonly used in escalation agreements.

8 **Q. What has PacifiCorp assumed for inflation in this filing?**

9 A. PacifiCorp has assumed an inflation rate of 2.3%.

10 **Q. Is PacifiCorp's inflation estimate an appropriate projection of long term**  
11 **inflation?**

12 A. No. Since 2012, the Federal Reserve, the central bank of the United States of  
13 America, has engaged in the policy of inflation targeting. The Federal Reserve has  
14 established a long term target inflation rate of two percent.<sup>2</sup> When the Federal  
15 Reserve observes high inflation, the central bank conducts monetary policy to  
16 lower future inflation. Inflation targeting reduces the variability of inflation and  
17 sets average inflation at two percent.

18 Inflation targeting, while having a limited history in the United States, has been  
19 successful in other developed countries. For example, New Zealand, a pioneer in  
20 inflation targeting, has had stable inflation since implementing inflation targeting.

21 **Q. What inflation rate should PacifiCorp use?**

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<sup>2</sup> “Federal Reserve issues FOMC statement of longer-run goals and policy strategy”, The Federal Reserve press release; publicly available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20120125c.htm> (January 25, 2012).

1     **A.**   The Federal Reserve has established two percent as the medium-term inflation  
2           rate. Based on current Federal Reserve policy, CUB recommends that  
3           PacifiCorp's inflation estimate be set to 2%. This adjustment to inflation seems  
4           minor. However, Exhibit 102 indicates the cumulative compounding effect of  
5           0.3% increase in inflation on a \$10,000 reoccurring cost. Additionally,  
6           PacifiCorp's standard company inflation estimate is 2%.

**V.    Conclusion**

7     **Q. Does this conclude your testimony?**

8     **A.**    Yes.

**WITNESS QUALIFICATION STATEMENT**

**NAME:** William Gehrke

**EMPLOYER:** Oregon Citizens' Utility Board

**TITLE:** Economist

**ADDRESS:** 610 SW Broadway, Suite 400  
Portland, OR 97205

**EDUCATION:** Master of Science, Applied Economics  
Florida State University, Tallahassee, FL

Bachelor of Science, Economics  
Florida State University, Tallahassee, FL

**EXPERIENCE:** Worked as an Economist for the Florida Department of Revenue. Worked as Utility Analyst at the Florida Public Service Commission, providing advice on rate cases and load forecasting.



### PacifiCorp's Estimate Overstates Inflation

