EXPLANATION OF A PROPOSED AVOIDED LINE LOSS ADJUSTMENT SETTLEMENT FOR THE CALENDAR YEAR 2009 KENNECOTT AND TESORO QF AGREEMENTS

October 14, 2008

Background

Q. Why is the Company required to address avoided line losses for QF contracts?

A. In its clarification order dated May 26, 2006 in Docket No. 03-035-14, the Commission set forth on page one the procedure through which avoided line losses for qualifying facilities (QFs) should be considered:

> "First, we clarify the April Order did not preclude consideration of payments for avoided transmission losses to QFs. The April Order did not approve a generic method for calculating losses. The Commission rejected the two proposed methods due to insufficient evidence upon which to conclude that either method was generally reasonable and met the ratepayer indifference standard. The Commission will consider the reasonableness of payments to QFs for avoided transmission losses on a case-by-case basis when QF contracts including such payments are presented for our approval."

In consideration of the Commission's order to determine line losses on a case by case basis, the Company evaluated the circumstances unique to the proposed one year Kennecott and Tesoro QF agreements (for a term of calendar year 2009) and made the determination that an adjustment to the price to account for avoided line losses was reasonable and necessary.

The purpose of this document is to explain the methodology and analysis utilized to determine the recommended avoided line loss adjustment for the Tesoro and Kennecott calendar year 2009 QF agreements. The Company acknowledges that the methodology and analysis explained herein and used to determine the recommended avoided line loss adjustment for these particular contracts does not set precedence for future QF contracts and does not restrict either the Company or any other interested party from recommending a different methodology or position in future proceedings.

Overview of the Methodology Used to Determine the Avoided Line Loss Adjustment

Q. What are the general steps the Company proposes be used to determine if an avoided line loss adjustment is necessary for the 2009 Kennecott and Tesoro QF contracts?

A. The methodology used to determine the avoided line loss adjustment for the 2009 Kennecott and Tesoro QF agreements is summarized in the following general steps:

1. Determine if the QF is located in the Wasatch Front load center, as defined by the combination of the "Utah North" and the "Utah South" transmission nodes/bubbles in the GRID topology.
2. If the QF is located in the Wasatch Front load center, an adjustment for avoided line losses may be justified. If the QF is not located in the Wasatch Front load center, no adjustment for avoided line losses will be made, unless unique circumstances justify an adjustment (see step 4.)
3. If the QF satisfies the location condition in step 2, proceed with the "QF Avoided Line Loss Calculation" explained in more detail below.
4. Review any unique circumstances applicable only to that particular QF that may impact line losses. For example, is the QF at the end of a long isolated radial line or does the QF utilize any project-specific transmission lines that may impact line losses?

Background on the Development of the "QF Avoided Line Loss Calculation"

Q. Why is a line loss adjustment analysis necessary?

A. Line losses are a physical reality that occurs when electricity flows from the generator source to the load sync. The avoided cost principle provides for the payment to a QF to equal the value or benefit that the QF brings to the system such that the ratepayer is indifferent as to whether the energy comes from the QF or from another source. Therefore, if the QF contract provides a line loss savings (or, conversely, additional cost) when compared to the avoided resource, an adjustment to the price is justified.

Q. Are line losses calculated in the GRID model run that is used to calculate the avoided costs?

A. No. The GRID pricing model used to determine the avoided costs, or price, for QF contracts determines the avoided cost of generation only. While the GRID model does take into account transmission constraints when determining which resource is avoided, the model does not calculate or address any potential benefit or detriment attributable to line losses when the QF is added to the resource portfolio. Therefore, any adjustment for avoided line losses must be done outside of the GRID model.

Q. Is there a definitive method that can be used to precisely measure the impact a QF has on line losses on the PacifiCorp system?

A. The Company evaluated several methods to measure the impact a QF has on avoided line losses. The only way to precisely measure line losses is to put one meter at the source point and another meter at the sync point and calculate the

losses on that isolated path. This is not feasible or possible on an integrated system with multiple sources and syncs. Nor is it cost effective or practical for the issue at hand. All other approaches are subject to the impact of assumptions and inputs which can greatly influence the results. Therefore, the Company set forth to establish a methodology that utilizes reasonable and applicable assumptions and inputs to reasonably estimate the impact a QF has on line losses.

Q. Is there a means by which the impact a QF contract has on line losses can be reasonably estimated?

A. Yes. The Company, following discussions with and after receiving input from Tesoro, Kennecott, the Division of Public Utilities, and the Committee of Consumer Services, has developed a methodology that it recommends be used to determine the avoided line loss adjustments to be included in the 2009 Tesoro and Kennecott QF contracts. The Company has defined this method as the "QF Avoided Line Loss Calculation." The Company acknowledges that this method is a result of collaborative discussions between the interested parties regarding these two particular contracts and that no party is bound by this method, either in part or in whole, in future QF proceedings.

Details of the "QF Avoided Line Loss Calculation" Methodology

Q. **What are the detailed steps included in the QF Avoided Line Loss Methodology?**

A. The QF avoided line loss methodology utilizes, as a starting point, output from the GRID model run that was used to calculate the avoided costs for the specific QF contract and PacifiCorp's FERC OATT rate for line losses. Further

adjustments are then applied based on whether the QF contract includes provisions that reflect firm delivery of energy and capacity, such as minimum monthly delivery amounts and liquidated damages for failure to deliver the amounts nominated in advance, or whether the contract is non-firm in nature.

The GRID model includes several transmission nodes or bubbles that represent major locations of load and/or resources. These locations are often connected by high voltage transmission paths, which are also modeled in GRID consistent with their rated capacities and other constraints. When calculating the avoided cost, GRID determines which resource is backed down or avoided when the QF is added as a resource. The avoided resource may or may not be in the same transmission bubble as the QF resource, as GRID will optimize the available transmission between all bubbles and dispatch the system economically. The GRID output file contains a summary of the number of megawatt hours that were avoided in each transmission bubble as a result of the addition of the QF. The sum of the avoided megawatt hours in all the bubbles equals the total amount of megawatt hours provided by the QF. Therefore, it is possible to determine the percentage of the total megawatt hours that the avoided resource was a resource outside the transmission bubble where the QF is located.

Both the Kennecott and the Tesoro QF facilities are located in the Utah North transmission bubble, which, along with the Utah South transmission bubble, define the Wasatch Front load center. The Utah North transmission bubble consists primarily of the northern Salt Lake valley and parts of southeast Idaho and southwest Wyoming, and the Utah South transmission bubble consists

of the area from approximately Mona to the south half of the Salt Lake valley. After reviewing the GRID output, it was determined that there are no current transmission constraints between the Utah North transmission bubble and the Utah South transmission bubble, so these two bubbles were considered to be a single bubble representing the Wasatch Front load center in this analysis. This particular area contains a significant sized load but is primarily a large importer of energy from the other bubbles. Therefore, it is reasonable to assume that locating a resource inside this Wasatch Front load center (the Utah North and Utah South bubbles) will reduce the need to import energy from outside this area, thus decreasing the amount of physical losses that will occur as power does not have to travel as far to serve the load in this area.

To calculate a reasonable estimation of the amount of avoided line losses attributable to the 2009 Kennecott and Tesoro QF contracts, the Company calculated the percentage of the total megawatt hours that the Kennecott and Tesoro QF contracts, respectively, avoided that were outside the Utah North and Utah South transmission bubbles (the Wasatch Front load center) and multiplied it by the PacifiCorp FERC OATT transmission level line loss rate of 4.48%. The Company incurs the "cost" of line losses at the tariff rates contained in PacifiCorp's FERC OATT. The tariff does not differentiate line loss rates based on any factor other than delivery voltage. Therefore, the tariff rate is an appropriate reflection of the financial avoided cost of line losses and is used in these calculations.

As shown in Attachment 1, the Kennecott QF contract avoided resources which were outside the Utah North and Utah South bubbles 80.30% of the time. Therefore, the starting point for the Kennecott 2009 QF contract line loss adjustment should be an increase to the contract price of 3.60% (4.48% x 80.30%.) As shown in Attachment 2, the Tesoro QF contract avoided resources which were outside the Utah North and Utah South bubbles 79.83% of the time. Therefore, the starting point for the Tesoro 2009 QF contract line loss adjustment should be an increase to the contract price of 3.58% (4.48% x 79.83%.)

Once this starting point has been determined, the Company evaluated whether a further adjustment could be justified based on whether the QF could be considered a firm resource with a predictable delivery pattern and performance guarantees or a non-firm resource that has no predictable delivery pattern and no performance guarantees. It is reasonable to assume that a firm QF provides more value than a non-firm QF because a firm QF guarantees a certain amount of capacity will be available during a prescribed time period. This differentiation in value is typically reflected in the payment of a capacity payment to firm QFs and no payment of a capacity payment to non-firm QFs. Some parties have argued that this differentiation may need to be reflected in the energy payment as well, one component of which is avoided line losses. While the Company does not believe that the level of "firmness" of a contract has any impact on the physical reality of line losses, the Company is willing to consider, in the case of the 2009 Kennecott and Tesoro QF contracts and at the request of other interested parties in this matter, an adjustment to the starting point avoided line loss adjustments

described above in order to provide some value differentiation to these non-firm contracts when compared to a firm contract that has a more predictable delivery pattern and includes liquidated damages.

To calculate this adjustment to the starting line loss adjustment values, the Company proposes calculating the percentage difference between the firm and non-firm pricing in Utah Schedule No. 37 and then adjusting the starting avoided line loss adjustment values down by the percentage difference in the Utah Schedule No. 37 firm and non-firm prices. The firm (capacity and energy) price for a 20 year term in Utah Schedule No. 37 is $49.28 per megawatt hour. The non-firm (energy only) price for the same term is $40.30 per megawatt hour. Therefore, a Schedule No. 37 non-firm contract price is 18.2% lower than a firm contract price. The Company also reviewed the recent quarterly avoided cost filings and the 20 year GRID results for the Kennecott contract and found that the difference between a firm and a non-firm contract price using these alternative data points ranged between approximately 15% and 20%.

Both the Kennecott and the Tesoro contracts have terms and conditions that would be considered non-firm, meaning there are no minimum delivery obligations or liquidated damages. Therefore, the Company suggests lowering the starting line loss adjustment values in both the Kennecott and the Tesoro contracts by 18.2% to reflect the value differentiation between firm and non-firm contracts. This results in a recommended line loss adjustment of 2.94% for the Kennecott 2009 QF contract and 2.93% for the Tesoro 2009 QF contract.

ATTACHMENT 1

	2009
MWH	
Amps-Colstrip	-
APS	-
APS In	-
BPA FPT	-
Cholla	234
COB	3,979
Colorado	4,144
Four Corners	79,248
Goshen	-
Idaho	-
Jim Bridger	14,993
Mid Columbia	46,599
Mona	27,532
Palo Verde	11,804
Path C	-
Path C North	-
PP-GC	-
SP15	6
Tri-State MP	-
Utah North	11,487
Utah South	35,444
Walla Walla	-
West Main	2,800
Wyoming	(0)
Yakima	-
Other	-
Total	**238,272**

Percent of MWH in the Utah North and South Bubbles	19.70%
Percent of MWH located outside the Utah North and South Bubbles	80.30%
Starting Line Loss Adjustment for Kennecott	**3.60%**
FERC OATT RATE	4.48%

ATTACHMENT 2

	2009
MWH	
Amps-Colstrip	-
APS	-
APS In	-
BPA FPT	-
Cholla	117
COB	2,867
Colorado	3,481
Four Corners	60,190
Goshen	-
Idaho	-
Jim Bridger	12,661
Mid Columbia	36,566
Mona	22,033
Palo Verde	8,673
Path C	-
Path C North	-
PP-GC	-
SP15	6
Tri-State MP	-
Utah North	9,262
Utah South	28,282
Walla Walla	-
West Main	2,012
Wyoming	-
Yakima	-
Other	-
Total	**186,150**

Percent of MWH in the Utah North and South Bubbles	20.17%
Percent of MWH located outside the Utah North and South Bubbles	79.83%
Starting Line Loss Adjustment for Tesoro	**3.58%**
FERC OATT RATE	4.48%