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July 21, 2005

OREGON PUBLIC UTILITY COMMISSION ATTENTION: FILING CENTER PO BOX 2148 SALEM OR 97308-2148

RE: OPUC Docket No. UE 165 and UM 1187 - In the Matter of PORTLAND GENERAL ELECTRIC Request for Approval of Schedule 128 to Implement a Hydro Generation Power Cost Adjustment Mechanism and In the Matter of PORTLAND GENERAL ELECTRIC COMPANY Application for Deferral of Costs and Benefits Due to Hydro Generation Variance.

Enclosed for filing in the above-captioned docket is the Public Utility Commission's surrebuttal testimony. This document is being filed by electronic mail with the PUC Filing Center.

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PUBLIC UTILITY COMMISSION OF OREGON

UE 165/UM 1187

STAFF SURREBUTTAL TESTIMONY OF

Maury Galbraith

In the Matter of
PORTLAND GENERAL ELECTRIC COMPANY Request for
Approval of Schedule 128 to Implement a Hydro
Generation Power Cost Adjustment Mechanism and In the
Matter of PORTLAND GENERAL ELECTRIC COMPANY
Application for Deferral of Costs and Benefits Due to
Hydro Generation Variance

July 21, 2005

CASE: UE 165 and UM 1187 WITNESS: Maury Galbraith

PUBLIC UTILITY COMMISSION OF OREGON

UE 165 STAFF EXHIBIT 400
UM 1187 STAFF EXHIBIT 200

Surrebuttal Testimony

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Introduction

2 | Q. PLEASE STATE YOUR NAME.

A. My name is Maury Galbraith.

Q. DID YOU PREVIOUSLY FILE TESTIMONY IN THESE PROCEEDINGS?

A. Yes. I sponsored Staff/100, Staff/300 and Staff-PGE/100 in Docket UE 165. I sponsored Staff/100 in Docket UM 1187. My witness qualifications were provided as Staff/101 in each docket.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of this testimony is to respond to the Industrial Customers of Northwest Utilities (ICNU) and the Citizens' Utility Board (CUB) opposition to Commission approval of two stipulations, supported by the staff of the Public Utility Commission of Oregon (staff) and Portland General Electric Company (PGE), which would establish a System Dispatch Power Cost Adjustment Mechanism (SD-PCAM) for 2005-2006.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. First, I respond to CUB's primary arguments against the SD-PCAM. I then respond to ICNU's primary arguments against the SD-PCAM. Finally, I argue that despite CUB's desire for a broader scope, and ICNU's desire for a narrower scope, the SD-PCAM strikes a reasonable balance between capturing hydro-related costs and excluding unrelated costs.

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Response to CUB's Arguments

- Q. CUB CRITICIZES THE SD-PCAM BECAUSE IT USES COMPUTER-MODELED COSTS INSTEAD OF KNOWN ACTUAL COSTS. PLEASE SUMMARIZE CUB'S ARGUMENTS.
- A. CUB argues that: (1) the language of the automatic adjustment clause and deferred accounting statues seem to require the use of actual costs, not approximations of actual costs, and (2) from a public policy perspective, the use of actual costs is preferable to modeled costs because they are known costs. (CUB/200, Jenks-Brown/15-17.)
- Q. DO YOU AGREE WITH CUB'S ASSERTION THAT WHEN IMPLEMENTING
 AN AUTOMATIC ADJUSTMENT CLAUSE OR DEFERRAL MECHANISM WE
 CAN SIMPLY USE KNOWN COSTS?
- A. No. Even after-the-fact, the cost and revenue impact of specific events, for example poor hydro conditions or a prolonged thermal plant outage, may be unknown. The cost of poor hydro conditions is not readily identifiable in PGE's accounting system. The cost of these events is known only after estimation and approximation.
- Q. CAN YOU POINT TO A RECENT CASE WHERE ACTUAL COSTS WERE
 UNKNOWN AND PARTIES WERE FORCED TO ESTIMATE OR
 APPROXIMATE ACTUAL COSTS?
- A. Yes. PacifiCorp's Docket UM 995 is a good example. Although all the parties to the case agreed that PacifiCorp's hydro-related costs were prudently incurred, there was significant disagreement about the actual level of those

costs. CUB witness Jenks put PacifiCorp's cost of replacing lost hydro generation at \$297 million on a total company basis. (See UM 995, CUB/100, Jenks/47-48.) ICNU witness Falkenberg put PacifiCorp's cost of replacing lost hydro at \$498 million on a total company basis. (See UM 995, ICNU/504, RJF/1.) PacifiCorp witness Widmer corrected the CUB and ICNU estimates. Mr. Widmer put his revised CUB estimate at \$403 million and his revised ICNU estimate at \$570 million. (See UM 995, PPL/501 and PPL/502.) Even after-the-fact we may not know, and may be forced to estimate or approximate, actual costs.

- Q. WOULD DESIGNING AN AUTOMATIC ADJUSTMENT CLAUSE OR

 DEFERRAL MECHANISM TO TRACK COST AND REVENUE CATEGORIES

 THAT ARE READILY IDENTIFIABLE IN PGE'S ACCOUNTING SYSTEM

 MAKE IT EASIER TO USE ACTUAL COSTS?
- A. Yes, in some respects. As I indicated in my direct testimony, a comprehensive PCA mechanism that tracks all the components of NVPC is preferable to a hydro-only mechanism. (Staff/100, Galbraith/16, Lines 19-20.) One of the benefits of a comprehensive PCA is that NVPC is a well-defined set of costs. (Staff/300, Galbraith/15, Lines 5-12.) On the other hand, it is never easy to separate prudently incurred costs from imprudently incurred costs. This task often requires estimation and approximation. It is simple to use actual accounting costs only after a determination has been made that the costs were appropriately accounted for and prudently incurred.

Q. DOES THE LANGUAGE OF ORS 757.210(1) REQUIRE THE USE OF ACTUAL COSTS, OR ALTERNATIVELY PROHIBIT THE USE OF COST ESTIMATION AND APPROXIMATION?

- A. No. CUB reads the word 'actual' into ORS 757.210(1). In fact, the statute does not refer to 'actual costs.' Contrarily, the statue language refers to incurred costs and earned revenues. We can be nearly certain that a utility has incurred more costs and earned fewer revenues due to poor hydro conditions without knowing, in an accounting sense, the exact dollar impact. Knowing the exact dollar impact requires estimation and approximation. CUB's strict reading of the automatic adjustment clause statue is unreasonable.
- Q. DOES THE LANGUAGE OF ORS 757.259(2) REQUIRE THE USE OF ACTUAL ACCOUNTING COSTS OR PROHIBIT THE USE OF COST ESTIMATION OR APPROXIMATION?
- A. No. CUB seems to suggest that the phrase "identifiable utility expenses or revenues" means "identifiable in the utility's accounting system." As I have already indicated, it is often the case that utility costs and revenues are known or identifiable only after estimation or approximation. CUB has misread the deferred accounting statute.

Response to ICNU's Arguments

- Q. ICNU CRITICIZES THE SD-PCAM BECAUSE IT WOULD ALLOW

 DEFERRAL OF COSTS UNRELATED TO THE 2005 HYDRO CONDITIONS.

 PLEASE SUMMARIZE ICNU'S ARGUMENTS.
- A. ICNU argues that: (1) PGE's deferral applications requested permission to defer specific costs related to the 2005 hydro shortfall; (2) the Commission cannot allow deferral of costs unrelated to a company's request without engaging in retroactive ratemaking; (3) the SD-PCAM would allow deferral of costs unrelated to the 2005 hydro conditions; and (4) therefore, the Commission cannot authorize the use of the SD-PCAM for 2005 because it would constitute retroactive ratemaking. (ICNU/300, Falkenberg/5-14.)

Q. ARE ICNU'S RETROACTIVE RATEMAKING ARGUMENTS WELL FOUNDED?

A. No. First, as I have already indicated, the identification of hydro-related costs is a matter of estimation and approximation. Contrary to ICNU's assertions, regional power prices are related to regional hydro conditions. Whether PGE replaces a hydro generation shortfall with market power purchases, increased generation from its natural gas fired plants, or a mix of each, depends on the prevailing spread between regional electricity and natural gas prices. The SD-PCAM strikes a reasonable balance between capturing hydro-related costs and excluding other costs.

Second, ICNU's argument is based on the false premise that the Commission cannot allow deferral of costs that are not specifically identified in

the utility's request. The Commission has the discretion to condition a utility's deferral request by requiring the utility to defer other costs or revenues to create a deferral that appropriately matches costs borne by and benefits received by ratepayers.

- Q. ICNU ASSERTS THAT PGE'S 2005 HYDRO REPLACEMENT COSTS ARE
 UNRELATED TO REGIONAL POWER PRICES AND REGIONAL NATURAL
 GAS PRICES. (ICNU/300, FALKENBERG/11-12.) DO YOU AGREE WITH
 THESE CLAIMS?
- A. No. PGE's 2005 hydro replacement costs are directly related to prevailing electricity and natural gas prices. Whether PGE replaces the 2005 hydro generation shortfall with market power purchases, increased generation from its natural gas fired plants, or a mix of each, depends on the prevailing spread between regional electricity and natural gas prices. If the spread between regional electricity and natural gas prices increases to a level where it is economic to dispatch the Beaver plant, then the variable cost of this added generation is a direct hydro replacement cost. If the spread between regional electricity and natural gas prices does not increase to a level where it is economic to dispatch the Beaver plant, then the cost of a spot market power purchase is a direct hydro replacement cost. ICNU mistakenly argues that PGE's 2005 hydro replacement costs are unrelated to changes in wholesale electricity and natural gas prices.
- Q. ICNU ASSERTS THAT THERE IS NO EVIDENCE THAT REGIONAL HYDRO
 CONDITIONS HAVE ANY MEASURED IMPACT ON REGIONAL POWER

AND NATURAL GAS PRICES. (ICNU/300, FALKENBERG/11-12.) DO YOU 1 2 **AGREE WITH THESE CLAIMS?** 3 A. No. The Northwest Power and Conservation Council (Council) hired BHM3 4 Consultants to perform detailed statistical analysis on the relationships 5 between hydro generation, electric power prices, natural gas prices, and other 6 key factors. This statistical analysis formed the basis for the Council's 7 uncertainty and risk analysis in its Fifth Power Plan. 8 Q. ICNU ASSERTS THAT THERE IS A MYRIAD OF FACTORS OTHER THAN 9 HYDRO CONDITIONS THAT AFFECT REGIONAL POWER AND NATURAL 10 GAS PRICES. (ICNU/300, FALKENBERG/11-12.) DO YOU AGREE WITH

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THESE CLAIMS?

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- Q. HAS ICNU PROPOSED A METHOD FOR SEPARATING HYDRO-RELATED COSTS FROM UNRELATED COSTS?
- A. No.
 - Q. HOW DOES ICNU'S PROPOSED HYDRO HEDGE ADDRESS THE
 RELATIONSHIP BETWEEN REGIONAL HYDRO GENERATION AND
 REGIONAL POWER PRICES?
- A. Mr. Falkenberg first described the hydro hedge in his direct testimony:

Under this proposal, ratepayers would compensate PGE for a specific dollar amount in the event of poor hydro conditions...ratepayers would pay the Company (via the tariff) an amount equal to the expected cost of replacement energy based on market price forecasts used in the RVM. (ICNU/100, Falkenberg/30, Lines 1-2, 5-8.)

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Mr. Falkenberg proceeded to explain that it is difficult to determine the expected cost of replacement energy:

> One serious problem with properly designing such a hedge is that it is necessary to have a good approximation of the relationship between hydro generation and market prices. Without such information, it would be very difficult to design a truly revenue-neutral hedge. Thus, the lack of appropriate modeling seriously handicaps this approach at the present time. (ICNU/100, Falkenberg/30, Lines 15-19.)

- Q. ICNU CLAIMS THAT ITS HYDRO HEDGE IS A VIABLE OPTION FOR THE COMMISSION IN THIS CASE. (ICNU/300, FALKENBERG/4, LINES 24-28.) DO YOU AGREE WITH THIS ASSESSMENT?
- A. No. ICNU's hydro hedge is not a viable option because Mr. Falkenberg failed to complete the design of the hydro hedge. In fact, Mr. Falkenberg argues that the hydro hedge cannot be completed until there is a good approximation of the relationship between hydro generation and market prices. However, given his later opinion that there is nothing to suggest that regional power prices or regional natural gas prices are impacted in any meaningful way by regional hydro conditions, it seems odd that Mr. Falkenberg could not complete the hydro hedge. Either there is a relationship between hydro generation and market prices and a good approximation is needed to complete the hydro hedge, or no such relationship exists and there is no barrier to completing the hydro hedge.
- Q. HOW SHOULD THE COMMISSION RESPOND TO ICNU'S TESTIMONY ON THIS POINT?

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Q. HAS ICNU PROPOSED A DEFERRAL TEST THAT THE COMMISSION CAN USE TO EVALUATE DIFFERENT METHODS OF SEPARATING HYDRO-RELATED COSTS FROM UNRELATED COSTS?

A. ICNU's testimony on the relationship between regional hydro conditions and

regional power prices is unreliable. The Commission should: (1) acknowledge

the Council's work on this issue and find that there is a relationship between

regional hydro conditions and regional power prices; (2) recognize that the cost

of poor hydro conditions is not readily identifiable in PGE's accounting system

and is known only after estimation and approximation; and (3) recognize that in

exercising its discretion to approve deferred accounting of hydro-related

replacement power costs it must choose an approximation that reasonably

balances the inclusion of hydro-related costs against the exclusion of other

A. Yes. ICNU states:

unrelated costs.

While it may not be possible to enumerate all of the methods the Commission might consider, one element must be common to all reasonable methods: if there is no hydro generation variation between actual and forecast, whatever method used should result in zero deferred costs. This is an acid test that distinguishes between an allowable method and one that is not allowable for any mechanism that the Commission intends to implement retroactively to January 1, 2005. (ICNU/300, Falkenberg/11, Lines 9-15, emphasis in original.)

Q. IS ICNU'S DEFERRAL TEST FOR SEPARATING COSTS RELATED TO THE 2005 HYDRO SHORTFALL FROM THOSE UNRELATED TO THE 2005 HYDRO SHORTFALL REASONABLE?

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- A. No. The Commission should not grade alternative methodologies solely on how well they capture hydro-related costs given normal streamflow conditions. The Commission has already indicated in Order 04-108 that it will not approve deferred accounting for hydro-related replacement power costs unless the hydro conditions are extraordinary and the financial impact is substantial. ICNU's deferral test (i.e., no hydro generation variation must result in zero replacement power costs) is too narrowly focused on normal conditions. The Commission should also grade alternative methodologies on how well they identify hydro-related costs given extreme streamflow conditions. For PGE, doing well given extremely poor hydro conditions means capturing the price hedge associated with the dispatch of its normally unused natural gas-fired generation. The SD-PCAM will capture any re-dispatch of the Beaver and Coyote Springs natural gas-fired generation plants and PGE's capacity tolling agreements. In doing so, however, the SD-PCAM will not necessarily produce a zero result under normal hydro conditions. The SD-PCAM would likely fail ICNU's deferral test. The Commission should recognize, however, that ICNU inappropriately grades deferral methodologies solely on how well they perform under normal hydro conditions.
- Q. DO YOU AGREE WITH THE SECOND UNDERPINNING OF ICNU'S
 RETROACTIVE RATEMAKING ARGUMENT, WHICH IS THAT THE
 COMMISSION CANNOT ALLOW DEFERRAL OF COSTS THAT ARE
 UNRELATED TO THE COSTS IDENTIFIED IN PGE'S DEFERRAL
 APPLICATION?

A. No. However, as discussed above, I do not think it is necessary for the Commission to consider this second prong of ICNU's argument because the costs that may be deferred under the SD-PCAM are not unrelated to the costs of hydro variation. Even assuming the Commission does address this argument, ICNU is incorrect.

Q. PLEASE EXPLAIN.

A. ICNU offers no authority or citation for its assertion that the Commission cannot allow deferral of cost unrelated to hydro variations without engaging in retroactive ratemaking. In fact, no such limitation is found in ORS 757.259. ORS 757.259 authorizes the Commission to include in rates costs that the Commission finds should be deferred to match appropriately the costs borne and benefits received by ratepayers. Under this broad authority, the Commission may require a utility to defer costs that are not specifically identified in the utility's deferral application and in fact are unrelated to the identified costs, but that should be deferred in connection with those identified in the application to result in an overall deferral that appropriately matches the costs and benefits received by ratepayers.

Conclusion

Q. IN PREVIOUS TESTIMONY IN THESE CASES YOU INDICATED THAT THE SD-PCAM STRIKES A REASONABLE BALANCE BETWEEN TRACKING A NARROW SUBSET OF NVPC AND CAPTURING THE BROAD INTERACTIONS THAT OCCUR WHEN PGE ADJUSTS ITS SUPPLY

PORTFOLIO TO CHANGING HYDRO CONDITIONS. HAS THE CUB OR ICNU SURREBUTTAL TESTIMONY CHANGED YOUR OPINION ON THIS MATTER?

- A. No. First, contrary to CUB's arguments, it is not unreasonable to exclude variation in customer load and the impact of PGE's post RVM advanced power purchasing from the SD-PCAM. Second, contrary to ICNU's arguments, it is reasonable to include the impact of variation in regional electricity and natural gas prices in the SD-PCAM. The SD-PCAM explicitly recognizes that for PGE the cost of replacing lost hydro generation is tied to the economic dispatch of its Beaver generation units and capacity tolling agreements. The SD-PCAM accurately tracks the dispatch of these resources. At the same time, however, it does not track other costs associated with deviations in load or advance power purchasing. The SD-PCAM achieves a reasonable balance between tracking too narrow of a subset of NVPC and tracking all of the components of NVPC.
- Q. DOES THIS CONCLUDE YOUR TESTIMONY?
- 17 | A. Yes.

CERTIFICATE OF SERVICE

U E 165/U M 1187

l certify that I have this day served the foregoing document upon all parties of record in this proceeding by delivering a copy in person or by mailing a copy properly addressed with first class postage prepaid, or by electronic mail pursuant to OAR 860-13-0070, to all parties or attorneys of parties.

Dated at Salem, Oregon, this 21st day of July, 2005.

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