

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

**PACIFIC POWER & LIGHT
COMPANY,**

Respondent.

**DOCKETS UE-140762 and UE-140617
(consolidated)**

In the Matter of the Petition of

**PACIFIC POWER & LIGHT
COMPANY,**

**For an Order Approving Deferral of
Costs Related to Colstrip Outage.**

DOCKET UE-131384 (consolidated)

In the Matter of the Petition of

**PACIFIC POWER & LIGHT
COMPANY,**

**For an Order Approving Deferral of
Costs Related to Declining Hydro
Generation.**

DOCKET UE-140094 (consolidated)

**PACIFIC POWER & LIGHT COMPANY
REBUTTAL TESTIMONY OF RICHARD A. VAIL**

November 2014

TABLE OF CONTENTS

PURPOSE OF TESTIMONY..... 1
UNION GAP SUBSTATION UPGRADE..... 1
SELAH SUBSTATION CAPACITY RELIEF 5
FRY SUBSTATION..... 7

1 **Q. Are you the same Richard A. Vail who previously submitted direct 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 OF TESTIMONY**

6 **Q. What is the purpose of your rebuttal testimony in this proceeding?**

7 A. The purpose of my rebuttal testimony is to respond to plant adjustments proposed by
8 Mr. Bradley G. Mullins on behalf of Boise White Paper, LLC (Boise) related to three
9 projects: the Union Gap Substation Upgrade project; the Selah Substation Capacity
10 Relief project; and the Fry Substation project.

11 Specifically, I will demonstrate that Boise's proposed plant addition
12 adjustments for these projects should be rejected and the Company should be allowed
13 to recover the costs associated with these plant additions because these projects will
14 be used and useful before the rate-effective date and will provide benefits to
15 Washington customers.

16 **UNION GAP SUBSTATION UPGRADE**

17 **Q. Please describe the Union Gap Substation Upgrade project.**

18 A. The project involves relocating the existing distribution portion of the substation,
19 replacing two existing 115/12.47 kilovolt (kV) transformers with one 25 Mega Volt
20 Ampere (MVA) 115/12.47 kV transformer and relocating the third existing 115/12.47
21 kV transformer within the substation, where it will continue to be used and useful.
22 The project is necessary to maintain system reliability and compliance with mandated
23 North American Electric Reliability Corporation (NERC) reliability standards.

1 **Q. What is Boise’s proposal regarding the Union Gap Substation Upgrade?**

2 A. Boise proposes to exclude the estimated \$8.65 million in project costs associated with
3 the first sequence of work for the Union Gap Substation Upgrade.¹ Boise claims that
4 there are no distinct benefits from each of the three sequences of work associated with
5 this project and, in particular, that the costs cannot be known and measurable and the
6 assets are not used and useful until the final phase of the project is complete. Boise
7 also assumes that the two existing 115/12.47 kV transformers replaced as part of the
8 first sequence of work would have remained in service had it not been necessary to
9 move them. Boise further claims that while the first sequence of work relates to
10 distribution-level assets specifically, those costs should be functionalized as
11 transmission costs and allocated accordingly under the West Control Area inter-
12 jurisdictional allocation methodology (WCA).

13 **Q. Do you agree with Boise’s proposal?**

14 A. No. This project is prudent and necessary to continue to provide safe and reliable
15 service to Washington customers and to meet mandated NERC reliability standards.

16 **Q. Do you agree with Boise’s assertion that the first sequence of work does not
17 provide benefits until all of the sequences are complete?**

18 A. No. Each of the three sequences of work provides distinct known and measurable
19 benefits to Washington customers. The project was intentionally designed in three
20 sequences to avoid extended outages and to allow assets to be placed in service as
21 they become used and useful and begin providing benefits to customers. Specifically,
22 the first sequence of work included in this case will complete the distribution work
23 for this project. When construction for the first sequence is complete, all of the

¹ Responsive Testimony of Bradley G. Mullins, Exhibit No. BGM-1CT at 13-14.

1 associated equipment, including the distribution transformers, switchgear, and related
2 assets, will be fully used and useful to serve the local area distribution load. In
3 addition, the first sequence provides benefits by increasing distribution capacity,
4 replacing aged equipment, and mitigating protection system exposures.

5 **Q. Boise assumes that the two 115/12.47 kV transformers replaced in the first**
6 **sequence of work may have otherwise remained in service had it not been**
7 **necessary to move them.² Do you agree with this assumption?**

8 A. No. The two delivery-voltage transformers that will be removed from service are
9 aged assets showing signs of deterioration. One was placed in service in 1931 and the
10 other in 1941. The transformers were not identified on a separate replacement
11 schedule because they were already part of this project design and replaced as a
12 result. Moving the two transformers was necessary to reconfigure the distribution
13 portion of the substation to provide additional physical space to install new equipment
14 and facilities in the existing substation. Due to the age and condition of the 1931 and
15 1941 vintage transformers and the amount of physical space they occupy, it was
16 determined to be infeasible and not cost effective to overhaul the existing banks and
17 construct the additional foundations and structures necessary to relocate the two
18 existing transformers to the new distribution area of the substation. Instead, a single
19 new 115/12.47 kV, 25 MVA transformer was purchased and installed to replace the
20 two transformers. The third existing 115/12.47 kV transformer, a 20 MVA
21 transformer originally placed in service in 1974, was determined to be in good
22 condition and is being relocated in Union Gap Substation as part of this project and
23 will continue to be used and useful for distribution load service.

² Responsive Testimony of Bradley G. Mullins, Exhibit No. BGM-1CT at 14.

1 **Q. Did the Company consider designing the first sequence of work to allow for the**
2 **two transformers to remain in service or other alternative designs?**

3 A. Yes. But trying to complete the project within the constraints of the existing
4 substation would have required extended outages that could have compromised the
5 reliability and operational flexibility of the system in this area. An alternative to
6 leaving the existing 115/12.47 kV transformers in place was to construct a new
7 adjacent substation that would have significantly increased project costs and delayed
8 the in-service date of the project. In addition, it would not have addressed reliability
9 issues given the age of the transformers. Reconfiguring the distribution portion of the
10 substation was the preferred option, providing an improved and modern distribution
11 substation at the least cost and with the least risk of extended outages. The associated
12 distribution equipment and related assets of the first sequence provide benefits
13 including 4 MVA of increased distribution capacity to serve local load, replacement
14 of aged equipment and structures, mitigation of protection system exposures, and
15 reduced future maintenance costs as any maintenance on the 115 kV main or bypass
16 buses at the substation historically required use of a mobile transformer to serve the
17 distribution load while the work was being completed. This is no longer required
18 following completion of the first sequence of work. Without the improvements
19 provided from the first sequence of work, the distribution substation would have less
20 distribution capacity, would prolong the use of aged assets, and would result in
21 continuing protection system exposures that could lead to outages and reduced
22 reliability.

1 **Q. Do you agree with Boise's claim that the project costs should be functionalized**
2 **and allocated to Washington as transmission?**³

3 A. No. The project costs associated with the first sequence of work are appropriately
4 classified as distribution based on the function of the asset. Generally, assets
5 supporting voltages 46 kV and above are considered to be used and useful for
6 transmission purposes, but assets supporting voltages 46 kV and below are considered
7 to be used and useful for distribution purposes. The first sequence of work involves
8 distribution assets including, but not limited to, three 115/12.47 kV distribution
9 substation transformers, 12.47 kV switchgear, foundations, steel structures,
10 transrouters, cables, conductors, and pad vaults necessary to provide distribution
11 delivery service to the local area surrounding the Union Gap substation.

12 **Q. Has the first sequence of work been placed into service and is it used and useful?**

13 A. The activities associated with the first sequence of work are complete and were
14 placed in service in August 2014, except for the associated transformer relocation
15 work. The one 115/12.47 kV transformer that is being relocated in the substation
16 required a complete overhaul that could not be done until after the new 115/12.47 kV
17 transformer was energized and placed in service. The relocation of this transformer
18 will be completed in November 2014, concluding the first sequence of work and
19 providing known and measurable benefits to Washington customers.

20 **SELAH SUBSTATION CAPACITY RELIEF**

21 **Q. Please describe the Selah Substation Capacity Relief project.**

22 A. This project is prudent and necessary to provide a new 115/12.47 kV distribution
23 source at the Pomona Heights substation located north of Yakima, Washington. The

³ Responsive Testimony of Bradley G. Mullins, Exhibit No. BGM-1CT at 14-15.

1 project will alleviate overloading on the transformers at the Selah and Wenas
2 substations, as described in more detail in my direct testimony.

3 **Q. What is the pro forma capital adjustment proposed by Boise for the Selah**
4 **Substation Capacity Relief project?**

5 A. Boise proposes to exclude the project costs associated with the Selah Substation
6 Capacity Relief project.⁴ Boise claims that the project costs increased by nine percent
7 between December 2013 and July 2014 and therefore the costs are not known and
8 measurable. Boise also claims that the project may not be placed into service by the
9 time of hearing, but offers no evidence to support this claim.

10 **Q. Are there any inaccuracies in Boise's testimony related to this project?**

11 A. Yes. Boise incorrectly states that the Selah Substation Capacity Relief project was
12 expected to be placed into service in December 2013. This is incorrect. As included
13 in my direct testimony this project is estimated to be placed into service in December
14 2014.

15 **Q. Do you expect the Selah Substation Capacity Relief project to be in service by**
16 **December 2014?**

17 A. Yes. Construction began in July 2014 and the project is 85 percent complete through
18 October 2014. It is anticipated that all construction work will be completed in
19 November 2014. Final project testing and commissioning work will finish in
20 December 2014, at which point the project will be placed into service.

21 **Q. Please explain the variance in estimated project costs.**

22 A. The increased project costs between December 2013 and July 214 were due to
23 increased contractor and material costs. Now that the project is substantially

⁴ Responsive Testimony of Bradley G. Mullins, Exhibit No. BGM-1CT at 15.

1 complete, I do not expect significant changes to the project costs. Thus, the costs of
2 this project are known and measurable.

3 **FRY SUBSTATION**

4 **Q. Please explain the Fry Substation project.**

5 A. The Fry Substation project involves installing two 20 MVA and two 30 MVA
6 capacitor banks and three 115 kV breakers connecting to the existing bus at the
7 substation. The project is prudent and necessary for the Company to continue to
8 provide safe and reliable service to customers, to meet mandated NERC reliability
9 standards, and to alleviate voltage overloads.

10 **Q. What is the pro forma capital adjustment proposed by Boise for the Fry
11 Substation project?**

12 A. Boise proposes to exclude the project costs associated with the Fry Substation project
13 due to alleged “uncertainty surrounding when the facility will be placed in service.”⁵
14 Boise also claims that the costs of the project are uncertain.

15 **Q. Do you agree that the costs of this project should be excluded from the
16 Company’s revenue requirement?**

17 A. No.

18 **Q. Please explain why the in service date has moved from December 2014 (as
19 reflected in the Company’s initial filing) to February 2015.**

20 A. In July 2014, the Company moved the expected in-service date three months, from
21 December 2014 to February 2015. The in-service date adjustment allowed
22 sequencing of system facility outages that are required to complete the remaining

⁵ Responsive Testimony of Bradley G. Mullins, Exhibit No. BGM-1CT at 15.

1 construction work. The additional time is also necessary to allow for testing and
2 commissioning of the equipment and control panels associated with the project.

3 **Q. Do you expect the Fry Substation project to be placed in service before the rate**
4 **effective date?**

5 A. Yes. Construction began in August 2014 and the project is 46 percent complete
6 through October 2014. All the necessary outages have been scheduled and the
7 facility upgrades are scheduled to be complete by the end of the last outage, which is
8 scheduled to conclude on February 24, 2015. As a result, it is anticipated all work
9 will be complete by March 2015 and the project placed into service before the rate
10 effective date.

11 **Q. What are the current estimated project costs?**

12 A. The project cost included in the initial filing was based on an estimate of
13 \$6.38 million that was developed before the Company chose a contractor. Following
14 award of the contractor bid in late July 2014, nearly three months after the
15 Company's initial filing, the estimated project cost was updated to \$7.95 million. The
16 selected contractor provided the lowest bid for this project.

17 **Q. Does this conclude your rebuttal testimony?**

18 A. Yes.