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MEMORANDUM

To: Public Service Commission

From: Division of Public Utilities

Constance White, Director
Artie Powell, Manager, Energy Section
Charles Peterson, Technical Consultant
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Subject: Purchase Power Agreement between PacifiCorp, dba Rocky Mountain Power, and Tesoro Refining and Marketing Company, Docket No. 07-035-06.

Date: April 12, 2007

ISSUE

On February 9, 2007, PacifiCorp (the Company) filed an Application for Approval of a Power Purchase Agreement (PPA) with Tesoro Refining and Marketing Company (Tesoro). The effective date of the agreement is February 5, 2007. This contract replaces a contract that expired on December 31, 2006. The Public Service Commission (Commission) issued an action request on February 12, 2007 to the Division of Public Utilities (Division) requesting a response by April 13, 2007. On April 2, 2007, the Commission issued a supplemental action request to the Division requesting it comment on the consistency of the line loss adjustment as it relates to the Division's recommendation in the Wasatch Wind and Spanish Fork Wind cases (Dockets 06-035-42 and 06-035-76). The following Recommendation and Analysis are intended to serve as the response to the aforementioned action requests.

RECOMMENDATION

The Division recommends that the Commission approve the PPA between PacifiCorp and Tesoro.

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ANALYSIS

The PPA is dated February 2, 2007 between PacifiCorp and Tesoro. The agreement states that Tesoro "has constructed, and intends to operate and maintain a natural gas-fired cogeneration facility for the generation of electric power located in Salt Lake City…."[1] The Nameplate Capacity Rating of the plant is 25.0 megawatts (MW). The Tesoro facility is operated as a qualifying facility (QF) as defined by 18 C.F.R Part 292. Tesoro has previously provided its FERC self-certification to PacifiCorp prior to the implementation of the previous contract with PacifiCorp which expired on December 31, 2006. All interconnection requirements have been met and the Tesoro facility is fully integrated with the Company's system.

Tesoro estimates it will sell about 24,000 megawatt-hours (MWh) annually to PacifiCorp.[2] Tesoro has the option, but not the obligation, to deliver approximately 12 MW per hour to PacifiCorp during on-peak periods, and approximately 7 MW per hour during off-peak hours.[3] "On-peak" hours are defined in the PPA as from 7:00 a.m. to 11:00 p.m. Monday through Friday; "off-peak" hours are all other times including holidays.[4] Tesoro has indicated that it tentatively plans for maintenance downtime to occur in March and September.[5]

The Agreement before the Commission is expected to run for less than one year beginning February 5, 2007 and ending December 31, 2007. The previous contract expired December 31, 2006. The Division understands that there will be no sales made by Tesoro to PacifiCorp after December 31, 2006 and before February 5, 2007, the effective date of this proposed PPA.

Under the terms of the Commission order in 03-035-14, non-firm QF resources are not entitled to a capacity payment. Therefore, this Agreement contains energy-only prices.

Under the PPA, Tesoro has contracted with PacifiCorp to purchase standby and back-up power pursuant to Utah Electric Service Schedule 31.

The general terms and conditions of the Agreement appear to be generic in nature and closely mirror those in prior similar contracts. The main differences appear to be the price to be paid for delivered energy which is based on on-peak/off-peak hours without a seasonal adjustment, whereas some other contracts may have seasonal pricing without on/off peak daily pricing. The non-price related conditions within the Agreement appear to be generic and reasonable.

<u>Avoided Energy Costs</u>

This PPA with Tesoro is represented to comply with the Commission's QF pricing methodology ordered in Docket No. 03-035-14. The Division has tested the contract pricing for compliance

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[1] PPA, page 1.
[2] Ibid.
[3] Op Cit. section 4.2.
[4] Op. Cit. section 1.20.
[5] PPA, Exhibit C. The expected duration of the downtimes is not specified.

with the approved methodology by performing its own GRID run. The Division's GRID run was able to verify the contract pricing. Therefore, the Division determined that based upon the conditions present at the time the PPA was negotiated, the avoided costs are reasonable. The spreadsheets showing the results of this GRID run are available to the Commission upon request.

The PPA's Avoided Transmission Losses

In Docket No. 03-035-14, the issue of avoided transmission line loss adjustments was raised and discussed by several parties. In the end the Commission was not satisfied with any of the proposed solutions and declined to adopt guidelines for non-wind QFs.[6] In that Docket, the Division argued that avoided cost transmission line loss adjustments should not be given to QFs with non-firm or "must-take" contracts in applying the methods that were proposed. The Division indicated it would be open to consider giving QFs avoided transmission line loss adjustments if ratepayer neutrality could be assured.[7,8] The Division and Company proposals in that Docket were similar in that they involved comparing distances from the QF and a proxy plant to the load center (i.e. the Wasatch Front), the adjustment was to be calculated against the Company's FERC approved Open Access Transmission Tariff (OATT) percentage. The Commission appears to have left the issue open to be currently dealt with on a case-by-case basis. The PPA provides for an avoided line loss adjustment which is made by increasing both the on-peak and off-peak avoided costs by 3.58 percent. The 3.58 percent figure is based upon the Company's current FERC OATT effective April 1, 2006, of 4.48 percent multiplied by 80 percent.

PacifiCorp explained to the Division its rationale for the avoided line loss adjustment as follows. The Company assumed that during times when Tesoro was delivering power to PacifiCorp and the Gadsby plant in Salt Lake City was operating, the Gadsby plant would be backed-down by an amount equal to the Tesoro power delivery. Since both plants are located within Salt Lake City, the Company reasoned that there would be no avoided line losses during these periods. Gadsby was assumed to be in operation 20 percent of the time.[9] An additional rationale given for the 20 percent figure was that on-peak summer hours during the term of the PPA was about 20 percent of the total hours of the contract term.[10] It was reasoned that during summer peak loads system resources would be operating at peak capacity such that Tesoro's contribution would be absorbed in the local load and that no distant resource would be backed down. If any resource would be backed down, it would likely be the relatively expensive Gadsby plant in any case. PacifiCorp concluded during its negotiations with Tesoro, and Tesoro agreed, for 20 percent of the time there would be no transmission line losses.

[6] See Order dated April 19, 2006, pp. 13-15, Docket No. 03-035-14.
[7] Direct Testimony on Rehearing of Andrea Coon, February 10, 2006, lines 99-101, Docket No. 03-035-14.
[8] PacifiCorp also recommended that no line loss adjustment be given non-firm QFs. The agreement to give Tesoro a line loss adjustment appears to be at variance with the Company's position. See Reconsideration Direct Testimony of Bruce W. Griswold, February 10, 2006, lines 86-91, Docket No. 03-035-14.
[9] In response to a data request, the Company supplied data indicating that Gadsby units operated an average 14.45 percent of the hours in 2005, and 21.86 percent in 2006. The two-year average was 18.15 percent.
[10] In a response to a data request, the Company calculated the percentage to be 20.36 percent.

For the remaining 80 percent of the time, it was assumed that some other, distant, system resource would be backed off when Tesoro was selling power. Power from these other system resources normally would flow through major transmission points to the Wasatch Front. Therefore, use of the Company's OATT percentage appeared to PacifiCorp (and implicitly Tesoro) to be a reasonable estimate of transmission line losses applicable to the PPA. The OATT percentage represents the estimate of the average line loss for the entire PacifiCorp system. Use of the OATT as the basis for a line loss adjustment is not without precedent; for example, the U.S. Magnesium QF PPA incorporates line loss adjustments based upon the then current OATT.[11] There was no line loss adjustment in the negotiated PPA between PacifiCorp and Kennecott approved by the Commission last December.

Without a detailed analysis and forecast of which plants would be backed down, use of the average is reasonable. Whether it would also have been reasonable to expect the Company to perform a detailed line loss analysis, and whether such an analysis would have been a significant improvement in information, are questions that the Division cannot answer at this time.

The Division approaches this matter as follows. First we consider whether or not there should be avoided transmission line losses. In Docket No. 03-035-14 there was discussion of avoided line loss adjustments, for example whether the QF were located closer to the Wasatch Front than some proxy resource, or from system resources generally.[12] In this case the QF is located in the midst of the Wasatch Front load. The Company's Gadsby plant is, for practical purposes, in the same location as Tesoro. [13] Relatively nearby is the West Valley plant, which is operated by the Company under a lease expiring in early 2008. Using another Proxy plant, such as West Valley, when Gadsby wasn't operating was apparently not seriously considered. Other Company controlled resources are outside the Salt Lake Valley. The use of Gadsby as a proxy plant appears reasonable. The Division believes, however, that consideration could have been given to backing down the West Valley plant during times it may have been operating and Gadsby was not.

Ratepayer interests are served when they can pay less for their electric power and service, all else being equal. Thus, conceptually the reduction in a positive cost adjustment for avoided transmission line losses through the use of the Gadsby plant appears reasonable and in the public interest. However, how this conceptual benefit flows through to ratepayers is not clear, but presumably (if the contract were of longer duration) the contract would perhaps result in lower net-power costs in the future. It appears that in order to receive the benefit a revised estimate of the average system line loss would be required and considered in a rate case.

Next we consider the remaining portion of the line loss adjustment. It appears that a general argument could be made by any QF that the system average avoided transmission line loss--i.e.

[11] See Purchase Power Agreement dated November 23, 2004, p. 7 in Docket No. 03-035-38.
[12] For example, see the Commission's discussion of the parties' positions in its Order dated April 19, 2006 pp 8-9, Docket 03-035-14.
[13] They are only about two miles apart, on a straight line.

the OATT percentage--is the appropriate adjustment to make in all cases, since PacifiCorp itself generates its power based upon the average line loss, thus in the backing-off of any plant anywhere avoids line losses at the system level. Thus, it could be argued that all QFs should be given the average transmission system line loss as an adjustment. Based upon this argument, the use of the full OATT percentage is reasonable. Additionally, the lack at this time of an obvious proxy that would be operating during the same times as the Tesoro facilities, use of the OATT percentage appears reasonable.

A further question can be raised regarding applying the line loss adjustment to the off-peak hours. During some of the off-peak time it may be that PacifiCorp already has surplus power, and that the Company cannot back-down its base load generating plants, presumably the only ones operating at certain off-peak times. In such a scenario, Tesoro would simply add to the surplus and there would be little or no avoided line losses. The extent, if any, to which this type of scenario might apply, is not known; however this type of issue was previously brought up in testimony in Docket No. 03-035-14.[14]

Based upon the foregoing, the Division believes the avoided line loss adjustment in this PPA has a reasonable basis. The Division notes though, that there remain a number of questions surrounding the practical implementation of the avoided transmission line loss adjustment. The Division is also unconvinced at this point that allowing an avoided transmission line loss adjustment to QFs providing un-firm power is necessarily appropriate. The question the Division raised regarding ratepayer indifference with respect to QFs remains unresolved. Absent definite Commission guidelines regarding the policy with respect to non-wind QFs with a non-firm PPA or the calculation of avoided transmission losses in QF contracts, various methods and assumptions will be employed by PacifiCorp and its counterparties as they negotiate their contracts. Since this particular PPA will have no impact on rates, the Division is taking a neutral position with respect to the avoided transmission line loss adjustment, but the Division may revisit the issue in the next rate case.

Wind-QF Avoided Transmission Line Loss Costs

In comparing this case with the Division's position in the wind-QF Dockets, the Division notes that the foremost basis of the Division's testimony in those Dockets was the principle that in Docket No. 03-035-14, the Commission had separated Qualifying Facilities into two types: wind and non-wind, each type with its separate method of calculating avoided costs. With respect to the avoided transmission losses issue, the Division primarily argued that the method for computing avoided transmission line losses should be consistent with the method used to compute other avoided costs, i.e. with respect to the specified proxy plant. [15] The specific method for computing avoided line losses in those wind-QF Dockets is directly tied to this position.

[14] Rebuttal Testimony of Andrea Coon, September 8, 2005, Docket No. 03-035-14. The document was submitted without page or line numbers; however the issue is discussed on approximately page 4 and is the eleventh Q & A pair in the document.
[15] See Direct Testimony of Abdinasir M. Abdulle, Ph.D., p 3, lines 10-22; Surrebuttal Testimony of Abdinasir M. Abdulle, Ph.D., p. 2, lines 14-19; both in Docket Nos. 06-035-76 and 06-035-42.

There are some points of contact between the method espoused by the Division in the wind-QF matters and the PPA here. In both instances, there is at least the partial use of a proxy plant, and distance enters in as a factor. In the wind-QF a specific proxy plant was selected based upon the guidance the Commission gave in Docket No. 03-035-14. In the current case, the proxy plant was selected based on judgment. Distances were only loosely defined, e.g. nearby vs. outside the Salt Lake Valley. There was no attempt to trace the route of the power to specific substations or to calculate step-up or step-down voltages or other refinements found in the wind-QF Dockets. Given the physically close proximity of the Tesoro QF plant and the Gadsby proxy plant both to each other and to the load center, in this current Docket the lack of specific distance calculations should not be a significant issue.

Because of the distinction made between wind and non-wind QFs in Docket No. 03-035-14, the Division believes that the methods to determine avoided transmission line losses may differ between the two groups.

CONCLUSION

Due to the stay-out provision in PacifiCorp's latest general rate case, this Agreement will expire prior to any new rate case. This Agreement was not part of the deliberations affecting the rates now going into effect, nor will it be part of the next rate case. Therefore, this particular contract will have little effect on other ratepayers. Because of the lack of impact on ratepayers, and the Commission declining to give guidance in the Docket No. 03-035-14, the Division, at this time, is taking a neutral position with respect to the inclusion of an avoided transmission line loss adjustment.

Assuming such adjustments are permissible in non-firm QF contracts, the Division concludes that there is a reasonable basis for the transmission line loss adjustment in this PPA. The other contractual arrangements and facts in this matter, in particular the method for calculating the avoided energy costs, have been previously found to be just and reasonable and in the public interest. Therefore, the Division recommends that the Commission approve the Power Purchase Agreement between Tesoro and PacifiCorp.

cc: Committee of Consumer Services
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