

November 8, 2012

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Washington Utilities and Transportation Commission

1300 S. Evergreen Park Drive SW

P.O. Box 47250

Olympia, WA 98504-7250

Attention: David Danner  
 Executive Secretary

**RE: Letter from Mike Hale, Boise, Inc., dated October 10, 2012**

**Docket UE-121680**

Dear Mr. Danner:

On October 26, 2012, Pacific Power & Light Company (PacifiCorp or the Company) received correspondence from the Washington Utilities and Transportation Commission (the Commission) offering the Company an opportunity to respond to a letter from Mike Hale, Boise, Inc. (Boise), dated October 10, 2012, concerning allegations of reliability issues at Boise’s Wallula Mill.

As outlined below, PacifiCorp has done extensive work to the infrastructure that serves Boise’s Cascade Kraft Substation, which serves Boise’s Wallula Mill, as committed to in MidAmerican Energy Holdings Company (MEHC) transaction commitment Wa25.[[1]](#footnote-1) These improvements to the system operate to protect the Wallula Mill and are operating as intended. After reviewing the information contained in this response, the Company is confident the Commission will agree that a formal investigation into these allegations is unwarranted. PacifiCorp recommends that the Joint Reliability Taskforce and reliability plans that have been created from the studies performed on Boise’s facility, as well as implementation of a new policy described in the section “*2012 Lightning Stroke Occurrences”* below, will act as a guideline to resolve further issues.

*Transaction Commitment*

As part of MEHC transaction commitment Wa25 (Transaction Commitment), PacifiCorp committed to take specific actions described in the Cascade Kraft Substation Outage and Power Quality Study dated January 10, 2005 (2005 Study).[[2]](#footnote-2) PacifiCorp committed to certain action items to increase power quality and improve reliability to Boise’s facility in Wallula, Washington.

The Transaction Commitment required PacifiCorp to do the following: complete installation of upgraded transformer primary protection for PacifiCorp transformers in the Kraft Substation and install transrupters in place of fuses; replace PacifiCorp’s fixed capacitor banks in the Kraft Substation with units not causing voltage transients when switched on, and mitigate harmonic currents and voltage distortion; prepare an engineering study analyzing the cost of installing adequate lightning protection to the 69kV sub-transmission system that is interconnected to the Cascade Kraft Substation; prepare an engineering study analyzing the cost of installing adequate lightning protection to the 230 kV transmission system that is interconnected to the Wallula substation; control vegetation near the 230 kV structures; complete and continue training of system operators to mitigate human errors; and upgrade Dodd Road Substation facilities to reduce potential for faults on the secondary.[[3]](#footnote-3)

As consistently shown in PacifiCorp’s annual reports to the Commission detailing its progress with meeting all MEHC transaction commitments, compliance with the Transaction Commitment is complete, with the commitment to vegetation management and training system operators, ongoing.[[4]](#footnote-4) Of particular importance was the issue of protection from lightening strokes, the studies of the 69 kV sub-transmission system and the 230 kV transmission system were to be completed within 12 months after the close of the MEHC transaction. On March 19, 2007, a report specifying the actions that PacifiCorp had made was supplied to Boise and the Commission Staff and filed in Docket UE-051090. Boise has never previously disputed whether PacifiCorp had met the conditions set forth in the Transaction Commitment.

Improvements compliant with the Transaction Commitment were completed by April 2008. The Company has replaced high side fuses with transrupters, performed studies on harmonics, installed filter capacitors, maintained vegetation management practices to make facilities more resilient to wild fire and continued on-going operator training, to name a few of the tasks performed to ensure reliable service at Boise’s facilities. PacifiCorp has invested more than $1.6 million to comply with the Transaction Commitment.

*Alternative Measures*

Alternative measures were analyzed in the 2005 Study to reduce voltage fluctuations in the 69 kV transmission lines serving the Cascade Kraft Substation. These alternative measures were deemed imprudent from a cost-effectiveness measurement and would *not* have provided more-effective protection in the event of lightning strikes or voltage sags. At the time of the financial analysis, even with a $2.6 million contribution from Boise, the overall project would have required a contribution from other Washington customers in excess of $4 million. In addition, the 2005 Study recognized issues that exist with arrestors, including a high rate of failure, compromising performance of the lines. Similarly, lightning performance on the 230 kV transmission lines would not have been improved by adding line arrestors, thus there would be no significant service improvement to the Cascade Kraft Substation because many of the reported plant interruptions are the result of momentary transmission system operations upstream from the 69 kV transmission lines serving the plant.

*Joint Reliability Taskforce*

As an on-going commitment to resolve reliability issues through an agreed-upon plan, the 2005 Study outlines bi-annual meetings of a “Joint Reliability Taskforce” at the Wallula Mill to be coordinated by PacifiCorp. Throughout the period between 2007 and 2011, Boise reported to PacifiCorp in the Joint Reliability Taskforce meetings that the agreed-upon reliability plan was working and the plant had seen improvement. These statements are supported in Boise’s tracking of outages during that same period.[[5]](#footnote-5) As agreed, in the earlier years Boise tracked outage information at the plant in order to inform the Joint Reliability Taskforce of the plant’s reliability. This documentation indicates that after the Transaction Commitment improvements were completed (March 2008) Boise experienced only two outages between 2008 and 2010, after which, Boise stopped tracking the outages. One outage was recorded on June 30, 2008 and one on July 8, 2010. Further, the documentation notes zero outages in 2009.

*2012 Lightning Stroke Occurrences*

During July and August 2012, Boise experienced three momentary interruptions and a single sustained interruption. Attachment D to this response will show that the year 2012 was an unusually high lightning season, resulting in numerous events on the transmission system (approximately 2 ½ times the ten-year average), many of which did not affect the Cascade Kraft Substation, due to work undertaken by the Company over the last 10 years.[[6]](#footnote-6) Of greatest duration is the July 19, 2012 outage referred to in Boise’s letter to the Commission, which was the result of a -15.7 kA lightning strike about 4.3 miles from the plant, where the strike resulted in either a direct strike or flashover on the two parallel 69kV lines that serve the plant.  This activated PacifiCorp’s protection system, which cleared the faults that both lines recorded. The system operated exactly as designed, interrupting the power flow and providing protection to the equipment. As a result of the system protection operation, the Company dispatched personnel to patrol the transmission system to ensure that the system was intact.

One of the biggest challenges to serving the area surrounding Boise’s Wallula Mill is the possibility of wild land fires. PacifiCorp has policies in place to mitigate the possibility of fires in the event of an outage.  During the summer fire season, the Company maintains a “no test” policy.  This entails not energizing conductors until there is acknowledgment by local personnel that there is no downed conductor.  The reason for this policy is to prevent ignition that could occur if a conductor were lying on the ground after a fault event when test-energized.  This practice can result in an extended outage on transmission lines, but limits the potential for wild land fires.

The Joint Reliability Taskforce met on August 10, 2012 to review the recent outages. Explanations of the significant anomalous lightning season, the resilience with which the system had operated during this season and fire mitigation policies were provided during this meeting. After hearing Boise’s concerns at the August 10, 2012, Joint Reliability Taskforce meeting, PacifiCorp thoroughly evaluated the system configuration and considered risks associated with operating key pieces of equipment. As a result, the Company has developed a customized, modified “no-test” procedure designed to minimize the duration of the outages affecting Cascade Kraft Substation during the summer fire season.  These procedures would likely shorten the outage to approximately half an hour, unless there were imminent fire dangers. PacifiCorp actions were consistent with this policy when responding to the July 19, 2012 outage at the Wallula Mill.

*Boise’s Responsibilities*

In 2002, a harmonic and power factor study was performed that recommended Boise install 19,200 KVAR of capacitors. These capacitors maintain the proper level of VARS that will reduce the likelihood of voltage sags, one of the contributing factors to plant disruptions experienced at Boise’s plant. Boise previously agreed to install, maintain and run these capacitors inside the plant. Activating these capacitors would make the Wallula Mill much more resistant to voltage fluctuations. Until Boise completes its commitment to install and activate these capacitors, it will not experience the full benefit of the upgrades PacifiCorp has made to date on its infrastructure. PacifiCorp has communicated the importance of these improvements to Boise in the Joint Reliability Taskforce meetings as well as in an email to Doug Hester at Boise on July 15, 2005. [[7]](#footnote-7) Further, these capacitors have been the topic of discussions at the Joint Reliability Taskforce meetings in 2008, 2009 and 2011. To PacifiCorp’s knowledge, these capacitors have never been activated, thus contributing to a greater potential for voltage fluctuations and plant interruptions.

PacifiCorp’s Washington Rule 13, Continuity of Electrical Service and Interruption (Rule 13), in PacifiCorp’s tariff provides additional guidance on the Company’s obligation to provide continuity of electric service and its liability in the circumstance of interruptions due to causes beyond the Company’s control. Section A, of Rule 13 clearly points out that the Company shall have no liability for any interruption, or loss of damage for events reasonably beyond the Company’s control.

Although a utility cannot guarantee energy to flow to a facility at every hour of every day, PacifiCorp strives to maintain safe and reliable service. There are many types of operations whose success is dependent upon a constant flow of energy (e.g., hospitals or medical facilities). It is incumbent upon those operators to design a system with sufficient redundancy and with sufficient resiliency to minor voltage fluctuations so as to protect its operations from catastrophic failures in the case of an occurrence beyond the control of the utility. PacifiCorp believes Boise is not exempt from that responsibility.

In summary, PacifiCorp appreciates the opportunity to respond to Boise’s allegations. Boise is a valued customer with which PacifiCorp seeks to have a positive operating relationship. PacifiCorp firmly believes it has fulfilled the Transaction Commitment and has continued to work cooperatively with Boise to ensure reliability. The Company is confident that the Commission will conclude that PacifiCorp has complied with the Transaction Commitment, sought to maintain an open line of dialogue with Boise, has taken reasonable and prudent steps to improve reliability to Boise, and does indeed provide safe, adequate and reliable service to Boise.

If you have any questions please contact William R. Griffith, Vice President, Regulation at (503) 813-6051 or Patrick S. Egan, Vice President, Community Affairs at (503) 813-6165.

Sincerely,

R. Patrick Reiten

President & CEO

Enclosures

Cc: Mike Hale, Boise, Inc.

1. Appendix A, Order 07, as amended by Order 08, Docket UE-051090 (2006). [↑](#footnote-ref-1)
2. See Attachment A to this response also filed in Docket UE-051090. [↑](#footnote-ref-2)
3. See Attachment B, Transaction Commitment Wa25(a). [↑](#footnote-ref-3)
4. These reports were filed in Docket UE-051090. [↑](#footnote-ref-4)
5. See Attachment C, Power Bumps. [↑](#footnote-ref-5)
6. Attachment D is a Stroke Density Map prepared by Vaisala. [↑](#footnote-ref-6)
7. Also see Attachment B, 2005 Cascade Kraft Substation Outage and power Quality Study, page 1. [↑](#footnote-ref-7)