

**AMENDMENT TO INCREASE CONTRACT
DEMAND IN PORT TOWNSEND PAPER
CORPORATION'S POWER SALES
AGREEMENT**

**ADMINISTRATOR'S
RECORD OF DECISION**

April 3, 2014

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**AMENDMENT TO INCREASE CONTRACT DEMAND IN PORT TOWNSEND
PAPER CORPORATION'S POWER SALES AGREEMENT
ADMINISTRATOR'S RECORD OF DECISION**

March 31, 2014

I. INTRODUCTION

On October 24, 2013, Port Townsend Paper Corporation (Port Townsend) sent a letter to the Bonneville Power Administration (BPA) asking for assistance in serving an additional 3 to 4 MW of production load. The additional 3 to 4 MW, later refined by Port Townsend to 3.5 MW, is needed to support equipment upgrades at the Port Townsend mill. Port Townsend expects this new equipment to begin operation in June 2014.

In response to Port Townsend's request, BPA proposed to offer Port Townsend an amendment (Amendment) to its power sales agreement, Contract No. 11PB-12330 (Agreement), to increase Port Townsend's Contract Demand to 15.75 MW, an increase of approximately 3.5 MW.

As established in prior records of decision, BPA uses the Equivalent Benefits Test (EBT) to determine whether a power sale to serve a Direct Service Industry (DSI) customer is consistent with sound business principles.¹ The Amendment and accompanying EBT analysis were available for public review and comment from January 31, 2014, through February 14, 2014. Three comments were received.

This record of decision documents BPA's decision to offer the Amendment based on the results of the EBT analysis.

**II. THE EQUIVALENT BENEFITS DETERMINATION FOR THE PERIOD
BEGINNING JUNE 1, 2014 THROUGH SEPTEMBER 30, 2022**

BPA's evaluation of the Amendment shows that it can supply the additional 3.5 MW of firm power to Port Townsend for the proposed term² under most water conditions and that BPA is likely to receive positive net benefits from providing this service. In

¹ Power Sale to Alcoa Inc. Commencing December 22, 2009 Administrator's Record of Decision, released December 21, 2009 (Alcoa ROD); 20.5 aMW Power Sale to Port Townsend Paper Company for the Period November 15, 2009 through December 31, 2009 Administrator's Record of Decision, released November 13, 2009 (Port Townsend ROD).

² Port Townsend's power sales contract is currently set to expire on September 30, 2022. Therefore, this EBT uses a term of June 1, 2014, to September 30, 2022.

determining its forecast of positive net benefits from providing service to Port Townsend for the full term of the Amendment, BPA followed the steps described below.

a. Models and Data Used in EBT for the Amendment

As in prior analyses of equivalent benefits, BPA employed rate case models and data from the most current BPA rate proceeding where practicable.³ Since the term of Port Townsend’s contract extends beyond the time frame of the current rate period (BP-14), this EBT extends beyond the range of the modeling tools and methodologies used in the BP-14 rate proceeding. Therefore, BPA used data and methodologies from the BP-14 rate proceeding for the EBT where possible and thereafter applied BPA’s common agency inflation forecast to the market price forecast through September 30, 2022.

b. IP Rate Forecast Used in EBT for the Amendment

The IP rate forecast used in this EBT relies on models and cost inputs consistent with the BP-14 rate proceeding and the common agency inflation forecast. BPA’s methodology for determining the IP rate forecast is further explained in section II (d), below.

c. BPA expects to be surplus during the EBT Period

BPA does not forecast the need to make purchases specifically to serve Port Townsend during the EBT period (June 1, 2014, to September 30, 2022) under most water conditions. BPA has forecast a need to make some power purchases, including normal “balancing” purchases in some months, to meet its total load obligations during the remainder of FY 2014 through September 30, 2022, particularly under critical water conditions.⁴

BPA’s most recent load and resources studies are contained in the *2013 Pacific Northwest Loads & Resources Study* (the “2013 White Book”), which forecasts loads and resources for both the Federal system and the region as a whole for the 10-year period (Operating Years (OY) 2014-2023). BPA is forecast to have a surplus on an average annual basis under the middle 80 percent of historical water conditions for OY 2014 through OY 2023, as illustrated in Figure 1, below.⁵ The 2013 White Book forecast includes 312 aMW of service to the DSIs. Though not explicitly addressed in the 2013

³ See Administrator’s Record of Decision: Power Sales Agreement Offer to Alcoa, Inc., released December 6, 2012 (Alcoa 2012 ROD), at 6-7.

⁴ Balancing purchases are market purchases that BPA makes either before or within a particular month in order to balance its forecast load and resource position within that month. Whether BPA makes any balancing purchases, and in what amounts, is dependent, among other things, on updated water flow forecasts which inform the amount of hydroelectric generation that can be expected in the month, and on within-month weather conditions impacting BPA customer load levels.

⁵ Operating Year (OY) in the 2013 White Book is the 12-month period August 1 through July 31. For example, OY 2014 is August 1, 2013, through July 31, 2014.

White Book Supplement summary document, tables containing water year information, shown below in Figure 1, are included in the technical appendix. Since the Federal hydro system makes up about 82.8 percent of BPA’s resources, the availability of water is the single largest driver of forecasted Federal system resource generation. The variability of Federal hydro resources over the 80 historical water conditions (1929 through 2008) has a direct and significant effect on Federal system surplus/deficit projections. In Figure 1, the Federal system surplus/deficit forecasts are presented under the same four resource scenarios: 1) 1937-critical water conditions (the base case of this study); 2) the average bottom 10 percent; 3) the average middle 80 percent; and 4) the average top 10 percent of the 80 historical water conditions. This comparison shows that, under these four scenarios, the Federal system surplus/deficit projections vary by approximately 3,000 aMW throughout the study horizon.

Figure 1 ⁶

**Federal System Surplus/Deficit Projections
For OY 2014 through 2023
Under Different Levels of Water Conditions
Annual Energy in Average Megawatts**

Operating Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1937-Critical Water Conditions	75	-195	-92	-283	-244	-348	-368	-523	-455	-596
Average Bottom 10% Water Conditions	64	-142	-51	-244	-205	-310	-328	-483	-416	-557
Average Middle 80% Water Conditions	1,519	1,313	1,411	1,218	1,249	1,147	1,117	972	1,074	931
Average Top 10% Water Conditions	3,023	2,766	2,873	2,675	2,704	2,602	2,574	2,427	2,569	2,420

The EBT period includes 2 months in OY 2014, every month for OY 2015 through OY 2022, and 2 months in OY 2023. The 3.5 aMW of power that would be supplied to Port Townsend during the EBT period, pursuant to this Amendment, represents a de minimis amount of the forecast surpluses.

While BPA has established a portion of its costs for the period of the BP-14 rate proceeding based on 1937- critical water conditions, the secondary energy revenue credits, balancing power purchase expenses, and 4(h)(10)(c) credits for the same period were set based on average values for the 80 water years.⁷

⁶ See 2013 Pacific Northwest Loads and Resources Study, Technical Appendix, Volume 1: Energy Analysis, pages 375-395.

⁷ See BP-14-FS-BPA-03A at 134-137 (regarding Critical Water Conditions), Tables 18 and 19, BP-14-FS-BPA-04A at 42-43 (regarding Secondary Sales revenues and Balancing Purchase costs), and Table 15, BP-14-FS-BPA-04A at 37 (regarding 4(h)(10)(c) credits).

This analysis of the EBT is based on BPA's forecasts of average water for OY 2014 through OY 2023 in the 2013 White Book (average middle 80% water conditions) and BPA's Final Proposals in the BP-14 rate proceedings. BPA does not anticipate the need to alter its purchasing strategy for the power sold to Port Townsend during the term of the Amendment.

d. BPA revenues for this sale will equal or exceed market revenues for the EBT period

BPA forecasts that revenues it will accrue from the supply of 3.5 aMW of additional firm power to Port Townsend under the Amendment will exceed the forecast revenues BPA could otherwise obtain from selling that power into the market by approximately \$2,666,962.00.⁸

Consistent with BPA's EBT methodology, BPA's projected monthly revenues are determined by multiplying the heavy load hour (HLH) and light load hour (LLH) energy entitlements and demand entitlement by their respective IP rate components for each month. This analysis uses the IP-14 energy and demand rates computed by the Rates Analysis Model (RAM) adopted in the BP-14 rate proceeding (effective through September 30, 2015). Thereafter, BPA's updated forecast of IP rates are calculated with the Long-Term Rates Model (LTRM) using forecast revenue requirement costs, credit information, and forecast loads and resources to estimate future IP rates which can reasonably be anticipated in future rate cases from FY 2016 – FY 2022. These forecasted IP rates also incorporate surplus energy revenues, balancing purchase expenses, augmentation expenses, and 4(h)(10)(c) credits estimated by RevSim for FY 2016 – FY 2019 based on spot market electricity prices estimated by AURORA. The prices estimated by AURORA used the natural gas prices forecasted for FY 2016 –FY 2019 when BPA forecasted the natural gas prices BPA's BP-14 Final Rate Proposal. Surplus energy revenues, balancing purchase expenses, augmentation expenses, and 4(h)(10)(c) credits for FY 2020 – FY 2022 were derived by escalating the FY 2019 values using the common agency forecast for inflation. The monthly–diurnal shapes computed for FY 2014-15 in the BP-14 rate case were then imposed upon the annual rate forecast from the LTRM to create a monthly–diurnal forecast for the IP rates through the end of the contract term. The annual growth rate implied by the change in the annual IP rate was applied to the known monthly-diurnal rates for FY 2014-15 from BP-14. The IP rate forecast used in this EBT analysis of the Amendment is reported in Table 1, which is attached to the end of this document.

As shown in Table 2, BPA has calculated revenues under the Amendment based on the 3.5 aMW of additional firm power each hour to Port Townsend under the IP rate schedule beginning June 1, 2014, and ending September 30, 2022. The energy and demand entitlements are the projected amounts to be sold by diurnal period each month in the Amendment. Since under the Amendment BPA expects to make 3.5 aMW available each month, 3.5 megawatts (MW) is the monthly contract demand amount specified in Table

⁸ See attached Table 4.

1. BPA's projected monthly revenues are calculated using the IP rate components specified in Table 2, and then accumulated.

e. Forecast of revenues that would be obtained by selling an equivalent amount of surplus power.

BPA routinely shapes its inventory to meet the needs of its portfolio of contracts and sells its surplus inventory in the Pacific Northwest power market as described in BPA's BP-14 rate proceeding.⁹ Additionally, BPA routinely forecasts Mid-Columbia trading hub (Mid-C) electricity prices consistent with the methodology described in the BP-14 rate proceeding to value these purchases and sales.¹⁰

In the absence of selling an additional 3.5 MW of firm power to Port Townsend in every hour, BPA would have lower firm power requirement sales in its aggregated portfolio load shape. Therefore, these 3.5 aMW are assumed sold in the market on an average annual basis, as reflected in BP-14. As illustrated in Table 4, BPA has forecast the revenues it would otherwise obtain from the market for the term of the Amendment using a forecast for the market price of electricity based on the methodology used in the BP-14 rate proceeding through the end of FY 2019 and then applying the common agency inflation forecast from FY 2020 through FY 2022.

$$\text{Net Benefit} = (\text{IP} - \text{Market})$$

BPA determined its net benefit of serving Port Townsend at the IP rate for each month by subtracting the forecasted opportunity cost of foregone surplus energy revenues detailed in Table 3 from the projected IP revenues described in Table 2. BPA's net benefit, before accounting for the benefits associated with adjustments described in section II(f) below, is illustrated in Table 4.

f. Calculation of the net financial value of tangible benefits for selling power to Port Townsend as opposed to selling an equivalent amount of power on the market.

Consistent with BPA's EBT methodology, BPA has identified a number of tangible benefits to BPA that would not be achieved by a market sale of power compared to selling the same power to Port Townsend at the IP rate during the period of the

⁹ Refer generally to the *Power Risk and Market Price Study* in the BP-14 rate proceeding; and specifically to section 2.5.2 for a more complete description of the operating risk factors BPA faces in the course of doing business and section 2.6.3 for surplus energy sales and revenue. See BP-14-FS-BPA-04 at 40-46; 50-52.

¹⁰ BPA employed its electricity price forecast for multiple purposes in the BP-14 rate proceeding as outlined in the *Power Risk and Market Price Study*. The study also details how BPA established its forecast of Mid-C electricity prices in the BP-14 rate proceeding. See BP-14-FS-BPA-04 at 17-38.

Amendment. BPA conducted an economic analysis to determine the net value of those benefits.

BPA believes that sales to DSIs provide certain intangible and qualitative benefits to BPA's operations.¹¹ Adjustments for these intangible benefits to BPA are not included or relied upon in the EBT analysis for the Amendment because BPA has elected to take a more conservative approach and include only quantitative benefits at this time. Although these intangible benefits will not affect BPA's decision to offer the Amendment, the Administrator is not precluded from considering such benefits in the future.

Value of Reserves

The Agreement requires Port Townsend to make supplemental operating reserves available to BPA for power system contingencies that occur during the contract period. Such reserves would not be available from making a typical market sale. Sales at the IP rate reflect the value of BPA's right to obtain supplemental operating reserves.¹² Specifically, the energy rate tables in the IP-14 rate schedule adopted in the BP-14 rate proceeding include a \$0.975 per MWh credit for the value of these reserves. Therefore, BPA's net benefit above compares a surplus power sale to a sale of power at the IP rate with reserves. BPA adjusted for this difference in each month through FY 2022 by adding back a value of reserves that provides an equal and opposite offset to the \$0.975 per MWh credit for the value of reserves in the IP-14 rate schedule.¹³ As such, BPA increased the IP rate by the credit of the value of reserves so that the comparison to a surplus sale into the market is on an "apples to apples" basis. These adjustments are reported in Table 5a, which is attached to the end of this document.

Avoided Transmission and Ancillary Services Expenses

When BPA makes a sale to a DSI, that DSI customer covers the cost of transmission and ancillary services through their own transmission contracts. Market prices, on the other hand, assume power is delivered by the seller to the Mid-Columbia trading hub (Mid-C); thus the seller pays for the cost of transmission to that delivery point.

Power Services (PS), the organization within BPA responsible for the marketing of Federal power, must pay the transmission and ancillary services costs to move surplus power to the Mid-C delivery point in order to realize the full market value for its surplus sales. PS maintains an inventory of transmission products and services to deliver the

¹¹ See Alcoa ROD at 72–82.

¹² Sales at the IP rate require the provision of the DSI Minimum Operating Reserve – Supplemental. Port Townsend's Agreement is a sale at the IP rate and, accordingly, Port Townsend is required to make such supplemental operating reserves available to BPA, as specified in section 6.1 and implemented by Exhibit H to the Agreement.

¹³ For the purposes of this EBT analysis, BPA has not forecast a change in the credit for the value of reserves to be included in future IP rate schedules. If an increase were to occur, it would increase the value of reserves credit and thereby increase the benefits to BPA of the Amendment.

surplus power it intends to sell. However, this transmission product inventory is not sufficient to deliver all of the surplus power PS would sell under all load and resource conditions, especially during periods of high stream flows. As a result, there is a subset of load and resource conditions under which PS would incur incremental costs for transmission and ancillary services to deliver incremental surplus energy sales, if PS did not sign contracts to serve the DSI loads. The incremental transmission and ancillary services costs are avoided when BPA makes IP sales to the DSIs because DSIs contract for their own transmission and ancillary services. The planned transmission and ancillary services expenses to address both the expected expenses and their uncertainty were addressed in the BP-14 rate proceeding and are expected to be addressed in each subsequent BPA rate proceeding.¹⁴

PS valued these avoided transmission and ancillary services costs for the period of the Amendment using the same methodology employed in the BP-14 rate proceeding to establish the total costs and risks associated with PS's inventory of transmission products and services.¹⁵ In these computations, fixed, take-or-pay, variable incremental transmission, and ancillary services costs were computed under 3,200 AURORA games which tested different load and resource conditions for each month. Incremental transmission and ancillary services costs were computed by comparing the amount of surplus energy available to the monthly excess amount of firm transmission products in the PS inventory. For the avoided transmission and ancillary services cost analysis, BPA updated its estimates of monthly surplus energy under various water conditions for FY 2014 based on a recent hydro regulation study (HOSS Study 09) and using loads and resources data from the latest BPA long term load and resource forecast, which is consistent with the 2013 White Book. The use of the recent hydro regulation study was done to incorporate better estimates of BPA's inventory during FY 2014 and use of the long term load and resource forecast was done so that a consistent set of data could be used through FY 2022.

BPA continues to value avoided transmission and ancillary services costs for the entire period of the Amendment using the tariff costs adopted by BPA's Transmission Services organization in the BP-14 rate proceeding.¹⁶ These tariff costs were applied to the amount of surplus energy in excess of the PS transmission products inventory. Total monthly transmission and ancillary services costs were computed assuming 312 aMW of

¹⁴ See *Power Revenue Requirement Study Documentation*, BPA-14-FS-BPA-02A at 23 Table 3A, line 68 and *Power Risk and Market Price Study*, BP-14-FS-BPA-04 at 45–46. BPA expects to continue the methodology for addressing planned transmission and ancillary service expenses in future rate proceedings.

¹⁵ The megawatt amounts of surplus energy for FY 2014 – FY 2022 were computed using RevSim with the FY 2014 and FY 2015 data being consistent with the BP-14 rate case numbers, but with system augmentation amounts removed for all FYs.

¹⁶ For the purposes of this EBT analysis, BPA has not forecast a change in the tariff costs that may be adopted in future Transmission Services rate proceedings. If an increase were to occur, it would increase the avoided transmission and ancillary service costs and thereby increase the benefits to BPA of the Amendment.

service to the DSIs continuing from June 1, 2014 through September 30, 2022,¹⁷ and then using 315.5 aMW for the same time period. The average total monthly expense values of the 3,200 games were then computed for both aMW values, and the differences were taken to determine the avoided PS transmission and ancillary services costs. Table 5b, attached to the end of this document, shows the avoided transmission and ancillary service costs used in this EBT.

Demand Shift

The Demand Shift, as discussed in previous EBT analyses, assumes that the DSIs would not operate in the absence of BPA industrial power service.¹⁸ In this analysis of equivalent benefits, BPA has not included benefits from the Demand Shift because current wholesale power market conditions suggest that it might be possible for Port Townsend to maintain operations through another supplier if BPA was unable to supply them. In such circumstances, the demand shift would not materialize because the Port Townsend load could not be considered incremental based solely on BPA's ability to provide service. At this time, BPA believes such an outcome is likely enough to warrant setting the value of benefits from the demand shift at zero in this analysis of equivalent benefits for the Amendment.

Conclusion of Equivalent Benefits Test

Table 6, attached at the end of this document, illustrates that the net financial benefits BPA expects to receive from making an additional IP sale of 3.5 MW to Port Townsend during the remainder of the contract (from June 1, 2014, through September 30, 2022) exceed the forecasted revenues that BPA would otherwise obtain from selling this power on the wholesale electricity market by approximately \$3,295,476.

III. GAS PRICE FORECAST

The gas price forecast component of BPA's electricity price forecast is important because natural gas price movements contribute to price movements in electric power markets in the Pacific Northwest. For the purposes of this EBT, and consistent with the practice of past EBTs, BPA used the natural gas price forecast it developed for the BP-14 rate proceeding but included its long term forecast, which runs through September of 2022. For purposes of the EBT, volatility in natural gas prices, a major component of risk associated with forecast price movements, are accounted for in the 3,200 AURORA games run to calculate the market price forecast.

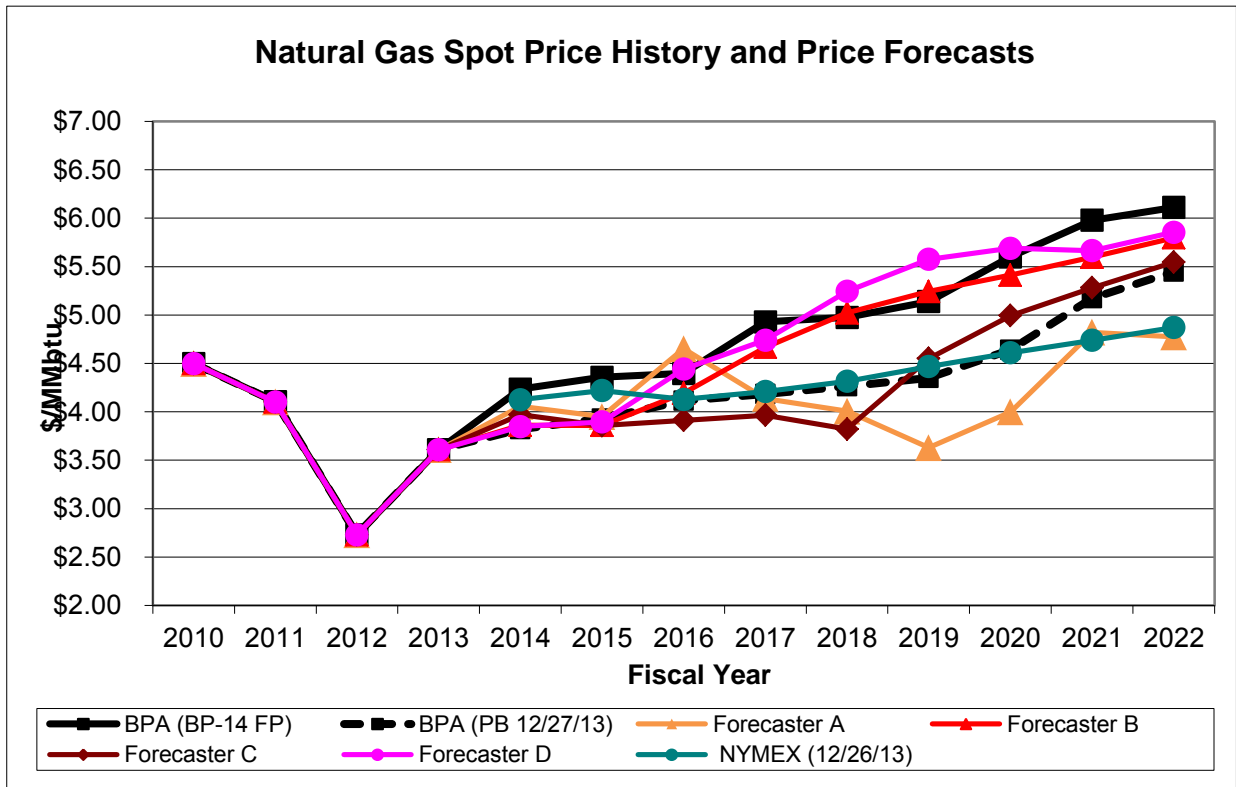
¹⁷ As reflected in BP-14, the current assumption for DSI service of 312 aMW is comprised of 300 aMW for Alcoa and 12 aMW for Port Townsend. In reality, these amounts are variable depending on the amount defined in the individual DSI power sales contracts.

¹⁸ See Alcoa ROD at 44 and 68-70.

BPA has compared this forecast of spot market natural gas prices at the Henry Hub to the recent forecasts produced by other forecasters in the industry. The comparison, shown in Figure 2 below, includes a history of the Henry Hub spot prices – as opposed to the more frequently referenced NYMEX (now CME Group) forward market for Henry Hub natural gas prices – BPA’s forecast of natural gas prices from the BP-14 Final Proposal, BPA’s current forecast for natural gas prices (which was not used for the EBT), and other forecasters’ views of the future. The historical observations reflect the monthly average of the daily spot market prices for natural gas at the Henry Hub quoted on the Intercontinental Exchange (ICE). In this case, the use of the higher natural gas price forecast not only ensures consistency with past rate cases but also yields a more conservative EBT result.

As demonstrated by Figure 2, the natural gas price forecast used for the EBT is reasonable compared to the forecasts of other industry experts.

Figure 2: Natural Gas Spot Price History and Price Forecast



IV. RESPONSE TO COMMENTS

BPA received three public comments. Two of the comments did not oppose the proposed Amendment. One comment recommended against the proposed Amendment.

a. Pacific Northwest Generating Cooperative

Pacific Northwest Generating Cooperative (PNGC) commented that it does not oppose BPA entering into the amendment at this time. PNGC at 1. PNGC also noted that it has long had serious concerns about BPA's service to DSI customers. *Id.*

b. Springfield Utility Board

The Springfield Utility Board (SUB) stated its understanding that the additional 3.5 MW offered to Port Townsend were to be provided at the IP rate under Port Townsend's power sales agreement and not by Jefferson County PUD (JPUD) through JPUD's contract with Port Townsend. Specifically, SUB observes that, "SUB would be opposed to any amendment that involved the contract with JPUD." SUB at 1. SUB is correct that this additional load is being served by BPA through Port Townsend's power sales agreement at the IP rate instead of through any arrangement with JPUD. Therefore, SUB's comment that it would be opposed to any amendment involving JPUD's contract does not appear to be applicable to the Amendment at issue in this ROD.

c. Western Public Agencies Group

Western Public Agencies Group (WPAG) offered a number of concerns and objections to the Amendment.

1. Concerns regarding policy and differential treatment

In its comment, WPAG opined that increasing the Port Townsend load is unsound policy and creates differential treatment under the Tiered Rate Methodology (TRM). WPAG at 2. Specifically WPAG argued that since the DSIs are not subject to the TRM, the IP rate has the characteristics of a melded cost rate. *Id.* According to WPAG, this leads to the DSIs receiving preferential treatment. *Id.* BPA has addressed numerous issues regarding the IP rate in the past, including whether (like the PF rate) it should be tiered.¹⁹ This proceeding addresses only the question of whether the Port Townsend contract should be amended to increase Port Townsend's contract demand. It is not intended to address issues related to the IP rate and how it should be structured.

However, BPA generally believes that appropriate tools are in place to address the risk of increased costs associated with increased loads for both preference customers and DSI customers. Given BPA's statutory obligation to supply the net firm power loads of its public utility customers, regardless of load growth, the TRM is an effective means of managing cost risk associated with the uncertainties of future events that could lead to such load growth.

¹⁹ See, e.g., Tiered Rate Methodology, Administrator's Record of Decision, TRM-12-A-01, November 2008, at 104-112; 20.5 aMW Power Sale to Port Townsend Paper Company for the Period June 1, 2011 through August 31, 2013, Administrator's Record of Decision, released April 18, 2011, at 26-28.

By contrast, DSI sales are discretionary and do not present the same risks for a number of reasons, not the least of which has been the steady decline in DSI loads over the course of the past two decades. BPA does not expect that trend to suddenly reverse itself. Even if there were significant changes, the flexibility associated with discretionary DSI sales provides appropriate risk mitigation. BPA's development of the EBT allows BPA to act consistent with the *Alcoa*²⁰ decision, which requires BPA evaluate each potential sale to assure that it is "consistent with sound business principles." BPA will not alter its current position at this time in a manner that would ultimately reduce the flexibility that has been granted to the Administrator when considering the business case for making such sales.

2. Concerns regarding rate and supply assumptions

WPAG expressed concern over the use of the average water forecast to determine water availability for the Amendment. WPAG at 3. These concerns are the same as those previously raised in prior agreements with the DSIs. BPA has considered and addressed this issue in prior RODs for DSI sales.²¹ This issue was also considered by the Ninth Circuit. The Court held that BPA gave adequate consideration to these matters.²² BPA's rationale and considerations on this issue are the same as in the past.

3. Sufficiency of Forecast Benefits

WPAG stated that the forecast benefit of \$3.2 million, roughly \$400,000.00 per year, "is insufficient to justify the proposed sale, and the increased financial risk it would impose on preference customers." WPAG at 4.

BPA disagrees that the forecast benefits are insufficient to justify the proposed sale. BPA's EBT methodology, which was reviewed and upheld by the Ninth Circuit, demonstrates whether or not a proposed sale to a DSI is consistent with sound business principles. That is the legal standard governing BPA's authority to make discretionary sales to the DSIs.²³ There is no requirement that BPA must forecast any particular amount of benefits in order to demonstrate that a sale is consistent with sound business principles. In fact, the Ninth Circuit upheld BPA's decision to provide service to Alcoa when the EBT demonstrated only \$10,000 in forecast benefits.²⁴

²⁰ *Alcoa, Inc. v. Bonneville Power Admin. (Alcoa)*, 698 F.3d 774 (9th Cir. 2012).

²¹ *See, e.g.*, Alcoa 2012 ROD at 9; Power Sale to Alcoa, Inc., Commencing December 22, 2009, Administrator's Record of Decision, released December 21, 2009, at 33–37; 20.5 aMW Power Sale to Port Townsend Paper Company for the Period November 15, 2009 through December 31, 2009 Administrator's Record of Decision, released November 13, 2009, at 8–9; Administrator's Record of Decision Granting Alcoa's Request to Extend the Initial Period of Alcoa's Power Sales Agreement, Contract No. 10PB-12175, released October 29, 2010, at 5–6, 29–30; Extension Amendment to Port Townsend Paper Corporation's Power Sales Agreement, Administrator's Record of Decision, released November 2, 2012, at 4–5.

²² *Id.* at 790.

²³ *Id.* at 780–82; 792–93.

²⁴ *Id.* at 788–90.

4. Necessity of Sale

Lastly, WPAG argues that the proposed sale is unnecessary because Port Townsend could purchase this power from the market and asserts that BPA has performed an insufficient analysis due to the absence of the Demand Shift because if this sale were necessary the Demand Shift would have been included in the EBT analysis. WPAG at 4.

As explained above, BPA has the discretion to serve the DSIs when it is consistent with sound business principles. BPA's decision to serve the additional load is based on its determination that the sale is consistent with sound business principles, as demonstrated by the EBT. Whether or not the sale is "necessary" is not the appropriate standard for BPA to apply when deciding whether to serve a DSI load. BPA has determined the increase in the amount of power sold to Port Townsend results in a steady revenue stream of \$3.2 million which is not subject to changes in the market price for power. In response to WPAG's comment that the EBT analysis is insufficient due to the absence of the Demand Shift analysis, BPA disagrees. As stated above, at this time, BPA believes the value of the demand shift is zero, and therefore inclusion of the Demand Shift does not alter the results of the EBT. Therefore, the EBT analysis is sufficient despite the absence of the Demand Shift.

V. ENVIRONMENTAL EFFECTS

BPA has reviewed the Amendment for potential environmental effects that could result from its implementation, consistent with the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321, et seq. Amending the agreement with Port Townsend allows for an increase in the amount of firm power supplied by BPA to Port Townsend's currently operating mill. The Amendment does not require BPA to take any action that would have a potential effect on the environment. BPA expects to provide the 3.5 MW of additional power under the Amendment from existing generation sources that would continue to operate within their normal operating limits. This power would be supplied over existing transmission lines that connect Port Townsend's facility to BPA's electrical transmission system and would not involve physical changes to this system. In addition, the provision of the additional power would not cause a change in Port Townsend's existing operations in such a manner that environmental impacts would significantly differ from the currently existing situation.

For these reasons, BPA has determined that the Amendment falls within a class of actions excluded from further NEPA review pursuant to U.S. Department of Energy NEPA regulations, which are applicable to BPA. More specifically, the Amendment falls within Categorical Exclusion B4.1, found at 10 CFR 1021, Subpart D, Appendix B, which provides for the categorical exclusion from further NEPA review of actions involving "[e]stablishment and implementation of contracts, policies, and marketing and allocation plans related to electric power acquisition that involve only the use of the existing transmission system and existing generation resources operating within their normal operating limits." BPA has prepared an Environmental Clearance Memorandum that documents this categorical exclusion, and that memorandum has been posted at BPA's

website, which is available at:

http://efw.bpa.gov/environmental_services/categoricalexclusions.aspx.

VI. FINAL DETERMINATION

Based on the above application of the Equivalent Benefits Test, BPA determines that it is consistent with sound business principles for BPA to amend Port Townsend's Contract Demand to include an additional 3.5 MW at the IP rate.

Issued at Portland, Oregon.

/S/ ELLIOT E. MAINZER

Elliot E. Mainzer
Administrator and Chief Executive Officer

4/3/14

Date

TABLE 1 - Usage and Rates

Month	PT Usage		Projected IP Rates				Effective IP Rate(\$ / MWh)
	Demand(kW)	HLH(MWh)	LLH(MWh)	HLH(\$ / MWh)	LLH(\$ / MWh)		
Jun-14	3,500	1,400	1,120	\$32.86	\$24.70	\$29.24	
Jul-14	3,500	1,456	1,148	\$40.62	\$34.63	\$37.98	
Aug-14	3,500	1,456	1,148	\$44.09	\$37.22	\$41.07	
Sep-14	3,500	1,400	1,120	\$43.78	\$38.03	\$41.23	
Oct-14	3,500	1,512	1,092	\$41.72	\$37.56	\$39.98	
Nov-14	3,500	1,344	1,180	\$45.69	\$41.40	\$43.69	
Dec-14	3,500	1,456	1,148	\$48.97	\$43.40	\$46.52	
Jan-15	3,500	1,456	1,148	\$47.93	\$40.80	\$44.79	
Feb-15	3,500	1,344	1,008	\$47.02	\$40.73	\$44.33	
Mar-15	3,500	1,456	1,145	\$40.36	\$35.23	\$38.11	
Apr-15	3,500	1,456	1,064	\$35.89	\$30.25	\$33.51	
May-15	3,500	1,400	1,204	\$31.13	\$23.21	\$27.47	
Jun-15	3,500	1,456	1,064	\$32.86	\$24.70	\$29.42	
Jul-15	3,500	1,456	1,148	\$40.62	\$34.63	\$37.98	
Aug-15	3,500	1,456	1,148	\$44.09	\$37.22	\$41.07	
Sep-15	3,500	1,400	1,120	\$43.78	\$38.03	\$41.23	
Oct-15	3,500	1,512	1,092	\$45.41	\$40.86	\$43.50	
Nov-15	3,500	1,344	1,180	\$49.76	\$45.06	\$47.56	
Dec-15	3,500	1,456	1,148	\$53.35	\$47.25	\$50.66	
Jan-16	3,500	1,400	1,204	\$52.21	\$44.40	\$48.60	
Feb-16	3,500	1,400	1,036	\$51.21	\$44.33	\$48.28	
Mar-16	3,500	1,512	1,089	\$43.92	\$38.31	\$41.57	
Apr-16	3,500	1,456	1,064	\$39.03	\$32.86	\$36.42	
May-16	3,500	1,400	1,204	\$33.82	\$25.15	\$29.81	
Jun-16	3,500	1,456	1,064	\$35.71	\$26.78	\$31.94	
Jul-16	3,500	1,400	1,204	\$44.21	\$37.65	\$41.17	
Aug-16	3,500	1,512	1,092	\$48.00	\$40.48	\$44.85	
Sep-16	3,500	1,400	1,120	\$47.67	\$41.37	\$44.87	
Oct-16	3,500	1,456	1,148	\$45.41	\$40.86	\$43.40	
Nov-16	3,500	1,400	1,124	\$49.76	\$45.06	\$47.67	
Dec-16	3,500	1,456	1,148	\$53.35	\$47.25	\$50.66	
Jan-17	3,500	1,400	1,204	\$52.21	\$44.40	\$48.60	
Feb-17	3,500	1,344	1,008	\$51.21	\$44.33	\$48.26	
Mar-17	3,500	1,512	1,089	\$43.92	\$38.31	\$41.57	
Apr-17	3,500	1,400	1,120	\$39.03	\$32.86	\$36.29	
May-17	3,500	1,456	1,148	\$33.82	\$25.15	\$30.00	
Jun-17	3,500	1,456	1,064	\$35.71	\$26.78	\$31.94	
Jul-17	3,500	1,400	1,204	\$44.21	\$37.65	\$41.17	
Aug-17	3,500	1,512	1,092	\$48.00	\$40.48	\$44.85	
Sep-17	3,500	1,400	1,120	\$47.67	\$41.37	\$44.87	
Oct-17	3,500	1,456	1,148	\$46.16	\$41.58	\$44.14	
Nov-17	3,500	1,400	1,124	\$50.53	\$45.80	\$48.43	
Dec-17	3,500	1,400	1,204	\$54.14	\$48.01	\$51.31	
Jan-18	3,500	1,456	1,148	\$53.00	\$45.14	\$49.53	
Feb-18	3,500	1,344	1,008	\$51.99	\$45.07	\$49.03	
Mar-18	3,500	1,512	1,089	\$44.66	\$39.01	\$42.29	
Apr-18	3,500	1,400	1,120	\$39.74	\$33.52	\$36.97	
May-18	3,500	1,456	1,148	\$34.49	\$25.77	\$30.65	
Jun-18	3,500	1,456	1,064	\$36.40	\$27.41	\$32.60	
Jul-18	3,500	1,400	1,204	\$44.95	\$38.35	\$41.89	
Aug-18	3,500	1,512	1,092	\$48.77	\$41.20	\$45.59	
Sep-18	3,500	1,344	1,176	\$48.43	\$42.09	\$45.47	
Oct-18	3,500	1,512	1,092	\$46.16	\$41.58	\$44.24	
Nov-18	3,500	1,400	1,124	\$50.53	\$45.80	\$48.43	
Dec-18	3,500	1,400	1,204	\$54.14	\$48.01	\$51.31	
Jan-19	3,500	1,456	1,148	\$53.00	\$45.14	\$49.53	
Feb-19	3,500	1,344	1,008	\$51.99	\$45.07	\$49.03	
Mar-19	3,500	1,456	1,145	\$44.66	\$39.01	\$42.17	
Apr-19	3,500	1,456	1,064	\$39.74	\$33.52	\$37.11	
May-19	3,500	1,456	1,148	\$34.49	\$25.77	\$30.65	

TABLE 1 - Usage and Rates

Month	PT Usage		Projected IP Rates				Effective IP Rate(\$ / MWh)
	Demand(kW)	HLH(MWh)	LLH(MWh)	HLH(\$ / MWh)	LLH(\$ / MWh)		
Jun-19	3,500	1,400	1,120	\$36.40	\$27.41	\$32.40	
Jul-19	3,500	1,456	1,148	\$44.95	\$38.35	\$42.04	
Aug-19	3,500	1,512	1,092	\$48.77	\$41.20	\$45.59	
Sep-19	3,500	1,344	1,176	\$48.43	\$42.09	\$45.47	
Oct-19	3,500	1,512	1,092	\$42.66	\$38.29	\$40.83	
Nov-19	3,500	1,400	1,124	\$46.83	\$42.32	\$44.83	
Dec-19	3,500	1,400	1,204	\$50.28	\$44.43	\$47.57	
Jan-20	3,500	1,456	1,148	\$49.19	\$41.69	\$45.88	
Feb-20	3,500	1,400	1,036	\$48.23	\$41.62	\$45.42	
Mar-20	3,500	1,456	1,145	\$41.23	\$35.84	\$38.86	
Apr-20	3,500	1,456	1,064	\$36.53	\$30.60	\$34.03	
May-20	3,500	1,400	1,204	\$31.53	\$23.20	\$27.68	
Jun-20	3,500	1,456	1,064	\$33.35	\$24.77	\$29.73	
Jul-20	3,500	1,456	1,148	\$41.50	\$35.21	\$38.73	
Aug-20	3,500	1,456	1,148	\$45.15	\$37.93	\$41.97	
Sep-20	3,500	1,400	1,120	\$44.83	\$38.78	\$42.14	
Oct-20	3,500	1,512	1,092	\$42.66	\$38.29	\$40.83	
Nov-20	3,500	1,344	1,180	\$46.83	\$42.32	\$44.73	
Dec-20	3,500	1,456	1,148	\$50.28	\$44.43	\$47.70	
Jan-21	3,500	1,400	1,204	\$49.19	\$41.69	\$45.72	
Feb-21	3,500	1,344	1,008	\$48.23	\$41.62	\$45.40	
Mar-21	3,500	1,512	1,089	\$41.23	\$35.84	\$38.97	
Apr-21	3,500	1,456	1,064	\$36.53	\$30.60	\$34.03	
May-21	3,500	1,400	1,204	\$31.53	\$23.20	\$27.68	
Jun-21	3,500	1,456	1,064	\$33.35	\$24.77	\$29.73	
Jul-21	3,500	1,456	1,148	\$41.50	\$35.21	\$38.73	
Aug-21	3,500	1,456	1,148	\$45.15	\$37.93	\$41.97	
Sep-21	3,500	1,400	1,120	\$44.83	\$38.78	\$42.14	
Oct-21	3,500	1,456	1,148	\$44.67	\$40.10	\$42.66	
Nov-21	3,500	1,400	1,124	\$49.04	\$44.32	\$46.94	
Dec-21	3,500	1,456	1,148	\$52.64	\$46.52	\$49.94	
Jan-22	3,500	1,400	1,204	\$51.50	\$43.66	\$47.88	
Feb-22	3,500	1,344	1,008	\$50.50	\$43.59	\$47.54	
Mar-22	3,500	1,512	1,089	\$43.18	\$37.54	\$40.82	
Apr-22	3,500	1,456	1,064	\$38.27	\$32.07	\$35.65	
May-22	3,500	1,400	1,204	\$33.04	\$24.34	\$29.01	
Jun-22	3,500	1,456	1,064	\$34.94	\$25.97	\$31.15	
Jul-22	3,500	1,400	1,204	\$43.47	\$36.88	\$40.42	
Aug-22	3,500	1,512	1,092	\$47.28	\$39.73	\$44.11	
Sep-22	3,500	1,400	1,120	\$46.94	\$40.62	\$44.13	

TABLE 2 - BPA's Projected Revenue

Revenues by Rate Determinant			Projected IP Revenue	
Month	HLH(\$)	LLH(\$)	Month(\$)	Cumulative Total Contract-to-Date(\$)
Jun-14	\$46,010	\$27,669	\$73,680	\$73,680
Jul-14	\$59,149	\$39,761	\$98,910	\$172,590
Aug-14	\$64,202	\$42,734	\$106,936	\$279,525
Sep-14	\$61,298	\$42,599	\$103,897	\$383,422
Oct-14	\$63,088	\$41,021	\$104,108	\$487,531
Nov-14	\$61,414	\$48,837	\$110,250	\$597,781
Dec-14	\$71,307	\$49,828	\$121,136	\$718,916
Jan-15	\$69,793	\$46,844	\$116,636	\$835,553
Feb-15	\$63,201	\$41,060	\$104,262	\$939,815
Mar-15	\$58,771	\$40,326	\$99,097	\$1,038,911
Apr-15	\$52,263	\$32,191	\$84,453	\$1,123,365
May-15	\$43,588	\$27,950	\$71,539	\$1,194,904
Jun-15	\$47,851	\$26,286	\$74,137	\$1,269,040
Jul-15	\$59,149	\$39,761	\$98,910	\$1,367,950
Aug-15	\$64,202	\$42,734	\$106,936	\$1,474,886
Sep-15	\$61,298	\$42,599	\$103,897	\$1,578,783
Oct-15	\$68,661	\$44,616	\$113,277	\$1,692,060
Nov-15	\$66,872	\$53,149	\$120,021	\$1,812,080
Dec-15	\$77,672	\$54,242	\$131,915	\$1,943,995
Jan-16	\$73,091	\$53,462	\$126,553	\$2,070,548
Feb-16	\$71,697	\$45,923	\$117,619	\$2,188,167
Mar-16	\$66,410	\$41,697	\$108,107	\$2,296,273
Apr-16	\$56,826	\$34,958	\$91,785	\$2,388,058
May-16	\$47,346	\$30,280	\$77,626	\$2,465,684
Jun-16	\$51,997	\$28,495	\$80,492	\$2,546,176
Jul-16	\$61,889	\$45,330	\$107,219	\$2,653,396
Aug-16	\$72,583	\$44,209	\$116,793	\$2,770,188
Sep-16	\$66,731	\$46,336	\$113,068	\$2,883,256
Oct-16	\$66,118	\$46,904	\$113,022	\$2,996,277
Nov-16	\$69,658	\$50,625	\$120,284	\$3,116,561
Dec-16	\$77,672	\$54,242	\$131,915	\$3,248,475
Jan-17	\$73,091	\$53,462	\$126,553	\$3,375,028
Feb-17	\$68,829	\$44,681	\$113,510	\$3,488,538
Mar-17	\$66,410	\$41,697	\$108,107	\$3,596,645
Apr-17	\$54,641	\$36,798	\$91,439	\$3,688,084
May-17	\$49,240	\$28,872	\$78,112	\$3,766,195
Jun-17	\$51,997	\$28,495	\$80,492	\$3,846,687
Jul-17	\$61,889	\$45,330	\$107,219	\$3,953,907
Aug-17	\$72,583	\$44,209	\$116,793	\$4,070,699
Sep-17	\$66,731	\$46,336	\$113,068	\$4,183,767
Oct-17	\$67,205	\$47,728	\$114,933	\$4,298,699
Nov-17	\$70,741	\$51,461	\$122,203	\$4,420,902
Dec-17	\$75,799	\$57,801	\$133,600	\$4,554,502
Jan-18	\$77,163	\$51,825	\$128,988	\$4,683,490
Feb-18	\$69,881	\$45,427	\$115,308	\$4,798,798
Mar-18	\$67,524	\$42,461	\$109,985	\$4,908,783
Apr-18	\$55,630	\$37,546	\$93,176	\$5,001,960
May-18	\$50,222	\$29,583	\$79,805	\$5,081,765
Jun-18	\$52,996	\$29,165	\$82,161	\$5,163,925
Jul-18	\$62,924	\$46,171	\$109,094	\$5,273,020
Aug-18	\$73,736	\$44,991	\$118,727	\$5,391,747
Sep-18	\$65,084	\$49,501	\$114,585	\$5,506,332

TABLE 2 - BPA's Projected Revenue

Month	Revenues by Rate Determinant		Projected IP Revenue	
	HLH(\$)	LLH(\$)	Month(\$)	Cumulative Total Contract-to-Date(\$)
Oct-18	\$69,789	\$45,400	\$115,189	\$5,621,522
Nov-18	\$70,741	\$51,461	\$122,203	\$5,743,724
Dec-18	\$75,799	\$57,801	\$133,600	\$5,877,324
Jan-19	\$77,163	\$51,825	\$128,988	\$6,006,313
Feb-19	\$69,881	\$45,427	\$115,308	\$6,121,620
Mar-19	\$65,024	\$44,645	\$109,669	\$6,231,289
Apr-19	\$57,855	\$35,669	\$93,524	\$6,324,813
May-19	\$50,222	\$29,583	\$79,805	\$6,404,618
Jun-19	\$50,958	\$30,700	\$81,658	\$6,486,276
Jul-19	\$65,440	\$44,023	\$109,464	\$6,595,740
Aug-19	\$73,736	\$44,991	\$118,727	\$6,714,467
Sep-19	\$65,084	\$49,501	\$114,585	\$6,829,052
Oct-19	\$64,504	\$41,811	\$106,315	\$6,935,367
Nov-19	\$65,568	\$47,552	\$113,120	\$7,048,487
Dec-19	\$70,395	\$53,490	\$123,885	\$7,172,372
Jan-20	\$71,619	\$47,865	\$119,484	\$7,291,856
Feb-20	\$67,525	\$43,119	\$110,644	\$7,402,500
Mar-20	\$60,033	\$41,018	\$101,052	\$7,503,551
Apr-20	\$53,192	\$32,563	\$85,756	\$7,589,307
May-20	\$44,142	\$27,939	\$72,080	\$7,661,387
Jun-20	\$48,555	\$26,356	\$74,911	\$7,736,298
Jul-20	\$60,431	\$40,420	\$100,851	\$7,837,149
Aug-20	\$65,742	\$43,545	\$109,287	\$7,946,436
Sep-20	\$62,757	\$43,436	\$106,194	\$8,052,630
Oct-20	\$64,504	\$41,811	\$106,315	\$8,158,944
Nov-20	\$62,945	\$49,922	\$112,867	\$8,271,812
Dec-20	\$73,211	\$51,002	\$124,213	\$8,396,025
Jan-21	\$68,864	\$50,200	\$119,064	\$8,515,089
Feb-21	\$64,824	\$41,954	\$106,778	\$8,621,866
Mar-21	\$62,342	\$39,011	\$101,353	\$8,723,220
Apr-21	\$53,192	\$32,563	\$85,756	\$8,808,976
May-21	\$44,142	\$27,939	\$72,080	\$8,881,056
Jun-21	\$48,555	\$26,356	\$74,911	\$8,955,967
Jul-21	\$60,431	\$40,420	\$100,851	\$9,056,818
Aug-21	\$65,742	\$43,545	\$109,287	\$9,166,105
Sep-21	\$62,757	\$43,436	\$106,194	\$9,272,298
Oct-21	\$65,045	\$46,038	\$111,084	\$9,383,382
Nov-21	\$68,651	\$49,796	\$118,447	\$9,501,829
Dec-21	\$76,644	\$53,405	\$130,049	\$9,631,878
Jan-22	\$72,096	\$52,570	\$124,667	\$9,756,545
Feb-22	\$67,869	\$43,935	\$111,804	\$9,868,349
Mar-22	\$65,288	\$40,866	\$106,153	\$9,974,502
Apr-22	\$55,719	\$34,124	\$89,842	\$10,064,344
May-22	\$46,253	\$29,300	\$75,554	\$10,139,898
Jun-22	\$50,871	\$27,635	\$78,506	\$10,218,404
Jul-22	\$60,852	\$44,408	\$105,260	\$10,323,664
Aug-22	\$71,485	\$43,385	\$114,869	\$10,438,533
Sep-22	\$65,713	\$45,494	\$111,206	\$10,549,739

TABLE 3 - BPA's Forecasted Revenues Obtained from the Market

Month	Forecasted Market Price		Forecasted Revenues Obtained from the Market		Month \$(HLH + LLH)	Cumulative Total Contract-to-Date(\$)
	HLH Price(\$ / MWh)	LLH Price(\$ / MWh)	HLH(\$)	LLH(\$)		
Jun-14	\$22.39	\$14.39	\$31,340	\$16,113	\$47,453	\$47,453
Jul-14	\$30.22	\$24.55	\$24,002	\$12,188	\$28,190	\$119,643
Aug-14	\$33.58	\$26.90	\$48,888	\$30,879	\$79,767	\$199,410
Sep-14	\$33.86	\$28.13	\$47,401	\$31,504	\$78,905	\$278,315
Oct-14	\$32.43	\$27.97	\$49,029	\$30,541	\$79,570	\$357,884
Nov-14	\$36.26	\$31.79	\$48,734	\$37,495	\$86,229	\$444,114
Dec-14	\$39.11	\$33.24	\$56,938	\$38,163	\$95,102	\$539,215
Jan-15	\$37.89	\$30.41	\$55,169	\$34,908	\$90,077	\$629,292
Feb-15	\$36.59	\$30.13	\$49,176	\$30,374	\$79,550	\$708,843
Mar-15	\$29.60	\$24.43	\$43,100	\$27,961	\$71,061	\$779,904
Apr-15	\$25.44	\$19.64	\$37,042	\$20,902	\$57,944	\$837,848
May-15	\$20.70	\$12.49	\$28,979	\$15,037	\$44,017	\$881,865
Jun-15	\$23.07	\$14.75	\$33,584	\$15,699	\$49,282	\$931,147
Jul-15	\$30.75	\$24.44	\$44,779	\$28,054	\$72,833	\$1,003,980
Aug-15	\$34.34	\$27.27	\$50,001	\$31,310	\$81,310	\$1,085,291
Sep-15	\$33.45	\$27.68	\$46,827	\$30,997	\$77,824	\$1,163,115
Oct-15	\$32.47	\$27.79	\$49,102	\$30,352	\$79,454	\$1,242,569
Nov-15	\$34.40	\$30.63	\$46,234	\$36,128	\$82,362	\$1,324,931
Dec-15	\$36.97	\$31.64	\$53,833	\$36,325	\$90,157	\$1,415,088
Jan-16	\$36.65	\$29.00	\$51,304	\$34,917	\$86,221	\$1,501,309
Feb-16	\$34.11	\$27.99	\$47,752	\$28,996	\$76,748	\$1,578,057
Mar-16	\$29.55	\$23.79	\$44,682	\$25,897	\$70,579	\$1,648,636
Apr-16	\$25.59	\$19.30	\$37,255	\$20,534	\$57,789	\$1,706,424
May-16	\$20.29	\$12.11	\$28,406	\$14,579	\$42,985	\$1,749,409
Jun-16	\$21.45	\$13.33	\$31,236	\$14,185	\$45,421	\$1,794,830
Jul-16	\$29.58	\$23.70	\$41,410	\$28,533	\$69,943	\$1,864,773
Aug-16	\$33.11	\$26.48	\$50,059	\$28,911	\$78,970	\$1,943,742
Sep-16	\$34.32	\$28.24	\$48,043	\$31,630	\$79,673	\$2,023,415
Oct-16	\$33.55	\$28.47	\$48,856	\$32,681	\$81,537	\$2,104,952
Nov-16	\$36.15	\$31.14	\$50,614	\$34,989	\$85,603	\$2,190,555
Dec-16	\$38.49	\$32.76	\$56,035	\$37,610	\$93,645	\$2,284,200
Jan-17	\$38.24	\$30.39	\$53,539	\$36,587	\$90,126	\$2,374,327
Feb-17	\$37.96	\$31.08	\$51,017	\$31,324	\$82,341	\$2,456,668
Mar-17	\$31.41	\$24.88	\$47,498	\$27,080	\$74,578	\$2,531,245
Apr-17	\$26.63	\$19.75	\$37,287	\$22,121	\$59,408	\$2,590,654
May-17	\$22.49	\$13.13	\$32,752	\$15,079	\$47,830	\$2,638,484
Jun-17	\$24.53	\$15.49	\$35,715	\$16,485	\$52,200	\$2,690,684
Jul-17	\$31.76	\$25.12	\$44,459	\$30,242	\$74,701	\$2,765,385
Aug-17	\$34.98	\$27.86	\$52,885	\$30,427	\$83,312	\$2,848,697
Sep-17	\$36.50	\$29.75	\$51,107	\$33,320	\$84,427	\$2,933,124
Oct-17	\$34.82	\$29.40	\$50,692	\$33,753	\$84,445	\$3,017,569
Nov-17	\$36.70	\$31.51	\$51,384	\$35,404	\$86,788	\$3,104,357
Dec-17	\$40.15	\$33.77	\$56,210	\$40,661	\$96,871	\$3,201,227
Jan-18	\$40.45	\$31.83	\$58,893	\$36,546	\$95,439	\$3,296,666
Feb-18	\$39.36	\$31.98	\$52,895	\$32,237	\$85,132	\$3,381,798
Mar-18	\$32.32	\$25.53	\$48,869	\$27,791	\$76,660	\$3,458,458
Apr-18	\$27.37	\$20.28	\$38,313	\$22,718	\$61,032	\$3,519,490
May-18	\$22.50	\$13.15	\$32,762	\$15,098	\$47,860	\$3,567,349
Jun-18	\$23.63	\$14.74	\$34,405	\$15,687	\$50,092	\$3,617,441
Jul-18	\$33.41	\$26.07	\$46,777	\$31,386	\$78,164	\$3,695,605
Aug-18	\$37.28	\$29.92	\$56,364	\$32,675	\$89,039	\$3,784,644
Sep-18	\$37.22	\$30.31	\$50,023	\$35,642	\$85,665	\$3,870,309
Oct-18	\$37.26	\$31.38	\$56,338	\$34,264	\$90,602	\$3,960,911
Nov-18	\$38.73	\$33.21	\$54,216	\$37,308	\$91,523	\$4,052,434
Dec-18	\$40.79	\$34.35	\$57,107	\$41,356	\$98,463	\$4,150,897
Jan-19	\$40.66	\$31.81	\$59,200	\$36,514	\$95,714	\$4,246,611
Feb-19	\$40.30	\$32.35	\$54,158	\$32,606	\$86,764	\$4,333,375
Mar-19	\$32.92	\$25.90	\$47,936	\$29,638	\$77,574	\$4,410,949
Apr-19	\$28.68	\$20.61	\$41,759	\$21,927	\$63,686	\$4,474,635
May-19	\$24.47	\$14.29	\$35,629	\$16,410	\$52,040	\$4,526,675
Jun-19	\$26.37	\$16.43	\$36,921	\$18,397	\$55,318	\$4,581,993
Jul-19	\$34.57	\$26.89	\$50,333	\$30,869	\$81,202	\$4,663,195
Aug-19	\$38.78	\$30.76	\$58,628	\$33,589	\$92,217	\$4,755,412
Sep-19	\$40.49	\$32.52	\$54,414	\$38,246	\$92,660	\$4,848,071
Oct-19	\$37.89	\$31.90	\$57,285	\$34,839	\$92,124	\$4,940,195
Nov-19	\$39.38	\$33.76	\$55,126	\$37,934	\$93,061	\$5,033,256
Dec-19	\$41.48	\$34.93	\$58,067	\$42,051	\$100,118	\$5,133,374
Jan-20	\$41.32	\$32.32	\$60,165	\$37,109	\$97,274	\$5,230,647
Feb-20	\$40.95	\$32.87	\$57,335	\$34,058	\$91,392	\$5,322,040
Mar-20	\$33.46	\$26.32	\$48,718	\$30,121	\$78,838	\$5,400,878
Apr-20	\$29.15	\$20.94	\$42,440	\$22,284	\$64,724	\$5,465,602
May-20	\$24.87	\$14.53	\$34,817	\$17,491	\$52,309	\$5,517,911
Jun-20	\$26.80	\$16.69	\$39,024	\$17,762	\$56,786	\$5,574,697
Jul-20	\$35.13	\$27.33	\$51,153	\$31,373	\$82,526	\$5,657,223
Aug-20	\$39.41	\$31.26	\$57,377	\$35,887	\$93,264	\$5,750,486
Sep-20	\$41.15	\$33.05	\$57,605	\$37,018	\$94,623	\$5,845,110

Attachment

TABLE 3 - BPA's Forecasted Revenues Obtained from the Market

Month	Forecasted Market Price		Forecasted Revenues Obtained from the Market		Month \$(HLH + LLH)	Cumulative Total Contract-to-Date(\$)
	HLH Price(\$ / MWh)	LLH Price(\$ / MWh)	HLH(\$)	LLH(\$)		
Oct-20	\$38.50	\$32.42	\$58,218	\$35,407	\$93,626	\$5,938,735
Nov-20	\$40.02	\$34.31	\$53,784	\$40,474	\$94,258	\$6,032,994
Dec-20	\$42.15	\$35.50	\$61,374	\$40,749	\$102,122	\$6,135,116
Jan-21	\$42.01	\$32.86	\$58,817	\$39,569	\$98,386	\$6,233,502
Feb-21	\$41.64	\$33.42	\$55,960	\$33,691	\$89,651	\$6,323,153
Mar-21	\$34.02	\$26.76	\$51,436	\$29,125	\$80,562	\$6,403,714
Apr-21	\$29.64	\$21.29	\$43,149	\$22,657	\$65,805	\$6,469,520
May-21	\$25.28	\$14.77	\$35,399	\$17,783	\$53,182	\$6,522,702
Jun-21	\$27.25	\$16.97	\$39,676	\$18,058	\$57,734	\$6,580,436
Jul-21	\$35.72	\$27.78	\$52,007	\$31,897	\$83,904	\$6,664,340
Aug-21	\$40.07	\$31.78	\$58,335	\$36,486	\$94,821	\$6,759,161
Sep-21	\$41.83	\$33.60	\$58,567	\$37,636	\$96,203	\$6,855,365
Oct-21	\$39.15	\$32.97	\$56,998	\$37,845	\$94,843	\$6,950,208
Nov-21	\$40.69	\$34.89	\$56,961	\$39,196	\$96,157	\$7,046,365
Dec-21	\$42.86	\$36.09	\$62,399	\$41,429	\$103,828	\$7,150,193
Jan-22	\$42.73	\$33.43	\$59,823	\$40,245	\$100,068	\$7,250,261
Feb-22	\$42.35	\$33.99	\$56,917	\$34,267	\$91,184	\$7,341,445
Mar-22	\$34.60	\$27.21	\$52,316	\$29,623	\$81,939	\$7,423,384
Apr-22	\$30.14	\$21.66	\$43,886	\$23,044	\$66,931	\$7,490,315
May-22	\$25.72	\$15.02	\$36,004	\$18,088	\$54,092	\$7,544,406
Jun-22	\$27.72	\$17.26	\$40,354	\$18,367	\$58,721	\$7,603,128
Jul-22	\$36.33	\$28.26	\$50,862	\$34,024	\$84,887	\$7,688,014
Aug-22	\$40.75	\$32.33	\$61,615	\$35,300	\$96,915	\$7,784,929
Sep-22	\$42.55	\$34.18	\$59,569	\$38,280	\$97,849	\$7,882,778

TABLE 4 - BPA's Net Benefit before Adjustment

Net Revenue or (Cost)		
Month	Month(\$)	Cumulative Total Contract-to-Date(\$)
Jun-14	\$26,226	\$26,226
Jul-14	\$26,720	\$52,947
Aug-14	\$27,169	\$80,115
Sep-14	\$24,993	\$105,108
Oct-14	\$24,538	\$129,646
Nov-14	\$24,021	\$153,667
Dec-14	\$26,034	\$179,701
Jan-15	\$26,559	\$206,261
Feb-15	\$24,711	\$230,972
Mar-15	\$28,036	\$259,008
Apr-15	\$26,509	\$285,517
May-15	\$27,522	\$313,039
Jun-15	\$24,854	\$337,893
Jul-15	\$26,077	\$363,970
Aug-15	\$25,625	\$389,595
Sep-15	\$26,073	\$415,668
Oct-15	\$33,823	\$449,491
Nov-15	\$37,658	\$487,150
Dec-15	\$41,757	\$528,907
Jan-16	\$40,332	\$569,239
Feb-16	\$40,871	\$610,110
Mar-16	\$37,528	\$647,638
Apr-16	\$33,996	\$681,634
May-16	\$34,642	\$716,275
Jun-16	\$35,071	\$751,346
Jul-16	\$37,277	\$788,623
Aug-16	\$37,823	\$826,446
Sep-16	\$33,395	\$859,840
Oct-16	\$31,485	\$891,325
Nov-16	\$34,680	\$926,005
Dec-16	\$38,269	\$964,275
Jan-17	\$36,426	\$1,000,701
Feb-17	\$31,169	\$1,031,870
Mar-17	\$33,529	\$1,065,399
Apr-17	\$32,030	\$1,097,430
May-17	\$30,282	\$1,127,711
Jun-17	\$28,292	\$1,156,003
Jul-17	\$32,518	\$1,188,521
Aug-17	\$33,481	\$1,222,002
Sep-17	\$28,640	\$1,250,643
Oct-17	\$30,487	\$1,281,130
Nov-17	\$35,415	\$1,316,545
Dec-17	\$36,729	\$1,353,275
Jan-18	\$33,550	\$1,386,824
Feb-18	\$30,175	\$1,417,000
Mar-18	\$33,326	\$1,450,326
Apr-18	\$32,145	\$1,482,470
May-18	\$31,945	\$1,514,415
Jun-18	\$32,069	\$1,546,484
Jul-18	\$30,931	\$1,577,415
Aug-18	\$29,688	\$1,607,103

TABLE 4 - BPA's Net Benefit before Adjustment

Month	Month(\$)	Cumulative Total Contract-to-Date(\$)
Sep-18	\$28,921	\$1,636,024
Oct-18	\$24,587	\$1,660,611
Nov-18	\$30,680	\$1,691,291
Dec-18	\$35,137	\$1,726,427
Jan-19	\$33,275	\$1,759,702
Feb-19	\$28,544	\$1,788,245
Mar-19	\$32,095	\$1,820,341
Apr-19	\$29,838	\$1,850,178
May-19	\$27,765	\$1,877,944
Jun-19	\$26,339	\$1,904,283
Jul-19	\$28,262	\$1,932,545
Aug-19	\$26,510	\$1,959,055
Sep-19	\$21,926	\$1,980,981
Oct-19	\$14,191	\$1,995,172
Nov-19	\$20,059	\$2,015,231
Dec-19	\$23,767	\$2,038,998
Jan-20	\$22,210	\$2,061,208
Feb-20	\$19,252	\$2,080,460
Mar-20	\$22,213	\$2,102,673
Apr-20	\$21,031	\$2,123,705
May-20	\$19,771	\$2,143,476
Jun-20	\$18,125	\$2,161,601
Jul-20	\$18,325	\$2,179,927
Aug-20	\$16,023	\$2,195,950
Sep-20	\$11,570	\$2,207,520
Oct-20	\$12,689	\$2,220,209
Nov-20	\$18,609	\$2,238,818
Dec-20	\$22,091	\$2,260,909
Jan-21	\$20,678	\$2,281,587
Feb-21	\$17,127	\$2,298,714
Mar-21	\$20,792	\$2,319,506
Apr-21	\$19,950	\$2,339,456
May-21	\$18,898	\$2,358,354
Jun-21	\$17,177	\$2,375,531
Jul-21	\$16,947	\$2,392,478
Aug-21	\$14,466	\$2,406,943
Sep-21	\$9,990	\$2,416,934
Oct-21	\$16,241	\$2,433,174
Nov-21	\$22,290	\$2,455,464
Dec-21	\$26,221	\$2,481,685
Jan-22	\$24,599	\$2,506,284
Feb-22	\$20,620	\$2,526,904
Mar-22	\$24,214	\$2,551,118
Apr-22	\$22,912	\$2,574,029
May-22	\$21,462	\$2,595,491
Jun-22	\$19,785	\$2,615,276
Jul-22	\$20,373	\$2,635,649
Aug-22	\$17,955	\$2,653,604
Sep-22	\$13,358	\$2,666,962

TABLE 5a - BPA's Net Benefit Adjustments**Value of Reserves**

Month	Month(\$)	Cumulative Total Contract-to-Date(\$)
Jun-14	\$2,457	\$2,457
Jul-14	\$2,539	\$4,996
Aug-14	\$2,539	\$7,535
Sep-14	\$2,457	\$9,992
Oct-14	\$2,539	\$12,531
Nov-14	\$2,460	\$14,991
Dec-14	\$2,539	\$17,530
Jan-15	\$2,539	\$20,069
Feb-15	\$2,293	\$22,362
Mar-15	\$2,535	\$24,898
Apr-15	\$2,457	\$27,355
May-15	\$2,539	\$29,894
Jun-15	\$2,457	\$32,351
Jul-15	\$2,539	\$34,889
Aug-15	\$2,539	\$37,428
Sep-15	\$2,457	\$39,885
Oct-15	\$2,539	\$42,424
Nov-15	\$2,460	\$44,885
Dec-15	\$2,539	\$47,424
Jan-16	\$2,539	\$49,962
Feb-16	\$2,375	\$52,338
Mar-16	\$2,535	\$54,873
Apr-16	\$2,457	\$57,330
May-16	\$2,539	\$59,869
Jun-16	\$2,457	\$62,326
Jul-16	\$2,539	\$64,865
Aug-16	\$2,539	\$67,404
Sep-16	\$2,457	\$69,861
Oct-16	\$2,539	\$72,400
Nov-16	\$2,460	\$74,860
Dec-16	\$2,539	\$77,399
Jan-17	\$2,539	\$79,938
Feb-17	\$2,293	\$82,231
Mar-17	\$2,535	\$84,767
Apr-17	\$2,457	\$87,224
May-17	\$2,539	\$89,762
Jun-17	\$2,457	\$92,219
Jul-17	\$2,539	\$94,758
Aug-17	\$2,539	\$97,297
Sep-17	\$2,457	\$99,754
Oct-17	\$2,539	\$102,293
Nov-17	\$2,460	\$104,754
Dec-17	\$2,539	\$107,292
Jan-18	\$2,539	\$109,831
Feb-18	\$2,293	\$112,125
Mar-18	\$2,535	\$114,660
Apr-18	\$2,457	\$117,117
May-18	\$2,539	\$119,656
Jun-18	\$2,457	\$122,113
Jul-18	\$2,539	\$124,652
Aug-18	\$2,539	\$127,191

TABLE 5a - BPA's Net Benefit Adjustments**Value of Reserves**

Month	Month(\$)	Cumulative Total Contract-to-Date(\$)
Sep-18	\$2,457	\$129,648
Oct-18	\$2,539	\$132,187
Nov-18	\$2,460	\$134,647
Dec-18	\$2,539	\$137,186
Jan-19	\$2,539	\$139,725
Feb-19	\$2,293	\$142,018
Mar-19	\$2,535	\$144,554
Apr-19	\$2,457	\$147,011
May-19	\$2,539	\$149,549
Jun-19	\$2,457	\$152,006
Jul-19	\$2,539	\$154,545
Aug-19	\$2,539	\$157,084
Sep-19	\$2,457	\$159,541
Oct-19	\$2,539	\$162,080
Nov-19	\$2,460	\$164,541
Dec-19	\$2,539	\$167,079
Jan-20	\$2,539	\$169,618
Feb-20	\$2,375	\$171,993
Mar-20	\$2,535	\$174,529
Apr-20	\$2,457	\$176,986
May-20	\$2,539	\$179,525
Jun-20	\$2,457	\$181,982
Jul-20	\$2,539	\$184,521
Aug-20	\$2,539	\$187,060
Sep-20	\$2,457	\$189,517
Oct-20	\$2,539	\$192,056
Nov-20	\$2,460	\$194,516
Dec-20	\$2,539	\$197,055
Jan-21	\$2,539	\$199,594
Feb-21	\$2,293	\$201,887
Mar-21	\$2,535	\$204,422
Apr-21	\$2,457	\$206,879
May-21	\$2,539	\$209,418
Jun-21	\$2,457	\$211,875
Jul-21	\$2,539	\$214,414
Aug-21	\$2,539	\$216,953
Sep-21	\$2,457	\$219,410
Oct-21	\$2,539	\$221,949
Nov-21	\$2,460	\$224,409
Dec-21	\$2,539	\$226,948
Jan-22	\$2,539	\$229,487
Feb-22	\$2,293	\$231,780
Mar-22	\$2,535	\$234,316
Apr-22	\$2,457	\$236,773
May-22	\$2,539	\$239,312
Jun-22	\$2,457	\$241,769
Jul-22	\$2,539	\$244,308
Aug-22	\$2,539	\$246,847
Sep-22	\$2,457	\$249,304

TABLE 5b - BPA's Net Benefit Adjustments**Avoided Tx and Ancillary Service Costs**

Month	Month(\$)	ProportionalMonth(\$)	Cumulative Total Contract-to-Date(\$)
Jun-14	\$8,747	\$7,653	\$7,653
Jul-14	\$4,018	\$3,516	\$11,169
Aug-14	\$298	\$261	\$11,430
Sep-14	\$54	\$47	\$11,477
Oct-14	\$156	\$137	\$11,614
Nov-14	\$250	\$219	\$11,833
Dec-14	\$854	\$748	\$12,580
Jan-15	\$2,682	\$2,347	\$14,927
Feb-15	\$2,359	\$2,064	\$16,992
Mar-15	\$4,199	\$3,674	\$20,666
Apr-15	\$5,445	\$4,764	\$25,430
May-15	\$9,144	\$8,001	\$33,431
Jun-15	\$7,668	\$6,710	\$40,141
Jul-15	\$5,447	\$4,766	\$44,907
Aug-15	\$2,759	\$2,414	\$47,321
Sep-15	\$337	\$295	\$47,616
Oct-15	\$369	\$323	\$47,939
Nov-15	\$859	\$751	\$48,690
Dec-15	\$1,404	\$1,228	\$49,918
Jan-16	\$3,480	\$3,045	\$52,963
Feb-16	\$3,972	\$3,476	\$56,439
Mar-16	\$5,632	\$4,928	\$61,367
Apr-16	\$6,054	\$5,298	\$66,665
May-16	\$9,473	\$8,289	\$74,954
Jun-16	\$8,214	\$7,187	\$82,141
Jul-16	\$5,869	\$5,135	\$87,276
Aug-16	\$2,852	\$2,496	\$89,771
Sep-16	\$345	\$302	\$90,073
Oct-16	\$388	\$340	\$90,413
Nov-16	\$848	\$742	\$91,156
Dec-16	\$1,367	\$1,196	\$92,352
Jan-17	\$3,385	\$2,962	\$95,314
Feb-17	\$3,308	\$2,894	\$98,208
Mar-17	\$5,561	\$4,866	\$103,074
Apr-17	\$4,264	\$3,731	\$106,805
May-17	\$9,175	\$8,028	\$114,833
Jun-17	\$7,713	\$6,749	\$121,582
Jul-17	\$5,643	\$4,938	\$126,519
Aug-17	\$2,858	\$2,501	\$129,020
Sep-17	\$333	\$292	\$129,312
Oct-17	\$606	\$530	\$129,842
Nov-17	\$1,487	\$1,301	\$131,143
Dec-17	\$2,362	\$2,067	\$133,210
Jan-18	\$4,545	\$3,977	\$137,187
Feb-18	\$4,337	\$3,795	\$140,982
Mar-18	\$6,573	\$5,752	\$146,733
Apr-18	\$7,352	\$6,433	\$153,166
May-18	\$9,688	\$8,477	\$161,643
Jun-18	\$8,847	\$7,741	\$169,385
Jul-18	\$6,914	\$6,050	\$175,434
Aug-18	\$3,849	\$3,368	\$178,802

TABLE 5b - BPA's Net Benefit Adjustments**Avoided Tx and Ancillary Service Costs**

Month	Month(\$)	ProportionalMonth(\$)	Cumulative Total Contract-to-Date(\$)
Sep-18	\$658	\$576	\$179,378
Oct-18	\$582	\$509	\$179,887
Nov-18	\$1,631	\$1,427	\$181,314
Dec-18	\$2,583	\$2,260	\$183,575
Jan-19	\$4,769	\$4,173	\$187,747
Feb-19	\$4,512	\$3,948	\$191,695
Mar-19	\$6,596	\$5,771	\$197,466
Apr-19	\$7,430	\$6,501	\$203,967
May-19	\$9,516	\$8,326	\$212,294
Jun-19	\$8,061	\$7,054	\$219,348
Jul-19	\$6,731	\$5,890	\$225,238
Aug-19	\$3,783	\$3,311	\$228,548
Sep-19	\$665	\$582	\$229,130
Oct-19	\$568	\$497	\$229,627
Nov-19	\$1,602	\$1,401	\$231,029
Dec-19	\$2,468	\$2,159	\$233,188
Jan-20	\$4,670	\$4,086	\$237,274
Feb-20	\$4,504	\$3,941	\$241,215
Mar-20	\$6,611	\$5,785	\$247,000
Apr-20	\$7,431	\$6,502	\$253,502
May-20	\$9,682	\$8,472	\$261,974
Jun-20	\$8,829	\$7,726	\$269,699
Jul-20	\$6,848	\$5,992	\$275,692
Aug-20	\$3,761	\$3,290	\$278,982
Sep-20	\$606	\$530	\$279,512
Oct-20	\$555	\$486	\$279,998
Nov-20	\$1,588	\$1,389	\$281,387
Dec-20	\$2,400	\$2,100	\$283,487
Jan-21	\$4,654	\$4,073	\$287,560
Feb-21	\$4,277	\$3,742	\$291,302
Mar-21	\$6,627	\$5,799	\$297,101
Apr-21	\$7,564	\$6,619	\$303,720
May-21	\$9,583	\$8,385	\$312,105
Jun-21	\$8,044	\$7,038	\$319,144
Jul-21	\$6,597	\$5,772	\$324,916
Aug-21	\$3,787	\$3,314	\$328,230
Sep-21	\$655	\$573	\$328,804
Oct-21	\$549	\$480	\$329,284
Nov-21	\$1,547	\$1,353	\$330,637
Dec-21	\$2,311	\$2,022	\$332,659
Jan-22	\$4,796	\$4,197	\$336,856
Feb-22	\$4,332	\$3,791	\$340,647
Mar-22	\$6,679	\$5,844	\$346,491
Apr-22	\$7,615	\$6,663	\$353,154
May-22	\$9,713	\$8,499	\$361,653
Jun-22	\$8,871	\$7,762	\$369,415
Jul-22	\$6,943	\$6,075	\$375,490
Aug-22	\$3,971	\$3,474	\$378,964
Sep-22	\$282	\$247	\$379,211

TABLE 6 - BPA's Net Benefit after Adjustments
BPA's Adjusted Net Revenue or (Cost)

Month	Net Revenue or (Cost) (A) Month (\$)	Value of Reserves (B) Month (\$)	Avoided Tx Costs (C) Month (\$)	Demand Shift (D) Month (\$)	A + B + C + D Month (\$)	Cumulative Total Contract-to-Date
Jun-14	\$26,226	\$2,457	\$7,653	\$0	\$36,337	\$36,337
Jul-14	\$26,720	\$2,539	\$3,516	\$0	\$32,774	\$69,111
Aug-14	\$27,169	\$2,539	\$261	\$0	\$29,969	\$99,080
Sep-14	\$24,993	\$2,457	\$47	\$0	\$27,496	\$126,577
Oct-14	\$24,538	\$2,539	\$137	\$0	\$27,214	\$153,791
Nov-14	\$24,021	\$2,460	\$219	\$0	\$26,700	\$180,491
Dec-14	\$26,034	\$2,539	\$748	\$0	\$29,320	\$209,812
Jan-15	\$26,559	\$2,539	\$2,347	\$0	\$31,445	\$241,257
Feb-15	\$24,711	\$2,293	\$2,064	\$0	\$29,069	\$270,326
Mar-15	\$28,036	\$2,535	\$3,674	\$0	\$34,246	\$304,571
Apr-15	\$26,509	\$2,457	\$4,764	\$0	\$33,730	\$338,301
May-15	\$27,522	\$2,539	\$8,001	\$0	\$38,062	\$376,363
Jun-15	\$24,854	\$2,457	\$6,710	\$0	\$34,021	\$410,385
Jul-15	\$26,077	\$2,539	\$4,766	\$0	\$33,382	\$443,766
Aug-15	\$25,625	\$2,539	\$2,414	\$0	\$30,578	\$474,344
Sep-15	\$26,073	\$2,457	\$295	\$0	\$28,825	\$503,169
Oct-15	\$33,823	\$2,539	\$323	\$0	\$36,684	\$539,854
Nov-15	\$37,658	\$2,460	\$751	\$0	\$40,870	\$580,724
Dec-15	\$41,757	\$2,539	\$1,228	\$0	\$45,524	\$626,248
Jan-16	\$40,332	\$2,539	\$3,045	\$0	\$45,916	\$672,165
Feb-16	\$40,871	\$2,375	\$3,476	\$0	\$46,722	\$718,886
Mar-16	\$37,528	\$2,535	\$4,928	\$0	\$44,992	\$763,878
Apr-16	\$33,996	\$2,457	\$5,298	\$0	\$41,750	\$805,629
May-16	\$34,642	\$2,539	\$8,289	\$0	\$45,469	\$851,098
Jun-16	\$35,071	\$2,457	\$7,187	\$0	\$44,715	\$895,813
Jul-16	\$37,277	\$2,539	\$5,135	\$0	\$44,951	\$940,763
Aug-16	\$37,823	\$2,539	\$2,496	\$0	\$42,857	\$983,621
Sep-16	\$33,395	\$2,457	\$302	\$0	\$36,154	\$1,019,774
Oct-16	\$31,485	\$2,539	\$340	\$0	\$34,364	\$1,054,138
Nov-16	\$34,680	\$2,460	\$742	\$0	\$37,883	\$1,092,021
Dec-16	\$38,269	\$2,539	\$1,196	\$0	\$42,004	\$1,134,025
Jan-17	\$36,426	\$2,539	\$2,962	\$0	\$41,928	\$1,175,953
Feb-17	\$31,169	\$2,293	\$2,894	\$0	\$36,357	\$1,212,310
Mar-17	\$33,529	\$2,535	\$4,866	\$0	\$40,930	\$1,253,240
Apr-17	\$32,030	\$2,457	\$3,731	\$0	\$38,218	\$1,291,458
May-17	\$30,282	\$2,539	\$8,028	\$0	\$40,848	\$1,332,306
Jun-17	\$28,292	\$2,457	\$6,749	\$0	\$37,498	\$1,369,804
Jul-17	\$32,518	\$2,539	\$4,938	\$0	\$39,995	\$1,409,799
Aug-17	\$33,481	\$2,539	\$2,501	\$0	\$38,521	\$1,448,320
Sep-17	\$28,640	\$2,457	\$292	\$0	\$31,389	\$1,479,709
Oct-17	\$30,487	\$2,539	\$530	\$0	\$33,557	\$1,513,266
Nov-17	\$35,415	\$2,460	\$1,301	\$0	\$39,177	\$1,552,442
Dec-17	\$36,729	\$2,539	\$2,067	\$0	\$41,335	\$1,593,777
Jan-18	\$33,550	\$2,539	\$3,977	\$0	\$40,065	\$1,633,843
Feb-18	\$30,175	\$2,293	\$3,795	\$0	\$36,263	\$1,670,106
Mar-18	\$33,326	\$2,535	\$5,752	\$0	\$41,613	\$1,711,719
Apr-18	\$32,145	\$2,457	\$6,433	\$0	\$41,034	\$1,752,753
May-18	\$31,945	\$2,539	\$8,477	\$0	\$42,962	\$1,795,715
Jun-18	\$32,069	\$2,457	\$7,741	\$0	\$42,267	\$1,837,982
Jul-18	\$30,931	\$2,539	\$6,050	\$0	\$39,519	\$1,877,501
Aug-18	\$29,688	\$2,539	\$3,368	\$0	\$35,595	\$1,913,096
Sep-18	\$28,921	\$2,457	\$576	\$0	\$31,953	\$1,945,049
Oct-18	\$24,587	\$2,539	\$509	\$0	\$27,635	\$1,972,685
Nov-18	\$30,680	\$2,460	\$1,427	\$0	\$34,567	\$2,007,252
Dec-18	\$35,137	\$2,539	\$2,260	\$0	\$39,936	\$2,047,188
Jan-19	\$33,275	\$2,539	\$4,173	\$0	\$39,986	\$2,087,174
Feb-19	\$28,544	\$2,293	\$3,948	\$0	\$34,784	\$2,121,959
Mar-19	\$32,095	\$2,535	\$5,771	\$0	\$40,402	\$2,162,360
Apr-19	\$29,838	\$2,457	\$6,501	\$0	\$38,796	\$2,201,156
May-19	\$27,765	\$2,539	\$8,326	\$0	\$38,631	\$2,239,787
Jun-19	\$26,339	\$2,457	\$7,054	\$0	\$35,850	\$2,275,637
Jul-19	\$28,262	\$2,539	\$5,890	\$0	\$36,690	\$2,312,328
Aug-19	\$26,510	\$2,539	\$3,311	\$0	\$32,360	\$2,344,687
Sep-19	\$21,926	\$2,457	\$582	\$0	\$24,965	\$2,369,652
Oct-19	\$14,191	\$2,539	\$497	\$0	\$17,227	\$2,386,879
Nov-19	\$20,059	\$2,460	\$1,401	\$0	\$23,921	\$2,410,800
Dec-19	\$23,767	\$2,539	\$2,159	\$0	\$28,466	\$2,439,266
Jan-20	\$22,210	\$2,539	\$4,086	\$0	\$28,835	\$2,468,101
Feb-20	\$19,252	\$2,375	\$3,941	\$0	\$25,568	\$2,493,669
Mar-20	\$22,213	\$2,535	\$5,785	\$0	\$30,533	\$2,524,202
Apr-20	\$21,031	\$2,457	\$6,502	\$0	\$29,990	\$2,554,192
May-20	\$19,771	\$2,539	\$8,472	\$0	\$30,782	\$2,584,975
Jun-20	\$18,125	\$2,457	\$7,726	\$0	\$28,308	\$2,613,283
Jul-20	\$18,325	\$2,539	\$5,992	\$0	\$26,856	\$2,640,139
Aug-20	\$16,023	\$2,539	\$3,290	\$0	\$21,852	\$2,661,991
Sep-20	\$11,570	\$2,457	\$530	\$0	\$14,557	\$2,676,549

TABLE 6 - BPA's Net Benefit after Adjustments
BPA's Adjusted Net Revenue or (Cost)

Month	Net Revenue or (Cost)	Value of Reserves	Avoided Tx Costs	Demand Shift	A + B + C + D	Cumulative Total
	(A) Month (\$)	(B) Month (\$)	(C) Month (\$)	(D) Month (\$)	Month (\$)	Contract-to-Date
Oct-20	\$12,689	\$2,539	\$486	\$0	\$15,714	\$2,692,263
Nov-20	\$18,609	\$2,460	\$1,389	\$0	\$22,459	\$2,714,721
Dec-20	\$22,091	\$2,539	\$2,100	\$0	\$26,730	\$2,741,451
Jan-21	\$20,678	\$2,539	\$4,073	\$0	\$27,290	\$2,768,741
Feb-21	\$17,127	\$2,293	\$3,742	\$0	\$23,162	\$2,791,903
Mar-21	\$20,792	\$2,535	\$5,799	\$0	\$29,126	\$2,821,029
Apr-21	\$19,950	\$2,457	\$6,619	\$0	\$29,026	\$2,850,056
May-21	\$18,898	\$2,539	\$8,385	\$0	\$29,822	\$2,879,878
Jun-21	\$17,177	\$2,457	\$7,038	\$0	\$26,672	\$2,906,550
Jul-21	\$16,947	\$2,539	\$5,772	\$0	\$25,258	\$2,931,808
Aug-21	\$14,466	\$2,539	\$3,314	\$0	\$20,318	\$2,952,127
Sep-21	\$9,990	\$2,457	\$573	\$0	\$13,021	\$2,965,147
Oct-21	\$16,241	\$2,539	\$480	\$0	\$19,260	\$2,984,407
Nov-21	\$22,290	\$2,460	\$1,353	\$0	\$26,104	\$3,010,511
Dec-21	\$26,221	\$2,539	\$2,022	\$0	\$30,782	\$3,041,293
Jan-22	\$24,599	\$2,539	\$4,197	\$0	\$31,334	\$3,072,627
Feb-22	\$20,620	\$2,293	\$3,791	\$0	\$26,704	\$3,099,331
Mar-22	\$24,214	\$2,535	\$5,844	\$0	\$32,594	\$3,131,925
Apr-22	\$22,912	\$2,457	\$6,663	\$0	\$32,032	\$3,163,957
May-22	\$21,462	\$2,539	\$8,499	\$0	\$32,500	\$3,196,457
Jun-22	\$19,785	\$2,457	\$7,762	\$0	\$30,004	\$3,226,461
Jul-22	\$20,373	\$2,539	\$6,075	\$0	\$28,987	\$3,255,447
Aug-22	\$17,955	\$2,539	\$3,474	\$0	\$23,968	\$3,279,415
Sep-22	\$13,358	\$2,457	\$247	\$0	\$16,062	\$3,295,476