

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 1340

In the Matter of)	
)	
PORTLAND GENERAL ELECTRIC)	ORDER
COMPANY)	
)	
Report on the Feasibility of Using Stochastic)	
Modeling in the Annual Update.)	

DISPOSITION: MOTION GRANTED; DOCKET CLOSED

On May 6, 2008, the Staff of the Public Utility Commission of Oregon (Staff) filed a motion to close the investigation into the use of stochastic power cost modeling in the above-captioned docket (Staff’s Motion). The other parties to the docket—Portland General Electric Company (PGE), the Citizens’ Utility Board of Oregon (CUB), the Industrial Customers of Northwest Utilities (ICNU), and PacifiCorp, d/b/a Pacific Power—support Staff’s Motion. Because we agree with the parties that the costs of stochastic power cost modeling outweigh the potential benefits, we grant the motion.

PROCEDURAL BACKGROUND

In the final order in docket UE 180, the Public Utility Commission of Oregon (Commission) approved a new annual process for updating PGE’s forecasted net variable power costs (NVPC).¹ As part of its analysis, the Commission stated that the use of stochastic modeling could potentially improve power cost forecasting and directed PGE to “submit a report on the feasibility of using stochastic modeling in the Annual Update by September 1, 2007.”²

PGE complied with the Commission’s directive by filing a report on August 31, 2007. In the report, PGE discussed its investigation into the use of stochastic power cost modeling both before and after the Commission’s order in UE 180. PGE also discussed issues and costs related to the implementation of stochastic modeling and the need for Commission guidance before proceeding further.

During a prehearing conference on January 29, 2008, the administrative law judge adopted a preliminary procedural schedule that allowed the parties the opportunity to discuss the appropriate scope of the docket and the issues to be addressed. According to Staff’s Motion, after circulating issues lists and participating in a workshop in March 2008, the parties concluded that the costs of using stochastic modeling outweigh the potential

¹ Order No. 07-015 at 18-19 (January 12, 2007).

² *Id.* at 12.

benefits and agreed that the investigation into the use of stochastic modeling in PGE's annual update process should be closed.

DISCUSSION

Staff relies on four arguments in support of its motion. First, Staff contends that PGE would incur significant costs to investigate and implement stochastic power cost modeling, as well as increased annual costs to update and maintain the model. PGE has already spent approximately \$260,000 investigating the use of stochastic modeling and estimates that an additional \$500,000 would be required to complete a model that is sufficient for ratemaking purposes. Because the employees needed to update and maintain the model would need to be highly skilled in econometric techniques and have graduate-level educations, PGE estimates additional annual costs exceeding \$100,000. Staff further argues that PGE and other stakeholders, including the Commission and customer groups such as CUB and ICNU, would incur significant costs debating "the key variables of the model, the mathematical specifications of their stochastic characteristics, and associated data sets and assumptions."³

Second, Staff argues that PGE's preliminary report indicates that the use of stochastic modeling does not appear to materially increase the accuracy of NVPC forecasts. The report shows that stochastic modeling produced essentially the same NVPC base forecast as PGE's current Monet model. To the extent a slight increase in accuracy could be obtained, Staff notes that the use of a deadband in PGE's power cost adjustment mechanism (PCAM) would likely absorb any difference in NVPC produced by stochastic modeling.

Third, Staff had previously hoped that stochastic modeling would capture the extrinsic values of cold snap contracts and super peak plants, which would potentially lower NVPC forecasts. PGE's preliminary report indicates that variability in other model inputs—availability of hydroelectric power, electricity prices, natural gas prices, plant outages, and load—leads to an increase in NVPC of approximately \$10 million despite consideration of the extrinsic values of the cold snap contracts and super peak plants. Staff also states that the need to capture these extrinsic values is no longer as critical because they are now considered on an annual basis through PGE's PCAM.

Finally, Staff argues that the results of any continued investigation would be applicable only to PGE and further investigation would be required before stochastic modeling could be used by other utilities. Staff also indicates that use of a complicated stochastic model could disadvantage consumer groups that do not have the resources to learn the model and verify PGE's results.

³ Staff's Motion at 3.

CONCLUSION

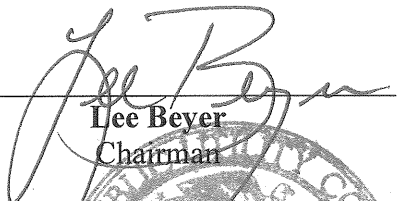
In the UE 180 order, we directed PGE to investigate the use of stochastic power cost modeling because we agreed with Staff that it had potential benefits, including improved accuracy in power cost forecasting and the elimination of the need for extrinsic value adjustments.⁴ PGE's preliminary report, however, indicates that stochastic modeling does not materially improve the accuracy of NVPC forecasts. Furthermore, issues associated with extrinsic value have been largely addressed by PGE's PCAM. Given the costs of implementing and maintaining stochastic power cost modeling, we agree with Staff that the costs outweigh the benefits and find that it is appropriate to close the investigation. Our decision does not, however, foreclose the possibility of future further investigation into the use of stochastic power cost modeling.

ORDER

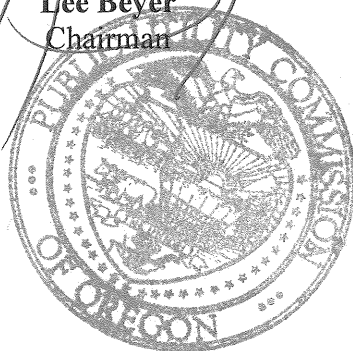
IT IS ORDERED that:

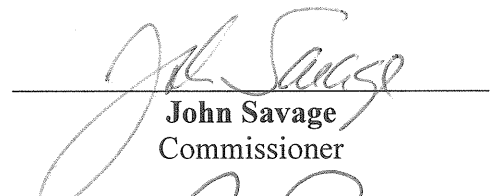
1. Staff's motion to close the investigation into the feasibility of using stochastic modeling in Portland General Electric Company's annual net variable power cost update process is granted.
2. Docket UM 1340 is closed.

Made, entered, and effective MAY 19 2008 .

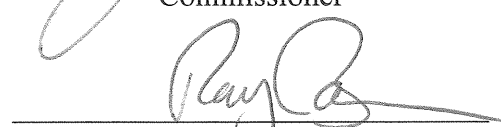


Lee Beyer
 Chairman





John Savage
 Commissioner



Ray Baum
 Commissioner

A party may request rehearing or reconsideration of this order pursuant to ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-014-0095. A copy of any such request must also be served on each party to the proceeding as provided by OAR 860-013-0070(2). A party may appeal this order by filing a petition for review with the Court of Appeals in compliance with ORS 183.480 through 183.484.

⁴ Order No. 07-015 at 12.