

Exhibit No. CAT-40CT
Docket UE-152253
Witness: Chad A. Teply

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PACIFIC POWER & LIGHT
COMPANY,

Respondent.

DOCKET UE-152253

PACIFIC POWER & LIGHT COMPANY

**REDACTED SUPPLEMENTAL REBUTTAL TESTIMONY OF
CHAD A. TEPLY**

May 2016

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ATTACHED EXHIBITS

Exhibit No. CAT-41—Jim Bridger Units 3 and 4 Natural Gas Conversion Schedule

1 **Q. Are you the same Chad A. Teply who submitted direct and rebuttal testimony in**
2 **this case on behalf of Pacific Power & Light Company (Pacific Power or**
3 **Company), a division of PacifiCorp?**

4 A. Yes.

5 **PURPOSE AND SUMMARY OF TESTIMONY**

6 **Q. What is the purpose of your supplemental rebuttal testimony?**

7 A. My testimony responds to supplemental testimony of Mr. Jeremy B. Twitchell on
8 behalf of Staff of the Washington Utilities and Transportation Commission
9 (Commission), challenging the prudence of the Company's investments in selective
10 catalytic reduction systems (SCRs) at Units 3 and 4 of the Jim Bridger generating
11 plant (Jim Bridger Units 3 and 4).

12 **Q. Please identify the specific issues you address and the related issues addressed by**
13 **other Pacific Power witnesses.**

14 A. In response to Staff's supplemental testimony, I summarize the evidence supporting
15 the prudence of the Jim Bridger SCRs. I address Staff's new and overly simplistic
16 position that the Company should have cancelled the Jim Bridger SCRs on January 1,
17 2014, one month after issuing the full notice to proceed (FNTP) under the
18 engineering, procurement and construction services (EPC) contract. I demonstrate
19 the increased costs and risks of natural gas conversion triggered under a hypothetical,
20 post-FNTP cancellation and explain how these factors would have negatively
21 impacted the Company's analysis of this alternative. I also offer a proposal relating
22 to pre-investment review of future investments in coal plants to meet environmental
23 standards.

1 Ms. Cindy A. Crane addresses Staff's supplemental testimony regarding
2 alleged increases in coal costs in fall 2013. Ms. Crane reaffirms that there were no
3 increases in coal costs in fall 2013 that materially changed the economics of the Jim
4 Bridger SCRs. Ms. Crane demonstrates that Staff's supplemental analysis, when
5 corrected, ultimately supports the prudence of the Jim Bridger SCRs.

6 Mr. Rick T. Link responds to Staff's new position that the Company should
7 have updated its SCR analysis in January 2014. Mr. Link explains that Staff's
8 position improperly relies on hindsight review past the date of issuance of the FNTP,
9 an approach that Staff specifically argued against in its initial round of testimony.

10 **OVERVIEW OF EVIDENCE DEMONSTRATING COMPANY'S PRUDENCE**

11 **Q. Does Staff's approach to a prudence determination in this case ignore**
12 **significant, relevant evidence?**

13 A. Yes. Staff argues that the Commission should review the Company's decision based
14 on a snap-shot from a single day, which changed from December 1, 2013, to
15 January 1, 2014, after Staff realized that the earlier date did not support a claim that
16 the Company was imprudent. Staff's approach disregards virtually all of the evidence
17 that the Company handled this complex investment decision in a sophisticated and
18 responsible manner, holding the interests of its customers paramount at all times.

19 **Q. Please summarize the evidence supporting the prudence of the Jim Bridger**
20 **SCRs.**

21 A. In assessing the prudence of the Jim Bridger SCRs, the Commission must review
22 whether the Company made a reasonable business decision in light of the facts and
23 circumstances known or reasonably knowable to the Company in May 2013, subject

1 to reassessment for major changes through December 1, 2013. Viewed objectively
2 and holistically, the evidence shows that the Company acted reasonably. In fact, it
3 would have been difficult for the Company to justify the prudence of any decision
4 other than installing the Jim Bridger SCRs, since the economic analysis at all times
5 favored this investment over other options.

6 In 2012, the Company was facing fast-approaching Regional Haze compliance
7 deadlines for Jim Bridger Units 3 and 4. These units are the workhorses of the
8 Company's generation in the west control area and are critical to providing reliable
9 and affordable electric services to Washington customers. The analysis showed that
10 early retirement of these units was never a viable economic option. The Company
11 had two Regional Haze compliance options: invest in the Jim Bridger SCRs, or
12 propose conversion of the units to natural gas.

13 Using its System Optimizer model, the Company developed economic
14 analysis to compare these options under a range of scenarios using different natural
15 gas curves and carbon prices. The analysis showed that the SCR investment was the
16 most cost-effective compliance option for customers by several hundred million
17 dollars. Based on this analysis, in August 2012, the Company filed for a certificate of
18 public convenience and necessity (CPCN) in Wyoming and for voluntary SCR
19 investment pre-approval in Utah. In February 2013, the Company comprehensively
20 updated and refined its SCR analysis in these cases using its September 2012 official
21 forward price curve (OFPC) and its January 2013 long-term fueling plan for the Jim
22 Bridger plant. The results again decisively favored the Jim Bridger SCRs, this time
23 by approximately [REDACTED].

1 The Company incorporated its updated SCR analysis from February 2013 into
2 its 2013 integrated resource plan (IRP), filed in March 2013, with minor updates that
3 increased the benefits of the Jim Bridger SCRs.

4 The Company's SCR analysis was fully litigated in Utah and Wyoming. In
5 May 2013, both commissions concluded that the SCR investment was the least-cost,
6 least-risk compliance option available to the Company. Sierra Club participated in
7 both cases, unsuccessfully raising many issues similar to issues it has raised in this
8 case.

9 After the Wyoming and Utah commissions approved the Jim Bridger SCRs,
10 the Company conducted another review to support its decision to execute the EPC
11 contract, which was supported by voluminous documentation and analysis. In late
12 May 2013, the Company's President and Chief Executive Officer authorized the Jim
13 Bridger SCRs based on this analysis, in accordance with the Company's governance
14 policies.

15 To minimize the risks of the Jim Bridger SCRs for customers, the Company
16 negotiated an innovative EPC contract that allowed the Company to delay significant
17 investment in the Jim Bridger SCRs to the last possible date, December 1, 2013,
18 while still ensuring that the Company could cost-effectively meet its compliance
19 deadlines. The EPC contract allows the Company to withdraw without penalty if
20 material changes before December 1, 2013, impacted the economics or the
21 Company's ability to implement the SCR projects.

22 Before issuing the FNTP, the Company reviewed all key decision factors,
23 including: (1) its most recent OFPC (dated September 2013), which remained well

1 above the SCR's break-even point; (2) 10-year budget projections that showed that
2 Jim Bridger coal costs were not projected to increase significantly; and (3) a
3 [REDACTED] cost reduction the Company negotiated in the EPC contract. The
4 Company also verified that none of its third-party forecast providers had projected
5 increases in carbon costs in response to President Obama's June 2013 Presidential
6 Memorandum regarding carbon emissions. The Company's update responded to the
7 Commission's 2013 IRP acknowledgement letter in November 2013, which asked the
8 Company to review the natural gas and carbon price assumptions in its SCR analysis.
9 The Company reported the results of its review to the Commission in a separate
10 appendix to its 2013 IRP Update.

11 I personally conducted this review of the Jim Bridger SCR investment and
12 recommended issuance of the FNTP. I would not have recommended issuance of the
13 FNTP without considering all material factors and determining that the SCR
14 investment remained the best compliance choice for customers. During the same
15 timeframe, the Company elected to close other coal plants or pursue conversion to
16 natural gas. In each case, the Company's decision was based on the economics of the
17 compliance option for customers, not a predetermined preference or investment
18 agenda.

19 The Company carefully managed the Jim Bridger SCR EPC contract and
20 ensured that the Jim Bridger Unit 3 SCR was completed on time and under budget.
21 Jim Bridger Unit 3 would not currently be operable and serving customers but for the
22 SCR investment. The SCR at Jim Bridger Unit 4 is also on time and under budget,
23 and the Company expects to meet the Regional Haze compliance deadline for that

1 unit, avoiding any unanticipated disruption in service.

2 **Q. Does Staff's updated analysis take into account all of the information that the**
3 **Company knew as of December 2013?**

4 A. No. As I described above, Staff's supplemental testimony ignores much of the
5 evidence in this case demonstrating the prudence of the Jim Bridger SCRs. Among
6 these facts is the increase in SCR benefits associated with the [REDACTED] reduction in
7 EPC contract costs known at the time.

8 POST-FNTP CANCELLATION

9 **Q. Staff contends that the Company could have reversed its decision to issue the**
10 **FNTP and pursued natural gas conversion in January 2014 by simply paying a**
11 **termination fee under the EPC contract. Is this correct?**

12 A. No. Cancelling a major environmental compliance project mid-stream is much more
13 than just a paper exercise, as those objecting to the Jim Bridger SCRs would lead the
14 Commission to believe. As described in my rebuttal testimony, prudent management
15 of a complex multi-year, multi-jurisdictional project like the Jim Bridger SCRs
16 included parallel path environmental agency permitting, regulatory reviews, and
17 major commercial negotiations. If the Company changed course in January 2014
18 with less than two years before the initial compliance deadline at Jim Bridger Unit 3,
19 the costs and risks of natural gas conversion would have been higher than was
20 projected in the SCR analysis, which assumed normal permitting and construction
21 timelines. For these reasons, cancelling the SCRs in January 2014 would have been
22 imprudent absent an undisputable reversal of project economics, new or changed

1 environmental compliance requirements, changes to legislative policies impacting the
2 resource for all customers, or similar major events. None of those things occurred.

3 **Q. Please explain why the costs of natural gas conversion would have been higher**
4 **than assumed in the Company's SCR analysis if the Company cancelled the EPC**
5 **contract on January 1, 2014.**

6 A. Staff suggests that the only cost increase and impact associated with a January 1,
7 2014 cancellation of the EPC contract is the termination fee (which was [REDACTED]
8 more than the termination fee associated with not issuing the FNTP in December
9 2013),¹ but this would have been only one part of the impact.

10 The natural gas conversion costs included in the SCR analysis assumed
11 normal project permitting, review, and construction schedules, which would have
12 begun in 2012 and would have resulted in in-service dates for the natural gas
13 conversions shortly after the prescribed compliance deadlines for the units and before
14 the 2016 and 2017 peak capacity seasons, respectively. But if the Company chose to
15 pursue natural gas conversion on January 1, 2014, as Staff suggests, the permitting,
16 procurement, and construction schedules for the natural gas conversion projects
17 would have required significant compression to attempt completion of the projects
18 before the 2016 and 2017 summer peak capacity seasons, if that were possible at all.
19 Before beginning construction, the Company would have needed to secure necessary
20 permits and environmental agency approvals, rescind and resubmit necessary
21 regulatory filings including those affecting a CPCN from the Wyoming commission,
22 and procure and execute a new EPC contract. Based on the Company's experience
23 with Regional Haze permit and state implementation plan amendments in the state of

¹ Twitchell, Exh. No. JBT-28HCT 30:1-14.

1 Wyoming, this process could have conservatively taken 24 months to complete for
2 conversion of Jim Bridger Units 3 and 4. Applying this timeframe to a decision in
3 January 2014, the Company would have been approved to proceed by year-end 2015,
4 leaving an impracticable six months to implement the Jim Bridger Unit 3 project
5 before the 2016 summer peak season. Such a timeline would necessarily increase the
6 analyzed costs of the gas conversion scenario, either because the project would need
7 to be expedited or because the unit would need to be shuttered for noncompliance
8 pending completion of the retrofit, or both. See Exhibit CAT-41 for a representative
9 timeline of the activities required to convert Bridger Units 3 and 4 to natural gas
10 under this hypothetical.

11 In addition, by January 2014, based on information from the competitive
12 market bids for the Naughton Unit 3 natural gas conversion EPC contract, the
13 Company knew that implementation costs for that project were significantly higher—
14 on an order of magnitude of [REDACTED]—than originally anticipated. Correlating that
15 information to an assessment of natural gas conversion for Jim Bridger Units 3 and 4
16 in January 2014, the Company would have understood that its original cost
17 projections for this alternative were understated. This would have negatively
18 impacted the competitiveness of the natural gas conversion alternative in the
19 Company's assessment and associated decision-making.

20 **Q. Are there any other factors that the Company would have considered if**
21 **conditions had dictated terminating the EPC contract?**

22 A. Yes. Jim Bridger provides low-cost, base load generation to serve Washington
23 customers, and it is the backbone of the Company's generating plants included in the

1 west control area. Mr. Link's direct testimony indicated that the SCR analysis
2 produced substantially greater benefits for Washington customers if the analysis was
3 conducted on a west control area basis.² Although the Company did not rely on a
4 west control area analysis in its decision-making, this analysis provides quantitative
5 and qualitative evidence that the Jim Bridger SCRs are in the best interests of
6 Washington customers and that a different compliance decision would have an
7 amplified negative affect on those customers.

8 PROPOSAL FOR FUTURE PRE-INVESTMENT REVIEW

9 **Q. Does the Company have a proposal to avoid this kind of litigation over the**
10 **prudence of future environmental compliance investments in coal plants in the**
11 **west control area?**

12 A. Yes. To avoid future controversies in Washington regarding major compliance
13 investments in coal plants in the west control area (including Jim Bridger Units 1
14 and 2), the Company proposes to bring any such decision to the Commission before
15 the investment is made, allowing the Commission an opportunity to review the
16 investment. Through such a process, the Commission can ensure that future
17 environmental compliance investments in coal plants are economically viable for
18 Washington customers before the Company makes final investment decisions.

19 **Q. Has the Commission indicated an openness to engaging with utilities earlier in**
20 **decision-making processes for coal-related investments?**

21 A. Yes. I understand that when acknowledging Puget Sound Energy's (PSE) 2013 IRP
22 in 2014, the Commission noted that it has historically used post-investment prudence

² Link, Exh. No. RLT-ICT 14:9 – 18:2.

1 reviews “to protect ratepayers from excessively risky investment.”³ The Commission
2 observed, however, that reliance on that regulatory mechanism would not necessarily
3 serve the public interest for coal-plant-related investments.⁴ Thus, the Commission
4 suggested that PSE work with Staff to consider a pre-approval process to determine
5 the prudence of future coal plant investments.⁵ The Company would support a
6 similar approach if the Commission believes it would be helpful in evaluating future
7 decisions for coal-related investments in the west control area.

8 **Q. Does this conclude your supplemental rebuttal testimony?**

9 **A. Yes.**

³ *Puget Sound Energy’s 2013 Electric and Natural Gas Integrated Resource Plan*, Dockets UE-120767 & UG-120768, Acknowledgment Letter, Attachment B at 14-15 (Feb. 6, 2014).

⁴ *Id.*

⁵ *Id.*

this Agreement, and, except to the extent expressly set forth in this Agreement, no Party shall be deemed to have agreed that this Agreement is appropriate for resolving any issues in any other proceeding.

55 Public Interest. The Parties agree that this Agreement is in the public interest.

56 Execution. This Agreement may be executed by the Parties in several counterparts and as executed shall constitute a single settlement agreement.

Entered into this _____ day of May 2016.

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