

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 196

In the Matter of

PORTLAND GENERAL ELECTRIC
COMPANY

Application to Amortize the Boardman
Deferral

STAFF BRIEF REGARDING COMMISSION
BENCH REQUEST

Portland General Electric Co. (PGE) seeks to amortize into rates deferred replacement power costs incurred after an outage at the Boardman coal-fired plant that was caused by a crack in the rotor of one of the low-pressure steam turbines (the "LP1 Turbine"). At issue in this stage in the proceeding is whether PGE's actions in connection with the installation and maintenance of the upgraded LP1 Turbine were prudent.¹

As PGE notes in its opening brief in the re-opened docket, the Commission determines whether a utility acted prudently by reviewing "the objective reasonableness of a decision at the time the decision was made."² And, to determine whether a utility acted prudently, the Commission judges the utility based on the information that was available, or that reasonably could have been available, at the time of the action/decision in question.³

To inform its determination of PGE's prudence, the Commission issued eight bench requests to PGE, and gave all parties the opportunity to file additional testimony and briefs. Commission staff testified regarding three of the bench requests. This brief will discuss that testimony and therefore, is similarly limited to questions posed in three bench requests.

¹ See December 8, 2008 Bench Request ("After a review of the record in the above-captioned docket, the Public Utility Commission of Oregon has determined there is insufficient information to determine whether Portland General Electric Company (PGE) was prudent in the installation and maintenance of the upgraded LP1 turbine at the Boardman generating facility.")

² UM 995, Order No. 02-469 at 5.

³ UE 102, Order No. 99-033 at 36-37.

1 **Request No. 1.a.: What is the standard industry practice for turbine installation and**
2 **maintenance?**

3 PGE witness Quennoz testified that hiring the Original Equipment Manufacturer (OEM)
4 to install and maintain large turbines like those at the Boardman plant is standard industry
5 practice.⁴ Staff witness Durrenberger testified that using the OEM as PGE did for the installation
6 and maintenance of the LP1 Turbine is consistent with his experience with industrial power plant
7 installations.⁵

8 No testimony or exhibits in the record credibly rebuts the opinions of the PGE and staff
9 witnesses. While the witness sponsored by the Industrial Customers of Northwest Utilities
10 (ICNU), Mr. Martin, attempts to rebut the testimony provided by PGE witness Quennoz
11 regarding standard industry practice, the attempt is not persuasive. With respect to the standard
12 industry standard for installation, Mr. Martin testifies as follows:

13 Mr. Quennoz states that it is standard industry practice to hire the OEM to install
14 large turbines like those at Boardman. PGE/500, Quennoz/3. Mr. Quennoz's
15 response is simple and clear, but it does not describe industry practice.⁶

16 Although Mr. Martin opines that Mr. Quennoz has not stated the industry standard, Mr.
17 Martin does not supply the Commission with what he believes to be the correct industry standard
18 for installation of large upgraded **replacement** turbines like the LP1 Turbine. Instead, Mr.
19 Martin describes the standard utility practice "[i]n **new** power plants," which is to use an
20 experienced engineer/constructor, and opines that PGE should have used an engineer/constructor
21 for installation of the LP1 Turbine at Boardman because replacing a large steam turbine in an
22 existing power plant is more complex than installing a turbine in a new plant.⁷ Mr. Martin's
23 testimony does not appear to inform the Commission on the standard industry practice for the
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25 ⁴ PGE/500, Quennoz/3

26 ⁵ Staff/300, Durrenberger/2.

⁶ ICNU/400, Martin/4.

⁷ ICNU/400, Martin/4-6.

1 installation undertaken by PGE—the *replacement* installation of large upgraded turbines at an
2 existing power plant.

3 PGE testimony demonstrates why it is not appropriate to extrapolate a reasonable
4 industry standard for the installation of an upgraded turbine in an existing power plant from the
5 standard for construction of a new power plant. Mr. Quennoz agrees that it is industry practice
6 to use an engineer/constructor when constructing a new facility because the construction will
7 encompass many disparate components manufactured by many different OEMs and it would not
8 be prudent to have one OEM oversee the entire project. However, Mr. Quennoz explains that
9 when there is only one OEM for the project, it is not appropriate to have an engineer/constructor
10 oversee the project because no engineer/constructor would be able to duplicate the knowledge
11 and experience of the OEM.⁸

12 Mr. Martin rebuts Mr. Quennoz’s testimony regarding the industry standard for
13 maintenance of turbines by distinguishing between a “common and desirable” industry practice
14 and industry standard: “[u]sing the OEM for major maintenance is a common and desirable
15 practice in the industry, but it is not the industry standard.”⁹ Mr. Martin appears to explain the
16 distinction by noting that some utilities utilize independent maintenance contractors to provide
17 major maintenance of steam turbines and that “these arrangements can be very satisfactory.”¹⁰
18 Given the standard for determining a utility’s prudence, the distinction between a standard
19 industry practice and a “common and desirable practice in the industry” is not meaningful for
20 purposes of the Commission’s analysis in this docket.

21 In sum, the testimony of PGE and staff reflect that it is standard industry practice to rely
22 on the OEM for installation and maintenance of a replacement turbine at an existing power plant.
23 ICNU testimony regarding the standard industry practice for construction of new power plants is

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25 ⁸ PGE/700, Quennoz/11-12.

26 ⁹ ICNU/400, Martin/3.

¹⁰ ICNU/400, Martin/9.

1 not pertinent to the industry standard for the actions at issue in this docket. And, with respect to
2 the industry standard for major maintenance of large turbines, ICNU's distinction between a
3 desirable and common practice and industry standard is not a meaningful one for purposes of the
4 Commission's analysis.

5 **Request No. 2: Provide copies of the Siemens reports provided in response to the**
6 **Industrial Customers of Northwest Utilities (ICNU) Data Request Nos. 009, 010,**
7 **016, and 018. See ICNU/105, Martin 1.**

8 This request sought copies of outage reports generated by Siemens for turbine upgrades,
9 modifications, and repair work performed for PGE. The reports make "a good case for the
10 organizational capabilities of" Siemens. Further, the reports show a number of PGE personnel
11 involved in the Boardman outage.¹¹

12 During a visit to the Boardman plant in Spring 2009, Staff witness Durrenberger
13 attempted to discern whether PGE personnel noted in the Siemens reports were merely copied
14 with the reports or actively involved in managing and monitoring the outage. Staff asked one
15 of the PGE staff involved in the Boardman outage to "walk [him] through how a typical turbine
16 outage was monitored and managed by company."¹² The PGE employee explained to Mr.
17 Durrenberger the manner in which he and other PGE staff keep track of turbine maintenance
18 during maintenance outages and forced outages.¹³ Mr. Durrenberger's visit to the Boardman
19 plant led him to conclude that PGE personnel actively monitor and manage plant outages.¹⁴

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24 ¹¹ Staff/300, Durrenberger/4.

25 ¹² Staff/300, Durrenberger/4.

26 ¹³ Staff/300, Durrenberger/4.

¹⁴ Staff/300, Durrenberger/4.

1 **CERTIFICATE OF SERVICE**

2 I certify that on July 17, 2009, I served the foregoing Staff Brief upon all parties of record
3 in this proceeding by delivering a copy by electronic mail and by mailing a copy by postage
4 prepaid first class mail or by hand delivery/shuttle mail to the parties accepting paper service.

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