BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 1910

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

OPENING TESTIMONY

OF THE

OREGON CITIZENS' UTILITY BOARD

March 16th, 2018

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I. Introduction

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

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

Q. Please describe your educational background and work experience.

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

Q. What is the purpose of your testimony?

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

Q. How is your testimony organized?

A. The testimony is organized as follows:

II. Update Frequency of RVOS

III. Deficiency Period: Generation Capacity

IV. Inflation

V. Conclusion

Exhibits

Gehrke/101 – Witness Qualification Sheet

Gehrke/102 -- PacifiCorp's Estimate Overstates Inflation

II. Update Frequency of RVOS

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

A. The initial straw proposal suggests that the RVOS be for a 25 year period of analysis and updated every two years or upon petition.[1]

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

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

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

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

[1] *See* Oregon Public Utility Commission Order 17-357, page 16.

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

III. Deficiency Period: Generation Capacity

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

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

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

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

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

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

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

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

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

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

IV. Inflation

Q. What is inflation?

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

Q. What are consumer price indexes?

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

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

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

Q. What has PacifiCorp assumed for inflation in this filling?

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

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

A. No. Since 2012, the Federal Reserve, the central bank of the United States of America, has engaged in the policy of inflation targeting. The Federal Reserve has established a long term target inflation rate of two percent.[2] When the Federal Reserve observes high inflation, the central bank conducts monetary policy to lower future inflation. Inflation targeting reduces the variability of inflation and sets average inflation at two percent.

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

Q. What inflation rate should PacifiCorp use?

[2] "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).

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

V. Conclusion

Q. Does this conclude your testimony?

A. Yes.

WITNESS QUALIFICATION STATEMENT

NAME: William Gehrke

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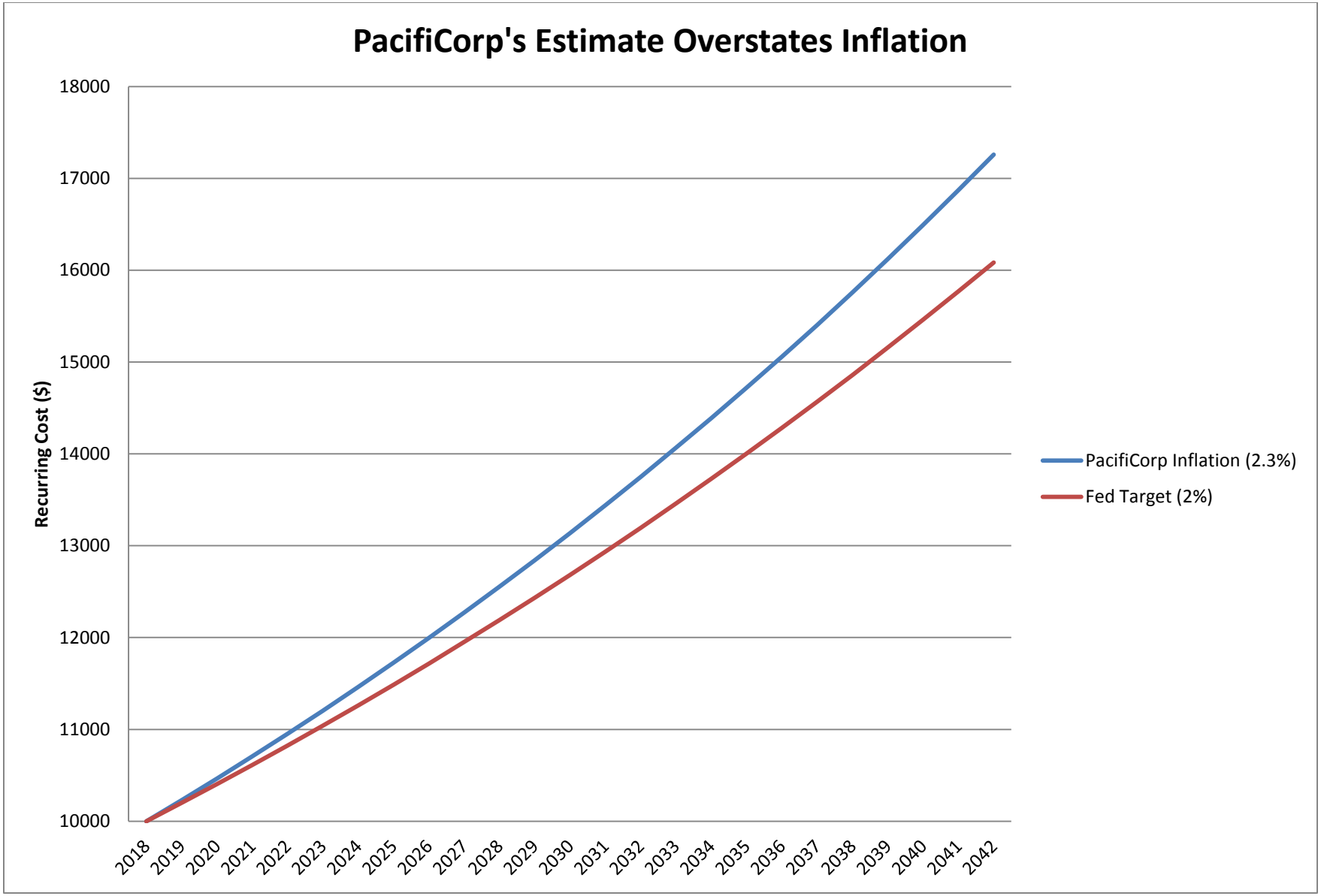
EXPERIENCE: Worked as an Economist for the Florida Department of Revenue. Worked as Utility Analyst at the Florida Public Service Commission, providing advice on rate cases and load forecasting.


PacifiCorp's Estimate Overstates Inflation
Recurring Cost ($)
18000
17000
16000
15000
14000
13000
12000
11000
10000
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
PacifiCorp Inflation (2.3%)
Fed Target (2%)