



February 11, 2014

Ms. Kate Whitney  
Montana Public Service Commission  
1701 Prospect Avenue  
P.O. Box 202601  
Helena, MT 59620-2601

RE: Docket No. D2013.12.85  
PPLM Hydro Assets Purchase  
PSC Set 5 Data Requests (068-083)

Dear Ms. Whitney:

Enclosed for filing is a copy of NorthWestern Energy's responses to PSC Set 5 Data Requests (PSC-068-PSC-083). A hard copy will be mailed to the most recent service list in this Docket this date. The Montana Public Service Commission and the Montana Consumer Counsel will be served by hand delivery this date. This data response will also be e-filed on the PSC website and emailed to counsel of record.

Should you have questions please contact Joe Schwartzenberger at 406 497-3362.

Sincerely,

Nedra Chase  
Administrative Assistant  
Regulatory Affairs

NC/nc  
CC: Service List

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of NorthWestern Energy's responses to PSC Set 5 Data Requests (PSC-068-PSC-083) in Docket D2013.12.85, the PPLM Hydro Assets Purchase, has been hand delivered to the Montana Public Service Commission and to the Montana Consumer Counsel this date. It will be e-filed on the PSC website and served on the most recent service list by mailing a copy thereof by first class mail, postage prepaid. It will also be emailed to counsel of record.

Date: February 11, 2014



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Nedra Chase  
Administrative Assistant  
Regulatory Affairs

**Docket No D2013.12.85**  
**Hydro Assets Purchase**  
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**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

Data Requests served January 28, 2014

PSC-068

Regarding: Hydro Sales Process  
Witness: Bird

- a. Please provide a copy of the communication referenced at 8:14-19.
- b. Did PPL place a negative value on its coal assets in Montana?
- c. Please provide a copy of the communication referenced at 9:17-20.
- d. In your estimation, what advantage did PPL gain by accepting an offer from NWE for only the Hydros – a sale process which would likely take 9-12 months to complete with uncertainty that it could be actually be consummated – in lieu of initiating a competitive solicitation with the knowledge that NWE would likely be one of multiple bidders in a competitive process?
- e. Did NWE approach PPL about the possibility of allowing NWE to run a competitive process in accordance with ARM 38.5.8212(2)? If so, what was PPL's response?

RESPONSE:

- a. There was no written communication. It was a phone call between Paul McNutt, from PPL's advisor UBS, and myself.
- b. On February 7, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- c. Please see attached.
- d. On February 7, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- e. No. See the reference in my testimony at page 13:4-17.



**STRICTLY PRIVATE AND CONFIDENTIAL**

May 6, 2013

Brian Bird  
Chief Financial Officer  
NorthWestern Corporation  
3010 w. 69<sup>th</sup> street  
Sioux Falls, SD 57108

Dear Brian:

As you are aware, PPL Corporation ("PPL" or the "Company") has engaged UBS Securities LLC ("UBS") as its financial advisor in connection with the possible sale (the "Transaction") of the membership interests in PPL Montana, LLC ("PPL Montana"), through which PPL owns 100% of its interests in the Colstrip and Corette coal-fired electric generation facilities, and certain related properties and assets (collectively, the "Thermal Assets"). This letter outlines the general procedures of the process currently envisioned by the Company and UBS in connection with the possible sale of the Thermal Assets.

This letter and the fact that it is being furnished to you are subject to the Confidentiality Agreement and any Amendments thereto you have executed between you and the Company (the "Confidentiality Agreement").

**PHASE I**

Phase I of this process will be comprised of a review of the Confidential Information Memorandum dated April 2013 (the "CIM"), the Independent Market Consultant Report and the Financial Model that you have received, which include select business, financial and other information regarding the Thermal Assets. At the end of Phase I, participants will be requested to submit written non-binding initial indications of interest (the "Indicative Offer") to purchase the Thermal Assets as described further below.

**SUBMISSION OF INDICATIVE OFFERS**

You are invited to submit an Indicative Offer in writing, via e-mail to the following individuals no later than **12:00 PM ET on May 22, 2013:**

**Paul McNutt**  
Global Power & Utilities Group  
Phone: +1 212-821-6437  
Email: paul.mcnutt@ubs.com

**Alan Felder**  
Mergers & Acquisitions Group  
Phone: +1 212-821-4147  
Email: alan.felder@ubs.com

In order to evaluate the Indicative Offers on a comparable basis, each Indicative Offer must comply with the terms and conditions outlined below. Your Indicative Offer should include the following:

1. **Identity.** Please indicate the name, jurisdiction of organization and headquarters of the entity submitting the Indicative Offer, as well as the identity of any controlling persons, significant equity investors, or guarantors of such entity. Please identify any electric generation or transmission assets within the Northwest region of the Western Electricity Coordinating Council owned, operated or controlled by affiliates of such entity.
2. **Purchase Price.** Please specify the amount of the consideration expressed in U.S. dollars you propose to offer in cash to acquire the Thermal Assets ("Purchase Price"). For the purposes of your Indicative Offer, the Purchase Price should assume:
  - a. Closing as of July 1, 2013 (the "Valuation Date");
  - b. Consolidated closing balance sheet would have zero cash and net working capital, and all intercompany receivables / payables would be settled prior to closing;
  - c. Lease of the Colstrip thermal facility would be terminated and the underlying debt repaid in full;



- d. Hydroelectric facilities and related assets and liabilities would be transferred out of PPL Montana to another PPL affiliate prior to closing; and
- e. Fully funded pension obligations as of the Valuation Date.
3. **Western Power Marketing Business.** Please indicate if you intend to acquire PPL's Western Power Marketing Business (as defined in the CIM) as part of the Transaction, and if so the cash purchase price you would pay at closing to acquire that business as of the Valuation Date.
4. **Conditions / Assumptions.** Description of any other material conditions or assumptions upon which you are basing your Indicative Offer, including your assumptions regarding any relevant structural, valuation and other considerations.
5. **Financing.** Expected sources of equity and/or debt financing and the anticipated timing involved, whether financing is subject to contingencies, the steps required to secure the necessary funds, and the present status of any discussions.
6. **Conditions / Approvals.** Any internal approvals that have been obtained prior to submitting the Indicative Offer, as well as any additional internal approvals that will be required prior to executing a definitive agreement for the Transaction, including the expected timing of such internal approvals. Your Indicative Offer should also identify any external approvals, including third-party consents or approvals based on the contractual or regulatory status applicable to you or your affiliates (and any applicable properties), required to complete a Transaction, as well as your contemplated strategies for obtaining such consents and approvals and any relevant experience in similar transactions.
7. **Timing / Due Diligence.** Please specify the estimated time frame necessary for you to obtain all required consents and approvals and to close the Transaction as expeditiously as possible. Please also include a list of key due diligence items you would expect to review during the diligence phase.
8. **Advisors and Contacts.** A list of the name(s) of any advisors you have engaged or plan to engage in connection with the proposed Transaction and the name(s), phone number(s) and email(s) of the parties prepared to answer any questions regarding your Indicative Offer.
9. **Material Items / Other.** A description of other material items that would affect your Indicative Offer and any other considerations that would be relevant to the Company when reviewing your Indicative Offer.
10. **Confidentiality.** Please acknowledge and confirm that you are aware of the terms of the Confidentiality Agreement between you and PPL and that the terms of the Confidentiality Agreement have been complied with in the preparation of your Indicative Offer.

Shortly after receipt of the Indicative Offers, UBS will notify all parties who have submitted Indicative Offers as to whether or not they will be invited to conduct further due diligence during Phase II. In assessing the qualifications of the parties that have submitted Indicative Offers and whether to proceed with any party or parties, the Company, in its sole discretion, will consider, evaluate and assess factors including valuation, financing capability, and the prospective purchaser's ability to consummate a Transaction expeditiously.

## PHASE II

Based on the Indicative Offers received, the Company, with the advice of its financial and legal advisors, intends to select a group of prospective purchasers to participate in Phase II of the process. These prospective purchasers would be invited to conduct due diligence, including access to management and an electronic data room and site tour(s). Phase II participants also would receive a draft of the proposed purchase agreement (and related schedules, exhibits and other principal documents) for the Transaction, as well as a letter further outlining procedures for binding bids and the remainder of the sale process.

The Company reserves the right, in its sole discretion and without liability to you or anyone else, to reject any and all proposals, to expedite the process by entering into negotiations with one or more prospective purchasers at any time, to choose not to sell the Thermal Assets and/or the Western Power Marketing Business, to change the proposed bidding procedures or transaction structure, or to suspend or terminate this process at any time, in each case without notice or explanation therefor.



In no circumstances will the Company or any of its respective directors, officers, employees, shareholders, or members, and/or UBS, have any liability to, or be responsible for any costs or expenses incurred by, any person in connection with the Transaction, or for any other costs and expenses incurred by any participants relating to the Transaction, except as set forth in any definitive transaction agreements regarding the Transaction (as discussed below).

Any Indicative Offer will be deemed accepted only when a definitive transaction agreement has been authorized, executed and delivered by all parties thereto. Unless and until a definitive transaction agreement has been authorized, executed and delivered by all parties thereto, none of the Company, UBS or their respective affiliates or representatives shall have any legal obligation or liability of any kind with respect to the negotiation or consummation of a Transaction involving the Company or the process described in this letter, and, following any such execution of a definitive transaction agreement, the only obligations of the parties thereto will be those set forth in such definitive agreement.

**The existence and contents of this letter are subject to the terms of the Confidentiality Agreement you have previously entered into with PPL. As required under the Confidentiality Agreement, you should communicate only through UBS. In no event should any of the employees or management of PPL (including employees or management of PPL Montana and the Western Power Marketing Business) be contacted directly concerning any matter relating to the proposed transaction without prior consent. The fact that PPL is considering the proposed transaction is highly confidential. If you or your representatives have other business dealings with PPL, under no circumstances should the proposed transaction be mentioned.**

If you have any questions regarding the matters set forth in this letter, please feel free to contact any of the following UBS representatives:



Global Power & Utilities Group		Mergers & Acquisitions Group		
<b>Paul McNutt</b>	<b>Kwamena Aidoo</b>	<b>Alan Felder</b>	<b>Joon Lee</b>	<b>Aldrich Chan</b>
Managing Director	Associate Director	Managing Director	Director	Associate Director
Tel: 212-821-6437	Tel: 212-821-3841	Tel: 212-821-4147	Tel: 212-821-3928	Tel: 212-821-6689
paul.mcnutt@ubs.com	kwamena.aidoo@ubs.com	alan.felder@ubs.com	joon.lee@ubs.com	aldrich.chan@ubs.com

On behalf of PPL, we appreciate your interest in the potential Transaction.

Sincerely,

UBS Securities LLC

**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

Data Requests served January 28, 2014

PSC-069

Regarding: NWE Procurement Strategy  
Witness: Hines

- a. If NWE acquires the Hydro assets, how will it contract to dispose of excess power prior to the expected transfer of Kerr to the Confederated Salish and Kootenai Tribes? Please be specific with respect to potential buyers, delivery locations (on or off-system), and other relevant contract preferences including term and price conditions.
- b. If NWE acquires the Hydro assets, how will it contract to meet its peak load obligations following the expected transfer of Kerr to the Confederated Salish and Kootenai Tribes? Please be specific with respect to potential sellers, delivery locations (on or off-system), and other relevant contract preferences including term and price conditions.
- c. Would NorthWestern investigate and pursue an opportunity to purchase electricity at Kerr if the Confederated Salish and Kootenai Tribes provide such an opportunity?

RESPONSE:

- a. NorthWestern expects to approach any excess power sales with the same care and consideration with which we manage the rest of the portfolio – with the goal of providing the best value for customers. We expect a mix of counterparties, delivery terms, delivery points, and pricing (fixed and index based). Specificity cannot be provided until there are actual transactions to consider. Outcomes will be dependent on conditions at the time of sales.
- b. NorthWestern currently contracts to meet its peak energy requirements. It will continue its current process as applicable. In the short to intermediate term, we expect to continue to make quarterly, monthly, daily, and hourly purchases as needed to balance resources with our load requirements. NorthWestern will evaluate whether it makes sense on a long-term basis to continue to meet peak needs with market purchases, feasibility of hydro enhancements, or if the development or acquisition of a peaking resource would be more appropriate. It will also continue to evaluate alternatives in its future procurement plans.
- c. Yes.

**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

**Data Requests served January 28, 2014**

PSC-070

Regarding: Terminal Value of Hydros  
Witness: Stimatz, parts a-c / Rhoads, part d

On p.16 of your direct testimony you argue that ownership of the Hydros includes the extremely valuable right to generate electricity at those locations.

- a. Prior to the most recent relicensing of Kerr, the Confederated Salish and Kootenai Tribes filed an alternate application for license, and eventually won the unilateral opportunity to purchase Kerr at a cost that you estimate at \$30 million. Is this expected transfer price of Kerr in line with 7.5 times 2014 EBITDA?
- b. Have you estimated probabilities that other individuals or entities may file for competing licenses to operate or acquire some control over the operation of the remaining Hydros?
- c. Given NorthWestern's uncertainty regarding carbon costs and other unknown regulatory costs, what is the source of its certainty regarding the extreme value of the rights to generate electricity at the Hydros locations in 2033?
- d. Are any of the Hydros other than Kerr situated on federal lands or in position to impact resources under federal jurisdiction? If so, is there significant risk that other federal agencies will interfere with NorthWestern's control of operations?

RESPONSE:

- a. This data request misstates certain information. While prior to 1984, the CSKT had filed a competing license application for the Kerr Project FERC license, in 1984, MPC, the CSKT, and others entered into a settlement agreement which was incorporated into the 1985 license, under which the Tribes obtained an option from 2015 to 2025 to purchase the Kerr project from MPC for a Conveyance Price as calculated pursuant to Ordering paragraph (C)(2) of the license. The \$30M figure shown in Schedule 1(c) of the PSA is not the same as the Conveyance Price in the license and merely reflects a negotiated dollar value between NorthWestern and PPL. In any event, NorthWestern did not use an EBITDA multiple to estimate the \$30M figure for Kerr. The reference price used in the DCF analysis was determined as described in the Stimatz Direct Testimony on pages 16-18.

**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

Data Requests served January 28, 2014

PSC-070 cont'd

- b. NorthWestern is aware of the possibility that other entities may file competing license applications. For purposes of the DCF analysis, NorthWestern did not estimate the probability that this might occur.
- c. NorthWestern strongly disagrees with the Commission's advocacy position characterizing the value as "extreme." The Stimatz Direct Testimony on page 15 lines 14-15 reads "...the terminal value of the Hydros was *estimated* to be \$1.1 billion in 2033..." (emphasis added). Any valuation requires estimates and forecasts, and NorthWestern does not view any of them as certainties. NorthWestern views the terminal value estimate to be reasonable in the context of the condition of the assets, forecasted capital and O&M expenditures, and the political and regulatory environments.
- d. Some but not all of the Hydros are, to varying degrees, located on federal lands. The FERC Maps, which are attached as Exhibit G to each of the four FERC Licenses, indicate the area of federal lands occupied by each project. When the Hydros are located on federal lands, those federal lands are withdrawn as a power reservation, pursuant to Section 24 of the Federal Power Act (16 U.S.C. §818). This effectively vests jurisdiction over the withdrawn lands with FERC. Other federal agencies, while having the opportunity to submit comments and additional requirements to FERC for inclusion in the license, are without jurisdiction over the project or withdrawn lands. As a result NorthWestern sees no significant risk that federal agencies, other than FERC, will have authority to interfere with operations.

**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

Data Requests served January 28, 2014

PSC-071

Regarding: Terminal Values of Hydros and Gas Plant  
Witness: Stimatz

- a. On p.15 of your direct testimony you state that the terminal value of the Hydros discounted to 2013 is approximately \$290 million. Page 6-5 of the 2013 Procurement Plan estimates the net present residual value of the Hydros at \$212 million. Please explain this discrepancy.
- b. Page 6-5 of the 2013 Procurement Plan estimates the net present terminal value of a combined cycle gas plant to be \$9 million. Did NorthWestern multiply EBITDA by 7.5 similar to the Hydros calculation?
- c. Please provide all electronic worksheets, assumptions, and other evidence used to estimate net present terminal value of the combined cycle plant.

RESPONSE:

- a. The different terminal values are the result of different estimation methodologies used in the two different contexts. For the DCF analysis, NorthWestern used an EBITDA multiple of 7.5 to estimate the terminal value. For the procurement plan, residual value was estimated by escalating the purchase price of \$900 million at an annual inflationary rate of 2.1% and then discounting to 2013 dollars at a rate of 7.14%.

Both of these calculations are detailed in Excel files in the Stimatz folder on the Witnesses' Electronic Supporting Data CD that was provided on December 23, 2013. The methodology used in the DCF analysis is shown on the Exhibit\_\_(JMS-1) tab of the file named Exhibit\_\_(JMS-1) and (JMS-2).xls. The methodology used in the procurement plan is shown in the file named Portfolio NPV Chart.xls.

- b. No.
- c. Unlike the Hydros, a combined cycle plant would not be expected to have as much residual value at the end of the evaluation period. The terminal value of the combined cycle plant was estimated by escalating the initial cost at an annual inflationary rate of 2.1%, applying a scalar of 10%, and then discounting to 2013 dollars at a rate of 7.14%. Please see the file named Portfolio NPV Chart.xls in the Stimatz folder of the Witnesses' Electronic Supporting Data CD that was provided on December 23, 2013.

**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

**Data Requests served January 28, 2014**

PSC-072

Regarding: Carbon Price Forecast  
Witness: Fine

- a. The response to PSC-015(a), while informative, does not indicate why NWE selected 2021, as opposed to some later year, for a carbon price to take effect. Please provide more detail, including supporting sources that you relied upon, to describe why 2021 was selected.
- b. Why were PowerSimm scenarios that assumed different onset dates for a carbon price not run with the modeling software?

RESPONSE:

- a. NorthWestern based the decision to start carbon pricing in 2021 on internal discussions, discussions with its outside advisors, and reactions from ETAC to the 2021 start year (See 2013 Plan, Vol. 2 pages 274 and 298). Also, the selection of 2021 was influenced by other utility resource planning documents including prior resource planning work by NorthWestern and its advisors. NorthWestern used its best judgment to select the starting year for a carbon penalty in Montana. Based on its informed judgment, NorthWestern elected to use 2021 as the first year of carbon penalty implementation. 2021 represents a delay of the implementation of a carbon penalty from prior resource procurement planning cycles and in recognition of Commission comments on the 2011 Plan and comments received from ETAC. 2021 is believed to represent a balance between forecasts that show carbon pricing taking effect in the very near future versus forecasts containing implementation further in the future.
- b. Carbon pricing was treated as a stochastic variable in the PowerSimm model. Prior to using PowerSimm, NorthWestern didn't have the ability to treat carbon pricing as a stochastic variable. The stochastic simulation of the carbon price variable included low and high price trajectories that effectively capture the effects of earlier or later onset dates in the PowerSimm models. Changes to the onset date of the carbon penalty would not have improved the evaluation of carbon in the 2013 Plan.

**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

**Data Requests served January 28, 2014**

PSC-073

Regarding: Carbon Price Forecast  
Witness: Fine

The response to PSC-015(e) directs the Commission's attention to Figure 6-11 on page 6-27 of the Plan.

- a. Please provide the underlying data in Excel format for each carbon price curve represented on this figure.
- b. Provide a full bibliography of the sources which are the foundation of this data, including the title or name of the document, the page or section reference to the establishment of a carbon price forecast, and the location online (if available online) where the document may be found.
- c. Were any carbon price forecasts considered but not included in the representation on Figure 6-11?

RESPONSE:

- a. Please see the Excel file in the folder labeled "PSC-073" on the attached CD.
- b. Sources of information used in figure 6-11 are provided in a footnote on the bottom of page 6-27 of Volume 1, Chapter 6 of the 2013 Plan. The utility documents that are referenced include the year of publication and are readily accessible on the internet and typically include a table of contents to easily locate carbon reference materials contained within the documents.
- c. Yes. NorthWestern keeps informed of developments such as carbon legislation and implementation of fees associated with carbon emissions during the normal course of business. Figure 6-11 is intended to be a representative sampling of carbon pricing from utility sources. It is not intended to be an exhaustive depiction of all materials referencing potential future carbon prices that have been reviewed by NorthWestern staff.

**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

**Data Requests served January 28, 2014**

PSC-074

Regarding: DCF model  
Witness: Stimatz, parts a & b / Fine, part c

- a. NWE testified it has forecasted its planned investment levels for the hydros over the next 30 years (*See* JDH-27). Explain why your DCF model analyzed 20 years of cash flows prior to the incorporation of a termination value instead utilizing 30 years of cash flows prior to the incorporation of a termination value for the hydros.
- b. How did NWE calculate the uptick in expected generation from Rainbow and Cochrane in the DCF analysis?
- c. Has NWE ever used the same method to calculate future electricity market prices which was utilized in the Stimatz DCF analysis (i.e., the longest forward looking Mid-C electric price strip available with an annual escalation thereafter)? If so, in which dockets did NWE utilize this method?

RESPONSE:

- a. As described in the Stimatz Direct Testimony on pages 4-5, the purpose of the DCF modeling was to provide one estimate of the value other potential bidders might place on the assets. Most of the forecast information provided by PPLM in the CIM and elsewhere in the data room was for a 20-year period. Since other potential bidders would be using the same information as a basis for their valuations, a 20-year DCF modeling horizon was appropriate.
- b. For the DCF analysis, NorthWestern used PPLM's generation forecasts. As described in the Stimatz Direct Testimony on pages 8-9, NorthWestern analyzed historical generation data and compared it with PPLM's forecast. To adjust for the upgrades at Rainbow and Cochrane, NorthWestern applied the historical capacity factors at those plants to the increased capacity. See the Summary By Plant tab in the Excel file named Stimatz-Historical Generation Table.xls on the Witnesses' Electronic Supporting Data CD that was provided on December 23, 2013.
- c. A similar numerical method was employed in Docket No. D2008.6.69.

**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

**Data Requests served January 28, 2014**

PSC-075

Regarding: Carbon Adder  
Witness: Stimatz

- a. In the 2013 plan, NWE added CO<sub>2</sub> costs to the electricity market price by multiplying the assumed carbon tax by 0.6. (*See* 2013 Plan p. 6-28). Stimatz calculated a CO<sub>2</sub> adder in his DCF analysis using a projected market heat rate. Please explain the discrepancy in methods used to calculate carbon costs.
- b. Please provide DCF analysis using the 0.6 carbon adder from the PowerSimm analysis in the 2013 Plan rather than a projected market heat rate carbon adder.

RESPONSE:

- a. The method used for the DCF analysis and the method used in the 2013 Plan are different ways to estimate the carbon adder on a dollars-per-megawatt-hour basis. The methodology used in the DCF analysis results in different carbon adders depending on the level of the market prices of electricity and natural gas, while the methodology used in the 2013 Plan results in a constant adder to the power price for a given carbon price per ton. The methodology using the projected market heat rate results in an average factor for the period of 2021 through 2033 of 0.65, which is slightly higher than the 0.6 used in the Plan.
- b. On February 7, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.

**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

Data Requests served January 28, 2014

PSC-076

Regarding: Unanticipated Capital Expenditures  
Witness: Rhoads

You seem to state in response to PSC-018(b) that “unanticipated” work like that on the Hebgen intake structure is not incorporated into the long-term cap-ex forecast.

- a. How does the cap-ex forecast incorporate the cost of occasional, but unanticipated, capital expenditures?
- b. How are these unanticipated expenditures modeled in the levelized price, if at all?

RESPONSE:

- a. To the degree that the unanticipated cap-ex work is minor, the work can possibly be covered under the existing capital budget or planned for in the following year. For instance, if a generator winding fails on a unit that had a rewind planned in a future year, the cap-ex forecast may be adjusted to accommodate the rewind with little, if any, impact to the budget. For larger, unanticipated work that might arise, cap-ex funds are expended to cover the work needed to remedy the situation. To the extent possible, the projects are planned to reduce the impact to the capital budget.
- b. Some level of unanticipated expenditures is included in the cap-ex forecast because the cap-ex forecast is based on historic expenditures. However, significant unanticipated expenditures are generally not modeled into the cap-ex forecast. These events, because they are unanticipated and their cost is difficult to estimate, would be dealt with as the situation arises. Again, as discussed in part a, above, to the extent possible, the existing cap-ex budget will be used to assimilate the unanticipated costs into the budget.

**NorthWestern Energy**  
**Docket D2013.12.85**  
**PPLM Hydro Assets Purchase**

**Public Service Commission (PSC)**  
**Set 5 (068-083)**

Data Requests served January 28, 2014

PSC-077

Regarding Cap-Ex Comparisons to Other Hydro Facilities  
Witness: Rhoads

- a. Explain why NWE “did not check the future cap-ex requirements of the hydros against other *similar* hydro facilities in the United States and elsewhere” [emphasis added]?
- b. Does NWE agree that the experience of other plants, which use the same manufacturer for dam components, would be informative for the purposes of due diligence?
- c. How can NWE be sure that “the capital upgrade program is consistent with industry practice to maintain reliability” when NWE concedes, in response to PSC-029, that it has not compared the forecast capital upgrade program to any particular example in the industry?

RESPONSE:

- a. NorthWestern did not check the future cap-ex requirements of the hydros against other *similar* hydro facilities in the United States and elsewhere specifically related to this due diligence effort because cap-ex requirements will vary between project type, age, river basin characteristics, and operational requirements. The individuals involved in the due diligence process have their hydro experience they can draw upon using either comparison with other projects with which they may have been involved or comparison to the operation and maintenance of these PPLM assets in previous years. The best comparison is the long operating history for operation, maintenance, and capital improvements made to *these* projects themselves over the years and the condition and status of these projects now. In addition, PPLM employees are currently involved in industry association work groups for dam safety and hydraulic plant life. This provides a valuable venue that allows for comparison to other projects.
- b. Yes, NorthWestern agrees that the experience of other plants, which use the same manufacturer for dam components, would be informative. However, although informative, the information is not particularly relevant for the due diligence process. Please see the response to part a, above. NorthWestern personnel have the experience of the operation and maintenance of equipment used on the PPLM hydro system which is far more valuable than reviewing equipment which may not be relevant or may be operating under different conditions. NorthWestern’s due diligence effort met the needs for an examination regarding the materiality of the operation and maintenance and improvements to the PPLM system.

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- c. Please see the response to parts a and b, above. NorthWestern did compare the forecast capital upgrade program to the improvements that PPLM made in the past (as identified in Exhibit\_\_(WTR-9)) and the long operating history of these assets. This is the most relevant particular example in the industry. NorthWestern also relied on the expert and independent opinion of its engineering consultant which is included as Exhibit\_\_(WTR-2).

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PSC-078

Regarding: Cap-Ex Forecast  
Witness: Rhoads

In response to PSC-027, you suggest the cap-ex budgets include spending for Madison (2020-23), Black Eagle (2020-23) and Hauser (2016-21).

- a. What are these upgrades expected to cost?
- b. Are these costs assumed to simply be incorporated (after 2017) into the generic \$8.5 million escalating forecast?
- c. Why is it not more appropriate to create a specific adder representative of the costs of these upgrades?

RESPONSE:

- a. The estimated costs are as follows:
  - Madison – approximately \$6M
  - Black Eagle – approximately \$5M (Costs 2020-22)
  - Hauser- approximately \$10M
- b. Yes.
- c. These items are specifically identified and factored into the annual capital expenditure forecast relative to those years.

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PSC-079

Regarding: Possibility of Requirement for Large Upgrades  
Witness: Rhoads, parts a & b / Stimatz, part c

- a. In relation to your response to PSC-027, does NWE disagree with the premise that upgrades that are not undertaken for the sake of cost-effectiveness may nonetheless be required by an agency such as the FERC as a condition of regulation, such as hydro re-licensing?
- b. Is it NWE's contention that the Rainbow Upgrade was undertaken as a cost-effectiveness project?
- c. Please confirm that neither the future cap-ex forecast embedded in the LT Rev Req nor the PowerSimm stochastic modeling effort takes into account the potential for the cost of an out-of-the-money upgrade, such as that described in (a)?

RESPONSE:

- a. Yes, NorthWestern disagrees with the premise. The original question in Data Request PSC-027 is in the context of "...large upgrades of this variety" referencing the Rainbow Powerhouse #9. An option could have been for PPLM to keep, operate, maintain, and upgrade the original Rainbow powerhouse.
- b. Yes.
- c. Confirm.

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PSC-080

Regarding: Environmental Liabilities  
Witness: Rhoads, parts a & b / Fine, part c

- a. Is the \$1 million cost to demolish the Rainbow powerhouse, described in response to PSC-030, the only environmental issue-related cap-ex that NWE expects to make? If not, please explain how those costs are forecast.
- b. How were the allowances for environmental liabilities described in response to PSC-031 arrived at?
- c. Is it possible to stochastically model the risk of a possible environmental liability that may or may not occur—for instance, the listing of the arctic grayling—and quantify the risk?

RESPONSE:

- a. As noted in response to Data Request PSC-030, NorthWestern included \$1,000,000 in the capital budget forecast in 2015 for demolition of the old powerhouse at Rainbow. The other environmental issues discussed in the Prefiled Direct Testimony of William T. Rhoads, on pages WTR-35 through WTR-45 – the Anaconda Copper Mining Smelter and Refinery Superfund Site located near Black Eagle, the contaminated sediments at Thompson Falls, the potential Endangered Species Act listing of the Arctic grayling, and the shoreline erosion litigation – were not included in the capital budget forecast because they relate to less certain, potential future environmental liabilities. NorthWestern’s treatment of these other environmental costs in its modeling is described in the response to Data Request PSC-031. In addition to that response, the estimated costs for potential future environmental liabilities at Black Eagle and Thompson Falls are included as contingency items in NorthWestern’s Discounted Cash Flow valuation model. Future expenses for compliance with FERC license conditions were budgeted as O&M and included as Fixed Costs in the Discounted Cash Flow valuation model.
- b. The allowances for the environmental costs described in the response to Data Request PSC-031 are based on the best professional judgment of the NorthWestern Environmental Team. PPLM had estimated that the future remaining costs, including environmental costs, associated with the demolition of the old Rainbow powerhouse would be approximately \$200,000 more than the salvage value of the equipment in the old powerhouse. This estimate, however, only provided limited allowance for environmental costs – \$75,000 for asbestos abatement and \$190,000 to address disposal of used oil and other universal wastes – and did not provide any allowance for costs

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associated with management of contaminated soils, building debris contaminated with PCBs or mercury, or other environmental costs. Out of caution, NorthWestern made an allowance of \$1,000,000 for future costs, including additional environmental costs above and beyond what PPLM was considering, associated with demolition of the old Rainbow powerhouse.

With respect to Thompson Falls and Black Eagle, NorthWestern concluded that it was unlikely that significant future costs would be incurred at either site. This was primarily because, in both cases, ARCO-BP is the successor to the truly responsible parties for the former Anaconda Copper Mining Company facility in Milltown (Thompson Falls) and the former Anaconda Copper Mining Smelter and Refinery Site in Black Eagle. To prepare the cost estimates, the NorthWestern Environmental Team estimated the proportional share that the dam facility owner/operator might be required to pay in both a base case and a high probability case. This analysis was done in December 2012 during Mustang I, but the same allowances were used in the models during Mustang II.

- c. Yes, it is possible; however, the output of the model and conclusions that are drawn from the modeling are dependent on the model inputs and assumptions.

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PSC-081

Regarding: Costs of Forced Outages  
Witness: Rhoads

In relation to your response to PSC-032, do O&M, A&G, and cap-ex budgets include assumptions about the costs to remedy plants in the wake of forced outages and to get them operational once more?

RESPONSE:

O&M and cap-ex budgets were developed from historic expenditures and current system condition. Costs to remedy issues at the facilities, in the wake of forced outages, to restore to operational condition are included in the budgets to the extent the work related to the forced outage could be assimilated into the annual budgets. To the extent the outage would exceed annual budget allowances, special budget provisions would be appropriated to remedy the outage. NorthWestern believes the future will not differ materially from the past in this regard. Considering the level of capital invested and type of upgrade work accomplished over the last few years, forced outage occurrences would be expected to be reduced.

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PSC-082

Regarding: 2013 Procurement Plan  
Witness: Fine

- a. NWE's 2011 plan evaluated approximately 70 portfolios while the 2013 plan analyzes only 3 portfolios. What was the advantage, if any, to evaluating a fewer number of portfolios in the 2013 plan?
- b. What was the incremental cost to NWE to include additional portfolio(s) in its PowerSimm analysis? Explain how the incremental cost is calculated.
- c. Explain what circumstances changed that caused NWE to model an air-cooled CCCT in its 2013 plan instead of the water-cooled CCCT included in its 2011 plan.

RESPONSE:

- a. A reduced number of portfolios is advantageous because it focuses attention on fewer, more plausible portfolios. See also the response to Data Request PSC-067.
- b. The incremental cost of including additional portfolios is unknown. The plausibility of portfolios, not incremental costs of additional portfolio runs, was what informed the number of portfolios. In order to calculate the incremental cost, the specific scope of work would need to be defined. Once the scope of additional portfolio modeling was defined, an estimate of the resources necessary to complete the work would be multiplied by the appropriate cost of services to determine the cost of the work. The estimated cost to perform the additional modeling as originally requested in Data Request PSC-047 was \$40k to \$50k.
- c. Uncertainty about the availability of water for CCCT cooling purposes caused NorthWestern and its advisors to select air cooling rather than assuming water would be available.

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PSC-083

Regarding: 2013 Plan – Distributed Generation

Witness: Fine

- a. NWE's load forecast does not include distributed generation (*See* 2013 Plan p. 4-2). Does NWE make an attempt to account for distributed generation in its analysis in any part of the 2013 plan? If so, please explain.
- b. Has distributed generation grown in Montana over the last 15 years? If so, by how much? Please cite any sources used to inform the answer.
- c. Has distributed generation grown in the Pacific Northwest over the last 15 years? If so, by how much? Please cite any sources used to inform the answer.
- d. Is distributed generation expected to increase in Montana? Please cite any sources used to inform the answer.

RESPONSE:

- a. Distributed generation means different things to different people. For the purpose of this response, NorthWestern defines distributed generation as generation that is interconnected within the NorthWestern Balancing Authority and generally not in proximity to other supply sources that are non-distributed sources. NorthWestern accounts for distributed generation sources where the output can be measured and represented in the portfolio. The reference to customer loads as not accounting for distributed generation is a function of NorthWestern not having data for the output from existing net metering customer electric generation. This means that the output from this source of distributed generation is embedded in customer usage data and cannot be identified separately. Given that NorthWestern cannot measure existing power production from this generation, it is difficult to predict future energy production from additional, similar sources. To the extent that small projects such as renewable projects and Qualifying Facilities that sell power to NorthWestern under a purchase power agreement can be classified as distributed generation, the production is accounted for as an energy supply source in the portfolio.

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- b. Yes. Within the NorthWestern Balancing Authority, distributed generation has grown over the last 15 years and includes net metering projects, Qualifying Facility projects, and renewable energy projects. NorthWestern estimates from utility records that 12 distributed generation projects comprising approximately 55 MW of installed capacity have been added in the last 15 years. This excludes utility-owned projects such as Basin Creek and Spion Kop and net metering installations. Net metering projects installed on NorthWestern's Montana system include approximately 5MW of electric generating capacity that are estimated to produce 6,000 MWh of energy annually.
- c. Yes. NorthWestern believes that distributed generation has grown over the last 15 years in the Pacific Northwest. NorthWestern does not track and compile the requested statistics.
- d. Yes. NorthWestern believes distributed generation, including net metering customer installations, will increase over time. This belief is based on the fact that NorthWestern receives inquiries from parties who have expressed interest in installing, owning, and operating generation projects. NorthWestern, however, does not know the timing or extent to which increases to distributed generation projects will occur.