

# McDowell & Rackner PC



KATHERINE MCDOWELL  
Direct (503) 595-3924  
katherine@mcd-law.com

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## VIA ELECTRONIC FILING AND U.S. MAIL

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**Re: Docket No. UM 1355**

Enclosed for filing in the above-referenced docket are an original and five copies of PacifiCorp's Reply Brief.

A copy of this filing has been served on all parties to this proceeding as indicated on the attached certificate of service.

Very truly yours,

A handwritten signature in black ink, appearing to be 'Katherine McDowell', written over a horizontal line.

Katherine McDowell

cc: Service List

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**CERTIFICATE OF SERVICE**

I hereby certify that I served a true and correct copy of the foregoing document in Docket UM 1355 on the following named person(s) on the date indicated below by email and first-class mail addressed to said person(s) at his or her last-known address(es) indicated below.

Michael Weirich  
Department Of Justice  
1162 Court St NE  
Salem, OR 97301-4096  
michael.weirich@state.or.us

Kelcey Brown  
Public Utility Commission of Oregon  
PO Box 2148  
Salem, OR 97301  
Kelcey.brown@state.or.us

Melinda J. Davison  
Davison Van Cleve P C  
333 SW Taylor- Ste 400  
Portland, OR 97204  
mail@dvclaw.com

Randall J. Falkenberg  
RFI Consulting, Inc  
PMB 362  
8343 Roswell Rd  
Sandy Springs, GA 30350  
consultrfi@aol.com

Patrick Hager  
Rates and Regulatory Affairs  
Portland General Electric  
121 SW Salmon St 1WTC0702  
Portland, OR 97204  
pge.opuc filings@pgn.com

Douglas Tingey  
Portland General Electric  
121 SW Salmon 1WTC1301  
Portland, OR 97204  
doug.tingey@pgn.com

Catriona McCracken  
Citizens' Utility Board of Oregon  
catriona@oregoncub.org

OPUC Dockets  
Citizens Utility Board Of Oregon  
dockets@oregoncub.org

Robert Jenks  
Citizens' Utility Board Of Oregon  
bob@oregoncub.org

Gordon Feighner  
Citizens' Utility Board of Oregon  
Gordon@oregoncub.org

Lisa Nordstrom  
Idaho Power Company  
lnordstrom@idahopower.com

Barton Kline  
Idaho Power Company  
bkline@idahopower.com

Gregory Said  
Idaho Power Company  
gsaid@idahopower.com

Christa Bearry  
Idaho Power Company  
cbearry@idahopower.com

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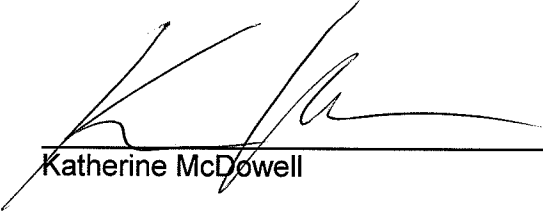
Scott Wright  
Idaho Power Company  
swright@idahopower.com

Tim Tatum  
Idaho Power Company  
ttatum@idahopower.com

Wendy McIndoo  
McDowell & Rackner  
wendy@mcd-law.com

Lisa Rackner  
McDowell & Rackner  
lisa@mcd-law.com

DATED: September 24, 2009



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Katherine McDowell

1 **BEFORE THE PUBLIC UTILITY COMMISSION**  
2 **OF OREGON**

3 **UM 1355**

4 In the Matter of

5 THE PUBLIC UTILITY COMMISSION  
6 OF OREGON,

7 Investigation into Forecasting Forced  
8 Outage Rates for Electric Generating Units.

**PACIFICORP'S REPLY BRIEF**

9 PacifiCorp d/b/a Pacific Power ("PacifiCorp" or the "Company") submits to the Public  
10 Utility Commission of Oregon ("Commission") this Reply Brief to the Opening Briefs of Staff of  
11 the Public Utility Commission ("Staff"), the Industrial Customers of Northwest Utilities ("ICNU"),  
12 and the Citizens' Utility Board ("CUB").

13 **I. ARGUMENT**

14 **A. The Commission Should Adopt PacifiCorp's Proposal to Exclude Extreme  
15 Events.**

16 **1. Staff, ICNU, and CUB Failed to Address PacifiCorp's Primary Proposal—  
17 the 28-Day Cap.**

18 In the Opening Briefs of Staff, ICNU, and CUB, each party presumes that a benchmark  
19 proposal is necessary and its adoption is a foregone conclusion. No party addressed  
20 PacifiCorp's primary proposal to cap all outages at 28 days. The Commission expressly  
21 endorsed this method for PacifiCorp in UE 191 finding that 28 days was a reasonable limit on  
22 the length of an outage in rates. *See PacifiCorp 2008 Transition Adjustment Mechanism,*  
23 *Docket UE 191, Order No. 07-446 at 21 (Oct. 17, 2007) ("Order No. 07-446").* This proposal  
24 effectively excludes extreme events and leads to a normalized, accurate forecast of future  
25 outages. *See ICNU/100, Falkenberg/10, II. 7-9* (outages in excess of 28 days are rare).  
26 Moreover, by replacing the excluded events with similar data from immediately preceding the  
event, PacifiCorp's proposal satisfies ICNU's conclusion that "the most reasonable approach"

1 to excluding extreme outages is to assume that the resource was operating in its normal  
2 pattern absent the event. ICNU/100, Falkenberg/11, ll. 16-18.

3 **2. Staff Failed to Show Why Its Proposal is Appropriate for PacifiCorp**  
4 **Even Though the Company Has No PCAM.**

5 Staff argued "it did not tie the need for the Collar mechanism in any respect to the  
6 existence of a PCAM." Staff's Opening Brief at 7. Therefore, Staff argued the fact that  
7 PacifiCorp does not have a PCAM is irrelevant. Staff testified, however, that a benchmark  
8 was needed because "[i]n its current form, with the use of an unadjusted four-year average  
9 and a PCAM mechanism the possibility of over-recovery is significant." Staff/200, Brown/12,  
10 ll. 8-10 (emphasis added). ICNU agreed and testified "[t]he Staff proposal is reasonable and  
11 acceptable to ICNU for [PGE], largely because PGE has a PCAM." ICNU/300, Falkenberg/2,  
12 ll. 20-21.

13 Staff also argued that the purpose of the benchmark is to increase accuracy,  
14 regardless of the existence of a PCAM. Staff's Opening Brief at 7. However, as ICNU pointed  
15 out in its testimony, Staff's method is focused on measuring performance, not improving  
16 forecast accuracy. ICNU/300, Falkenberg/2, ll. 12-23. ICNU concluded that was precisely  
17 why it is better applied to a utility with a PCAM where forecast accuracy is less of a priority.  
18 ICNU/300, Falkenberg/2, ll. 21-23.

19 Staff failed to provide any justification for the application of its benchmark to PacifiCorp  
20 when it does not have a PCAM and can only seek recovery of the costs of an excessive  
21 outage through a deferral. See Staff/200, Brown/13, ll. 10-13. Because PacifiCorp can only  
22 recover its excluded outage costs with a deferral, it is essential that it know with certainty  
23 when an outage will be excluded. Thus, the Company's 28-day exclusion proposal is best  
24 suited to its unique situation.

1           **3. ICNU's Criticism of PacifiCorp's Benchmark Should Be Rejected.**

2           ICNU criticized PacifiCorp's benchmark because it defines outliers as occurring only 5  
3 percent of the time. Opening Brief of ICNU at 12. According to ICNU, outliers occur much  
4 more frequently—every fifth year is by definition an outlier year according to ICNU's method.  
5 In Order No. 07-446, however, the Commission normalized a forced outage at 28 days, a level  
6 consistent with viewing an outlier or extreme event as a rare and unusual event. The fact that  
7 PacifiCorp's proposal is designed to apply selectively to true outlier events is one of the merits  
8 of the proposal, not a basis for its rejection.

9           **B. The Commission Should Reject Staff's Benchmark Proposal for PacifiCorp.**

10           **1. Staff's Method is Not More Accurate.**

11           Staff argued that its benchmark proposal leads to a more accurate forecast of future  
12 outages than PacifiCorp's proposal. See Staff's Opening Brief at 6. Staff's own analysis,  
13 however, contradicts its assessment that its method is more accurate. First, Staff's corrected  
14 testimony found that its method was approximately 19 percent more accurate while  
15 PacifiCorp's was approximately 18 percent more accurate. Staff's Errata Testimony Staff/300,  
16 Brown/4, ll. 15-16. In discovery, Staff admitted that the results of its analysis indicated that  
17 PacifiCorp's benchmark proposal demonstrated less deviation between forecast and actual  
18 results than its method. Staff Response to PacifiCorp Data Request 4.6. At best, then, Staff's  
19 method is 1 percent more accurate—hardly a meaningful amount—and at worst it is less  
20 accurate. Neither result is sufficient for the Commission to abandon its twenty-five years of  
21 precedent that a unit's actual data is the best indicator of a plant's future outage rate. See *Re*  
22 *Portland General Electric Co. Request for General Rate Revision*, Docket UE 180, Order No.  
23 07-015 at 15 (Jan. 12, 2007) ("We continue to believe that past performance is the best  
24 indicator of a plant's future outage rate.") ("Order No. 07-015").

25           CUB supported Staff's benchmark because it is "*intended* to provide for an  
26 improvement in outage rate forecast accuracy" and it "*should* result in a more accurate

1 forecast.” Citizens’ Utility Board of Oregon’s Opening Brief at 5 (emphasis added). Because  
2 Staff’s own analysis rebuts the argument that its method will *actually* result in a more accurate  
3 forecast, CUB’s support is misguided.

4 **2. The Commission Should Continue to Use Unit Specific Data.**

5 Staff’s primary argument in support of its use of industry data rather than unit specific  
6 data is that NERC data is better for forecasting simply because the NERC data pool contains  
7 more samples. Staff’s Opening Brief at 3. Moreover, increasing the size of the NERC sample  
8 set is the only reason Staff provided for comparing PacifiCorp’s coal generating units to all  
9 other coal units of a comparable size, without reference to any other factor affecting outage  
10 rates. Staff’s Opening Brief at 6.

11 The Commission should reject Staff’s argument and reaffirm its position that a plant’s  
12 actual operating data is a better forecast of its future performance than generic industry data.  
13 See Order No. 07-015 at 13 (“Since 1984, the Commission has generally used a four-year  
14 rolling average of *actual unit* forced outage rate to determine a normal forced outage rate.”)  
15 (emphasis added). By definition, unit specific data will be more limited than a data set  
16 consisting of generic industry outage data. Nonetheless, the Commission has used actual  
17 plant operating data because “recent plant experience...tends to better portray expected  
18 operation over the coming year.” Staff/102, Brown/4. In UE 180—the PGE case giving rise to  
19 this docket—the Commission specifically rejected the Staff, ICNU, and CUB proposal to use  
20 NERC data in lieu of actual unit data and reaffirmed its long-held policy of using actual unit  
21 data. Order No. 07-015 at 15.

22 In addition to deviating from clear Commission precedent, Staff’s proposal also  
23 deviates from its own testimony and that of ICNU. Staff acknowledged, “the historical  
24 performance of the generating unit is the best predictor of what will occur in the future.”  
25 Staff/100, Brown/2, ll. 7-9. ICNU agreed with Staff and the Commission that “[u]nit specific  
26 data should provide better forecasts of future performance than industry averages.”

1 ICNU/300, Falkenberg/2, II. 14-15. This is especially the case for PacifiCorp. ICNU/300,  
2 Falkenberg/3, II. 9-11.

3 Staff also argued that PacifiCorp lacks actual performance data for some plants and  
4 therefore NERC data is even more necessary. Staff's Opening Brief at 6. However, Staff  
5 acknowledged that PacifiCorp has 20 years of data for 19 of its 26 plants and approximately  
6 10 years of data for its jointly held plants. See Staff Response to PacifiCorp Data Request 4.8  
7 (admitting PacifiCorp has 20 years of data for 19 of 26 plants); PPL/405, Duvall/14, II. 15-17  
8 (PacifiCorp has ten years of data for jointly held plants).

9 **3. Staff's NERC Data is Unreliable For Forecasting.**

10 In response to Company criticism of the use of NERC data to forecast future outages,  
11 Staff argued that PacifiCorp has failed to show that the data is suspect and has used the data  
12 itself in the past. Staff's Opening Brief at 6. This argument fails because NERC itself stated  
13 that using its data as Staff proposes is invalid.

14 In testimony, Staff supported its use of NERC data by quoting a general statement that  
15 utilities use NERC data to "help them improve the availability of generating units." Staff/300,  
16 Brown/8, II. 21-22. This statement is important for what it does not say; NERC does not state  
17 that the data Staff uses is appropriate for forecasting future outages or benchmarking. When  
18 using NERC data as a benchmark, NERC is clear that "it is vital that we start by selecting a  
19 peer group that have as close a similarity in design and operating characteristics as possible"  
20 or the "comparisons could very well be invalid and misleading." PPL/102, Godfrey/3, II. 11-28.  
21 Thus, Staff's selection of a peer group based solely on the size of the coal generator is  
22 precisely what NERC warns could very well create an invalid and misleading comparison.

23 Like Staff, ICNU also pointed out PacifiCorp's reliance on NERC data in other dockets.  
24 Like Staff, however, ICNU was unable to point to a single instance where the Company used  
25 NERC data as a forecasting tool. See ICNU's Response to PacifiCorp Data Request 1.2.

26



1 Staff's argument also failed to address the numerous other deficiencies in the NERC  
2 data including the lack of consistent reporting by utilities and the lack of third-party verification.

3 **4. Staff's 90/10 Cut-off Is Arbitrary.**

4 Staff argued in support of its 90/10 cut-offs for outliers by reiterating that its visual  
5 interpretation of NERC data is sufficient. Staff's Opening Brief at 6. Staff did not respond to  
6 the argument that these cut-offs are arbitrary and lack any statistically meaningful basis. See  
7 PGE/200, Niman-Hager-Tinker/14, II. 15-18; PPL/102, Godfrey/5, II. 6-12.

8 **5. Staff's Benchmark Improperly Excludes PacifiCorp Outages That Are**  
9 **Not Outliers.**

10 Staff argues that PacifiCorp's analysis of the application of its benchmark—finding that  
11 it would apply 18 percent of the time—was flawed and therefore the conclusion that it applies  
12 to more than just outliers is erroneous. Staff's Opening Brief at 7 *and* Staff's Response to  
13 PacifiCorp Data Request 4.13 (PacifiCorp's analysis shows 18 percent applicability). Staff  
14 defined an outlier as a "very long plant outage that falls outside" normal operations. See Staff  
15 Opening Brief at 3. While critical of PacifiCorp's analysis, Staff's own analysis concluded that  
16 its method, properly applied, would exclude actual unit specific data 17 percent of the time.  
17 Staff Response to PacifiCorp Data Request 4.9(b) (upper benchmark applied 16 percent of  
18 the time); Staff Response to PacifiCorp Data Request 4.7 (lower benchmark applied 1 percent  
19 of the time). This means that nearly one out of every five years of actual outages are  
20 "outliers" under Staff's benchmark. Even though outages in excess of 28 days—an outage  
21 the Commission found to be an unreasonable length of time—occur rarely, Staff's proposal  
22 applies regularly and frequently. See ICNU/100, Falkenberg/10, II. 7-9. The result of Staff's  
23 proposal is in stark contrast to their stated intent; namely that it would apply only once or twice  
24 in the life of the plant. Commission Workshop Tr. 59-60.

25 CUB expressed support for Staff's proposal specifically because it would only apply in  
26 limited situations. Citizens' Utility Board of Oregon's Opening Brief at 6. As demonstrated,

1 however, Staff's benchmark is not limited in its use—it applies regularly to exclude actual  
2 performance data and therefore the basis for CUB's support is erroneous.

3 **6. Staff's Benchmark is an Improper Prudence Review.**

4 Staff argued that its benchmark is not a backward-looking prudence review because it  
5 is used in a forward-looking automatic adjustment clause proceeding to assist in forecasting  
6 future power costs. Staff's Opening Brief at 8. Therefore, according to Staff, by definition it is  
7 not a prudence review. Staff's argument fails to acknowledge that the Commission has  
8 already conducted prudence reviews in the TAM to determine the reasonableness of the  
9 forecasted forced outage rate. See Order No. 07-446 (ICNU challenged the prudence of  
10 PacifiCorp outages).

11 In its brief, Staff correctly defines the prudence review as essentially a determination of  
12 the reasonableness of a utility's actions. Staff's Opening Brief at 8. In its testimony, Staff  
13 specifically stated that one purpose of its benchmark was to determine if the forced outage  
14 rate is "reasonable." Staff/100, Brown/18, II. 3-7. In other words, Staff's method looks at the  
15 past performance of each unit and determines if the calculated forced outage rate based on  
16 the actual outages is "reasonable." If it is unreasonable—the outcome exceeds a measure  
17 determined by comparing the actual unit to an industry benchmark—the actual value is  
18 removed from the calculation of forced outages and replaced by a more reasonable value.  
19 Regardless of Staff's semantics, this is a prudence review.

20 Moreover, Staff acknowledged that it was common practice for the Commission to use  
21 benchmarks as a test of reasonableness and cited Staff's own use of benchmarks in prudence  
22 reviews. Staff/100, Brown/18, II. 8-13. ICNU likewise recognized that the Commission has  
23 used benchmarks such as Staff's for prudence reviews and was unable to cite a single  
24 instance where the Commission used such a benchmark as a forecasting tool. See  
25 ICNU/300, Falkenberg/4, II. 1-9; ICNU's Response to PacifiCorp Data Request 1.2. The

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1 testimony of Staff and ICNU are unequivocal—the Commission has used benchmarks for  
2 prudence reviews and neither party cited a single instance of their use for forecasting.

3 **7. Staff's Benchmark is Performance-Based Ratemaking.**

4 Staff argued that its benchmark is not performance-based ratemaking because Staff  
5 did not intend it to be so and because it does not set performance goals for PacifiCorp's  
6 generators. Staff's Opening Brief at 8. With respect to the first point, intent is irrelevant. If the  
7 benchmark creates performance standards, its purpose does not matter.

8 With respect to the second argument, Staff has provided no support for its statement  
9 that its benchmark does not set performance standards. Rather, Staff testified that the use of  
10 industry data is reasonable specifically because it will compare PacifiCorp's units to "all other  
11 industry units." Staff/200, Brown/10, ll. 8-10. Comparing PacifiCorp's units to an external  
12 standard and precluding recovery of certain costs if the units fail to compare favorably to those  
13 external units is performance-based ratemaking. Staff did not rebut PacifiCorp's argument  
14 that it is only allowed to recover its actual costs if its units perform better than the worst 10  
15 percent of units nationwide. By Staff's own admission, its benchmark will apply 17 percent of  
16 the time. That means that 17 percent of PacifiCorp's actual performance data will be replaced  
17 because its units failed to meet the benchmark standard set by Staff.

18 Even ICNU recognized Staff's benchmark for what it is and testified that "NERC data is  
19 certainly more appropriate for establishing a minimum performance requirements." ICNU/300,  
20 Falkenberg/2, ll. 13-14; see also ICNU/300, Falkenberg/2, l. 16 ("NERC data provides a more  
21 objective standard for evaluating performance.").

22 **C. The Commission Should Reject ICNU's Proposed Benchmark.**

23 **1. ICNU Did Not Justify Its Failure to Propose Its Benchmark in**  
24 **Supplemental Testimony.**

25 ICNU presented its proposal in its Supplemental Reply Testimony. That unfairly  
26 prejudiced all other parties by precluding them from submitting responsive testimony or fully

1 analyzing the merits of ICNU's proposal. ICNU had ample opportunity to present its proposal  
2 in its first two rounds of testimony or it could have sought permission, as did PacifiCorp, to  
3 submit supplemental testimony. Instead, ICNU objected to PacifiCorp's request and then  
4 presented a substantial new proposal without allowing other parties to comment. ICNU's  
5 Opening Brief provided no justification for this failure and therefore the Commission should  
6 disregard its proposal because it has not been fully developed in the record.

7 **2. ICNU's Benchmark Eliminates More Than Just Extreme Events.**

8 ICNU argued that its benchmark should be adopted because it excludes the "most  
9 extreme outage events." Opening Brief of ICNU at 11. ICNU suggests that the efficacy of a  
10 benchmark should be measured by the amount of actual operating data it excludes—the more  
11 data excluded, the better the benchmark. The Commission's purpose in opening this docket,  
12 however, was not to adopt a method that excludes the greatest number of extreme events; the  
13 purpose was to adopt a method for accounting for extreme events that leads to an accurate  
14 forecast using actual plant data. See Order No. 07-015 at 15.

15 By defining 20 percent of all outages—or one out of every five years—as "extreme"  
16 events worthy of exclusion, ICNU's proposal excludes substantially more actual unit operating  
17 data than either Staff's or PacifiCorp's. Staff acknowledged that an abnormal event is unlikely  
18 to be repeated every four years, yet ICNU's proposal assumes that an abnormal event occurs  
19 every five years. See Staff Opening Brief at 3. Staff suggested that its benchmark will apply  
20 once or twice in the life of a plant, ICNU's method by definition applies twice every ten years.  
21 Although ICNU testified that PacifiCorp rarely experiences excessive outages, its benchmark  
22 proposal defines 20 percent of all outages as extreme—a contradiction of its own testimony.  
23 See ICNU/100, Falkenberg/10, II. 7-9. The result of ICNU's proposal is the exclusion of a  
24 significant amount of actual operating data and a less accurate forecast of future outages.

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1           **3. Replacement of Excluded Outages with a “Normal” Rate Deviates**  
2           **Significantly From Actual Data.**

3           ICNU argued that use of the 20-year mean as the replacement for extreme outages is  
4           the best method for forecasting future outages. Opening Brief of ICNU at 11-12. This ignores  
5           clear Commission precedent that a four-year average is better than a 20-year average  
6           because recent plant experience tends to better forecast plant operations in the next year.  
7           See Staff/102, Brown/4. It also deviates from the Commission’s clear preference to use actual  
8           plant performance to predict future outages. As ICNU’s own testimony stated, its method  
9           creates a significantly greater deviation from actual data than either Staff’s or PacifiCorp’s  
10          proposals. See ICNU/300, Falkenberg/11, ll. 1-10.

11          **4. ICNU’s Arguments in Support of NERC Data Are Contradictory.**

12          In an attempt to blunt its criticism of Staff’s benchmark proposal, ICNU’s Opening Brief  
13          mischaracterizes its testimony. ICNU’s opening brief states: “While unit specific data should  
14          more accurately predict future events, NERC data is objective and would further the goal of  
15          improving forced outage accuracy.” Opening Brief of ICNU at 12. Because these two  
16          phrases (“accurately predict future events” and “improving forced outage accuracy”) appear to  
17          mean the exact same thing, ICNU is suggesting that use of either NERC or unit specific data  
18          will further the goal of better predicting future outages. ICNU’s testimony is clear and  
19          unequivocal, however, that NERC data is only appropriate if the underlying goal is to create a  
20          performance standard. See ICNU/300, Falkenberg/2, ll. 12-13 (“use of unit specific data is  
21          likely to be more useful if the primary goal is forecast accuracy improvement”); ICNU/300,  
22          Falkenberg/2, ll. 14-15 (“Unit specific data should provide better forecasts of future  
23          performance than industry averages.”); ICNU/300, Falkenberg/3, ll. 9-11 (“historical plant data  
24          is more appropriate for PacifiCorp”); ICNU/300, Falkenberg/2, ll. 13-14 (use of the NERC data  
25          is more appropriate if the Commission is setting minimum performance standards). The fact  
26          that ICNU misrepresents its own testimony is significant here because it expressed support for

1 Staff's proposal as an alternative to its own. Opening Brief of ICNU at 10. However, its  
2 testimony contradicts this support.

3 ICNU's brief states that it supports Staff's proposal as a "reasonable" method in the  
4 event that the Commission rejects its own proposal. Opening Brief of ICNU at 1. This  
5 position is also at odds with its own testimony. There, ICNU testified that Staff's proposal is  
6 "reasonable" for PGE because it has a PCAM, but for PacifiCorp a proposal using actual plant  
7 data is more appropriate. ICNU/300, Falkenberg/2, ll. 20-21 and ICNU/300, Falkenberg/3, ll.  
8 9-12. ICNU also testified generally that Staff's proposal is only appropriate for setting  
9 performance standards, not increasing forecast accuracy. ICNU/300, Falkenberg/2, ll. 12-15.  
10 Because the purpose of this docket is to increase forecast accuracy, ICNU's testimony, again,  
11 suggests that PacifiCorp's proposal is more appropriate for this docket than Staff's.

12 **D. The Commission Should Reject ICNU's Heat Rate Curve and Minimum Capacity**  
13 **Adjustments.**

14 **1. The Commission Should Reject ICNU's Heat Rate Curve Adjustment.**

15 Both Staff and ICNU argue that PacifiCorp should adopt ICNU's heat rate curve  
16 adjustment because it is an adjustment in PGE's power cost model. Opening Brief of ICNU at  
17 4 and Staff's Opening Brief at 9. PacifiCorp disputed this argument because of the numerous  
18 and significant differences between PacifiCorp's and PGE's power cost models—including the  
19 fact that PGE does not even use heat rate curves in its model. See Commission Workshop  
20 Tr. 80-81.

21 ICNU also argued that the Commission should adopt both its adjustments because  
22 both are "well accepted in the community of production cost modeling experts." Opening Brief  
23 of ICNU at 4. However, ICNU's brief also states that PacifiCorp's current method is "well  
24 accepted and commonly used in power cost models." Opening Brief of ICNU at 4-5; see also  
25 ICNU/100, Falkenberg/50, l. 22 – Falkenberg/51, l. 1 (PacifiCorp's method is "an industry  
26 standard technique"). Moreover, ICNU did not contest the fact that PacifiCorp has used its

1 model without these adjustments for over 25 years and ICNU only recently sought these  
2 adjustments. The claim that the Commission must adopt these adjustments because they are  
3 “well accepted” is without support and should be rejected.

4 ICNU also argued that PacifiCorp makes both adjustments to its fractionally owned  
5 plants. Opening Brief of ICNU at 9. This is untrue and ICNU’s only evidence in support of its  
6 contention is the opinion of its expert—an opinion vigorously disputed by the PacifiCorp  
7 witness who actually oversees the Company’s modeling. ICNU pointed to no instance where  
8 PacifiCorp has actually modeled its fractionally owned units in this manner.

9 CUB supported ICNU’s proposed adjustments because it alleges that PacifiCorp’s  
10 current method has problems that need to be fixed and produces unrealistic GRID results.  
11 Citizens’ Utility Board of Oregon’s Opening Brief at 7. PacifiCorp has used the same  
12 approach for 25 years without objection from any party, undermining the allegation that the  
13 current method is problematic. Additionally, there is no evidence in the record that  
14 PacifiCorp’s forced outage rate modeling understates actual coal unit availability; indeed, the  
15 evidence demonstrates that the opposite is true. See Exhibit A to PacifiCorp’s Opening Brief.

16 ICNU also misrepresents PacifiCorp’s testimony regarding the impact of its heat rate  
17 curve adjustment. ICNU argued that PacifiCorp claimed ICNU’s adjustment was less efficient  
18 only when units operate between the minimum and de-rated maximum. Opening Brief of  
19 ICNU at 9. Because units only operate at these levels 10-11 percent of the time, ICNU  
20 argued, PacifiCorp presented no evidence that the adjustment causes problems the vast  
21 majority of the time. PacifiCorp’s actual testimony, however, states that:

22 [T]here are many hours of dispatch below the derated maximum  
23 capacity, which are the generating levels at which ICNU’s  
24 proposal will understate the heat rate, and subsequently  
understate net power costs.” PPL/400, Duvall/15, II. 18-20.

25 The graph that accompanied Mr. Duvall’s rebuttal testimony cited by ICNU clearly shows that  
26 the deviation between the actual operating data and ICNU’s artificial heat rate curve is

1 significant at every point below the de-rated maximum capacity, *including the minimum*  
2 *capacity*. See PPL/400, Duvall/19, I. 1; PPL/404, Duvall/1. In other words, at all times that the  
3 unit is dispatched at below its de-rated maximum, ICNU's adjustment creates a significant  
4 deviation from the actual operating data. According to that same graph, the coal unit is  
5 dispatched at below the de-rated maximum 41.5 percent of the time. See PPL/400, Duvall/19,  
6 I. 1; PPL/404, Duvall/1. Moreover, the 58.5 percent of the time the unit is dispatched at its de-  
7 rated maximum capacity it is operating at a relatively efficient level and the adjustment at that  
8 point is unnecessary. See PPL/400, Duvall/15, I. 23 – Duvall/16, I. 1. This is a fact that ICNU  
9 did not contest.

10 ICNU's proposal identifies one single point on the heat rate curve—the de-rated  
11 maximum—where the actual heat rate and the modeled heat rate differ. To resolve this  
12 discrepancy—which PacifiCorp testified is relatively insignificant—ICNU then adjusts every  
13 single point on the heat rate curve, abandoning the curve developed using actual operating  
14 data in favor of an artificial curve not based on actual operating performance.

15 Staff supported ICNU adjustments "so that [the thermal facilities] produce the same  
16 heat consumption at the derated maximum and minimum capacities as the unit would actually  
17 experience in normal operations." Staff's Opening Brief at 9. This is precisely what the  
18 Company does—it produces a heat rate curve based on the actual operation of the units  
19 under normal conditions. In defense of ICNU's adjustments, Staff actually supports the  
20 Company's position with respect to this issue.

21 **2. The Commission Should Reject ICNU's Minimum Capacity Adjustment.**

22 ICNU argued that its minimum capacity adjustment is necessary because otherwise  
23 the generator's maximum capacity could be less than its minimum capacity. Opening Brief of  
24 ICNU at 5. This can only occur, however, if one assumes a level of annual outages that have  
25 never occurred in PacifiCorp's fleet—a fact ICNU did not rebut. PPL/400, Duvall/14, II. 14-15;  
26 *see also* ICNU/100, Falkenberg/52-53 (ICNU assumed a 50 percent outage rate to illustrate



1 this phenomena notwithstanding the fact PacifiCorp has never experienced so high an annual  
2 outage rate). ICNU pointed to no instance where the Company's model, using annual outage  
3 rates, resulted in this outcome.

4 ICNU also argued that the failure to de-rate the minimum capacity is significant  
5 because there are "a substantial number of resources operating at their minimum capacities in  
6 GRID." Opening Brief of ICNU at 6. However, ICNU contradicts itself later in its brief when  
7 advocating for the heat rate curve adjustment. There, ICNU's brief stated that in GRID  
8 thermal units only run at their minimum capacity 14 percent of the time and produce only 8  
9 percent of the unit's energy at the minimum capacity—hardly a substantial amount. Opening  
10 Brief of ICNU at 9, n. 2.

11 The purpose of de-rating the maximum capacity is to account for outages in the power  
12 cost model. As ICNU testified, this deration is the industry standard for accounting for the  
13 outages. It does not follow that this deration of the maximum must also occur for every  
14 possible generation value. In fact, if that occurs, the power cost model treats the generating  
15 units as if they are able to generate at physically impossible levels.

#### 16 IV. CONCLUSION

17 PacifiCorp recommends that the Commission adopt PacifiCorp's 28-day cap for  
18 excluding extreme events from the forced outage rate calculation. If the Commission decides  
19 to adopt a benchmark, it should adopt PacifiCorp's proposal because it relies on actual unit  
20 data and excludes only extreme events. PacifiCorp also recommends that the Commission  
21 reject ICNU's heat rate curve and minimum capacity adjustments because they depart from

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1 Commission precedent and lead to a further departure from the use of actual unit data to  
2 determine net power costs.

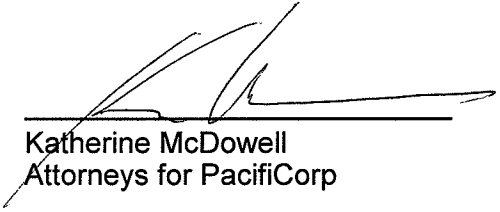
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4 DATED: September 24, 2009

McDowell & Rackner PC

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Katherine McDowell  
Attorneys for PacifiCorp

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PACIFICORP

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Michelle R. Mishoe  
Pacific Power  
Legal Counsel  
Suite 1800  
825 NE Multnomah Street  
Portland, OR 97232-2135

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