Portland General Electric Company
Legal Department
121 SW Salmon Street • Portland, Oregon 97204
(503) 464-8926 • Facsimile (503) 464-2200

Douglas C. Tingey
Assistant General Counsel

August 7, 2009

Via Electronic Filing and U.S. Mail

Oregon Public Utility Commission
Attention: Filing Center
550 Capitol Street NE, #215
PO Box 2148
Salem OR 97308-2148

Re: UE 196 - Boardman Deferral Amortization

Attention Filing Center:

Enclosed for filing in the captioned docket are an original and five copies of:

- **PORTLAND GENERAL ELECTRIC COMPANY REPLY BRIEF IN RE-OPENED DOCKET**

This document is being filed by electronic mail with the Filing Center. An extra copy of the cover letter is enclosed. Please date stamp the extra copy and return to me in the envelope provided.

These documents are being served upon the UE 196 service list.

Thank you in advance for your assistance.

Sincerely,

DOUGLAS C. TINGEY

DCT:cbm
Enclosures
cc: Service List-UE 196

BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UE 196

In the Matter of	)	**PORTLAND GENERAL ELECTRIC COMPANY'S REPLY BRIEF IN RE-OPENED DOCKET**
PORTLAND GENERAL ELECTRIC COMPANY	)	
Application to Amortize the Boardman Deferral.	)	

I. INTRODUCTION

Portland General Electric Company ("PGE") submits this Reply Brief following the re-opening of the record in this amortization docket.

The Industrial Customers of Northwest Utilities ("ICNU") and the Citizens' Utility Board ("CUB") have submitted opposition briefs in this re-opened docket. As in their earlier briefs in this proceeding, ICNU and CUB argue that PGE should not be entitled to amortize any of the costs of replacement power incurred following the outage at the Boardman power plant. CUB and ICNU do not limit their briefs to issues raised by the Commission's Bench Requests in the re-opened docket. Instead, they criticize PGE on a variety of grounds. Some of their criticisms are familiar from the many rounds of testimony and briefing already submitted in this docket; others are new, raised for the first time at this late stage of the proceedings.

Commission Staff has also submitted a brief focused on the Commission's specific Bench Requests. In its filings in this docket, Staff has recommended that PGE be allowed to recover the amount of replacement power costs previously approved by the Commission. *See, e.g.*, Staff 300/Durrenberger 6.

For the reasons stated below and in our prior briefing in this docket, PGE respectfully requests that the Commission determine that it acted prudently with respect to the LP1 Turbine upgrade and, therefore, is entitled to amortize the portion of its replacement power costs approved by the Commission.

II. DISCUSSION

A. Legal Standard

This case is governed by ORS 757.259(5), which provides as relevant that "[t]he commission's final determination on the amount of deferrals allowable in the rates of the utility is subject to a finding by the commission that the amount was prudently incurred by the utility." Here, "the amount" that PGE is seeking to recover is a portion of the cost of replacement power from the Boardman outage. The Commission allowed PGE to defer $26.439 million -- or 62 percent -- of the replacement power costs eligible for deferred accounting treatment. This amount reflects about 45 percent of the total Boardman outage costs from the beginning of the outage in October 2005 through February 5, 2006. PGE's shareholders have absorbed the remaining 55 percent.

In a prudence review, the Commission reviews "the objective reasonableness of a decision at the time the decision was made." *See* UM 995, Order No. 02-469 at 5. The Commission does not focus on the outcome of the utility's decision, but rather on the reasonableness of the actions "based on information that was available (or could reasonably have been available) at the time." *See In Re PGE*, UE 102, Order No. 99-033 at 36-37. *See also In Re Transition Costs*, UM 934, Order No. 98-353 at 9 ("[when utilities mitigate transition costs], they must behave prudently, meaning that their decisions were reasonable, based on information that was available (or could reasonably

have been available) at the time"); *In Re Northwest Natural Gas*, UG 132, Order No. 99-697 at 53 ("in this review, therefore, we must determine whether the NW Natural's actions and decisions, based on what it knew or should have known at the time, were prudent in light of existing circumstances").

1. ICNU Misstates the Scope of this Docket

ICNU argues for the first time that the scope of this proceeding is not limited to the prudence of PGE's actions with respect to the installation and repair of the LP1 turbine. According to ICNU, the Commission must consider the prudence of PGE's actions with respect to (1) the startup of the Boardman plant in 1980; (2) replacement of the LP turbine rotors in 2000; (3) upgrading Boardman's HP/IP turbine in 2004; (4) the shutdown, inspection and repair of the LP1 rotor that occurred in 2005; and (5) ongoing maintenance, inspection and alignment of the LP1 turbine since it went back online in 2006.

PGE agrees that items (2) and (4) on this list – PGE's actions and decisions during the upgrade, operation and repair of the LP1 Turbine – are proper subjects for the Commission's review. Item (3) – the HP/IP upgrade – logically could be part of this inquiry, because it occurred in 2004, between the time that PGE upgraded the LP1 Turbine and the time the crack was discovered in 2005. However, the HP/IP turbine is separate and physically distinct from the LP1 turbine, and no party has argued that the HP/IP upgrade somehow caused or contributed to the crack of the LP1 rotor. Accordingly, the prudence of PGE's actions with respect to the HP/IP upgrade does not actually appear to be at issue here.

Item (1) on ICNU's list – the prudence of PGE's decision with respect to the startup of Boardman in 1980 – is plainly beyond the scope of this review. The prudence of building Boardman and putting the plant into operation was reviewed in the first general rate case in which Boardman was reflected in rates. ICNU is essentially asking that the Commission reconsider an Order that is nearly 30 years old, without complying with the Commission's statute for amending and rescinding prior orders, ORS 756.568. Further, the Commission's prudence inquiry under ORS 757.259(5) is limited to whether the amounts at issue here – the $26.439 million is deferred costs of replacement power for the Boardman outage – were prudently incurred. That question is unrelated to the question whether the plant should have been commissioned or placed into service in the first place almost 30 years earlier.

By the same token, item (5) – the prudence of PGE's decisions and actions after the plant went back online in 2006 – is also outside the scope of this review. PGE is not seeking to recover any deferred costs associated with its activities after the outage and, accordingly, the prudence of post-outage costs is not before the Commission under ORS 757.259(5).

In sum, PGE has properly addressed the issues before the Commission throughout this prudence review.

2. CUB misstates the Scope of Review

For its part, CUB continues to suggest that because the LP1 turbine rotor cracked after only five years, PGE should not recover costs of replacement power. The thrust of this argument is that (1) the rotor should not have cracked before the expiration of its useful life; and (2) because the rotor cracked prematurely, it follows that PGE was

imprudent and should not be allowed to recover replacement power costs. But the proper question is not simply whether this rotor lasted as long as it should have but, rather, whether PGE's decisions and actions in connection with the LP turbine upgrade were prudent at the time they were made. Nothing that CUB argues here, or has argued at any stage of these proceedings, demonstrates imprudence on PGE's part. PGE acted in a manner consistent with industry practice, with the laudable motive of increasing efficiency at Boardman. The result of the LP turbine upgrade was a significant increase in efficiency at the plant, with corresponding savings to customers.

CUB also argues that PGE has improperly attempted to shift the burden of persuasion to CUB and ICNU. PGE disagrees with this assertion. PGE bears the burden of proof in this docket and has never argued otherwise. When CUB and ICNU have raised questions about the prudence of some decision or action of PGE's, PGE has attempted to answer those questions with evidence. When neither CUB nor ICNU have presented any contrary evidence, we are entitled to point that out. For example, neither party has presented contrary evidence on the question of insurance, or the question of equipment contracts that cover replacement power costs, or the question of reliance on the OEM's QA/QC program. We are also entitled to argue that if there were any contrary evidence available, presumably CUB or ICNU would present it to the Commission, and therefore that one logical inference to be drawn from their failure to present such evidence is that they could not find any.

However, the ultimate decision whether PGE has carried its burden of proof lies with the Commission, and PGE has never argued otherwise.

B. Staff Briefing

In Staff's testimony in the re-opened record, Staff Senior Utility Analyst Ed Durrenberger concluded: "The Commission should allow the amortization to proceed and the company to recover the excess power costs plus interest on the unpaid balance as requested." Staff/300; Durrenberger/6.

In their brief in the re-opened record, Staff addressed three of the Commission's Bench Requests. In each case, Staff supported the prudence of PGE's actions. Specifically, Staff stated that: (1) PGE's use of Siemens, the Original Equipment Manufacturer ("OEM") for the LP1 turbine upgrade and maintenance was consistent with standard industry practice; (2) PGE personnel actively monitor activities during plant outages; and (3) the prudence of PGE's reliance on Siemens' QA/QC program for Boardman depended on the robustness of Siemens's program, and the fact that Siemens program had received ISO 9001 certification demonstrated that the program was robust.

C. CUB and ICNU Briefing

In their briefs, CUB and ICNU repeat arguments that PGE has refuted on multiple occasions. As we previously have discussed at length, including in our opening brief in the re-opened record, the upgraded LP rotors were not "experimental" technology installed on a "test bed" at Boardman. (PGE Opening Brief at 33). PGE did not contract with Siemens to cover replacement power costs in the event of an outage five years after installation because no OEM would ever agree to such a contract; the cost of replacement power for this outage alone (more than $45 million) was nearly four times greater than the entire contract price of the upgrade (approximately $12 million), making such an arrangement economically untenable for the manufacturer. (PGE Opening Brief at 34-

35). PGE did not purchase "replacement power" insurance because we were not aware of anyone who offered such insurance and had never purchased it at any facility. Even ICNU's expert John Martin, who originally raised insurance argument in his opening testimony more than one year ago, ultimately admitted that he is not aware whether such insurance is actually available, or who might sell it, or what it might cost, because he has never purchased it. PGE/301 at 2-5.

In this reply, PGE will address in detail arguments raised for the first time. For sake of completeness, we will briefly address arguments that we have addressed previously, but will not repeat lengthy analyses from prior briefing and testimony.

1. PGE Did Not Improperly Withhold Discovery

CUB alleges that PGE has failed to provide requested discovery in a timely manner. CUB provides no support or specific examples for this allegation. (CUB Brief at 4).

PGE strongly disputes CUB's accusation. We have produced reams of documents in response to dozens of data requests from Staff, CUB and ICNU. If CUB believed that PGE was not complying with its discovery obligations, it should have filed a Motion to Compel and allowed PGE to respond to its specific complaints. But CUB did not file any such motion or make any other attempt to correct supposed discovery abuses. In the circumstances, unsupported statements like "PGE should not be allowed to profit from its obstruction of the discovery portions of this docket," (CUB Brief at 5) are inappropriate.

CUB also argues that PGE failed to work hard enough to obtain documents that CUB wanted from third parties like Siemens. When PGE was in

possession of documents from Siemens, it produced them. On other occasions, PGE asked Siemens for documents and information (for example, information about other utilities for which Siemens had provided installation or maintenance services) and produced that information.

Indeed, PGE is apparently the only party to this case to have made any effort to obtain documents or information from third parties. For example, CUB and ICNU have complained repeatedly about perceived information gaps in the FOMIS survey that PGE produced. But neither party has made any attempt to obtain the information they claim to want. Neither CUB nor ICNU even attempted to e-mail the survey respondents, despite being provided with e-mail addresses by PGE.

CUB argues that it could not be expected to seek any discovery from third parties, because "only PGE could request and obtain [documents] from its contractors." (CUB Brief at 4). Why? CUB and ICNU had the power to seek third-party discovery in this docket. This case has been going on for years. But neither CUB nor ICNU has taken a deposition, or served a single discovery request on anyone other than PGE, or even attempted to contact Siemens or any other third party. Only PGE has made any attempt to obtain the documents that CUB and ICNU are seeking from third parties. PGE cannot be entirely responsible for CUB's third-party discovery efforts.

2. PGE Was Not Required to Use a Licensed Structural Engineer

ICNU argues that PGE violated ORS 672.107(3) by failing to use a licensed structural engineer to oversee the Boardman turbine upgrade. (ICNU Brief at 16). According to ICNU, Janet Kahl, who oversaw the monitoring of the LP turbine upgrade, is not herself a licensed structural engineer. Ms. Kahl testified at the April 20

hearing that that she did not know whether Siemens used a licensed structural engineer for its analysis of the upgrade. And since she does not know, ICNU argues, PGE has not carried its burden of proof on this issue.

As an initial point, ICNU is attempting to place PGE in an impossible position by waiting until after the record is closed to raise this argument for the first time. PGE cannot be expected to come forward with proof on an issue unless that issue is raised while the record is still open. PGE may bear the burden of proof in this proceeding, but this does not mean that PGE is required to anticipate every possible argument, no matter how obscure, and present evidence on that argument whether it is raised or not.

ICNU's argument illustrates this point perfectly. ICNU is not claiming that PGE violated some familiar provision of Oregon public utility law, but rather that PGE violated a provision of the statute governing licensing for structural engineers. ICNU did not raise this argument before the April 20 hearing. It is ironic that ICNU, the party claiming that its Constitutional rights have been violated by the re-opening of this record, is also the party raising new issues and demanding new evidence after the re-opened record has been re-closed. If the argument had any merit, ICNU's tactics would have placed PGE in a procedural bind.

As it turns out, however, the argument has no merit. Under Oregon's engineering licensure statutes, only a licensed structural engineer may provide structural engineering services on significant structures. ORS 672.107. ICNU argues that Boardman "appears to be" a "significant structure" for purposes of the statute because it

is more than 45 feet tall and "customarily occupied by human beings." (ICNU Brief at 16).

Even if this were true, it would only answer half the question. The remaining issue is whether overseeing the LP turbine upgrade amounts to providing structural engineering services within the meaning of the statute. ICNU does not address this issue.

This question is answered in the administrative rules of the Oregon Board of Examiners for Engineers and Land Surveying. Under OAR 820-040-0020(1),

> Structural engineering services for significant structures, as referred to in ORS 672.002 to 672.325, shall mean structural engineering for the primary structural frame or load resisting system and its elements or parts. The primary frame shall be that portion of the structure, which provides the overall stability of the structure. Elements, components, or parts of the structure, which are not part of the primary frame do not require the services of a professional structural engineer.

Here, the services in question did not implicate the primary structural frame of the Boardman plant. The LP turbine upgrade involved replacement of rotors within a turbine located on the interior of the Boardman plant. This upgrade was to "elements, components, or parts of the structure, which are not part of the primary frame" of the Boardman plant. Accordingly, ORS 672.107 does not require PGE to employ the services of a licensed structural engineer to oversee the upgrade. ICNU's argument is both untimely and wrong.

3. CUB and ICNU Fail to Identify a Causal Connection

Throughout their briefs, CUB and ICNU point to alleged shortcomings in PGE's monitoring, recordkeeping and use of Siemens's services. These criticisms are unfounded, as discussed at length in PGE's opening brief.

Further, these allegations share a central flaw, namely that CUB and ICNU have not attempted to link the alleged shortcomings to the crack in the LP1 rotor. For example, John Martin of ICNU has argued that PGE should have hired an outside project manager (like Mr. Martin himself) to oversee the LP turbine upgrade. PGE disagrees, because it is not standard industry practice to hire outside project managers for an upgrade of this kind (as opposed to the construction of an entire new facility, for which PGE typically would hire an outside manager), and Staff has supported PGE's view.

The question that ICNU has not answered, however, is why this disagreement is dispositive in this case. ICNU has not attempted to draw any connection between PGE's decision not to hire a third party to oversee the upgrade and the crack in the LP1 rotor. ICNU has not pointed to any event during the installation that it believes caused or contributed to the crack. Nor has ICNU explained what an outside monitor would have done differently than PGE's internal monitors, let alone how the difference might have prevented the LP1 rotor crack. The parties apparently disagree about whether an outside monitor is required for upgrades like this one. But without some evidence or argument that PGE's decision not to hire an outside monitor caused or contributed to the LP1 rotor crack, ICNU is making an academic argument.

The same is true of many of CUB's and ICNU's arguments. To give another example, both continue to argue that hiring the OEM for installation is not a standard industry practice, despite all evidence to the contrary. But neither has attempted to explain how the decision to hire Siemens to install a Siemens rotor somehow caused or contributed to the outage, or pointed to any evidence suggesting that the installation was

somehow flawed. CUB and ICNU have complained throughout this docket about various of PGE's practices, but have not attempted to draw a connection between those practices and the LP1 outage.

4. Increased Efficiency is a Prudent Goal

CUB argues that it was imprudent to upgrade the LP and HP/IP turbines, because the old turbines were still working, albeit less efficiently. (CUB brief at 20).

In addressing this argument, it is useful to start with some undisputed facts: (1) PGE's goal in upgrading the turbines was to increase efficiency by creating more electricity from the same amount of coal. (2) That goal was achieved. The upgraded turbines outperformed contractual guarantees. (3) The resulting savings were so great that the upgrade was significantly revenue positive for ratepayers even if the Commission allows amortization of the full deferred amount. These gains in efficiency should continue as long as Boardman is in operation, with ongoing benefits to customers.

Notwithstanding these undisputed facts, CUB asks the Commission to rule that PGE was imprudent simply because it made the decision to replace a less-efficient component with a more-efficient one. Such a ruling would create perverse disincentives for PGE and other utilities to seek significant increases in operational efficiency by replacing older but still functional components. No utility would or could ever make the business decision to upgrade its facilities if the Commission adopts CUB's view. Efficiency is a prudent goal, and increased efficiency in plant operations benefits everyone.

5. PGE's Use of Siemens for Installation, Alignment and Major Maintenance was Prudent

CUB and ICNU continue to argue that PGE was imprudent in using Siemens, the OEM, for installation and maintenance services. PGE has addressed these arguments repeatedly, including in its opening brief in the re-opened docket.

In particular, PGE has addressed ICNU's mistaken argument that PGE relied on Siemens for all ongoing maintenance of the LP turbines. PGE used Siemens for turbine alignment and some major maintenance tasks, with appropriate oversight by PGE, but did not use Siemens for routine annual maintenance. PGE/700; Quennoz/14. Even ICNU's expert John Martin agrees that this is consistent with "common and desirable" industry practice. April 20 Transcript at 349:22 – 351:20.

Hiring the OEM to install upgraded turbine components, particularly on large turbines like those at the Boardman plant, is standard industry practice. PGE/500; Quennoz/3. As Mr. Durrenberger of Staff testified, the OEM is often not only the best source but the only viable source for post-sales installation and servicing of turbines of this class. Staff/300; Durrenberger/2.

In summary, PGE's use of Siemens for installation and some maintenance services was prudent and consistent with accepted industry practice. ICNU's argument to the contrary ignores the evidence, including the testimony of ICNU's own expert.

6. PGE's Reliance on Siemens' QA/QC Program was Prudent

PGE's reliance on Siemens' QA/QC program for manufacture and installation of the upgraded LP turbines was prudent and consistent with accepted

practices in the industry. PGE has addressed this issue in detail in its testimony and briefing, including its opening brief in this re-opened docket.

As Mr. Durrenberger of Staff testified, the appropriate question in assessing QA/QC is not whether PGE created separate QA/QC programs to govern Siemens, but whether Siemens had "robust QA/QC program and demonstrated conformance to the program and does the product/service conform to the specifications, form and function required by the owner?" Staff/300; Durrenberger/5. PGE required that Siemens have a QA/QC program that met industry standards. In its contract with Siemens for manufacture and installation of the LP turbines, PGE required that Siemens' QA/QC program be ISO 9001 certified. Mr. Durrenberger testified that Siemens' ISO 9001 certification supports the contention that Siemens had a robust QA/QC program. Staff/300; Durrenberger/5.

PGE personnel reviewed Siemens' QA/QC program and actively monitored Siemens' compliance with that program. Before and during the manufacture and installation of the upgraded turbines, PGE personnel reviewed the Siemens QA/QC program, examined material test reports, and made inspection visits to the manufacturing facilities during the manufacture of both LP turbine rotors and the HP/IP turbine rotor. During installation at the Boardman Plant, experienced PGE personnel reviewed Siemens QA/QC program and monitored Siemens' activities, including installation, interface problems, QA/QC program compliance and any material or program nonconformance. PGE/600; Kahl/2-6.

ICNU repeats its argument that Siemens did not have a QA/QC program for the LP turbine installation in addition to its program for the turbine manufacture. This

allegation is false. PGE's contract with Siemens required that Siemens have a QA/QC program for installation. PGE ensured that Siemens had that program in place during pre-installation meetings at Boardman. April 20 Transcript at 306:3-308:11; PGE/700; Quennoz/18. Siemens kept a copy of the QA/QC program on-site in its construction trailer and followed it during the installation. (*Id.*) Janet Kahl reviewed that program during the installation to ensure Siemens' compliance. April 20 Transcript at 291:12-292:2.

CUB argues for the first time that Ms. Kahl only looked at the Siemens QA/QC program twice. A fair reading of Ms. Kahl's written testimony and cross-examination does not support CUB's argument. The written QA/QC program was on-site at Boardman during the installation, and Ms. Kahl reviewed it to ensure Siemens' compliance. PGE/600; Kahl/2; April 20 Transcript at 291:3-6, 306:8-17. Elements of the QA/QC program such as drawings, data sheets, torque specifications and the like were used on a continuous basis during the upgrade. Ms. Kahl testified as to two specific times when she reviewed the program document, but there is nothing in her testimony to indicate that these were the only times she reviewed the documentation.

In summary, PGE ensured that Siemens had industry standard QA/QC programs in place for the manufacture and installation of the upgraded LP turbines. PGE personnel monitored Siemens' compliance with the QA/QC program during manufacture and installation. This is consistent with common and prudent industry practice.

7. PGE's Monitoring of Siemens

PGE actively monitored Siemens' manufacture, installation, and maintenance of the upgraded turbines. ICNU's and CUB's criticisms of PGE's

monitoring are focused on the supposed lack of experience of Ms. Kahl, who served as PGE's Quality Control Representative (PQCR) during the upgrade.

Ms. Kahl is a highly qualified professional engineer who performed her role in the upgrade diligently. She has provided the Commission with photographs, job notes and testimony about the upgrade. Further, Ms. Kahl was just one of more than 30 qualified PGE personnel who monitored Siemens work during the manufacture and installation of the upgraded components. PGE has provided a list of personnel and their qualifications. PGE/600; Kahl/6. In addition to those monitors, PGE used outside consultants like RK Ltd. and Stone & Webster to assist with monitoring, and analysis, as described in our opening brief. CUB and ICNU argue as if Ms. Kahl had monitored Siemens by herself, but the record shows otherwise.

PGE employees had significant experience in the installation and maintenance of the LP turbine components. After Boardman came online in 1980, Siemens and PGE staff inspected and overhauled the turbines every five years as part of major scheduled maintenance. During those outages, PGE staff would pull the rotors from the LP turbines for internal bore inspections, examine turbine components for wear, make minor repairs, and reinstall them. Loren Mayer, Bryan Timms and Tom Kingston, among others, assisted in those removals and replacements of the LP turbine components. PGE/700; Quennoz/13. Mr. Mayer, Mr. Timms and Mr. Kingston also participated in PGE's oversight of the LP turbine upgrade.

ICNU and CUB argue that PGE should have hired an outside engineer/constructor to monitor the LP turbine upgrade. PGE typically uses engineer/constructors to oversee the construction of new generating facilities, not for the

upgrade of an existing component at an existing facility. PGE/700; Quennoz/10-12. It is industry practice to use an engineer/constructor when constructing a new facility, which will encompass many disparate components manufactured by many different OEMs. This was not the case in the LP turbine upgrade, where PGE had a single OEM, Siemens. PGE/700; Quennoz/12.

In an upgrade like this one, no outside engineer/constructor will be able to duplicate the knowledge and experience of the OEM. PGE would typically hire an engineer/constructor for a project with multiple OEMs (like the construction of Port Westward or Boardman), because the engineer/constructor can work with multiple OEMs and with PGE. But in this case, PGE worked directly with Siemens, the OEM who manufactured the components PGE was replacing.

Further, as noted above, neither ICNU nor CUB identifies any aspect of Siemens' installation that they believe was performed incorrectly, or could have been done better with the services of an engineer/constructor. Nor have any of the root cause analyses pointed to any shortfall or deficiency in Siemens' installation of the LP turbines that they believe (1) caused the rotor crack, and (2) would likely have been caught by an engineer/constructor.

PGE employees and consultants also monitored the alignment of the LP turbines. PGE personnel were present for turbine alignments and measurements and verified the placement of turbine bearings and components during the alignment. April 20 Transcript at 272:3 – 275:21. PGE also continually monitored vibration and temperature readings along the turbine train during and after alignment to ensure that the readings were within acceptable limits while the turbines were operating. RK Ltd.,

monitored vibrations during every restart of the LP1 turbine between its installation and the 2005 outage, to provide further assurance that vibrations remained within acceptable levels. PGE/600; Kahl/8.

In sum, PGE prudently monitored Siemens installation and maintenance of the upgraded LP turbines through the use of qualified employees and third party consultants.

8. PGE's Operation of Boardman

Throughout these proceedings, CUB and ICNU have criticized various aspects of PGE's operations of the Boardman facility. As we have noted in previous briefing and testimony, neither of the outside root cause analyses performed in this case identified PGE's operations as a major cause of the crack. Nor did ICNU's expert, Mr. Martin. PGE/301 at 1.

ICNU and CUB continue to focus on the two missing sole plate nuts that PGE discovered, reported and replaced in 2006. These nuts were located on a sole plate secured with 32 nuts, which was not disturbed during the LP or HP/IP turbine upgrades. PGE/700; Quennoz/20-22. ICNU and CUB have speculated that the missing nuts may have been a contributing cause to increased vibration on the LP turbine, although the root cause analyses point to them as only one of several potential contributing causes. If the nuts were causing unusual vibration on the LP turbines, PGE's continual monitoring of vibration and temperature along the turbines would have detected it. But vibrations remained within normal limits for more than five years after the upgrade, despite the missing fasteners. Nowhere in this docket has ICNU or CUB even attempted to explain why, if these two missing nuts were actually causing an increase in vibration while the

turbine was operating, this increase did not show up in monitoring. CUB and ICNU have also speculated that increased vibrations could have caused damage to the pedestal on which the turbine rests (the so-called "soft foot" issue). In making this argument, they simply ignore the fact that after PGE discovered the missing nuts, independent testing showed no soft foot or damage to the base of the pedestal. There is no basis in this record to conclude that the missing sole plate nuts had any significant effect on of the LP turbines.

III. CONCLUSION

The evidence in the record shows that PGE acted prudently in connection with the upgrade of the LP1 turbine. For the reasons stated here and in PGE's previous briefing and testimony in this docket, applicant PGE respectfully requests that the Commission find that it has acted prudently and grant its application to amortize the full amount of the deferred expenses authorized in Order 07-049.

DATED this 7th day of August, 2009.

TONKON TORP LLP

By Paul W. Conable by Douglas Tingey
Paul W. Conable, OSB No. 975368
Attorneys for
Portland General Electric Company

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused **PORTLAND GENERAL ELECTRIC COMPANY'S REPLY BRIEF IN RE-OPENED DOCKET** to be served by electronic mail to those parties whose email addresses appear on the attached service list, and by First Class US Mail, postage prepaid and properly addressed, to those parties on the attached service list who have not waived paper service from OPUC Docket No. UE 196.

Dated at Portland, Oregon, this 7th day of August, 2009.

DOUGLAS C. TINGEY

SERVICE LIST

OPUC DOCKET # UE 196

G. CATRIONA McCRACKEN (C) Citizen's Utility Board of Oregon Utility Analyst catriona@oregoncub.org *Waived Paper Service	OPUC DOCKETS (C) Citizen's Utility Board of Oregon Energy Program Director dockets@oregoncub.org *Waived Paper Service
ROBERT JENKS (C) Citizen's Utility Board of Oregon Energy Program Director bob@oregoncub.org *Waived Paper Service	S.A. ANDERS (C) Citizen's Utility Board Office Administrator sa@oregoncub.org *Waived Paper Service
GORDON FEIGHNER (C) Citizen's Utility Board of Oregon Energy Analyst Gordon@oregoncub.org *Waived Paper Service	STEPHANIE S. ANDRUS (C) Assistant Attorney General Department of Justice Regulated Utility & Business Section 1162 NE Court Street NE Salem, OR 97301-4096 Stephanie.andrus@state.or.us
MELINDA J. DAVISON (C) Davison Van Cleve. P.C. 333 S.W. Taylor, Suite 400 Portland, OR 97204 mail@dvclaw.com	JOHN R. MARTIN (C) Pacific Energy Systems 15160 SW Laidlaw Rd, Ste. 110 Portland, OR 97229 johnm@pacificenergysystems.com
CARLA OWINGS (C) Revenue Requirements Analyst Oregon Public Utility Commission PO Box 2148 Salem, OR 97308-2148 Carla.m.owings@state.or.us	