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VIA ELECTRONIC MAIL AND HAND DELIVERY

Attention: Filing Center
Public Utility Commission of Oregon
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Re: *In the Matter of PACIFICORP, dba PACIFIC POWER 2009 Renewable Adjustment Clause Schedule 202*
PUC Docket No.: UE 200
DOJ File No.: 860-115-GP0039-08

Enclosed are an original and five copies of the Staff's Opening Brief in the above-captioned matter for filing with the PUC today.

Sincerely,

Jeffery R. Seeley
Legal Secretary
Regulated Utility & Business Section

JRS:jrs/#1043594

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 200

In the Matter of
PACIFICORP
2009 Renewable Energy Adjustment Clause
Schedule 202

STAFF'S OPENING BRIEF

1. Introduction

The issues in this proceeding have been narrowed considerably. As to the major remaining disputes, staff recommends adjustments to wind facilities at PacifiCorp's Dave Johnston site, presented by the company in the Transition Adjustment Mechanism (TAM) proceeding (Docketed as UE 199) and the companion Renewable Adjustment Clause (RAC) proceeding (Docketed as UE 200), as the Rolling Hills and Glenrock projects. PacifiCorp opposes staff's recommendation to make capacity factor-related adjustments; Industrial Customers of Northwest Utilities (ICNU) supports staff's recommendation.

While the overarching issue is simply stated, it contains several complex, potentially confusing, subparts. As such, staff will summarize the nature of Rolling Hills/Glenrock as a Major Resource under Order No. 06-446, and then turn to staff's proposed adjustments and explain why the Administrative Law Judge and the Commission should adopt them. Staff will also include its recommendation as to "where" [i.e. UE 199 (TAM) or UE 200 (RAC)] each adjustment should be reflected.

2. Brief Summary of Relevant Facts Concerning Rolling Hills/Glenrock¹

¹ Unless otherwise specifically stated, all references to testimony and exhibits are to the material filed in UE 200.

1 On or about April 1, 2008, PacifiCorp submitted its proposed 2009 TAM net power cost
2 filing, which was docketed as UE 199. The UE 199 parties were subsequently able to settle most
3 of the TAM issues, except, in relevant part, the adjustments associated with Rolling
4 Hills/Glenrock. *See* UE 199 Stipulation, Paragraph 13(a).² According to the Stipulation, the
5 Rolling Hills/Glenrock adjustments are to be litigated in the context of the UE 200 proceeding.
6 *Id.*

7 PacifiCorp presents Rolling Hills/Glenrock as two separate wind facilities (i.e. the
8 Rolling Hills wind facility and the Glenrock wind facility), each sized at 99 megawatts (MW)
9 and each located in Converse County, Wyoming. *See generally* PPL/200, Tallman/24-30.
10 Indeed, as to proximity, PacifiCorp witness Tallman testified that Rolling Hills is located “on the
11 same site” as the Glenrock project. PPL/200, Tallman/27. The maps that PacifiCorp provided
12 confirm Mr. Tallman’s statement, showing Rolling Hills and Glenrock as virtually on top of each
13 other. *Compare* PPL/201, Tallman 6 *with* PPL/201, Tallman/7. The maps found at Staff/203,
14 Schwartz/4 and Staff/502 (last page) provide a more detailed illustration of the Rolling
15 Hills/Glenrock site, again showing the almost-overlapping nature of the so-called separate
16 projects.

17 Staff witness Schwartz further clarified at the oral hearing that Rolling Hills/Glenrock is
18 located on a site owned by PacifiCorp; that the so-called separate projects are located within one
19 mile of each other; follow the same contour of the land; and that PacifiCorp submitted one
20 permit to the Wyoming Industrial Siting Council for development “in phases” at the site. *See*
21 Transcript (TR) at 53-55 (Schwartz); Staff/502. Indeed, Rolling Hills’ and Glenrock’s proximity
22 is such that, without revealing confidential material, it has consequences for this docket. *For*
23 *confidential material see* Staff/200, Schwartz/17; Staff/202, Schwartz/32 (UE 200).

24

25

26 ² Staff believes the Commission has previously taken official notice of the UE 199 Stipulation.
If this is not correct, staff asks that the Commission do so pursuant to OAR 860-014-0050(1)(e).

1 PacifiCorp submitted its permit application for Rolling Hills/Glenrock on or about
2 November 26, 2007. *See* Staff/502. The permit referred to building “up to three wind generation
3 projects in phases at the site...each phase rated at 99 megawatts (MW) to be constructed in
4 2008.” *Id.* at ES-1. PacifiCorp requested one permit that would cover the development of the
5 site as a whole (up to three 99 MW projects). *Id.* at 23. At the oral hearing, PacifiCorp witness
6 Tallman stated that Glenrock and Rolling Hills were both scheduled to become operational by
7 the end of 2008, possibly at the same time. TR at 24 (Tallman).

8

9 **3. Brief Summary of Staff’s Alternative Adjustments for Rolling Hills**

10 A. UE 199

11 In UE 199, PacifiCorp stated that it expected a capacity factor³ for Rolling Hills of 31
12 percent. *See* PPL/400, Tallman/4; PPL/401, Tallman/1 (UE 199); Staff/202 at 3 (UE 199). In its
13 rebuttal testimony in UE 200, PacifiCorp “updated” this capacity factor to 33.8 percent based
14 upon a “recently received” report from CH2M Hill, its technical consultant. PPL/203,
15 Tallman/1-2; PPL/204, Tallman/1.

16 Staff recommends the Commission impute a capacity factor of 38 percent for Rolling
17 Hills. Staff/200, Schwartz/3 (UE 199). Staff testified in UE 199 that PacifiCorp’s attempt to
18 split Rolling Hills/Glenrock into two separate 99 MW projects for the purpose of avoiding the
19 Commission’s competitive bidding guidelines was inappropriate. Instead, properly viewed,
20 Rolling Hills/Glenrock, totaling 198 MW, constitutes a Major Resource under Order No. 06-
21 446.⁴

22

23 _____
24 ³ “Capacity factor” is the ratio of the plant’s actual energy production over a period of time (e.g.
25 a year) to the amount of power the plant would have produced if it had run at full capacity. *See*
26 Staff/200, Schwartz/1 (UE 199).

⁴ PacifiCorp has a third “phase” planned for this site, with the construction of an additional 39
26 MW of power, also expected to be operational by year-end 2008. *See* Staff/200, Schwartz/23
(UE 200).

1 Staff determined that Glenrock, the initial 99 MW phase at the Dave Johnston site,
2 properly falls below the threshold for Major Resources. However, PacifiCorp should have
3 issued a Request for Proposals (RFP), or filed a request for a Commission waiver, for additional
4 phases at this site under the Commission’s requirements for “Major Resources” delineated in its
5 Order No. 06-446. *See generally* Staff/200, Schwartz/3-4 (UE 199); Staff/203 at 6-9 (UE 199).

6 Further, staff determined that if the company had properly issued an RFP for its
7 renewable resource needs beyond Glenrock, it likely would have acquired a facility with a
8 capacity factor of 38 percent or higher, in lieu of acquiring Rolling Hills. Indeed, staff testifies
9 that “Rolling Hills is an opportunity that PacifiCorp should have passed up.” Staff/600,
10 Schwartz/3 (UE 199). The capacity factor of Wyoming wind resources already serving
11 PacifiCorp are far higher than Rolling Hills’ estimated capacity factor of 31 percent, and those
12 under development by the company in Wyoming are 38 percent or higher. Staff/600,
13 Schwartz/11 (UE 199). Staff witness Schwartz explained at the hearing that in a competitive
14 bidding process, the company would have had market bids in the form of power purchase
15 contracts, turnkey (i.e., build-own-transfer) projects and, potentially, offers of sites for
16 PacifiCorp to develop using the turbines hastily sited at Rolling Hills. TR at 77 (Schwartz).

17

18 B. UE 200

19 In UE 200, Staff witness Schwartz recommends the Commission find that PacifiCorp
20 imprudently acquired the Rolling Hills facility. Staff bases this recommendation in part upon its
21 reasoning first stated in UE 199 – that the Rolling Hills project cannot reasonably be considered
22 a separate facility from the Glenrock project. Accordingly, PacifiCorp should have issued an
23 RFP for any phases beyond the Glenrock project as required by Order No. 06-446. Staff/200,
24 Schwartz/12-13. Staff further describes this issue and other findings related to the imprudence of
25 Rolling Hills in Section 5 of this brief.

26

1 The remedy for PacifiCorp's imprudent action in acquiring Rolling Hills is not to keep it
2 entirely out of rate base. *See* Commission Order No. 87-1017 at 10. The proper remedy in this
3 case is to impute the capacity factor for the resource PacifiCorp would have acquired if it had
4 properly bid its renewable resource needs. Staff/200, Schwartz/13. Staff recommends that the
5 Commission adjust the revenue requirement in UE 200 to achieve the same effect as using in the
6 TAM the 38 percent capacity factor staff determined was appropriate for Rolling Hills.
7 Staff/200, Schwartz/16.

8 Staff explains in Section 5 of this brief why its recommendation remains the same despite
9 PacifiCorp witness Tallman's recently updated capacity factor projections contained in his
10 testimony at PPL/203, Tallman/1-2, 5-6. Staff also explains in Section 5 why its recommended
11 adjustment for Rolling Hills remains the same even if the Commission disagrees with staff's
12 finding that Rolling Hills/Glenrock constitutes a Major Resource under Order No. 06-446.

13 As will be discussed in Section 7 of this brief, staff recommends that its capacity factor
14 adjustment for Rolling Hills be made in the UE 200 proceeding rather than in UE 199. In
15 addition, in Section 8 of this brief, staff explains the additional adjustments it recommends to
16 account for the additional tax credits and renewable energy certificates associated with staff's
17 recommended 38 capacity factor adjustment.

18

19 **4. Summary of Staff's Alternative Adjustments for Glenrock**

20 A. UE 199

21 In UE 199, staff recommends the Commission increase the estimated capacity factor for
22 Glenrock. PacifiCorp's position in UE 199 is that the capacity factor should be 38.6 percent.
23 During the time the record in UE 199 was open, despite repeated requests from ICNU and staff,
24 PacifiCorp was unable to explain or justify its reliance upon the 38.6 percent capacity factor. *Id.*
25 Instead, in response to staff's and ICNU's data requests, the company produced a November
26 2007 report from CH2M Hill, its technical expert, which showed a 41 percent capacity factor.

1 See Staff/202, Schwartz/57. That is the report staff used and relied upon. Staff/300, Schwartz/2-
2 3 (UE 199).

3 B. UE 200

4 Staff proposes the same alternative adjustment to increase Glenrock's capacity factor to
5 41 percent as it recommends in UE 199. See Staff/200, Schwartz/17. Staff observes that
6 PacifiCorp submitted additional information in its rebuttal testimony submitted in UE 200 that
7 downgrades PacifiCorp's originally stated capacity factor for Glenrock from 38.6 percent to 37.4
8 percent, based upon "recently received third-party technical studies" from CH2M Hill. See
9 PPL/203, Tallman/1-2; PPL/205. For reasons discussed in Section 6 in this brief, staff continues
10 to propose to increase Glenrock's capacity factor from 38.6 percent (or the new, updated 37.4
11 percent) to 41 percent. Staff's adjustment is based upon the capacity factor provided by CH2M
12 Hill to PacifiCorp in November 2007. See Staff/300, Schwartz/2-3 (UE 199); Staff/202,
13 Schwartz/57 (UE 200).

14 Further, for reasons to be discussed in Section 7, staff recommends the Commission make the
15 adjustment for Glenrock to appropriately account for its net power cost benefits in the UE 199
16 proceeding rather than in UE 200. However, the RAC is where tax credits are accounted for.
17 Therefore, staff recommends an adjustment in the RAC for the additional tax credits associated
18 with a 41 percent capacity factor (compared to a 38.6 percent capacity factor). Staff addresses
19 this issue in Section 8. Staff addresses another RAC adjustment for Glenrock – related to the
20 impact of Rolling Hills – in Sections 7 and 11 of this brief.

21

22 **5. Commission should adopt staff's recommendations for Rolling Hills**

23 The Commission should find, in the context of UE 200, that: (1) PacifiCorp imprudently
24 acquired Rolling Hills and (2) impute a 38 percent capacity factor to allow only the appropriate
25 level of costs into rates. PacifiCorp argues against both the recommended finding of imprudence
26

1 and the accompanying recommendation that, should such a finding be made, 38 percent be used
2 as the correct capacity factor when calculating the capital cost of the investment.

3 *A. Prudence*

4 The concept of “prudence” is important in the UE 200 RAC proceeding because the
5 relevant statute, ORS 469A.120(1), provides in part that “all prudently incurred costs associated
6 with compliance with a renewable portfolio standard are recoverable in rates of an electric
7 company.” Generally stated, to be “prudent” a utility decision must have been reasonable under
8 the circumstances that were known, or could have been known, at the time the decision was
9 made. Further, as staff noted in its response to PacifiCorp’s Data Request (DR) 3.20, the
10 Commission held in its Order No. 87-1017 (at 10):

11 The Commission concludes that the prudence of a utility’s decision is not relevant to the
12 issue of whether to include a facility in rate base...Prudence in planning and constructing
13 a plant is relevant for determining the valuation of the facility once placed in rate base. If
14 a plant shown to be used and useful was constructed at an unnecessarily high cost, only
the cost deemed appropriate, rather than the actual historical cost, would be placed in rate
base.

15 *See, e.g.* PPL Cross Exhibit 2.

16 *B. PacifiCorp’s decision to develop Rolling Hills was imprudent*

17 Staff determined that PacifiCorp made an imprudent decision to develop and construct
18 Rolling Hills. Staff reached this determination based upon several troubling aspects surrounding
19 PacifiCorp’s decision to proceed with the Rolling Hills project.

20 First, PacifiCorp knew, or should have known, that Rolling Hills/Glenrock is properly
21 viewed as a Major Resource under the Commission’s competitive bidding guidelines. Viewed
22 together as constituting 198 MW at a single site rather than two separate projects, PacifiCorp had
23 an obligation to proceed through the “competitive bidding process” set forth in Order No. 06-
24 446. PacifiCorp’s decision to proceed with Rolling Hills outside of the competitive bidding
25 process was imprudent. *See generally* Staff/200, Schwartz/3-7 (UE 199).

26

1 Commission Order No. 06-446 applies to a utility's acquisition of a "Major Resource."
2 A Major Resource is defined as a resource with a capacity threshold of 100 MW or more and
3 with a duration threshold of 5 years or more. *See* Order No. 06-446 at 3. If a utility intends to
4 acquire a Major Resource, it must do so through the Request for Proposals (RFP) competitive-
5 bidding process and other guidelines delineated in Order No. 06-446. Importantly, the
6 Commission set forth exceptions to the RFP process for certain Major Resource acquisitions. *Id.*
7 at 4.

8 A key goal, or purpose, behind the competitive bidding process is to "[P]rovide the
9 opportunity to minimize long-term energy costs..." *Id.* at 2. In other words, without a
10 competitive bidding process, there is no price discovery to show that the project will "minimize
11 long-term energy costs" for PacifiCorp's customers. *See also* Staff/200, Schwartz/9.

12 During cross examination, Ms. Schwartz acknowledged that Order No. 06-446 did not
13 expressly provide criteria for determining when an alleged two (or more) projects that were each
14 under 100 MW should be considered as one over-100 MW project. TR at 65 (Schwartz).
15 Nevertheless, Ms. Schwartz stated there is a need to maintain the "integrity" of the Order's
16 Major Resource threshold criteria. TR at 64 (Schwartz). In other words, it defeats the purpose
17 of issuing a competitive bidding order if a utility were allowed to play fast and loose with the
18 criteria that would trigger application of the process mandated under the Order for acquiring
19 Major Resources.

20 In the present circumstance, Ms. Schwartz testified that PacifiCorp's attempt to stylize
21 Rolling Hills/Glenrock as two separate projects was "not a close case" which "did not pass the
22 laugh test." TR at 62, 65 (Schwartz). Ms. Schwartz reached this conclusion based upon the
23 characteristics of the project. These characteristics include the following⁵:

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25

26 ⁵ Where no citation is provided for a listed fact, it is because it has already been provided earlier
in the brief.

- 1 (1) Both Rolling Hills and Glenrock are located on the same site, known as the “Dave
2 Johnson” site. TR at 55 (Schwartz);
- 3 (2) At all relevant times, PacifiCorp owned the Dave Johnson site. *Id.*; Staff/200,
4 Schwartz/9;
- 5 (3) PacifiCorp submitted one permit application for both projects. Staff/502;
- 6 (4) According to the application, it would cover the development of the site as a whole;
- 7 (5) The permit was to build up to three projects in “phases”;
- 8 (6) Both Rolling Hills and Glenrock are being developed and constructed during 2008;
- 9 (7) Rolling Hills and Glenrock are currently scheduled to become operational within
10 about one month of each other, and indeed, may even become operational at the same
11 time;
- 12 (8) Rolling Hills and Glenrock are physically located within one mile of each other and
13 follow the same contours of the land; and
- 14 (9) Rolling Hills’ proximity to Glenrock - *for confidential material see Staff/200,*
15 *Schwartz/17; Staff/202, Schwartz/ 32.*

16 There may be future cases involving the “is it one project or two” question that are
17 difficult to determine. But, this is not one of them. The project characteristics set forth above
18 show beyond any reasonable debate that Rolling Hills/Glenrock constitutes a Major Resource.

19 Staff is certainly not alone in considering ownership, operation, proximity and expansion
20 characteristics to determine whether projects are distinct. Both Oregon Department of Energy
21 and the Energy Facility Siting Council do so. Staff/600, Schwartz/6-8 (UE 199). Further, the
22 Commission defines utility self-build options in an RFP — “benchmark resources” — as site-
23 specific. It is reasonable to assume that a company-owned self-build option is site-specific even
24 if it is acquired outside a competitive bidding process. Order No. 06-446 at 5; TR at 54, 65
25 (Schwartz).

26

1 PacifiCorp argues that it divided Rolling Hills/Glenrock into two separate projects for
2 several reasons. Its overall theme, besides disagreeing with staff's analysis stated above, is that
3 it had to move fast in order to obtain benefits from the various tax incentives and to lock in a
4 good deal on the turbines for the project. The short, definitive response is that even assuming
5 PacifiCorp's reasons have merit in a vacuum of facts, they do not when viewed from the
6 perspective of Order No. 06-446. That Order expressly and clearly states that all Major
7 Resources must go through a competitive bidding process.

8 Having said that, it is critical to note that the Order also provides exceptions to its
9 mandate. These exceptions allow a utility to avoid the competitive bidding process, *with*
10 *Commission approval*, for emergencies, pursuant to an acknowledged IRP that provides an
11 alternative acquisition method, or on a case-by-case basis. *See* Order No. 06-446 at 4. Indeed,
12 PacifiCorp is familiar with these exceptions as it has recently obtained just such a waiver from
13 the Commission. *See* Commission Order No. 08-376 (UM 1374); PPL Cross Exhibit 2 (staff
14 response to DR 3.10).

15 As to the facts regarding timing for acquiring turbines, receiving tax credits and issuing
16 Commission-approved RFPs: 1) the company developed Rolling Hills on its own at its own site,
17 so the company was not at risk for losing this site for development; 2) the company could have
18 used the turbines it had on hand in an RFP — for a self-build benchmark resource at the Dave
19 Johnston site or for a site offered by a bidder in the RFP for the company's development; 3) the
20 company had all of 2007 to conduct an RFP for resources to come on-line by year-end 2008, just
21 as the company acquired resources on-line in 2006 and 2007 through its amended renewable
22 resources RFP (RFP 2003B) issued in March 2006; and 4) the company appears to have believed
23 tax credits would be extended beyond 2008. Staff/200, Schwartz/10-12 (UE 200); Staff/600,
24 Schwartz/2-3 (UE 199).

25 Further, PacifiCorp maintains there were no other Wyoming wind projects the company
26 could acquire by year-end 2008. As evidence, PacifiCorp points out that only the company has

1 wind projects in the queue at the Wyoming Industrial Siting Council, and no Wyoming wind
2 projects other than PacifiCorp's are in the company's interconnection queue. PPL/203,
3 Tallman/18-19.

4 On the first point, not all energy projects in Wyoming require state siting approval, or
5 even local siting approval. PacifiCorp's new power purchase agreement with Duke Energy's 99
6 MW Campbell Hill project, near Casper (Converse County), Wyoming (Staff/508), is notably
7 absent from the state siting list PacifiCorp provided at PPL/210. That is because the project did
8 not require siting approval. On the second point, PacifiCorp can acquire projects outside its
9 service territory. The Goodnoe Hills wind project illustrates the point. TR at 31-32 (Tallman).
10 Such a project would not show up in PacifiCorp's interconnection queue. Another example is
11 Duke Energy's Happy Jack project in Laramie County, Wyoming (Staff/508), which is
12 interconnected to another utility's transmission system at the Happy Jack substation.

13 Staff's second concern related to the prudence of Rolling Hills is the company's decision-
14 making process for determining whether to establish additional turbines at the Dave Johnston site
15 in 2008 — based on how quickly the company could proceed, even disregarding whether the
16 company was required to use a competitive bidding process. Staff/200, Schwartz/15; Staff/202,
17 Schwartz/50.

18 Related are staff's concerns arising from the company's use of the reports provided by
19 CH2M Hill, its technical consultant. Without revealing confidential information in this brief,
20 CH2M Hill's November 2007 technical report had statements about the project that PacifiCorp
21 imprudently ignored or failed to recognize in its haste to develop the project. Staff/200,
22 Schwartz/14-15. Additional technical memos and notes from the technical consultant further
23 support staff's concerns. *See* ICNU/124.

24 Staff's third concern with the prudence of PacifiCorp's decision to develop Rolling Hills
25 arises from the company's decision to proceed in light of CH2M Hill's expected capacity factor
26 of 31 percent for the project. This capacity factor is extremely low for a Wyoming-based wind

1 resource. Staff/600, Schwartz/3 (UE 199). As will be discussed further in subsection (3)
2 immediately below, a resource with a capacity factor of 38 percent (or better) represents what the
3 company likely would have acquired if it had issued an RFP for renewable resources as it was
4 required to do to test this self-build resource against the market. Staff/200, Schwartz/3 (UE
5 199); Staff/200, Schwartz/16.

6 Staff observes that its reasoning holds true despite PacifiCorp's rebuttal testimony that
7 seeks to update the Rolling Hills capacity factor to 33.8 percent. Moreover, from a prudence
8 aspect, PacifiCorp's attempt to update the Rolling Hills' capacity factor is legally flawed. It
9 should be recalled that the prudence standard reviews PacifiCorp's decision to acquire/proceed
10 with Rolling Hills based upon information the company knew, or should have known, at the time
11 the decision was made. Clearly, PacifiCorp did not know, nor could it have known, about
12 CH2M Hill's recently updated capacity factor for Rolling Hills. PacifiCorp made the decision to
13 proceed with Rolling Hills between Spring 2007 and late 2007. TR 25-26 (Tallman). The
14 updated CH2M Hill study shows it was prepared as of August 2008, clearly well after PacifiCorp
15 made the decision to develop Rolling Hills in 2007. *See* PPL/204.

16 The fourth major concern staff has with the prudence of PacifiCorp's decision to develop
17 Rolling Hills is its energy production cost compared to other wind resources. This issue stems
18 directly from the low capacity factor of Rolling Hills compared to other Wyoming wind sites.

19 Capacity factor is the most direct measure of a wind project's productivity and therefore
20 its economic benefit. A small difference in average wind speed among sites means a large
21 difference in how much energy is produced and how much it costs to produce each unit of
22 energy. *See* Staff/200, Schwartz/1-2 (UE 199).

23 Staff concludes that the capital costs of Rolling Hills appear to be reasonable on a
24 capacity basis. *See* Staff/200, Garcia/8-9. Procuring equipment and installation at reasonable
25 cost on a capacity basis (dollars per megawatt), however, does not take into account the decision-
26

1 making process that determines “the site in which to put that capital investment.” In other words,
2 “the application of that capital is crucially important.” TR at 85-86 (Schwartz).

3 Staff witness Schwartz explains this concept in the following example: “[I]f I had a good
4 deal for wind turbines and construction of those turbines at my farm, it wouldn’t necessarily be a
5 great idea to have that project at my farm because I don’t have an appropriate wind resource.”
6 TR at 79 (Schwartz). The point is that the quality of the wind resource at the site is critical. That
7 is why a leased site with a higher capacity factor can easily overwhelm any advantages from
8 owning a site – i.e. avoided land leases and royalty payments. *See* Staff/200, Schwartz/15-16;
9 Staff/600, Schwartz/4 (UE 199).

10 PacifiCorp’s own Alternative Cost of Compliance (ACC) analysis shows that, over their
11 lifetimes, the “economic effectiveness” (PPL/200, Tallman/7) of Rolling Hills is far less than the
12 other Wyoming projects that are the same size (99 MW) and on-line in the same year. *See*
13 PPL/201. That PacifiCorp calculates an even less favorable ACC value for the Goodnoe Hills
14 project in Washington state (PPL/203, Tallman/11-12) does not detract from this fact.

15 PacifiCorp’s system-wide ACC analysis does not recognize that Oregon ratepayers will
16 receive a far higher share of the Renewable Energy Certificates (RECs) from Goodnoe Hills after
17 the first five years of project operation, unless other states displace a portion of Energy Trust of
18 Oregon funding for the project by a date certain. Such funds are returned to the Energy Trust for
19 ratepayers’ benefit. To date, only California has opted to displace a portion of the Energy
20 Trust’s investment. The Utah Public Service Commission did not approve PacifiCorp’s proposal
21 to do the same in its recently concluded rate case. *See* Staff/504 and Staff/509. Further,
22 PacifiCorp’s 2007 IRP shows that Wyoming wind resources are expected to have higher capacity
23 factors than wind resources in the other states the company serves. *See* Staff/200, Schwartz/4
24 (UE 199).

25 The economic impact of capacity factor also is evident when comparing PacifiCorp’s
26 estimated annual output and (confidential) levelized resource costs of the 99 MW Wyoming

1 resources in this proceeding over their lifetimes. *See* Staff/200, Schwartz/13-14 and Staff/202,
2 Schwartz/8-11.

3 Staff also presented the energy production cost of these three 99 MW Wyoming wind
4 projects for the test year (2009) to show their immediate impact on rates. Staff's analysis shows
5 that the energy production cost of Rolling Hills in 2009 is far higher – \$95.19 per megawatt-
6 hour (MWh) versus \$73.12 per MWh for Glenrock and \$59.10 per MWh for Seven Mile Hill.
7 *See* Staff/600, Schwartz/4-5 (UE 199). Seven Mile Hill is on leased land. *See* Staff/202,
8 Schwartz/1 (UE 199).

9 In rebuttal testimony in UE 200, PacifiCorp provided a new estimate of the economics of
10 Rolling Hills over its lifetime. *See* PPL/203, Tallman/11; PPL/209. The workpapers for Exhibit
11 PPL/209 that PacifiCorp provided to staff did not include formulas. *See* Staff/506. Despite its
12 efforts prior to the hearing, staff was unable to obtain sufficient information to verify the
13 methodology or the calculations. In any event, the prudence of Rolling Hills should be based on
14 what PacifiCorp knew or could have known at the time.

15 The analyses provided by PacifiCorp and staff demonstrate that the cost of Rolling Hills
16 is not reasonable, particularly considering the cost of other Wyoming wind resources that are the
17 same size and in service in the same year.

18 Finally, *see also* PPL Cross Exhibit 2 (staff's response to DR 3.4).

19 *C. PacifiCorp's imprudent decision concerning Rolling Hills should be accounted for as an*
20 *adjustment to the amount of the project's capital cost that is included in rate base (in UE 200).*
21 *Staff calculates this adjustment by increasing Rolling Hills' expected capacity factor to 38*
percent.

22 The fact that Rolling Hills was imprudently acquired does not mean the plant should be
23 entirely kept out of rate base. *See* Commission Order No. 87-1017 at 10. The appropriate
24 remedy is to make a one-time adjustment to the amount of plant investment (capital cost) that is
25 allowed into rate base. The adjustment is made in order to capture for PacifiCorp's customers
26 the expected capacity factor of a Wyoming wind resource the company likely would have

1 acquired if it had issued an RFP for renewable resources as it was required to do to test this self-
2 build resource against the market. *See* Staff/200, Schwartz/16; Staff/200, Schwartz/3 (UE 199).
3 Staff's method for adjusting the capital cost is structured to achieve the same effect of making an
4 adjustment to Rolling Hills in the UE 199 TAM proceeding. Staff/200, Schwartz/16.

5 Staff witness Brown explained the actual mechanics behind this adjustment. *See*
6 Staff/300, Brown/10-11. Ms. Brown's adjustment is based upon increasing the expected
7 capacity factor for Rolling Hills from the 31 percent used by PacifiCorp to 38 percent. *Id.*
8 PacifiCorp does not seem to have an argument with the mechanics used by Ms. Brown, but it
9 vigorously disagrees with staff's recommended adjustment.

10 As stated, PacifiCorp bases its 31 percent capacity factor for Rolling Hills (recently
11 updated to 33.8 percent) upon a study prepared by its technical consultant CH2M Hill. The
12 updated CH2M Hill study was provided with PacifiCorp's rebuttal testimony filed in UE 200.
13 *See* PPL/204. Assuming the updated capacity factor has legal significance in a prudence review,
14 which it does not, staff is not persuaded by either study.⁶

15 Staff's recommended 38 percent expected capacity factor is based upon several
16 components. Staff's recommendation was based upon an average capacity factor of wind plants
17 in Wyoming serving PacifiCorp, information that was originally provided by PacifiCorp. *See*
18 Staff/200, Schwartz/4; Staff/202, Schwartz/2 (UE 199). PacifiCorp's rebuttal testimony now
19 purports to show that this average is actually 35 percent. *See* PPL/203, Tallman/5. However,
20 staff's quick review of the workpapers Mr. Tallman provided to support his 35 percent
21 calculation raised concerns about the validity of the analysis. *See* TR at 73-76 (Schwartz).

22 However, even assuming Mr. Tallman's 35 percent figure is verified, staff still stands by
23 its 38 percent capacity factor adjustment for Rolling Hills. Staff's reasons for doing so are

24 _____
25 ⁶ It will be recalled that a prudence review looks at the information the utility had, or should have
26 had, when it made its decision. Here, the updated capacity factor projection for Rolling Hills
was not available to the company when it made its decision to proceed with the project. Thus, it
has no legal significance in a review of the prudence of the utility's decision, made in 2007, to
proceed with the project.

1 summarized in staff's response to PacifiCorp's DR 3.18. *See* PPL Cross Exhibit 2 (DR 3.18).
2 Staff's recommended 38 percent capacity factor is less than the capacity factor estimates
3 PacifiCorp used at the time it decided to acquire the other Wyoming resources in this proceeding.
4 A 38 percent capacity factor is also less than the expected capacity factor of the Seven Mile Hill
5 expansion project (Seven Mile Hill II) under development by PacifiCorp and expected to be
6 completed by year-end. In addition, PacifiCorp stated that the turbines at Rolling Hills were
7 placed in a less desirable location than the portion of the site where the Glenrock project is
8 located. *See also* TR at 73-76 (Schwartz).

9

10 **6. The Commission should adopt staff's recommendations for Glenrock**

11 As will be discussed in Section 7 below, staff recommends that its adjustment for the
12 Glenrock resource be made in UE 199. Unlike Rolling Hills, staff does not conclude that
13 PacifiCorp's decision to acquire and develop Glenrock was imprudent. However, PacifiCorp
14 incorrectly advocates for an updated capacity factor of 37.4 percent (formerly 38.6) for the
15 facility. The Commission should use staff's recommended 41 percent capacity factor for the
16 Glenrock resource.⁷

17 While the issue here is simple in concept (which percentage to use for the capacity
18 factor), unfortunately, the history of how the company has documented its recommended
19 capacity factor percentage is long and tortuous.

20 PacifiCorp initially provided an approximate number of 38 percent for its capacity factor
21 for Glenrock. *See* Staff/202, Schwartz/2 (UE 199). In response to data requests from staff and
22 ICNU, the only documentation the company provided for its 38 percent figure was a November

23 _____
24 ⁷ As discussed, staff views Rolling Hills/Glenrock together as a Major Resource. Nevertheless,
25 because of the way this case has unfolded, it is appropriate to adjust the capacity factor for the
26 Glenrock phase of the project. For reasons discussed in the text, PacifiCorp failed (at least until
its Motion and accompanying exhibits filed on September 15, 2008) to provide any
documentation to substantiate its recommended 38.6 percent capacity factor for Glenrock.
Accordingly, staff proposed to adjust the capacity factor to line-up with the only evidence
available – a November 2007 report produced by PacifiCorp's technical consultant.

1 2007 report from CH2M Hill, its technical expert, which showed a 41 percent expected capacity
2 factor for Glenrock. *See* Staff/604, Staff/15 (UE 199); Staff/202, Schwartz/57 (UE 200). The
3 company, however, included in its project approval documentation a “conservative” 38.6 percent
4 capacity factor for Glenrock. *See* Staff/202, Schwartz/32 (UE 200). Finally, in its UE 200
5 rebuttal testimony, PacifiCorp again refined the capacity factor down to 37.6 percent. *See*
6 PPL/203, Tallman/1-2; PPL/205.

7 Well, as it turns out, not quite “finally.” Just a few days ago, PacifiCorp submitted an
8 “update” to its PPL/205 exhibit. The newly-filed reports purport to confirm, for the first time,
9 the alleged basis for the company’s 38.6 percent estimated capacity factor for Glenrock. *See*
10 PacifiCorp’s Motion to Supplement Record (September 15, 2008). According to the Motion, the
11 consultant created these reports on April 6, 2007, and April 10, 2007. PacifiCorp does not
12 explain why neither report was provided earlier in response to staff’s and ICNU’s data requests
13 originally sent to the company months ago in UE 199. *See, e.g.* Staff/604, Schwartz/15 (UE
14 199).

15 Despite their dubious history, staff has decided not to file a motion to strike these newly-
16 produced consultant reports. Instead, staff asks the Administrative Law Judge to give them little,
17 or no, weight in light of their late submittal and PacifiCorp’s failure to provide them earlier when
18 requested. There is no opportunity for staff to analyze them, to send PacifiCorp data requests
19 about them, or to submit additional (indeed, any!) testimony about them.

20 However, should the ALJ grant the late-produced reports full status as reliable evidence,
21 it is critical to note that the consultant reports were prepared in April 2007, a full seven months
22 prior to the November 2007 report that staff relies upon. The later November report is thus the
23 proper one to use in the UE 199 proceeding not only because recent information but also because
24 it was available to the company prior to the TAM filing.

25 Staff is similarly opposed to the Commission granting the updated 37.4 percent capacity
26 factor much weight. Staff and parties had little time to review the update provided on August 22,

1 2008, and had insufficient time to conduct discovery while preparing for the hearing and meeting
2 other workload. The update also came too late for written testimony. Further, the update is not
3 relevant to a prudence review in UE 200. *See* PPL Cross Exhibit 2 (staff response to DR 3.15).
4 Finally, the company states that this capacity factor may change further still, if additional
5 technical studies at project completion show material changes compared to the 37.4 percent
6 “final build design” figure. PPL/203, Tallman/2. Staff properly relies upon the verified capacity
7 factor provided in UE 199, 41 percent. *See* Staff/604, Staff/15 (UE 199); Staff/200, Schwartz/17
8 (UE 200).

9

10 **7. Adjustments in UE 199 (TAM) or in UE 200 (RAC)**

11 As discussed above, staff provides alternative adjustments for the Commission’s
12 consideration to address the appropriate capacity factors of Glenrock and Rolling Hills. Staff
13 presents the calculations for the alternative adjustments in the UE 199 (TAM) and in UE 200
14 (RAC) proceedings. *See* Staff/100, Brown/13-14 and Staff/400, Brown/1-2 (UE 199); Staff/300,
15 Brown/9-12 in UE 200.

16 The proposed RAC adjustments were calculated to achieve the same effect as the TAM
17 adjustments. *See* Staff/200, Schwartz/16. That is, the RAC adjustments were designed to reflect
18 the net power cost benefits ratepayers would receive if the adjustment were instead made in the
19 TAM.

20 For Glenrock, staff recommends an adjustment in order to use the 41 percent capacity
21 factor stated in the third-party technical report on the wind resource at that site, provided by
22 PacifiCorp to staff and parties in discovery in this proceeding. *See* Staff/604, Schwartz/15 (UE
23 199); Staff/200, Schwartz/17 and Staff/202, Schwartz/57 (UE 200). As staff explains above,
24 PacifiCorp’s updated capacity factor of 37.4 percent for Glenrock came so late in the proceeding
25 that staff was not able to verify it. *See* Section 6 of the Brief.

26

1 In lieu of Rolling Hills, and its very low capacity factor compared to other Wyoming
2 wind resources, staff recommends the Commission apply a capacity factor in line with a
3 Wyoming wind resource the company likely would have acquired in a Commission-approved
4 competitive bidding process. *See* Staff/600, Schwartz/11 and Staff/202, Schwartz/1-4 (UE 199).

5 Staff is not challenging the prudence of Glenrock. Staff agrees with PacifiCorp that, for
6 Glenrock, the issue is which wind profile to use in the TAM. *See* PPL/203, Tallman/3 (UE 200).
7 Therefore, staff recommends the Commission make staff's recommended adjustment in the
8 TAM.

9 However, if the Commission agrees with staff that the Rolling Hills plant was
10 imprudently acquired, the Commission should ensure that ratepayers are not harmed in future
11 years by Rolling Hills' proximity to Glenrock. *See* Staff/200, Schwartz/17 (UE 200); Staff
12 Exhibit 202, Schwartz/32 (UE 200). In order to address this issue, without revealing confidential
13 material in this brief, the Commission should make adjustments in the RAC to reflect the impact
14 of Rolling Hills on Glenrock.

15 The Commission should direct PacifiCorp to use a 41 percent capacity factor for
16 Glenrock in the company's final TAM filing in UE 199. Further, without revealing confidential
17 information in this brief, the Commission should direct that in future annual power cost update
18 filings, the company must make an adjustment to Glenrock in accordance with [*for confidential*
19 *material see* Staff/200, Schwartz/17; Staff Exhibit 202, Schwartz/32 (UE 200)].

20

21 **8. Federal Production Tax Credits and Renewable Energy Certificates**

22 Each kilowatt-hour generated from a wind facility that goes into service in 2008 is
23 eligible for a federal tax credit of 2.1 cents for the first 10 years of production. *See* PPL/303,
24 Dalley/3 (UE 200). In addition, one Renewable Energy Certificate (REC) is produced for each
25 megawatt-hour of energy generated. Staff/600, Schwartz/9 (UE 199). RECs can be sold into the
26 market or used for compliance with voluntary or mandatory renewable resource programs.

1 The RAC is where the benefits of federal production tax credits are accounted for. *See*
2 PPL/300, Dalley/4; Staff/600, Schwartz/10-11 (UE 199). Staff recommends the Commission
3 make an adjustment in the RAC to reflect the amount of tax credits associated with a 41 percent
4 capacity factor for Glenrock. *See* Staff/400, Brown/2; Staff/500, Brown/1; and Staff/600,
5 Schwartz/8-11 (UE 199).

6 PacifiCorp also raised the issue of RECs associated with adjustments to capacity factors.
7 *See* PPL/400, Tallman/4-5 (UE 199). Staff recommended the Commission consider this issue as
8 well. The company states it is banking Oregon's share of the RECs for compliance with the
9 Oregon Renewable Energy Act (SB 838, 2007 Session), rather than selling them. ICNU/102,
10 Falkenberg/47-48. Therefore, there is no revenue stream associated with these RECs. Because
11 staff is not raising a prudence issue regarding Glenrock, upon reflection, staff does not
12 recommend the Commission make a REC-related adjustment for this facility, except for the issue
13 related to Rolling Hills' impact on Glenrock, described in Sections 7 and 11 of this brief.

14 Turning to Rolling Hills, staff's proposed adjustments are based on a finding of
15 imprudence and resulting disallowance for unreasonable costs, as explained above. The RAC is
16 the appropriate place for a prudence disallowance because that is how the capital costs of Rolling
17 Hills are included in rates. Such a disallowance would be a one-time adjustment, and the
18 decision would not be revisited. *See* TR at 107-108 (Brown). In addition, an adjustment in the
19 RAC, rather than the TAM, would avoid the difficulty of quantifying the adjustment to the
20 capacity factor of Rolling Hills as its expected capacity factor may be updated from year to year
21 in annual power cost updates.

22 Similar to Glenrock, additional federal production tax credits associated with staff's
23 recommended 38 percent capacity factor adjustment for Rolling Hills also should be accounted
24 for in the RAC. *See* Staff/400, Brown/2; Staff/500, Brown/1; and Staff/600, Schwartz/8-11 (UE
25 199). To reflect that federal production tax credits are provided for the first 10 years of facility
26 operation, and not just the first year, the Commission also should direct PacifiCorp to reduce tax

1 expense for Rolling Hills each year from 2010 through 2018 to reflect the amount of tax credits
2 associated with a 38 percent capacity factor.

3 Staff also continues to recommend the Commission make an adjustment to account for
4 the additional RECs associated with the higher capacity factor resource PacifiCorp would have
5 acquired through a Commission-approved competitive bidding process, in lieu of Rolling Hills.
6 The additional energy produced by the higher capacity factor resource not only would increase
7 net power cost benefits and receive more federal production tax credits. Customers also would
8 benefit from additional RECs that could be sold into the market or banked for compliance with
9 mandatory renewable energy standards in Oregon. The Commission should direct PacifiCorp to
10 deduct the additional REC value from capital costs for the December 1st 2009 RAC update.
11 Further, to account for the company's 2007 IRP REC value of \$5 per megawatt-hour over the
12 first five years of facility operation, the Commission also should direct the company to make this
13 adjustment each year from 2010 through 2013. *See* Staff/600, Schwartz/9-10 (UE 199).

14

15 **9. Modeling Issues**

16 Staff continues to support its recommendation that the Commission require PacifiCorp to
17 perform simultaneous runs of the PVR(d) and ACC methods. *See* Staff/300, Brown/6. Staff
18 has testified there may be systemic biases within the company's ACC method and its valuation
19 of wind energy produced by the facilities. The implications of this over or undervaluation are
20 not yet clear to staff. As such, staff recommends that both models be run simultaneously, for
21 current and future projects, in order to give staff the greatest amount of information and to assure
22 all parties that this is the best model to use going forward. Considering the ACC method is
23 wholly untested and new to staff, it is reasonable to have a basis of comparison in evaluating
24 renewable resources.

25 Despite staff's concern about the modeling, and its recommended solution, the company
26 still has not performed the quantitative analysis to refute staff's concerns. *See* Staff/507.

1 PacifiCorp has not stated any additional costs associated with providing both analyses, nor does
2 it seem reasonable that there would be any substantive additional costs. The company is
3 currently using the GRID model for purposes of the TAM, and the PVRR(d) method is based on
4 this model in order to value the energy of these same resources.

5 PacifiCorp's qualitative reasoning as to why staff's concerns are unfounded is not
6 persuasive. Staff testified that there is a concern that the ACC model may systematically over or
7 undervalue the resource based on its correlation to the wind profile of the de-committed portfolio
8 of resources. *See* Staff/300, Brown/5. PacifiCorp's response to staff's concern was that the
9 ACC method and PVRR(d) method both account for intra-hour intermittency in wind. *See*
10 PPL/203, Tallman/29-30. This statement has no relevance to staff's issue that the wind profile of
11 a resource and its correlation to the wind profile of the de-committed portfolio of wind takes into
12 account the actual forecast of the wind on an hour-to-hour basis. The fact that both models take
13 into account intra-hour variability is not on point.

14 Staff does not take issue with the company attempting to provide alternative models for
15 evaluation that may be more in line with the IRP/RFP relationship. But, there are enough
16 questions about the modeling that staff recommends the Commission require PacifiCorp to
17 perform simultaneous runs of the PVRR(d) and ACC methods to help resolve the issue of
18 whether the ACC model performs as PacifiCorp claims it does.

19

20 **10. Cost of Capital**

21 The RAC adjustment clause underlying this proceeding reduces PacifiCorp's risk with
22 regard to regulatory lag. This should lower the company's cost of capital. *See* Staff/300,
23 Brown/12-14. This is not the same risk that PacifiCorp witness Kelly seems to discuss in her
24 testimony. The risk PacifiCorp raises is whether the Commission finds the company's costs
25 *prudently* incurred, which is a risk PacifiCorp will always face. *See* PPL/101, Kelly/7. If the
26 Company chooses to act imprudently it does so at its own peril, and the Commission should

1 never reward these activities by allowing a higher cost of equity. Staff intends to investigate the
2 impact of SB 838 on PacifiCorp's cost of capital in the company's next general rate case.

3

4 **11. Summary of Staff's Recommendations**

5 For the reasons stated, staff requests the Commission adopt its recommendations, which for
6 convenience, are summarized as follows:

7 1. Direct PacifiCorp to reduce the revenue requirement in the 2009 RAC to reflect:

8 (a) A capital cost disallowance for Rolling Hills of \$44,738,535 (Oregon-allocated)⁸
9 associated with a 38 percent capacity factor.

10 (b) An additional reduction in capital costs for Rolling Hills of \$304,005 (system-
11 wide)⁹ to account for the additional renewable energy certificates associated with
12 a 38 percent capacity factor.

13 (c) An additional reduction in tax expense for Rolling Hills of \$1,276,821 (system-
14 wide)¹⁰ to account for the additional federal production tax credits associated with
15 a 38 percent capacity factor.

16 (d) A reduction in tax expense for Glenrock of \$443,961 (system-wide)¹¹ to account
17 for the additional federal production tax credits associated with a 41 percent
18 capacity factor.

19

20

21

22 ⁸ See Staff/102, Garcia/5 (UE 200).

23 ⁹ See Staff/600, Schwartz/9 (UE 199).

24 ¹⁰ See Staff/600, Schwartz/10 (UE 199). Consistent with PPL/303, Dalley/3 (UE 200), staff has
25 updated its recommended adjustments to reflect the Internal Revenue Service's recent revision of
26 the tax credit from 2.0 cents to 2.1 cents per kilowatt-hour of production. See Staff/600,
Schwartz/9 (UE 199) for additional energy production associated with staff's recommended
capacity factor adjustments.

¹¹ See footnote 3.

- 1 2. Direct PacifiCorp to reduce tax expense for Rolling Hills by \$1,276,821 (system-wide)
2 each year from 2010 through 2018 to reflect that federal production tax credits are
3 provided for the first 10 years of facility operation.¹²
- 4 3. Direct PacifiCorp to deduct an additional \$304,005 (system-wide) from capital costs of
5 Rolling Hills for additional renewable energy certificates associated with a 38 percent
6 capacity factor each year from 2010 through 2013, to reflect the company's 2007 IRP
7 renewable energy certificate value of \$5 per megawatt-hour over the first five years of
8 facility operation.¹³
- 9 4. Direct PacifiCorp to use a 41 percent capacity factor for Glenrock in its UE 199 TAM
10 updates. If, however, the Commission does not approve staff's recommended 41 percent
11 capacity factor for Glenrock in the UE 199 TAM, the Commission should direct the
12 company to make a discrete adjustment to account for the impact of Rolling Hills on
13 Glenrock in accordance with confidential material in Staff/200, Schwartz/16-17 and Staff
14 Exhibit 202, Schwartz/32 (UE 200). Similarly, regardless of the capacity factor the
15 Commission adopts in UE 199 for Glenrock, the Commission should direct the company
16 to make this discrete adjustment in future power cost updates. Further, associated with
17 this discrete adjustment, the Commission should direct the company in UE 200 and future
18 rate cases to reduce tax expense for Glenrock to account for the additional federal
19 production tax credits through 2018 and reduce capital costs for Glenrock to account for
20 the additional renewable energy certificates through 2013.
- 21 5. Consider in future general rate cases the impact on cost of capital of SB 838 provisions
22 that reduce risk, including the reduction in regulatory lag due to mandated timely
23 recovery of prudently incurred costs.
- 24

25 _____
26 ¹² See Staff/600, Schwartz/9 (UE 199).

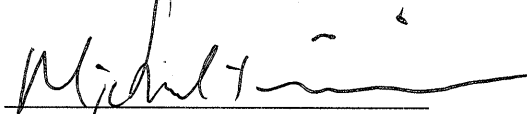
¹³ *Id.*

1 6. Direct PacifiCorp to include analysis using the company's PVRR(d) method in future
2 filings requesting cost recovery of renewable resources, performing simultaneous runs
3 with the company's other modeling methods.
4

5 DATED this 22nd day of September 2008.

6 Respectfully submitted,

7 HARDY MYERS
8 Attorney General

9 

10 Michael T. Weirich, #82425
11 Assistant Attorney General
12 Of Attorneys for Staff of the Public Utility
13 Commission of Oregon
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1 **CERTIFICATE OF SERVICE**

2 I certify that on September 22, 2008, I served the foregoing **STAFF'S OPENING**
3 **BRIEF** upon all parties of record in this proceeding by delivering a copy by electronic mail
4 (where parties have waived paper service) and by mailing a copy by postage prepaid first class
5 mail or by hand delivery/shuttle mail to the parties accepting paper service.

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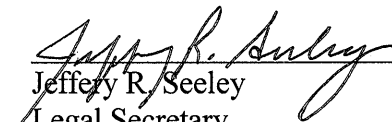
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