CASE: UE 352
WITNESS: STEVE STORM

PUBLIC UTILITY COMMISSION
OF
OREGON

STAFF EXHIBIT 200

Rebuttal and Cross-Answering Testimony

June 3, 2019

1 **Q. Please state your name, occupation, and business address.**

2 A. My name is Steve Storm. I am a Senior Economist employed in the Energy
3 Rates, Finance and Audit Division of the Public Utility Commission of Oregon
4 (OPUC). My business address is 201 High Street SE, Suite 100, Salem,
5 Oregon 97301.

6 **Q. Have you previously provided testimony in this proceeding?**

7 A. Yes; I sponsored Staff Exhibit 100.

8 **Q. What is the purpose of your testimony?**

9 A. My testimony represents Staff's response to PacifiCorp's Reply Testimony.
10 Additionally, it discusses certain recommendations and related aspects in the
11 Opening Testimonies of the Alliance of Western Energy Consumers (AWEC),
12 Calpine Energy Solutions, LLC (Calpine), and the Oregon Citizens' Utility
13 Board (CUB), and collectively the Intervening Parties.

14 **Q. How is your testimony organized?**

15 A. My testimony is organized as follows:

16 Summary of Staff's position 2
17 Pacificorp's Rac Mechanism And Equity Considerations 5
18 Resolved Issues 13
19 Issue 1, Pacificorp's Incremental Investments Are Prudent 15
20 Issue 2, Ratemaking Treatment Of Removed Equipment 17
21 Summary of Staff Recommendations 34

1 **SUMMARY OF STAFF'S POSITION**

2 **Q. PLEASE SUMMARIZE STAFF'S POSITION IN THIS PROCEEDING.**

3 A. First, Staff concludes that PacifiCorp's investment in new equipment
4 associated with the Company's wind repowering effort is prudent, assuming
5 the projects qualify for production tax credits (PTCs).

6 Second, PacifiCorp should be permitted to recover the return *of* the equipment
7 removed as part of the wind repowering effort (removed equipment). Staff
8 supports the return *of* PacifiCorp's remaining investment in the removed
9 equipment, as well as covering any associated accumulated deferred income
10 taxes, and recommends use of a regulatory asset and its amortization as the
11 means by which to achieve this. The timing of valuation associated with this
12 recommendation is as of the rate effective dates in this proceeding and totals
13 approximately $153 million.[1] This recommendation ensures the return *of*
14 PacifiCorp's remaining investment in the removed equipment.

15 Third, Staff recommends a $14.3 million reduction to annual revenue
16 requirement in the current proceeding,[2] which Staff estimates as the amount
17 necessary to offset the revenue requirement in current base rates resulting
18 from Docket No. UE 263[3] that is associated with the return *on* PacifiCorp's
19 investment in the removed equipment, as well as *on* any accumulated deferred

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[1] See PacifiCorp's response to AWEC data request 9. Staff's testimony below includes nformation regarding the specific parameters involving amortization of the created regulatory asset.

[2] Dollar amounts in Staff's recommended adjustments to the annual revenue requirement resulting from this proceedings are on an Oregon-allocated basis.

[3] Docket No. UE 263 was PacifiCorp's last Oregon general rate case and therefore amounts in current base rates reflect the results of that proceeding.

1 income taxes associated with the removed equipment. The timing of valuation
2 associated with this recommendation is as of January 1, 2014, the rate
3 effective date in UE 263,[4] in order to reflect amounts in current base rates.
4 Fourth, Staff recommends a second reduction to annual revenue requirement
5 in the current proceeding of $9.5 million to offset the return *of* the removed
6 equipment that is in current base rates resulting from Docket No. UE 263,
7 which Staff proposes to be recovered through use of a regulatory asset, as
8 discussed above. The removed equipment is no longer used and useful, but
9 Staff believes the equipment was removed in the public interest and should be
10 subject to cost recovery (return *of*).
11 The result of the first and second reductions to the annual revenue
12 requirement in this proceeding is to offset the return *on* (first reduction) and
13 return *of* (second reduction) the amount of PacifiCorp's investment in the
14 removed equipment that is in current base rates.
15 Fifth, Staff recommends a third reduction of $14 thousand to the revenue
16 requirement in the current proceeding, as PacifiCorp included in proposed
17 revenue requirement the recovery of an investment that occurs subsequent to
18 the rate effective dates in this proceeding.
19 Should the Commission decline to order recovery of removed plant pursuant to
20 a regulatory asset, Staff recommends that the Commission adopt Staff's
21 recommendation in Opening Testimony to reduce the Company's revenue

[4] Page 8 of Order No. 13-474 in Docket No. UE 263.

1 requirement in this proceeding to remove the return *on* the removed
2 equipment, as it is no longer used and useful in the provision of utility service.
3 Staff includes a summary of discrete recommendations at the end of this
4 testimony.

1 **PACIFICORP'S RAC MECHANISM AND EQUITY CONSIDERATIONS**

2 **Q. WHICH CURRENT AND PRIOR PROCEEDINGS ARE RELEVANT TO**
3 **DISCUSSING PACIFICORP'S RAC FILING IN THIS PROCEEDING?**

4 A. There are, in addition to the current proceeding, multiple relevant proceedings.
5 Staff identifies these below and includes their docket numbers:

6 - UE 263, PacifiCorp's last general rate case proceeding
7 - UE 339, PacifiCorp's 2019 Transition Adjustment Mechanism {TAM)
8 proceeding
9 - UE 356, PacifiCorp's 2020 TAM proceeding
10 - LC 67, PacifiCorp's 2017 IRP
11 - UM 1647, PacifiCorp's last depreciation proceeding
12 - UM 1968, PacifiCorp's current depreciation proceeding

13 The UE 263 general rate case included, in base rates resulting from that
14 proceeding, the costs associated with PacifiCorp's wind resources, and, in
15 particular, included in current base rates the costs of the equipment the
16 Company will remove and replace with new equipment as part of its wind
17 repowering effort. The UE 263 proceeding implemented in rates the
18 depreciation expense resulting from depreciation rates established as an
19 outcome of the UM 1647 proceeding.

20 The 2019 TAM (UE 339) incorporated into rates the forecasted value of the
21 production tax credits (PTCs) associated with forecasted 2019 generation from
22 PacifiCorp's wind resources. This value is reflected in Rate Schedule 202. The
23 2020 TAM will similarly incorporate into rates the value of the PTCs, on a

forecast basis, associated with forecasted 2020 generation from PacifiCorp's wind resources.

PacifiCorp's next general rate case will incorporate in base rates the cost of the Company's repowered wind resources, subject to cost recovery in the current proceeding; e.g., the costs of the new equipment the Company is installing as part of its wind repowering effort. Base rates from the next general rate case will reflect costs based in part on depreciation rates resulting from PacifiCorp's current UM 1968 depreciation proceeding.

PacifiCorp's 2017 IRP (Docket No. LC 67) included economic analysis associated with the Company's wind repowering effort.

Q. WHAT IS THE PURPOSE OF THE RAC?

A. The purpose of the renewable adjustment clause is to allow for the timely recovery of costs prudently incurred for the construction or acquisition of renewable energy resources compliant with Oregon's Renewable Portfolio Standards (RPS). PacifiCorp's Schedule 202, which implements RAC rates, includes that the purpose of Schedule 202 is to recover, "…between [general] rate cases, the costs to construct or otherwise acquire facilities that generate electricity from renewable energy sources…"[5] In short, the RAC is to serve as a means by which to include in rates the prudently incurred costs associated with incremental renewable generation facilities when these facilities are placed in service subsequent to the last general rate case and prior to the next

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[5] PAC/502, Ridenour/1.

general rate case.[6] This approach allows for more timely recovery in rates the costs of such investments than if recovery could only be effected as a result of a general rate case.

PacifiCorp notes in its Reply Testimony that the Company has modified the RAC[7] as necessary to address the Commission's determination that it does not have the authority to defer capital costs.[8] Staff supports those recommendations for purposes of this proceeding.

Q. WHAT ARE THE BENEFITS OF MORE TIMELY RECOVERY OF INVESTMENTS?

A. Utility shareholders potentially benefit from the reduction of regulatory lag related to the inclusion in rates of investment costs for renewable generation resources, if the timing of an investment does not coincide with that of a general rate case. A more streamlined recovery of costs associated with Renewable Portfolio Standards (RPS) compliance is consistent with legislative intent.[9]

Q. ARE THERE CUSTOMER BENEFITS ASSOCIATED WITH THE COSTS TO BE RECOVERED IN RATES RESULTING FROM THIS PROCEEDING?

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[6] Staff acknowledges that the costs for incremental transmission facilities associated with the incremental renewable generation facilities are also to be included, but this proceeding does not include any "associated transmission."

[7] PAC/600, Lockey/20.

[8] Pages 8 – 10 of Order No. 18-432 in Docket No. 1909.

[9] PacifiCorp asserts that "100 percent capital cost recovery for renewable resource investment is required by ORS 469A.120(2)" at PAC/600, Lockey/20. Staff will reserve for briefing legal arguments related to applicable statutory provisions. Although I am not an attorney, and Staff will address this issue in briefing, it is my understanding that the statute requires that such costs be "recoverable," which may be different from the Company's assertion that 100 percent capital cost recovery is required.

1 A. Yes. Customers benefit generically from increased generation from renewable
2 resources and potentially from reduced new power costs and through any
3 applicable tax benefits or other incentives. As one example, the benefits of
4 PTCs associated with the incremental investments included in this proceeding
5 are in current customer rates as an outcome of PacifiCorp's last TAM
6 proceeding (UE 339).

7 **Q. ARE RAC RATES UPDATED?**

8 A. Yes. Utilities file annual updates to RAC rates until resources included in cost
9 recovery pursuant to the RAC are included in base rates as a result of a
10 general rate case.

11 **Q. HOW ARE RAC RATES UPDATED?**

12 A. Subsequent to the initial RAC filing for a given new investment in renewable
13 generation, annual RAC filings are to "update all costs."[10] This means that
14 costs associated with the renewable generation resource are updated
15 annually, while costs associated with investments in other than a renewable
16 generation resource are static between general rate cases, as described more
17 fully below.

18 **Q. PLEASE PROVIDE AN EXAMPLE OF WHAT WOULD SERVE TO**
19 **INCREASE (DECREASE) REVENUE REQUIREMENT IN AN ANNUAL RAC**
20 **FILING?**

[10] See; e.g., page 4 of Appendix A to Order No. 07-572 in Docket No. UM 1330: "[a]ll costs in the RAC Schedules will be updated annually…"

1 A. One example of a change that could potentially increase a RAC filing's annual
2 revenue requirement from that of the prior filing is an increase in the utility's
3 effective income tax rate. An example of a change that would decrease a RAC
4 filing's annual revenue requirement from that of the prior filing results from the
5 cumulative impact of periodic depreciation of rate base[11] and therefore on the
6 dollar amount of the utility's return in the RAC filings annual revenue
7 requirement.[12]

8 **Q. PLEASE EXPLAIN YOUR EXAMPLE OF A DECREASE IN REVENUE**
9 **REQUIREMENT AS A RESULT OF ONGOING DEPRECIATION OF A**
10 **UTILITY'S INVESTMENT IN RENEWABLE GENERATION FACILITIES.**

11 A. Simplifying for purposes of exposition, ongoing periodic depreciation serves to
12 reduce the net book value of the renewable generation investment[13] and—all
13 else being equal—to reduce rate base. A reduction in rate base means that
14 retail rates—all else being equal—are also reduced. Because a utility's
15 authorized rate of return does not change between general rate cases, annual
16 RAC filings—subsequent to the initial filing for specific investments in
17 renewable generation equipment and assuming all else remains equal—
18 produce annual revenue requirements that annually decline until the

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[11] Staff uses the term "rate base" in this discussion in a conceptual sense; i.e., rate base is the dollar amount to which authorized rates of return, associated with an authorized capital structure and a given effective Federal/State combined income tax rate, can be applied to produce the "return" portion of revenue requirement.

[12] See; e.g., AWEC/100, Mullins/11 – 12.

[13] "Net book value" equals "gross book value" (the amount of investment) less "accumulated depreciation."

1 investment is included in base rates as a result of the utility's next general rate
2 case.
3 AWEC, in Opening Testimony, cites parties' Joint Testimony in support of the
4 Stipulation reached in Docket No. UM 1330 on this point.[14]

5 **Q. WHAT "EQUITY CONSIDERATIONS" ARE INVOLVED IN THIS**
6 **PROCEEDING?**

7 A. "Equity considerations," as Staff uses the term in the current context, means
8 both an awareness of and an accounting for a "fair"—or equitable—distribution
9 of both costs and benefits between PacifiCorp and its customers as a result of
10 this proceeding.
11 Typical RAC initial filings, in which PacifiCorp seeks to recover its costs
12 associated with the Company's incremental investment in renewable
13 generation facilities, concern costs associated with the incremental
14 investment.

15 **Q. IS PACIFICORP'S FILING IN THIS PROCEEDING "TYPICAL"?**

16 A. No. It is atypical, as PacifiCorp acknowledges.[15] A typical RAC involves a new
17 investment in renewable generation resource and does not involve the
18 removal and replacement of renewable generation equipment included in base
19 rates and not fully depreciated.

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[14] AWEC/100, Mullins/10.

[15] PAC/600, Lockey/7 – 8: "…wind repowering is unique…requiring that a significant portion of the original wind equipment be upgraded and replaced."

1 **Q. WHERE DOES STAFF STAND REGARDING EQUITY CONSIDERATIONS**
2 **IN THIS PROCEEDING?**
3 A. Although PacifiCorp makes multiple legal arguments related to the
4 interpretation and application of ORS 757.355 (Oregon's "used and useful"
5 statute) in its Reply Testimony, Staff will reserve its legal arguments for
6 briefing. Staff's view is that—from a policy perspective—customers should not
7 continue to pay a return *on* investment that does not provide any benefit to
8 customers after it is removed from service.
9 PacifiCorp's requested revenue requirement in this proceeding does not reflect
10 the cost reduction that results from eliminating the Company's return *on* the
11 removed equipment, which equipment is no longer in service and no longer
12 used and useful as of the rate effective dates. Conversely, PacifiCorp asserts
13 that recommendations from Staff, CUB, and AWEC in their respective opening
14 testimonies to remove or offset the revenue requirement associated with the
15 return *on* the undepreciated balance of the removed equipment, where the
16 return *on* is in current base rates, by adjusting the revenue requirement in this
17 proceeding, "…would shift a large share of the costs of wind repowering to
18 PacifiCorp" and that disallowing a return *on* the removed equipment
19 represents an "…unbalanced and unreasonable outcome…"[16]
20 Staff strongly disagrees with each of these assertions. There is no shifting of
21 costs of the wind repowering effort from customers to PacifiCorp, as the costs

[16] PAC/600, Lockey/1.

1 PacifiCorp asserts are being shifted—going forward from the rate effective
2 dates in this proceeding—do not exist. Customers have paid for a partial return
3 *of* and the authorized return *on* the Company's investment in the removed
4 equipment as of the rate effective dates in this proceeding. Once this
5 equipment is removed from service, it is no longer used and useful, and
6 PacifiCorp should no longer receive a return *on* it.
7 As to PacifiCorp's second assertion above, Staff considers rates which result
8 from the Commission implementing Staff's recommendations to be just and
9 reasonable, and not an outcome that is "unbalanced and unreasonable." If the
10 RAC is to benefit PacifiCorp by reducing regulatory lag and providing more
11 timely recovery of costs associated with new investment in renewable
12 generation facilities, the same reduced regulatory lag should also—where
13 appropriate—benefit customers. Staff believes offsetting the return *on*
14 equipment that is replaced as part of the wind repowering effort, where the
15 return *on* is in current base rates, is appropriate and should take place at the
16 same time the equipment is replaced and removed from service. Fortunately
17 for customers, the RAC mechanism provides a means by which to effect this
18 benefit. Staff believes the recovery of undepreciated plant pursuant to a
19 regulatory asset is also just and reasonable, as it allows the Company to fully
20 recover its investment in the removed plant and receive interest at a rate
21 reflecting the time value of money.
22

1 **RESOLVED ISSUES**

2 **Q. WHAT RECOMMENDATIONS PROPOSED BY AWEC, CALPINE, CUB OR**
3 **STAFF DID PACIFICORP ACCEPT IN THE COMPANY'S REPLY**
4 **TESTIMONY?**

5 A. PacifiCorp, in Reply Testimony, agreed with two of Calpine's recommended
6 modification to the Company's proposed changes regarding direct access and
7 suggested use of a tariff rider to implement Calpine's third recommended
8 modification.[17] Staff supports PacifiCorp's proposed changes, as modified in
9 testimony.

10 Staff, in Opening Testimony, recommended the Commission require a signed
11 affidavit from PacifiCorp's CEO attesting to each wind repowering project in
12 this proceeding having been placed in service and I commercial operation on
13 or prior to its respective rate effective date.[18] The Company, in Reply
14 Testimony, "did not object" to this recommendation from Staff.[19]

15 Staff, in Opening Testimony, recommended an adjustment to revenue
16 requirement associated with PacifiCorp's omission of the correct PUC
17 amounts in its filed revenue requirement. This represented an increase in
18 revenue requirement of $97 thousand annually.[20] PacifiCorp, in Reply
19 Testimony, concurred with Staff's adjustment.[21]

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17 PAC/600, Lockey/26 – 27.

18 Staff/100, Storm/57.

19 PAC/600, Lockey/24.

20 Staff/100, Storm/72, including footnote 146.

21 PAC/900, McDougal/6.

1 **Q. HAVE ANY ISSUES RELATED TO PACIFICORP'S WIND REPOWERING**
2 **EFFORT BEEN MOVED FROM THIS PROCEEDING?**
3 A. Yes. Staff's Opening Testimony recommended a condition the Commission
4 might place, with an eye to protecting customers, on PacifiCorp's recovery of
5 its incremental investment associated with the wind repowering effort. After
6 further discussion with parties to this proceeding, Staff believes conditions
7 involving PTCs are more appropriately dealt with in the next TAM proceeding,
8 as revenue requirements resulting from TAM proceedings incorporate the
9 impact of PTCs.[22] Staff's position that these issues be addressed in the
10 current and in future TAM proceedings, as appropriate, does not constitute a
11 waiver of any argument or represent a concession in any way.
12 **Q. WHAT DOES STAFF SEE AS THE PRIMARY ISSUES IN THIS**
13 **PROCEEDING?**
14 A. Staff, after reviewing testimony submitted to this point, sees two primary
15 issues in this proceeding. The first issue is whether PacifiCorp's actions
16 regarding the Company's wind repowering effort are prudent. The second
17 issue is whether the Commission should allow PacifiCorp to continue including
18 in customer rates a return *on* the equipment that is being removed as part of
19 the wind repowering effort.
20 There are a number of issues that, from Staff's perspective, are secondary to
21 the primary issues above.

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[22] This approach appears to be in alignment with PacifiCorp's thinking; i.e., that "issues relating to PTC benefits are…addressed in the TAM, not the RAC." AC/600, Lockey/14.

1 **ISSUE 1, PACIFICORP'S INCREMENTAL INVESTMENTS ARE PRUDENT**

2
3 **Q. DID STAFF MAKE A RECOMMENDATION ON WHETHER THE**
4 **COMPANY'S WIND REPOWERING INVESTMENTS ARE PRUDENT?**
5 A. Yes. Staff finds, as discussed in Opening Testimony, PacifiCorp's investment
6 in the wind repowering effort is prudent, assuming the anticipated benefits are
7 realized.[23] Staff continues to recommend the Commission authorize the
8 recovery of incremental equipment associated with the wind repowering effort
9 as a result of this proceeding, but—as discussed below—Staff also finds that
10 additional adjustments to PacifiCorp's revenue requirement in this proceeding
11 is necessary, in order to remove the return *on* the not fully depreciated plant
12 that is removed.
13 Staff recommended the Commission require a signed affidavit from Pacific
14 Power's or Rocky Mountain Power's Chief Executive Officer attesting to each
15 repowered wind resource being in-service on or prior to the rate effective
16 date.[24]
17 **Q. DID THE OPENING TESTIMONIES OF AWEC, CALPINE, OR CUB WEIGH**
18 **IN ON WHETHER PACIFICORP'S DECISION TO UNDERTAKE THE WIND**
19 **REPOWERING EFFORT, AND THE RELATED INVESTMENTS, WAS**
20 **PRUDENT?**

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23 Staff/100, Storm/56.

24 See; e.g., Staff/100, Storm/2.

1 A. No other party's Opening Testimony explicitly challenged the prudence of
2 PacifiCorp's investment, subject to realization of the anticipated benefits.
3 AWEC reasons that, because the Company pursued the wind repowering
4 effort "purely for economic reasons," the prudence of the Company's actions in
5 this case should be evaluated based on the cost savings that wind repowering
6 will provide to customers.[25] AWEC, in Opening Testimony, stated that it would
7 review both the TAM testimony and the other Parties' testimony in this
8 proceeding prior to taking a final position regarding prudence.[26]
9 Calpine's Opening Testimony addressed PacifiCorp's proposal to expand the
10 applicability of the RAC to include direct access customers and did not discuss
11 any other aspect of the Company's wind repowering effort.[27]
12 CUB did not directly discuss the prudence of PacifiCorp's wind repowering
13 effort in Opening Testimony, but offered conditions to ensure that the level of
14 rate recovery for repowered wind is prudent.

25 AWEC/100, Mullins/4.
26 AWEC/100, Mullins/5
27 Calpine/100, Higgins/3.

1 **ISSUE 2, RATEMAKING TREATMENT OF REMOVED EQUIPMENT**

2 **Q. WHAT IS THE REMOVED EQUIPMENT?**

3 A. For PacifiCorp's existing wind turbine generators (WTG) to newly qualify for
4 production tax credits as a result of "repowering," PacifiCorp has to make
5 incremental WTG investments, as "80 percent of the fair market value of the
6 repowered WTG must result from repowering costs while the value of the
7 retained components cannot exceed 20 percent…"[28] PacifiCorp states that it
8 will meet this "80/20 requirement" by removing the existing machine heads of
9 WTG—each of which includes a nacelle, a hub, and rotors—and installing new
10 machine heads in these WTG.[29]

11 **Q. HOW IS PACIFICORP CURRENTLY RECOVERING ITS INVSTMENT IN**
12 **THE REMOVED EQUIPMENT?**

13 A. PacifiCorp is currently recovering its investment in the removed equipment
14 through base rates resulting from the revenue requirement established in
15 Docket No. UE 263, which was the Company's last general rate case. Current
16 base rates reflect the undepreciated balance of plant at the time of the rate
17 case, inclusive of the Company's authorized rate of return.

18 **Q. PLEASE DESCRIBE THECOMPONENTS OF RATE RECOVERY FOR**
19 **CAPITAL INVESTMENTS SUCH AS WIND GENERATION RESOURCES.**

20 A. The recovery of capital costs in utility's rates involves two components: the
21 return *of* the utility's investment, which is achieved by including depreciation

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[28] PAC/200, Hemstreet/9.
[29] PAC/200, Hemstreet/12.

1 expense in rates, and the return *on* the utility's investment, which is achieved
2 by multiplying the utility's authorized rate of return by the undepreciated plant
3 balance (i.e., "rate base")[30] at the time rates are established as an outcome of
4 a general rate case.

5 **Q. WHAT IS PACIFICORP'S PROPOSED RATEMAKING TREATMENT FOR**
6 **THE REMOVED EQUIPMENT?**

7 A. PacifiCorp's proposed treatment is to leave base rates unchanged,
8 "…effectively allowing an opportunity for continued recovery *of* and *on* the
9 replaced equipment, and includes [in the current proceeding] only the
10 incremental costs of wind repowering."[31] PacifiCorp argues that
11 ORS469A.120(2) authorizes such treatment,[32] and that Parties' proposals for
12 ratemaking treatment, as described below, constitute a "disallowance" on
13 PacifiCorp's investment. Staff will respond to PacifiCorp's legal arguments in
14 briefing, and to the Company's policy arguments below.

15 **Q. PLEASE SUMMARIZE STAFF'S AND INTERVENORS'**
16 **RECOMMENDATIONS FOR THE RATEMAKING TREATMENT OF THE**
17 **REMOVED EQUIPMENT.**

18 A. Staff recommended in Opening Testimony that the Company's requested RAC
19 rates, which represent only the incremental investment in the repowered wind
20 resources, be offset in an amount equal to the return *on* the removed

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[30] Staff has simplified this description for purposes of exposition.

[31] PAC/600, Lockey/8 (emphasis added).

[32] PAC/600, Lockey/9.

equipment that is currently being collected in base rates.[33] Staff did not propose adjusting rates to reflect the change in accumulated depreciation that has occurred since the Company's last general rate case.

Similarly, CUB argued that the Company should not be permitted to earn a return *on* the undepreciated balance of the removed equipment, and did not recommend adjusting rates to disallow the return *of* the removed equipment's undepreciated balance.

AWEC recommended in Opening Testimony that the Commission allow PacifiCorp to recover 100 percent of the unrecovered balance of property removed from service…" in the wind repowering effort, and the use of a sinking fund regulatory asset, with a carrying charge of 3.49 percent, for this recovery.[34]

Additionally, AWEC argued that the undepreciated balance of both the removed equipment and the original equipment that is not removed subject to rate recovery (i.e., the return *of* investment) be restated at the current net book value, accounting for the additional years of depreciation since PacifiCorp's last general rate case that is not currently reflected in base rates.

Q. ARE THERE POINTS OF GENERAL AGREEMENT BETWEEN STAFF AND THE INTERVENORS?

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[33] Staff/100, Storm/76.

[34] AWEC/100, Mullins/18 – 20.

1 A. Yes. Staff, CUB, and AWEC agree that PacifiCorp should no longer earn its
2 authorized rate of return *on* the removed equipment for various legal and
3 policy reasons, as stated in the respective Opening Testimonies.
4 **Q. DOES PACIFICORP AGREE WITH STAFF'S OR INTERVENORS'**
5 **RECOMMENDATIONS FOR RATEMAKING TREATMENT OF THE**
6 **REMOVED EQUIPMENT?**
7 A. PacifiCorp does not. The Company continues to advocate for both the return
8 *of* and return *on* the removed equipment that is in current base rates.
9 PacifiCorp makes several legal and policy arguments in response to each
10 Party's position, and these can generally be categorized as responses to the
11 return *on* the removed equipment and the return *of* the removed equipment.
12 *Return on Removed Equipment*
13 **Q. WHAT ARE PACIFICORP'S ARGUMENTS IN SUPPORT OF CONTINUING**
14 **TO RECOVER IN RATES ITS RETURN *ON* THE REMOVED EQUIPMENT?**
15 A. PacifiCorp makes the following legal and policy arguments related to the
16 continued recovery of its return *on* the removed equipment:
17 1. That removal of return *on* the removed plant constitutes a "disallowance."
18 2. That removal of return *on* the removed equipment shifts risks to
19 PacifiCorp's shareholders, despite the anticipated overall benefits of the
20 wind repowering effort as whole.
21 3. That ORS 469A.120(2) dictates that the return *on* continue to be included
22 in rates.

4. That ORS 757.355 (i.e., the "used and useful" statute) does not apply to the removed equipment in this proceeding.

Q. WHY DOES STAFF RECOMMEND THE COMMISSION NOT ALLOW PACIFICORP A RETURN *ON* ITS INVESTMENT IN THE REMOVED EQUIPMENT?

A. Staff will provide the legal reasoning behind this recommendation in briefing. In essence, my understanding is that a return *on* equipment that is not "used and useful" is not allowed in Oregon rates; however, I am not an attorney.

Logically, Staff views the situation as follows.

PacifiCorp invested in the nine wind farms covered in this proceeding and began realizing both a return *of* and a return *on* these investments once they were in rates.

Customers, in return for paying these rates, realized a specific set of benefits from the investments. These include the benefit of electricity generated by renewable resources that has no variable cost as well as the partial revenue requirement offset of PTCs from this generation. Additionally, generation from these resources have provided Renewable Energy Certificates (RECs) eligible for purposes of RPS compliance.

PacifiCorp's 2017 IRP and subsequent analysis concluded that customers would be better off with a new and different configuration of equipment, including rates that will be lower as a result of increased PTCs, longer resource lives, and higher levels of renewable generation. This represents the replacement of an existing set of benefits, associated with the removed

1 equipment, with a new set of benefits that are associated with the new
2 equipment.
3 Commission approval of rates that include PacifiCorp continuing to receive a
4 return *on* the removed equipment would result in customers paying for two
5 sets of benefits—those produced by the original configuration and those
6 produced by the configuration resulting from the Company's wind repowering
7 effort—while receiving only the second set of benefits. In other words,
8 customers are continuing to pay for both configurations of equipment, but *are*
9 *not* receiving the corresponding benefits that would otherwise have been
10 realized from the removed equipment, such as PTCs, reductions to net power
11 costs, and RECs. This result contradicts PacifiCorp's arguments that
12 customers should pay for the investments from which they contemporaneously
13 benefit.
14 Additionally and as described below, Staff continues to recommend PacifiCorp
15 receive cost recovery associated with the return *of* its investment in the
16 removed equipment, including an appropriate time value of money rate, such
17 that the Company is "made whole" for its investment in the removed
18 equipment. This does not—by definition—constitute a "disallowance" as
19 argued by PacifiCorp.[35]

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[35] See; e.g., PAC/600, Lockey/11.

1 **Q. IS STAFF CONCERNED ABOUT A "SLIPPERY SLOPE" REGARDING**
2 **CONTINUTED RETURNS *ON* UTILITY PLANT THAT IS NO LONGER IN**
3 **SERVICE?**
4 Yes. Legal arguments aside, as a matter of policy Staff is concerned about the
5 "slippery slope" that may result from "pancaking" the cost recovery of removed
6 equipment onto cost recovery of new equipment. This result—receiving a
7 return *on* investments that are no longer in service—may establish a
8 precedent harmful to customers in future contexts as well. A hypothetical
9 example of this may be PacifiCorp replacing portions of a coal plant prior to
10 the replaced equipment being fully depreciated for purposes of Oregon
11 ratemaking and converting the plant to one fueled by a source other than coal
12 (such as natural gas). Customers would be paying PacifiCorp a return *on*
13 equipment that was used in the plant when it was fueled by coal that is no
14 longer in service post-conversion.
15 As another example, should the Company identify another opportunity in ten
16 years similar to the current case and seeks to repower wind facilities again,
17 customers will potentially be paying at that time both the return *of* and return
18 *on* the initial wind equipment, the first repowered equipment, and the newly
19 repowered equipment, again with only one set of benefits accruing to
20 customers. Staff does not find this treatment to be fair, just or reasonable.
21 *Return of Removed Equipment*
22 **Q. PLEASE SUMMARIZE STAFF'S POSITION REGARDING PACIFICORP'S**
23 **RETURN *OF* ITS INVESTMENT IN THE REMOVED EQUIPMENT.**

1 A. Staff's position is that PacifiCorp should be allowed its full return *of* investment
2 in the removed equipment. The Company's investment in the equipment in
3 question, as part of its aggregate investment in the specific wind resources
4 considered in this proceeding, has not been disallowed by the Commission.
5 **Q. HAS STAFF CHANGED ITS RECOMMENDATION WITH RESPECT TO**
6 **PACIFICORP'S RETURN *OF* THE REMOVED EQUIPMENT?**
7 A. Yes. Staff's Opening Testimony did not include any specific recommendations
8 regarding the return *of* PacifiCorp's investment in the removed equipment,
9 other than to state that the current proceeding is not intended to true-up
10 PacifiCorp's rate base.[36] Effectively, this allows for the continued recovery for
11 the return *of* the removed equipment as reflected in PacifiCorp's current base
12 rates.
13 Staff finds merit, following its review of Intervenor's testimony, to AWEC's
14 proposal that the undepreciated balance of removed plant be recovered
15 through use of a regulatory asset. Staff describes the specifics of its proposal
16 for a regulatory asset below.
17 **Q. DOES STAFF BELIEVE THAT PACIFICORP HAS THE ABILITY TO**
18 **CALCULATE THE APPROPRIATE AMOUNT TO BE MOVED TO A**
19 **REGULATORY ASSET?**
20 A. Yes. PacifiCorp correctly notes in its Reply Testimony that Staff, in Opening
21 Testimony, attempted to estimate the value of the removed equipment that is

[36] Staff/100, Storm/66 and 76.

in rates resulting from Docket No. UE 263.[37] The purpose for this estimate was to then estimate the amount of the Company's return *on* the removed equipment that should be offset in (removed from) the RAC revenue requirement.

PacifiCorp's Reply Testimony states that "[w]ind plant-specific information is not available from PacifiCorp's filing in Docket No. UE 263…so PacifiCorp did not separately break out values for plant in service, accumulated deferred income taxes, and associated costs such as depreciation expense."[38] Staff believes PacifiCorp can provide reasonable estimates of these values if and where necessary for purposes of conformance with any Commission-ordered adjustments to this proceeding's revenue requirement. Staff, despite this lack of available data, includes rough estimates of revenue requirement impacts associated with Staff's recommendations regarding methods by which to ensure PacifiCorp fully recovers its investment in the removed equipment and methods by which to remove PacifiCorp's return on the removed equipment.

Q. WHAT IS STAFF'S CURRENT RECOMMENDATION REGARDING PACIFICORP'S RETURN OF AND RETURN ON ITS INVESTMENT IN THE REMOVED EQUIPMENT?

A. Staff first notes that, based on values supplied by PacifiCorp, the Company will have recovered approximately 39 percent of its investment in the removed

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[37] PAC/900, McDougal/4 – 5.

[38] PAC/900, McDougal/4. Staff notes that PacifiCorp's 2018 filing in Docket No. 1968, the Company's 2018 depreciation study, included several relevant values by individual wind generation resource as of December 31, 2017. See; e.g., PAC/202, Spanos/72 – 73.

1 equipment as of the "repower date." The aggregate estimated net book of the
2 removed equipment, as of the "repower date," is approximately $587 million on
3 a system basis and $153 million on an Oregon allocated basis.[39] However, the
4 $153 million is not the investment that is in current base rates, which are those
5 resulting from UE 263.

6 Staff recommends the Commission authorize the following process:

7 1. Create a regulatory asset having a beginning balance equal to the
8 aggregate estimated net book value amounts of the removed equipment
9 as of the second rate effective date in this proceeding, adjusted to
10 appropriately reflect any related amounts for accumulated deferred
11 income taxes, excess deferred income taxes, and any intervening capital
12 additions. Staff estimates this as $153 million.

13 2. Annually *reduce* the regulatory asset's balance by the amount necessary
14 to amortize the balance over the removed equipment's pre-removal
15 remaining life. Amortization is to begin simultaneous with the second rate
16 effective date associated with this proceeding; which Staff presumes will
17 be the December 1, 2019 date requested by PacifiCorp. Staff estimates
18 the annual amortization over a 19-year period[40] as approximately $12.1
19 million annually, after incorporating additions for the time-value-of-money
20 annual rate specified below. Use of this amortization timeframe closely

[39] Based on information in PacifiCorp's non-confidential response to AWEC data request 9 and information in Table 10.2 of PAC/1002 in Docket No. UE 263.

[40] See also PAC/900, McDougal/13; i.e., "…close to 20 years."

1 aligns the amortization timeframe with the pre-removal depreciable life. In
2 other words, it does not induce any inter-generational equity issues: the
3 same ratepayers that would have—absent repowering—paid for the
4 removed equipment had it not been removed will pay for the amortization
5 of the removed equipment's remaining net book value.
6 Staff sees two alternatives to amortizing the regulatory asset over the
7 recommended 19 years. The first is to amortize over the 30-year
8 remaining life of the repowered wind resources using the rate
9 recommended above. This alternative results in a lower annual revenue
10 requirement than that resulting from the amortization period Staff
11 recommends. The second is to amortize over a 10-year (or shorter)
12 timeframe, in which case the Modified Blended Exception Rate (or the
13 Modified Blended Treasury Rate, depending on the length of the
14 amortization period) should be used. This alternative produces a higher
15 annual revenue requirement than that resulting from the amortization
16 period Staff recommends.
17 3. Annually *increase* the regulatory asset's average balance (BOY+EOY
18 balances divided by 2) by 4.23 percent. This time-value-of-money rate
19 reflects the current Modified Blended Exception (MBE) rate adjusted for an
20 average maturity of 20 years versus the 10 years embedded in the MBE
21 rate.[41] This rate is a more than adequate time-value-of money rate for a

[41] Staff calculated this using average rates on the nominal Treasury bonds for 10- and 20-year maturities on the same dates Staff obtained rates used to calculate the 2019 MBE Rate. Staff accessed these rates from FRED on May 28, 2019.

1 19-year amortization period contemplated here, as the MBE rate on which
2 it is based in part includes a credit risk premium.[42] Staff's strong opinion is
3 that—once a regulatory asset is being amortized— there is very limited
4 risk of not realizing complete recovery, if any.
5 Staff notes that the annual discount rate PacifiCorp used in the 2017 IRP
6 for purposes of calculating present values of revenue requirements
7 (PVRR) was 6.57 percent.[43] As this discount rate, and likely the annual
8 discount rate used in PacifiCorp's 2019 IRP, is greater than the 4.23
9 percent annual rate above for a carrying charge, a longer term of
10 amortization serves to reduce PVRR versus a shorter term.
11 Steps 1 through 3 ensure PacifiCorp receives the return *of* its Oregon-
12 allocated investment in the removed equipment and does so with minimal risk
13 while appropriately accounting for the time value of money.
14 4. Reduce PacifiCorp's proposed annual revenue requirement in the current
15 proceeding by the revenue requirement resulting from the sum of the
16 annual depreciation accrual used in UE 263 and the return *on* the
17 removed equipment embedded in current rates resulting from UE 263,
18 adjusted to appropriately reflect any related amounts for accumulated
19 deferred income taxes, excess deferred income taxes, and any
20 intervening capital additions. Staff estimates the reduction for the return *on*

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[42] The MBE Rate incorporates rates on bonds rated Baa, which includes a risk premium, whereas a risk-free measure would use rates of U.S. Treasury nominal bonds.

[43] See page 150 of the 2017 IRP.

the removed equipment that is embedded in current rates resulting from UE 263 at $14.3 million annually and estimates the reduction for the amount of annual depreciation (return *of*) associated with the removed equipment that is embedded in current rates resulting from UE 263 at $9.5 million annually. This provides a total reduction in the revenue requirement to offset the amounts associated with the removed equipment at $23.8 million. Table 1 below includes Staff's allocations of these values between the revenue requirement with an October 1, 2019 rate effective date and the revenue requirement with a December 1, 2019 rate effective date.

This last step offsets both the return *of* and the return *on* PacifiCorp's investment in the removed equipment that is in current base rates as an outcome of UE 263, PacifiCorp's last general rate case. Recall that the return *of* will be achieved through amortization of the regulatory asset, as above.

5. PacifiCorp removes, in the Company's next general rate case proceeding, the net book value for the removed equipment from rate base on a prospective basis as of the rate effective date of the Company's next general rate case.

This step serves to remove the return of and return on from the base rates resulting from the PacifiCorp's next general rate case.

Q. STAFF RECOMMENDS USE OF A REGULATORY ASSET FOR THE RETURN OF PACIFICORP'S INVESTMENT. HOW DOES STAFF'S REGULATORY ASSET DIFFER FROM THAT PROPOSED BY AWEC?

1 A. Staff's proposed regulatory asset begins with the net book value of the
2 removed equipment as of the rate effective dates in this proceeding. AWEC's
3 proposed regulatory asset is to amortize over seven or nine years,[44]
4 depending on the interest rate applied to balances. Staff recommends an
5 amortization period matching what would have been the approximate
6 remaining life of the removed equipment; i.e., 19 years.
7 The two approaches also differ in the interest rate applied. AWEC's Opening
8 Testimony suggests an annual rate "…that is 100 basis points above the
9 current 10-year Treasury yields," with a calculated rate of 3.49 percent.[45] Staff
10 calculates its rate as the Modified Blended Exception Rate for 2019, adjusted
11 for the term difference in the rates of the 10- and 20-year U.S. nominal
12 Treasury bonds as of the same date rates Staff used for the other components
13 of the Modified Blended Treasury and Modified Blended Exception Rates.
14 Staff's rate builds on what exists today, adjusting for the difference in rates for
15 a 20-year term, closely matching the approximate 19 year remaining
16 depreciable life of the removed equipment (prior to its removal). Based on
17 Staff's understanding of the regulatory asset AWEC proposed in Opening
18 Testimony, the two regulatory assets are similar, in that both involve the net
19 book value as of the rate effective dates in this proceeding when calculating
20 the beginning balance.

[44] AWEC/100 Mullins/19.
[45] AWEC/100, Mullins/20.

Q. STAFF RECOMMENDS OFFSETTING THE AMOUNT OF ANNUAL REVENUE REQUIREMENT IN CURRENT BASE RATES THAT REPRESENTS PACIFICORP'S RETURN *ON* THE REMOVED EQUIPMENT. WHAT CAN YOU SAY ABOUT PACIFICORP'S RETURN *ON* THE EQUIPMENT IN THE REPOWERED WIND RESOURCES THAT IS NOT REMOVED (NOT REPLACED)?

A. PacifiCorp will continue to earn a return *on* the equipment that is not replaced (not removed). However, the Company's filing in Docket No. 1968 (the depreciation proceeding) indicates that the depreciable life of all equipment in the repowered wind generation resources—original and interim (to date) that is not replaced, and new—will be 30 years.[46] In other words, the depreciable life of the equipment that is not removed is extended by approximately 11 years to be equal to the 30-year depreciable life of the new equipment. One the one hand and as a result of Commission implementation of Staff's recommendations, PacifiCorp's will not realize a return *on* the removed equipment over the approximate remaining 19 years of its original depreciable life while—on the other hand—PacifiCorp will realize a return *on* the equipment not removed for approximately 11 more years than it would absent the wind repowering effort.

[46] See; e.g., PAC/200, Hemstreet/21 – 22 and PAC/202, Spanos/72 – 73 in Docket No. UM 1968, where the "Probable Retirement Date" in column 2 is 2049 for those wind generating resources included in the current proceeding, representing a 30-year depreciable life for balances in all listed accounts.

1 Table 1 below illustrates Staff's recommended adjustments to PacifiCorp's
2 requested annual revenue requirement in this proceeding. Note that Table 1
3 does not include the amortization of the net book balance of the removed
4 equipment.

1 **Table 1: Staff Adjustments to UE 352 Annual Revenue Requirement**

2 **($Thousands)**

	October 1, 2019 Effective Date	December 1, 2019 Effective Date
Requested Annual Revenue Requirement[47]	14,039	18,208
Staff Adjustments to RAC Revenue Requirement		
Remove Post Rate-effective Date Investments	(3)	(11)
Offset Return *on* Removed WTG Equipment in Current Rates	(7,950)	(6,397)
Offset Return *of* Removed WTG Equipment in Current Rates*	(5,239)	(4,230)
Offset Net Salvage Accrual on Removed WTG Equipment	(38)	(82)
Correct PUC Fee Omitted[48]	42	55
Total Staff Adjustments	(13,188)	(10,665)
Staff Recommended Annual Revenue Requirement	851	7,543

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47 These values reflect those included in PacifiCorp's errata filing of March 7, 2019.

48 The "Correct PUC Fee Omitted" Staff adjustments are to correct a formula error in Corrected PAC/401, which omitted the PUC Fee amounts in the total annual revenue requirement calculations. These "adjustments" in Table 1 are otherwise not discussed in Staff's testimony.

1 **SUMMARY OF STAFF RECOMMENDATIONS**

2 **Q. PLEASE PROVIDE A SUMMARY OF STAFF'S RECOMMENDATIONS.**

3 A. Staff includes its recommendations below:

4 1. Staff recommends the Commission require a signed affidavit from
5 PacifiCorp's (or Pacific Power's or Rocky Mountain Power's) Chief
6 Executive Officer attesting to each wind repowering project in this
7 proceeding having been placed in service and in commercial operation on
8 or prior to its respective rate effective date. Staff has recommended similar
9 requirements in previous proceedings,[49] and doing so in this context
10 seems warranted. If a project associated with the October 1, 2019, rate-
11 effective date is not in-service on or prior to October 1, Staff proposes that
12 the project could receive cost-recovery with the December 1, 2019, rate-
13 effective date if it is in service on or before and an attestation is filed prior
14 to that time. For any project that is not in service on or prior to the
15 December 1, 2019, rate-effective date, but is in service prior to December
16 31, 2019, PacifiCorp is to submit a revised rate schedule 202 to include
17 such projects. For any project that is not in service on or prior to the
18 December 31, 2019, cost-recovery must occur in a future general rate
19 case or subsequent RAC proceeding.

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49 See, e.g., page 5 of Appendix A to Order No. 13-474 in Docket No. UE 263.

1 2. Staff recommends the dollar benefits of each repowering project in this
2 proceeding continue to be included in PacifiCorp's annual TAM filing, with
3 the benefits clearly and separately identified in each such filing.
4 3. Staff recommends Commission approval of gross plant in the amount of
5 $358.060 million and $468.772 million for the October 1, 2019 and
6 December 1, 2019 rate effective dates, respectively, reflecting Staff's
7 reductions for investments made subsequent to the rate effective date.
8 4. Staff recommends the Commission authorize the creation of a regulatory
9 asset having a beginning balance equal to the aggregate estimated net
10 book value amounts of the removed equipment as of the second rate
11 effective date in this proceeding, adjusted to appropriately reflect any
12 related amounts for accumulated deferred income taxes, excess deferred
13 income taxes, and any intervening capital additions. Staff estimates this as
14 $153 million.
15 5. Staff recommends the Commission authorize an annual *reduction* in the
16 regulatory asset's balance by the amount necessary to amortize the
17 balance over the removed equipment's pre-removal remaining life.
18 Amortization is to begin simultaneous with the second rate effective date
19 associated with this proceeding; which Staff presumes will be the
20 December 1, 2019, date requested by PacifiCorp. Staff estimates the
21 annual amortization over a 19-year period[50] as approximately
22 $12.1 million annually, after incorporating additions for the time-value-of-

[50] See also PAC/900, McDougal/13; i.e., "…close to 20 years."

1 money annual rate specified below. Use of this amortization timeframe
2 closely aligns the amortization timeframe with the pre-removal depreciable
3 life. In other words, it does not induce any inter-generational equity issues:
4 the same ratepayers that would have—absent repowering—paid for the
5 removed equipment had it not been removed will pay for the amortization
6 of the removed equipment's remaining net book value.
7 Staff sees two alternatives to amortizing the regulatory asset over the
8 recommended 19 years. The first is to amortize over the 30-year
9 remaining life of the repowered wind resources using the rate
10 recommended above. This alternative results in a lower annual revenue
11 requirement than that resulting from the amortization period Staff
12 recommends. The second is to amortize over a 10-year (or shorter)
13 timeframe, in which case the Modified Blended Exception Rate (or the
14 Modified Blended Treasury Rate, depending on the length of the
15 amortization period) should be used. This alternative produces a higher
16 annual revenue requirement than that resulting from the amortization
17 period Staff recommends.
18 6. Staff recommends the Commission authorize an annual *increase* to the
19 regulatory asset's average balance (BOY+EOY balances divided by 2) by
20 4.23 percent. This time-value-of-money rate reflects the current Modified

1 Blended Exception (MBE) rate adjusted for an average maturity of 20
2 years versus the 10 years embedded in the MBE rate.[51]
3 7. Staff recommends the Commission authorize the reduction to PacifiCorp's
4 proposed annual revenue requirement in the current proceeding by the
5 revenue requirement resulting from the sum of the annual depreciation
6 accrual used in UE 263 and the return on the removed equipment
7 embedded in current rates resulting from UE 263, adjusted to
8 appropriately reflect any related amounts for accumulated deferred
9 income taxes, excess deferred income taxes, and any intervening capital
10 additions. Staff estimates the reduction for the return *on* the removed
11 equipment that is embedded in current rates resulting from UE 263 at
12 $14.3 million annually and estimates the reduction for the amount of
13 annual depreciation (return *of*) associated with the removed equipment
14 that is embedded in current rates resulting from UE 263 at $9.5 million
15 annually. This provides a total reduction in the revenue requirement to
16 offset the amounts associated with the removed equipment at $23.8
17 million.
18 8. Staff recommends the Commission approve PacifiCorp's proposed
19 housekeeping edits to Schedule 202, to remove the reference to SB 408
20 due to that legislation being superseded by SB 967 in 2011.

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[51] Staff calculated this using average rates on the nominal Treasury bonds for 10- and 20-year maturities on the same dates used to calculate the 2019 MBE rate. Staff obtained these rates from FRED on May 28, 2019.

1 9. Staff recommends the Commission approve PacifiCorp's proposal to
2 change the applicability of the RAC schedule to include direct access
3 customers, as modified in testimony.
4 10. Staff recommends the annual revenue requirement in this proceeding be
5 reduced to offset the ongoing net salvage accrual in current rates for the
6 equipment removed as a result of the repowering projects.
7 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**
8 A. Yes.