

**UAMPS questions and comments received September 9, 2016,
in response to PacifiCorp draft materials posted August 25, 2016
[With PacifiCorp responses](#)**

Utah Associated Municipal Power Systems (UAMPS)

Questions/Comments Regarding PacifiCorp's Information Posted August 25, 2016 on OASIS Pertaining to Proposed Changes to Ancillary Service Rate Schedules

September 9, 2016

PacifiCorp responses in blue

Where noted, additional files may be found on [OASIS](#) in the "Documents" folders:
[PacifiCorp OASIS Tariff/Company Information > OATT Pricing > Ancillary Services]

| Filename | Question/Comment |
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| 160825_DRAFT_Regulation_Reserve_Study | |
| | <ol style="list-style-type: none"><li data-bbox="386 667 1364 840">1. The stated purpose of this study is to estimate the regulation reserve required to maintain PacifiCorp's system reliability and comply with applicable standards. The conclusions of this study are based on a single year of operational data (2015). What is the basis for using a single year's data to forecast future system-wide performance? <p data-bbox="431 861 1364 1102">The use of a test period is a common ratemaking approach. The study was designed to capture a full year of EIM operations to reflect current operations. Because the study results were developed using EIM data, PacifiCorp could not have used data from earlier than Nov. 2014. PacifiCorp believes that using the variability of load, VERs, and Non-VERs during the 2015 test period to develop a regulation reserve forecast and associated rates reasonably captures PacifiCorp's costs to provide regulation service in future years.</p><li data-bbox="386 1123 1364 1228">2. How does the methodology address upcoming changes in the system generation composition, such as plant retirements, lengthy outages, new plant additions, or forecasted load growth? <p data-bbox="431 1249 1364 1417">The methodology includes adjustments to account for the effect of retirements and expired contracts since 2015 on PacifiCorp's portfolio of resources supplying operating reserves. In the near term, no additional retirements or resource additions are expected to the portfolio of resources supplying operating reserves.</p><p data-bbox="431 1438 1364 1606">Plant outages reflect actual system operations and any difference between outages in the 2015 test period and the rate effective period is not expected to significantly impact the results. Similarly, the impact of load growth on regulation reserve requirements is not expected to result in significantly different rates.</p><li data-bbox="386 1627 1364 1774">3. Did the authors of the study consider alternative methodologies not relying on a single year's data, with adjustments for known generation additions/retirements and outages? This approach would also reduce the risk of lost or "bad" data. <p data-bbox="431 1795 1364 1858">As described in the response to item (1), the selected 2015 period is the most recent complete calendar year that incorporates EIM operations.</p> |

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| | <p>4. The study notes that several large industrial loads, because of their unique characteristics, are excluded from the study, and that this is consistent with the CAISO load forecast methodology (p. 5). Is this also consistent with practices in other regions and BAAs? Who are these customers? If they are interruptible, do they have a contract with PacifiCorp Transmission? Why does having behind-the-meter generation exclude them?</p> <p>The interruptible industrial customers (MagCorp, Monsanto, Nucor) are under contract with PacifiCorp Energy Supply Management (ESM), the provider of reserve service. Because these customers provide ancillary services for the PacifiCorp system, they are included as contributing resources. PacifiCorp is not aware of the practices in other BAAs or regions.</p> <p>The reported deviations by loads with behind-the-meter generation (Kennecott, ExxonMobil) are not representative of other network loads on the PacifiCorp system and were thus excluded from calculation of the reserve requirement for load. All five of these large industrial loads remain in the denominator for purposes of the rate calculation, however.</p> <p>5. Overall, how is this methodology consistent with other reliability regions and BAAs?</p> <p>PacifiCorp is not aware of any other BAAs that have developed regulation reserve requirements based on the new BAL-001-2 standard that took effect on July 1, 2016.</p> <p>6. The methodology uses the Ranger PI system to obtain five-minute data granularity (p. 7) but necessitates the use of a proxy load base to calculate deviations. Will actual five-minute load data be available in future years? If not, what steps are being taken to improve the accuracy of the proxy? Is the Ranger PI system data revenue quality data? Based on UAMPS billing, PacifiCorp has stated that the system peak that their customers are billed on is only an estimate because all of the meter data is not in and/or validated. This leads us to believe that the Ranger PI data is incomplete. Is there a comparison with this data and revenue quality data?</p> <p>Actual five-minute deviation data for load (versus hourly observations settled sub-hourly) are not expected to be available through EIM processes. PacifiCorp believes that the proxy reasonably reflects the accuracy in actual operations. The load calculation in Ranger PI is derived from the AGC values for net interchange and net generation and does not rely on load meter data.</p> <p>7. Data corrections amounted to a reduction of 9.1 percent in study hours system-wide (p. 11). How does this sample size compare to other reliability regions and/or BAAs? Since there are still many billing disputes outstanding</p> |

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| | <p>for invoices during this time period, how can this data be relied on?</p> <p>The study sample includes nearly 8,000 data points and a significant number of hours contribute to the result, so individual data points have only a limited impact on the result. PacifiCorp is not familiar with sample data used by other BAs.</p> <p>8. Are the data adjustments performed on the non-VER deviations (pp. 11 and 12) consistent with generally accepted practices? For non-VER data, PacifiCorp is excluding resources that are not VER’s and “do not provide either contingency or regulation reserve”. UAMPS’ Nebo and Millcreek units provide contingency reserves but are included in Appendix B, Table 2. Why?</p> <p>PacifiCorp is not aware of other studies of this type.</p> <p>PacifiCorp excluded resources that contributed operating reserves in support of its reliability obligations in 2015. Self-supply of operating reserves by resources like Nebo and Mill Creek reduces the reliability obligation before the requirement is reported to PacifiCorp’s balancing operations, so these resources were not included in the supply of dispatchable resources used to determine rates. To the extent these resources are compensating for other deviations on the system, including them in the analysis (as PacifiCorp has done) would be expected to reduce the non-VER reserve requirement. When rates become effective, all dispatchable resources will receive the same treatment, irrespective of their inclusion in Appendix B, Table 2.</p> <p>9. The study states that historical probability distributions of BAAL values are known (p. 18). How does the increase in VER affect historical values? Does the study methodology take into consideration such trends?</p> <p>The Study contrasts the uncertainty of BAAL values prior to the hour with the known values from 2015. PacifiCorp has not analyzed BAAL values prior to 2015.</p> <p>10. In order to limit resource deployment due to variations in the BAAL, PacifiCorp caps the allowed AE at the lesser of the BAAL and four times L_{10} (p. 19). How was this cap derived? Is this consistent with practices in other reliability regions and BAAs?</p> <p>The limit of four times L_{10} was developed from experience during field trials of the BAL-001-2 standard to limit excursions from BAAL boundaries. PacifiCorp cannot confirm the practices in other BAAs.</p> <p>11. The study outlines the methodology to develop regulation reserve requirements by capacity factor for VER and non-VER, and by hour of day (p. 21 – 28). Are these approaches consistent with other reliability regions and</p> |

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| | <p>BAA methods?</p> <p>PacifiCorp is not aware of other studies of this type.</p> |
| 160825_DRAFT_DATA9_Cost_of_service | |
| | <p>12. Attachment A – The fixed charge rate calculations do not appear to reflect any rate base offsets for unfunded reserves. Please confirm and explain why not.</p> <p>The template that has been previously accepted in FERC proceedings did not contain adjustments for unfunded reserves.</p> <p><i>PacifiCorp has calculated an adjustment for inclusion in the filed version of the cost of service.</i></p> <p>13. Attachment A – The fixed charge rate calculations do not appear to include any revenue credits (e.g., Accounts 454 and 456). Please confirm and explain why not.</p> <p>The template that has been previously accepted in FERC proceedings did not contain transmission revenue credits.</p> <p><i>PacifiCorp has calculated credits for inclusion in the filed version of the cost of service.</i></p> <p>14. Attachment A – Please provide the accumulated depreciation reserves and depreciation expense for each of the generating units that provide for Schedules 3, 3A, 5 and 6 Services.</p> <p>This item requests additional information related to PacifiCorp’s proposed use of a levelized gross plant method in its cost of service calculations.</p> <p><i>PacifiCorp is reevaluating this approach in response to stakeholder feedback and will include changes in the filing.</i></p> <p>15. Attachment A – Excel row 85, column E, includes the note “Excluding Prior Year Adjustments” for Other Taxes. Please explain the significance of this note.</p> <p>The note referenced in the comment is a part of pro-forma worksheet for the fixed charge rate calculation. There were no material out-of-period adjustments that impacted the \$185.3m in taxes other than income taxes amount shown on the 2015 FERC Form No. 1.</p> <p><i>PacifiCorp will remove this note from the filed version.</i></p> <p>16. Attachment B (p. 1) – Why are the amounts in column (d), lines 6 – 9 and 24, shown as negative values?</p> <p>The negative values shown for Huntington and Hunter Units 1-3 represent the</p> |

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| | <p>credits for joint-owner transactions related to the Deer Creek mine closure activities and overhaul expenses at Hunter Unit 2 in calendar year 2015. These expenses were originally debited to FERC Account 501 (Fuel) and FERC Account 512 (Maintenance of Boiler Plant), and were partially offset by a credit for joint-owner share of the expenses booked to FERC Account 506 (Miscellaneous Steam Power Expenses). FERC Account 506 represents the demand-related expense and is included in the cost of service calculation (Attachment B, page 1, column (d)); however, FERC Accounts 501 and 512 are not included in the cost of ancillary services. Since these 2015 activities had a significant one-time only impact on the total demand-related expenses (resulting in total negative costs at Hunter Units 1-3 and the Huntington plants), they were removed from the cost of service calculations through an adjustment to FERC Form No. 1 values (Attachment B, page 1, column (h)).</p> <p>17. Attachment B (p. 1) - What is the general nature of the adjustments in column (h)? Are these adjustments related to the negative values shown in column (d)?</p> <p>The adjustments in column (h) are related to the values in column (d). Please refer to the response to item (16).</p> <p>18. Attachment B (p. 1) - Please provide the anticipated retirements dates for each of the plants listed on the attachment. For the resources that are under purchase contracts, what is the term of the contracts?</p> <p>PacifiCorp views this item as a data request that is outside the scope of comments and clarifying questions. Formal proceedings will allow for discovery under appropriate conditions.</p> <p>19. Attachment B (p. 1) - For lines 16, 17, 18 and 21, are the annual payments fixed over the term of the contracts for the Monsanto, Nucor, Magcorp and Mid-Columbia Hydro purchases? What is the nature of the out-of-period adjustments noted in footnote 2? Is there an energy component to the annual payments, or are the annual payments inclusive of the demand and energy components (i.e., bundled)? Please provide copies of the of the contractual agreements for each of the purchases noted above.</p> <p>Out-of-period adjustments were made for charges unrelated to service in the 2015 test year (i.e., charges in calendar year 2015 that were for 2014 service have been removed, while charges that occurred in 2016 for service in calendar year 2015 have been added). PacifiCorp views contract terms (including copies of the agreements) data request items that are outside the scope of comments and clarifying questions. Formal proceedings will allow for discovery under appropriate conditions.</p> <p>20. Attachment B (p. 1) – For line 19, the amounts shown in columns (f) and (g)</p> |

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| | <p>appear to be in the wrong columns. Please confirm.</p> <p>Confirmed. The columns have been corrected. Please note that this correction does not change the cost calculation since both columns (f) and (g) are included in total demand related expenses.</p> <p><i>PacifiCorp will include this correction in the filed version.</i></p> <p>21. Attachment B (p. 1) – For lines 22 and 23, the amounts shown in columns (b) and (c) appear to be in the wrong columns. Please confirm.</p> <p>The values in lines 22 and 23 in columns (b) and (c) represent hydraulic expenses and stand in the correct columns. No change is necessary.</p> <p>22. Attachment B (p. 1) – Do any of the demand related expenses included in this attachment reflect a portion of the \$22.3 million EIM credit from the CAISO? If no, why not?</p> <p>The credit of \$22.3 million, booked to FERC Account 555 (Purchased Power) represents net receipts from CAISO for participation in the EIM. Because these proceeds are related to real-time energy imbalance, they are not included in the calculation of demand-related expenses.</p> <p>23. Attachment B (pp. 2, 3, & 4) – For column (i), please provide the basis for the wheeling costs shown in the attachment and identify the transmission provider.</p> <p>Cholla: Arizona Public Service PTP for 2015</p> <p>Chehalis, Hermiston, Swift: Bonneville Power Administration PTP + Scheduling for 2015</p> <p>Jim Bridger: Blend of Idaho Power Corp. RTSA/PTP and PacifiCorp (at zero cost) based on contract rights for 2015.</p> <p>Please refer to the file [160825_RESP_wheeling], published on OASIS, for calculation detail.</p> <p>24. Attachment B (p.4) – For the Monsanto purchase shown on line 16, please explain how all of the available capacity (80 MW) from this resource is for the provision of Schedule 6 – Supplemental Reserves. Coincidentally, this is the most expensive resource and it contributes to approximately 36% of the total Schedule 6 reserve requirement. Please explain.</p> <p>Monsanto is an interruptible load. Per the contract, up to 95 MW of this load is counted as operating reserve and cannot be used for any other purpose, so it is all counted toward operating reserve requirements.</p> <p>25. Attachment C (p.1) – Please provide a copy of the “2010 Study” referenced in</p> |

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| | <p>this attachment.</p> <p>The "2010 Study" refers to a portion of the Schedule 2 (Reactive Service) analysis prepared as part of PacifiCorp's comprehensive rate case filed May 26, 2011, in FERC Docket No. ER11-3643. Page 18 of Exhibit No. PAC-7 included in the 2011 filing contains the revenue requirement values that were used on the Attachment C (p.1) workpaper to allocate the 2015 Schedule 2 revenues among the units providing reactive service. For convenience, Exhibit No. PAC-7 from the 2011 filing has been posted to OASIS as [160825_RESP_2011Sch2]</p> |