



February 20, 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 7 Data Requests (104-120)

Dear Ms. Whitney:

Enclosed for filing is a copy of NorthWestern Energy's responses to PSC Set 7 Data Requests (PSC-104-PSC-120). 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 7 Data Requests (PSC-104-PSC-120) 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 20, 2014



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 7 (104-120)

Data Requests served February 6, 2014

PSC-104

Regarding: Coal Asset Valuation
Witness: Stimatz

- a. Please describe and provide sources for all costs shown in the Colstrip 1&2 O&M, Colstrip 3 O&M, and Corette O&M tabs of the Excel spreadsheet provided in response to PSC-066. If you employed models to estimate these costs, please describe in detail the inputs and calculations performed. If the costs were estimated by PPL, please provide the source documents.
- b. Please describe and provide sources for all capital expenditures shown in the Thermal CapEx tab of the Excel spreadsheet provided in response to PSC-066. If you employed models to estimate these expenditures, please describe in detail the inputs and calculations performed. If the costs were estimated by PPL, please provide the source documents.
- c. Please describe and provide sources for all expenditures shown in the G&A, Contingency Items tab of the Excel spreadsheet provided in response to PSC-066. If you employed models to estimate these expenditures, please describe in detail the inputs and calculations performed. If the costs were estimated by PPL, please provide the source documents.
- d. Please describe the derivation of the values found in cells D:4, D:5, and D:6 of the Valuation tab of the PSC-066 spreadsheet. Why are these values not linked (iteratively) to the net present values found in cells H:4-6 of the same sheet?
- e. Please provide evidence and reasoning to support NorthWestern's assumptions of service termination at Corette in 2016, and Colstrip 1&2 in 2032.

RESPONSE:

- a. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- b. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- c. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.

NorthWestern Energy
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Public Service Commission (PSC)
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Data Requests served February 6, 2014

PSC-104 cont'd

- d. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- e. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.

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Public Service Commission (PSC)
Set 7 (104-120)

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PSC-105

Regarding: Coal Asset Valuation
Witness: Meyer

- a. Please describe and provide sources for all costs reflected in the NWE Energy Supply estimates of coal asset cost of sales; as found in rows 15, 25, 35, and 55 of the Thermal Var COS tab of the conforming bid Excel spreadsheet provided in response to PSC-003. If you employed models to estimate these costs, please describe in detail the inputs and calculations performed. If some of the costs were estimated by PPL, please provide the source documents.
- b. Why did NorthWestern choose to use its own estimates regarding the coal asset cost of sales rather than the "CIM" estimates displayed in rows 14, 24, 34, and 54 of the tab referenced in (a)?
- c. Please provide the source of the estimates referenced in (b).

RESPONSE:

- a. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- b. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- c. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.

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Public Service Commission (PSC)
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Data Requests served February 6, 2014

PSC-106

Regarding: Coal Asset Valuation
Witnesses: Meyer, Stimatz, Unknown

- a. Is the coal asset (Corette, Colstrip 1&2, Colstrip 3) cost and production information found in the conforming bid spreadsheet provided in response to PSC-003 consistent with the full information that NorthWestern had received prior to July 1, 2013? If not, please explain inconsistencies and deficiencies.
- b. Is the coal asset cost and production information found in the spreadsheet provided in response to PSC-066 consistent with the full information that NorthWestern had received prior to July 1, 2013? If not, please explain inconsistencies and deficiencies.
- c. Please remedy any inconsistencies and deficiencies in the PSC-003 and PSC-066 spreadsheets by providing data to support all relevant model inputs that are consistent with full information as of July 1, 2013.

RESPONSE:

- a. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- b. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- c. On February 18, 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
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Public Service Commission (PSC)
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Data Requests served February 6, 2014

PSC-107

Regarding: Ongoing Litigation at Flathead Lake
Witness: DiFronzo, part a

It was indicated in the Due Diligence Report that there is ongoing litigation with respect to shoreline erosion around Flathead Lake and the maintenance of lake levels controlled by Kerr Dam. *See Mattson v. Mont. Power Co.*, 2012 MT 318, 368 Mont. 1.

- a. Please identify and describe any costs related to this litigation that NorthWestern is proposing to include in rates in this proceeding.
- b. Assuming NorthWestern acquires PPL's hydroelectric facilities, please indicate whether NorthWestern will seek to recover any costs related to this litigation from customers if the Plaintiffs (i.e., landowners with properties on the shores of Flathead Lake) ultimately prevail.
- c. With respect to subpart b., please identify and describe the costs that NorthWestern will seek to recover through rates.
- d. Assuming NorthWestern acquires PPL's hydroelectric facilities, please indicate whether NorthWestern will seek to recover any costs related to this litigation from customers if the Defendants ultimately prevail, or if the parties ultimately settle.
- e. With respect to subpart d., please identify and describe the costs that NorthWestern will seek to recover through rates.

RESPONSE:

- a. There are none.
- b. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- c. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- d. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.

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Public Service Commission (PSC)
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PSC-107 cont'd

- e. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.

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Public Service Commission (PSC)
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PSC-108

Regarding: Ongoing Litigation on Riverbed Ownership
Witness: DiFronzo, part a

It was indicated in the Due Diligence Report that there is ongoing litigation with respect to payments potentially owed the State for use of navigable riverbed. *See PPL Montana v. Mont.*, 132 S. Ct. 1215 (2012).

- a. Please identify and describe any costs related to this litigation that NorthWestern is proposing to include in rates in this proceeding.
- b. Assuming NorthWestern acquires PPL's hydroelectric facilities, please indicate whether NorthWestern will seek to recover any costs related to this litigation from customers if the Plaintiff ultimately prevails.
- c. With respect to sub-part b., please identify and describe the costs that NorthWestern will seek to recover through rates.
- d. Assuming NorthWestern acquires PPL's hydroelectric facilities, please indicate whether NorthWestern will seek to recover any costs related to this litigation from customers if the Defendant ultimately prevails, or if the parties ultimately settle.
- e. With respect to sub-part d., please identify and describe the costs that NorthWestern will seek to recover through rates.

RESPONSE:

- a. There are none.
- b. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- c. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.
- d. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.

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PSC-108 cont'd

- e. On February 18, 2014, NorthWestern objected to this data request. NorthWestern will respond, if necessary, after the Commission has ruled on the objection.

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Public Service Commission (PSC)
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PSC-109

Regarding: Supporting Data for Due Diligence
Witness: VanDaveer

For all projects please provide:

- a. The Part 12 Supporting Technical Information (STI)
- b. The Dam Safety Surveillance and Monitoring Plan
- c. The Dam Safety Surveillance and Monitoring Report
- d. Floodgate Operating Procedures
- e. Operations and Maintenance Programs

RESPONSE:

- a. The Supporting Technical Information (STI) was provided by reference in the current FERC five-year dam safety Part 12 Independent Consultant's Reports for all of the projects. The FERC-approved Independent Consultant is required to review and evaluate the supporting technical information prepared by the Licensee and incorporate its conclusions of adequacy in the Part 12 reports. The FERC Guidelines Chapter 14 Section 7.0 specifically states:

“The purpose of this section is for the Part 12D Independent Consultant to assess the contents of the “Supporting Technical Information” document compiled by the licensee. The STI document should include information needed to understand and confirm the underlying assumptions and the conclusions of the analysis of record supporting the assessment of the safety of the Project.

In each section, where appropriate, the Independent Consultant shall make a clear statement that they have reviewed the pertinent analysis and evaluations along with the underlying assumptions and that they have concluded that the assumptions and methods of analysis or evaluation were appropriate for the structure, were applied correctly and are appropriate given current guidelines and the state of dam safety practice.”

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PSC-109 cont'd

With this level of regulatory confidence and familiarity with the projects and past evaluations in the STI context, the due diligence team determined that the information contained in the current Part 12 Report was adequate to identify any issues of potential materiality that would require further investigation of the specific STI documents.

The Independent Consultant assessment of the STI for the projects is described in the following Part 12 Report sections:

Findings and Recommendations for STI	Section 1.1.5
Conclusions for STI	Section 1.2.7
Recommendations Regarding STI	Section 1.3.7
Evaluation Summary of STI Categories	Section 7.0

The FERC Part 12 Reports have been provided in Exhibit__(WTR-5) attached to the Prefiled Direct Testimony of William T. Rhoads. These protected exhibits were provided on CD to the Commission and parties who signed the appropriate non-disclosure agreement pursuant to Protective Order No. 7323.

- b. There is no current plan for the Rainbow Development due to the upgrade that was recently completed. The relevant Dam Safety Surveillance and Monitoring Plans provided by PPLM are CEII documents and are being provided on a protected CD to the Commission and parties who signed the appropriate non-disclosure agreement pursuant to Protective Order No. 7323.
- c. The relevant Dam Safety Surveillance and Monitoring Reports provided by PPLM are CEII documents and are being provided on a protected CD to the Commission and parties who signed the appropriate non-disclosure agreement pursuant to Protective Order No. 7323.
- d. Gate Operating Procedures for potential flood conditions are described for the projects in the FERC Emergency Action Plan Procedures under Section 6 Part B. These plans were provided in the protected Exhibit__(WTR-8) attached to the Rhoads Direct Testimony and provided on CD to the Commission and parties who signed the appropriate non-disclosure agreement pursuant to Protective Order No. 7323.

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PSC-109 cont'd

- e. PPLM operations and maintenance programs are described for major features of the facilities by their equipment strategy plans included in Attachments 1 through 9 provided in the folder labeled "PSC-109e" on the attached CD. The findings, conclusions and recommendations regarding the operations and maintenance are included in the FERC Part 12 Independent Consultant reports for all projects provided in Exhibit__(WTR-5). This protected exhibit was provided on CD to the Commission and parties who signed the appropriate non-disclosure agreement pursuant to Protective Order No. 7323.

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PSC-110

Regarding: Additional Ryan Dam Information
Witness: VanDaveer

For Ryan Dam please provide all available information on:

- a. The waste gate structure
- b. Intake post-tensioning

RESPONSE:

- a. The available information regarding the Ryan Project features was provided in the most recent FERC Part 12 Project Independent Consultant Safety Inspection Report in Exhibit__(WTR-5). A description of the structure is included in Section 2.3.3 of the Part 12 Report and in the Waste Gate Structure drawings included in Appendix C-Project Features. The assessment of the waste gate operation is also included in the FERC Annual Inspection Report (2011-2012) Section B-Project Safety and Maintenance Subsection 1c.-Waste Gate Structure, Exhibit__(WTR-6). This protected exhibit was attached to the Rhoads Direct Testimony and provided on CD to the Commission and parties who signed the appropriate non-disclosure agreement pursuant to Protective Order No. 7323.
- b. The intake post-tensioning information is described in the Part 12 Independent Consultant Safety Inspection Report Appendix C-Project Features for the intake structure (Exhibit__(WTR-5)).

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PSC-111

Regarding: Additional Hauser Dam Information
Witness: VanDaveer

For Hauser Dam please provide all available information on the left non-overflow post-tensioning.

RESPONSE:

Available information regarding the Hauser Project features was provided in the most recent FERC Part 12 Project Independent Consultant Report (Kleinschmidt-October 2010) provided in Exhibit__ (WTR-5). This protected exhibit was attached to the Rhoads Direct Testimony and provided on CD to the Commission and parties who signed the appropriate non-disclosure agreement pursuant to Protective Order No. 7323. The left non-overflow abutment is described in Section 2.1.6 of the Report and in Appendix C-Project Features. The project drawings describe post-tensioning installed in the dam spillway, but none in the left non-overflow section.

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PSC-112

Regarding: Additional Madison Dam Information
Witness: VanDaveer

For Madison Dam please provide all available information on:

- a. Left rock abutment stabilization
- b. Timber crib dam

RESPONSE:

- a. Reports regarding the rock abutment stabilization were provided in the response to Data Request PSC-024.
- b. The Madison Dam project description was provided in the most current FERC Independent Consultant (Kleinschmidt-December 2010) Part 12 Report included in Exhibit__ (WTR-5). This protected exhibit was attached to the Rhoads Direct Testimony and provided on CD to the Commission and parties who signed the appropriate non-disclosure agreement pursuant to Protective Order No. 7323. The specific sections of the report that describe the spillway are sections 2.1.1-2.1.4. Appendix B of the Part 12 Report further describes the characteristics and stability of the timber crib spillway. Section 7.8 in the summary of the Supporting Technical Information evaluation discusses the stability of the timber crib also.

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PSC-113

Regarding: Additional Hebgen Dam Information
Witness: VanDaveer

For Hebgen Dam please provide all available information on the intake and spillway remediation.

RESPONSE:

The information regarding the Hebgen intake and spillway remediation was provided in the responses to Data Requests PSC-021 and PSC-023.

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Public Service Commission (PSC)
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PSC-114

Regarding: Additional Thompson Falls Dam Information
Witness: VanDaveer

For Thompson Falls Dam please provide all available information on the current status of the seismic project evaluation.

RESPONSE:

The available information regarding the Thompson Falls seismicity status was provided in response to Data Request PSC-025.

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PSC-115

Regarding: Additional Kerr Dam Information
Witness: VanDaveer

For Kerr Dam please provide all available information on the seismic analysis of embankment and gravity section.

RESPONSE:

The information regarding the seismicity status for the Kerr project was provided in the response to Data Request PSC-025.

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PSC-116

Regarding: Debris Issues
Witness: Rhoads

For all projects, covering the last five years:

- a. Are you or PPL aware of any incidents of the overtopping non-overflow structures due to debris problems at gates, intakes or other control structures?
- b. Have you or PPL identified any debris/trash problems at the intakes of the projects?
- c. Please provide the number of outage hours (Forced and Planned) system wide due to debris problems.
- d. Please provide the number of lost megawatt-hours system wide due to debris problems.

RESPONSE:

- a. No.
- b. Yes.
- c. Hydro system wide there were 6,205.49 hours of outages for the last five years due to debris. This is out of 43,824 possible operating hours per unit (including 2012 as a leap year) or 0.31% reduction for debris-related outages. This assumes 47 units from 2009-2012 and 40 units in 2013.
- d. No specific calculation of lost generation is available from PPLM. However, the reduction in generation due to debris is reflected in a reduction in the overall annual generation production level.

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PSC-117

Regarding: UBS Confidential Information Memorandum
Witness: Rowe

Please provide a complete copy of the UBS Confidential Information Memorandum concerning the Project Mustang Hydro facilities, dated June 2013.

RESPONSE:

See the response to Data Request PSC-001.

NorthWestern Energy
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Public Service Commission (PSC)
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PSC-118

Regarding: Transmission and Distribution Support
Witness: Rhoads

- a. Are any of PPLM's hydroelectric generating assets considered to be "must run" projects that provide generating support for NorthWestern's integrated transmission and distribution system?
- b. If the answer to "a" is yes, please identify the "must run" projects and explain how they support the T&D system.

RESPONSE:

- a. Yes.
- b. Both Mystic and Kerr are classified as "must run" facilities to provide voltage support to the areas where they are located.

NorthWestern Energy
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Public Service Commission (PSC)
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Data Requests served February 6, 2014

PSC-119

Regarding: Compliance Obligations, follow-up to PSC-038
Witness: Rhoads

Please provide the most current versions of all documents PPLM provided to NWE that served as the bases for the August 26, 2013 legal memorandum re: "Review of PPLM's List of License Articles with Compliance Requirements and Current Project Status."

RESPONSE:

The compliance spreadsheet provided by PPLM is attached.

**Missouri-Madison License 2188
Articles w/ Compliance Requirements
9-27-2000 to 9-27-2040**

Project	FERC Article, Regulation or Letter	Description	PPLM Person Responsible	Last Filing or Approval Date	Next Filing or Approval Date	Project Status
2188		Nine Madison & Missouri River Hydros regulating 525 Montana river miles (Yellowstone Park to Fort Peck)				
	License based MOU	Project 2188 Recreation River Trust Fund MOU	Jourdonnais	1-Feb-99	none	This MOU applies entire license term (2040)
	License based MOU	Project 2188 Fisheries, Wildlife and Water Quality MOU	Jourdonnais	1-Jan-09	1-Jan-19	This is a ten year renewable MOU
	403	Licensee file operation plan for nine Project 2188 developments	Jourdonnais	FERC approved on 12/07/01	Amend as necessary	Applies License term. Being implemented over License term
	404	Licensee file final Madison-Missouri River water quality monitoring plan	Jourdonnais	PPLM filed on 12/19/11	Plan Update 12/31/22	Plan update filed with Commission every 10 years
	405	Licensee file reservoir dredging Plan for Commission pre approval	Jourdonnais	Cochrane 3/20/2012	As necessary	Thru License term
	406	Licensee pre-file plan to monitor gas-supersaturation before Hauser rehab	Jourdonnais	FERC approved on 11/30/06	None required	
	407	Secretary of Interior Section 18 fishway authority	Jourdonnais	n/a	As necessary	As required over License term
	408	Licensee file plan for Madison River fisheries PM&E (see Article 412)	Jourdonnais	FERC approved on 01/14/2009	Plan update 12/31/2013	Updated Plans due to FERC every 5 years
	409	Licensee file plan for Madison River habitat PM&E	Jourdonnais	FERC approved on 01/14/2009	Plan update 12/31/2013	Updated Plans due to FERC every 5 years
	410	Licensee file plan to restore side channels below Quake Lake	Jourdonnais	9/27/00 Lic Order	n/a	FERC deleted Article 410 on 10/15/01 by request of PPLM, MDEQ and MDFWP
	411	Licensee file macrophyte study plan @ Hebgen, Madison, Lake Helena	Jourdonnais	Filed w/FERC on 11/14/12	Plan update 11/27/2017	Present Plan implementation underway. Revised Plan will be filed with Commission by 11/27/2017 including Article 411, 418, 421, 423 and 424
	412	Licensee file plan for Madison River fisheries PM&E (see Article 408)	Jourdonnais	FERC approved on 01/14/2009	Plan update 12/31/2013	Updated Plans due to FERC every 5 years
	413	Licensee file plan to monitor & mitigate thermal effects in Lower Madison River	Jourdonnais	FERC approved on 12/23/09	Plan update 12/30/14	Implement updated plans over 40 year License in consultation with agencies
	414	Licensee file plan for Hauser Reservoir and Tailwater fisheries PM&E	Jourdonnais	FERC approved on 01/14/2009	Plan update 12/31/2013	Updated Plans due to FERC every 5 years
	415	Licensee file flow excursion/fisheries effects plan @ Hauser, Holter, Morony	Jourdonnais	Filed w/FERC on 2/25/13	Annual report by 03/30	Implement plan for 40 year License term - report annually to FERC by March 30 on prior years excursions in consultation with MDFWP and USFWS
	416	Licensee file plan for Holter Reservoir and Tailwater fisheries PM&E	Jourdonnais	FERC approved on 01/14/2009	Plan update 12/31/2013	Updated Plans due to FERC every 5 years
	417	Licensee file plan for Great Falls Reservoirs and Tailwater fisheries PM&E	Jourdonnais	FERC approved on 01/14/2009	Plan update 12/31/2013	Updated Plans due to FERC every 5 years
	418	Licensee and BoR file plan for riparian flow study in Missouri River	Jourdonnais	Filed w/FERC on 11/14/12	Plan update 11/27/2017	Present Plan implementation underway. Revised Plan will be filed with Commission by 11/27/2017 including Article 411, 418, 421, 423 and 424
	419	Licensee file plan to coordinate flushing flows in upper Madison River	Jourdonnais	FERC approved on 6/3/13	Plan update 03/01/2018	Updated Plans due to FERC every 5 years
	420	Licensee file plan for flow restoration @ Madison, Holter, Hauser, Morony	Jourdonnais	FERC approved on 04/02/02	If changes	Implement plan for 40 year License term in consultation with agencies
	421	Licensee file T&E species protection plan for Madison & Missouri Rivers	Jourdonnais	Filed w/FERC on 11/14/12	Plan update 11/27/2017	Present Plan implementation underway. Revised Plan will be filed with Commission by 11/27/2017 including Article 411, 418, 421, 423 and 424
	422	Licensee pre-file PM&E plan for wildlife/habitat before land disturbance	Jourdonnais	RNB Filed	as necessary	90 days pre-disturbance
	423	Licensee file plan for wildlife/habitat PM&E on Madison-Missouri Rivers	Jourdonnais	Filed w/FERC on 11/14/12	Plan update 11/27/2017	Present Plan implementation underway. Revised Plan will be filed with Commission by 11/27/2017 including Article 411, 418, 421, 423 and 424
	424	Licensee assessment of transmission line modifications per raptor standards	Jourdonnais	Filed w/FERC on 11/14/12	Plan update 11/27/2017	Present Plan implementation underway. Revised Plan will be filed with Commission by 11/27/2017 including Article 411, 418, 421, 423 and 424
	425	Licensee implement Cultural Resource Programmatic Agreement (annual reports)	Jourdonnais	filed w/FERC on 3/25/13	Annual report by 03/15	Applies License term. Consulting on a variety of cultural issues and providing annual cultural compliance reports to FERC
	426	Licensee file Comprehensive Recreation Plan for Madison & Missouri Rivers	Jourdonnais	FERC approved on 06/11/02	Amend as necessary	2004 CRMP Update per MOU. See Article 426 recreation projects update in spreadsheet below
	427	Licensee monitor project recreation needs and file report	Jourdonnais	9/27/00 Lic Order	6 year cycle (next cycle ending 2012)	In consultation with agencies, PPLM will monitor the recreation use and determine if the existing recreation facilities are meeting recreational needs
	428	Licensee authority to grant use and occupancy of project lands and waters	Jourdonnais	9/27/00 Lic Order	As necessary	As required over License term
	Appendix A	Conditions: MDEQ Mandatory Condition # Section 401 Water Quality Certification				
		1. Submit WQ analysis to MDEQ prior to peaking at Cochrane, Ryan, Morony	Jourdonnais	MDHES approved	None	
		2. Submit bank erosion analysis to DEQ prior to peaking at Cochrane, Morony	Jourdonnais	FERC approved on 06/05/2003	None	MDHES approved 10/07/94.
		3a. Submit drawdown plans for Black Eagle and Morony	Jourdonnais	FERC approved 8/7/09	Plan update 7/15/14	
		3b. Submit annual plan updates w/FERC until plans are final	Jourdonnais	Plan final	Plan update 7/15/14	
		4. Submit monitoring plans to MDEQ 3 months prior to dredging	Jourdonnais	9/27/00 Lic Order	As necessary	Thru License term
		5. Develop water quality monitoring plan for Project 2188 impoundments	Jourdonnais	PPLM filed on 12/19/11	Plan Update 12/19/22	
		6. Submit toxic algae monitoring plan for Hebgen Reservoir to MDEQ	Jourdonnais	Filed w/FERC on 12/29/00	Amend as necessary	Implement plan for 40 year License term in consultation with MDEQ and agencies
		9. Maintain established minimum flows in Madison bypass reach	Jourdonnais	9/27/00 Lic Order	Being implemented	Thru License term. Requirement included in FERC Article 403 above
		10. Develop non-emergency drawdown criteria for Project 2188 reservoirs	Jourdonnais	FERC approved GT Falls reservoirs 8/7/09	GT fall Plan update 7/15/14 & other Plans in progress	Implement plan for 40 year License term in consultation with MDEQ and agencies
		11. Consult with MDEQ on non-degradation Policy Section 75-5-030	Jourdonnais	9/27/00 Lic Order	As necessary	Thru License term
		12. May appeal WQ Certificate at MDEQ	Jourdonnais	9/27/00 Lic Order	As necessary	Thru License term
	Appendix B	Conditions: Section 4(e) Conditions of USFS Project lands	Jourdonnais			Mandatory Condition plans must be approved by USFS with copy to FERC
		1. USFS reserves rights to modify Section 4(e) Conditions for Project 2188	Jourdonnais	9/27/00 Lic Order	As necessary	Thru License term
		2. Pre-approve plans for ground disturbing activities with USFS	Jourdonnais	9/27/00 Lic Order	As necessary	60 days pre-disturbance
		3. Pre-approve changes to project features or facilities with USFS	Jourdonnais	9/27/00 Lic Order	As necessary	60 days pre-changes
		4. Consult annually with USFS on Project 2188 PM&E	Jourdonnais	9/27/00 Lic Order	Ongoing	Thru License term. By 11/27 annually
		5. USFS dispute resolution on Project 2188 issues	Jourdonnais	9/27/00 Lic Order	Ongoing	Thru License term
		6. Maintain minimum flows in Madison bypass reach and flow gauge @ Kirby	Jourdonnais	9/27/00 Lic Order	Being implemented	Thru License term. Requirement included in FERC Article 403 above
		7. Develop plan for flow restoration at Hauser Dam	Jourdonnais	FERC approved 04/02/02	None required	Requirement included in FERC Article 420 above
		8. Submit toxic algae monitoring plan for Hebgen Reservoir to USFS	Jourdonnais	Filed w/FERC on 12/29/00	If changes	Implement plan for 40 year License term in consultation with USFS and agencies
		9. Develop water quality monitoring plan for Hebgen & Madison	Jourdonnais	PPLM filed on 12/19/11	Plan Update 12/19/22	
		10a. File a macrophyte, avian and fisheries plan for Hebgen with USFS	Jourdonnais	Filed w/FERC on 11/14/12	Plan update 11/27/2017	See scheduled Commission filing dates for Articles 411, 418, 421, 423 and 424 above
		10b. Pre-approve fish & wildlife plan for ground disturbing activities with USFS	Jourdonnais	9/27/00 Lic Order	As necessary	90 days pre-disturbance

Project	FERC Article, Regulation or Letter	Description	PPLM Person Responsible	Last Filing or Approval Date	Next Filing or Approval Date	Project Status	
		11. Pre-approve sensitive species plan for "adverse" activities with USFS	Jourdonnais	9/27/00 Lic	As necessary	1 year pre-disturbance	
		12. Submit Hebgen bald eagle protection plan to USFS	Jourdonnais	USFS approved on 03/01/02	If changes	Eagle downlisted (ESA)	
		13b. Pre-approve erosion control plan for ground disturbing activities with USFS	Jourdonnais	9/27/00 Lic Order	As necessary	90 days pre-disturbance	
		14a. Submit transmission line & raptor assessment on USFS lands to USFS	Jourdonnais	9/27/00 Lic Order	None	No T lines on USFS land. See FERC Article 424 above	
		14b. Submit plan for transmission line raptor upgrades on USFS lands to USFS	Jourdonnais	9/27/00 Lic Order	None	No T lines on USFS land. See FERC Article 424 above	
		15. Submit vegetative management plan for USFS lands to USFS	Jourdonnais	9/27/00 Lic Order	As necessary	Pre-land disturbance	
		16. Submit scenic resource plan for USFS lands to USFS	Jourdonnais	9/27/00 Lic Order	As necessary	Pre-land disturbance	
		17. Submit recreation resource plan for USFS lands to USFS	Jourdonnais	FERC approved on 06/11/02	Amend as necessary	See FERC Article 426 above	
		18. Pre-approve traffic & safety plan for ground disturbing activities with USFS	Jourdonnais	9/27/00 Lic Order	As necessary	90 days pre-disturbance	
		19. Coordination with other appropriate Federal agencies	Jourdonnais	9/27/00 Lic Order	Ongoing	Thru License term	
20. Submit revised Hebgen Project boundary (minus cabins) to USFS	Jourdonnais	Filed w/FERC on 10/29/03	None	Survey and Project boundary adjustment complete.			
Hebgen	FERC Project No. 2188-09						
	Article 426	1. Fisherman's Point (Rumbaugh Ridge) PPLM contributed \$50,000 for site construction and will contribute \$3,500 annually for O&M. (USFS manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		2. Rainbow Point and Lonesomehurst Boat Ramps and Docks PPLM contributed \$50,000 for construction of the boat ramps and floating docks at these 2 sites. (USFS manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete	
		3. Hebgen Dam Day-Use Area PPLM contributed \$350,000 for development and will contribute \$6,500 annually for O&M. (USFS manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		4. RV Dump Station PPLM contributed \$50,000 for construction and will contribute \$5,000 for annual operation of the facility. (commercial vendor operate)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for the 40-year license term	
		5. Lyon's Bridge Access Site Licensee contributed \$105,000 for site development. (USFS & MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete	
		6. Hebgen Shoreline Plan PPLM developed the plan in consultation with the USFS and in accordance with FERC Approved Article 426.	Jourdonnais	Plan was updated in 2004	as necessary	Plan updated 2004. PPLM has monitoring obligations for this plan for 40-year License term	
		8. Document Project Flows and Report Violations	Jourdonnais	9/27/00 Lic Order	as necessary		
		18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	9/27/00 Lic Order	as necessary	
		Madison	FERC Project No. 2188-08				
	Article 426	1. Clute's Landing PPLM contributed \$275,000 for site design and construction. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year License term	
		2. Meadow Lake Fishing Access Site PPLM contributed \$150,000 for site reconstruction. (MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year License term	
		3. Kobayashi Beach PPLM contributed \$400,000 for acquisition and development of this public day-use site on Ennis Lake. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year License term	
		4. Upper Bear Trap Canyon PPLM contributed \$75,000 for recreational improvements. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year License term	
		5. Fall Creek Interpretive Area PPLM contributed \$30,000 for constructing the site. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year License term	
		6. Warm Springs Creek Licensee paid \$118,000 for trail site acquisition and transferred it to the BLM for river access and wilderness trailhead. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete	
		7. Portage around Madison Dam has been deleted from the Rec plan	Jourdonnais	9/27/00 Lic	as necessary	Deleted by FERC Order of 06/11/02	
		8. Madison Rec Site O&M PPLM will contribute \$35,000 annually for O&M at Clute's, Meadow Lake, Kobayashi, Upper Bear Trap, and Fall Creek sites. (managed by MFWP and BLM)	Jourdonnais	9/27/00 Lic Order	as necessary	Ongoing. PPLM has O&M and compliance obligations for this recreation site for 40-year License term	
		8. Document Project Flows and Report Violations	Jourdonnais	9/27/00 Lic Order	as necessary		
18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	9/27/00 Lic Order	as necessary			
Hauser	FERC Project No. 2188-07						
	Article 426	1. Devil's Elbow CG, Clark's Bay Day Use Area, and Lakeside RV dump station PPLM contributed \$1,000,000 to design and develop the site (BLM manage) and provide off-site RV dump station (commercial vendor operate)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		2A. White Sandy Beach PPLM contributed \$1,400,000 to acquire, design and develop the site, and will contribute \$35,000 annually for O&M. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		2B. Causeway PPLM contributed \$100,000 to expand this site and will contribute \$5,000 annually for O&M. (MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this rec site for 40 year License term	
		3. Hauser Dam Access Site PPLM contributed \$300,000 to reconstruct the site and will contribute \$10,000 annually for O&M. (MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		4. Hauser Rec Site O&M PPLM will contribute \$50,000 annually to supplement agency O&M costs for White Sandy Beach (BLM), Causeway (MFWP) and Hauser Dam Access Site (MFWP).	Jourdonnais	9/27/00 Lic Order	as necessary	Ongoing. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		8. Document Project Flows and Report Violations	Jourdonnais	9/27/00 Lic Order	as necessary		
18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	9/27/00 Lic Order	as necessary			
Holter	FERC Project No. 2188-06						
	Article 426	1. Meriwether Picnic Area and Coulter CG PPLM contributed \$182,000 for improvements and erosion control and will contribute \$16,500 annually for O&M of the facilities. (USFS manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		2. Beartooth Landing CG PPLM contributed \$100,000 towards development of the CG with boat-in-only access on Holter Reservoir. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		3. Log Gulch CG and Departure Point Day Use Area PPLM contributed \$600,000 for reconstruction of BLM's Log Gulch CG and Departure Point Access Site. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		4. East Side Day Use Area PPLM contributed \$300,000 to acquire land on the east side of Holter Lake if land is available at a reasonable price. BLM will develop the site. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		5. Holter Lake CG PPLM contributed \$100,000 for design and development of handicap accessible facilities. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		6. Holter Dam CG PPLM contributed \$1,000,000 for design and site re-development (BLM manage) and an off-site RV dump station (commercial vendor operate)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		7. Holter Dam Portage Route PPLM contributed \$5,000 to develop the portage facilities at the left side of the dam. (BLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		8. Hauser/Holter Rec Sites O&M PPLM has O&M and compliance obligations of \$40,000 annually for the 40-year license term for rec sites under BLM management on Hauser & Holter Reservoirs (includes Devil's Elbow but not White Sandy).	Jourdonnais	9/27/00 Lic Order	as necessary	Ongoing. PPLM has O&M and compliance obligations for this recreations site for 40-year license term	
		8. Document Project Flows and Report Violations	Jourdonnais	9/27/00 Lic Order	as necessary		
18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	9/27/00 Lic Order	as necessary			
Great Falls	FERC Project 2188, Nos. 01-05						
	Article 426	1. Great Falls Shuttle Service (Oddfellow's Park Take-Out Ramp). PPLM contributed \$1,000 to establish a shuttle service around the five Great Falls dams in cooperation with the Medicine River Canoe Club.	Jourdonnais	9/27/00 Lic Order	as necessary	Complete	
		2. Black Eagle Memorial Island and Rainbow Boat Launch PPLM contributed \$500,000 toward the design and development of Black Eagle Memorial Island and the boat launch and provides \$15,000 annually for O&M. (MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	
		3. Rivers Edge Trail PPLM contributed \$60,000 to the River's Edge Trail to enhance public access on the south shore of Black Eagle and Rainbow Reservoirs. (City of Great Falls and Recreational Trails manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete	
		4. Lewis and Clark National Historic Trail and Interpretive Center The Licensee contributed \$1,100,000 for construction of the center. The USFS contributed \$3,000,000 and other non-profits contributed \$1,900,000. (USFS manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete	
		5. South Shore Overlooks The Licensee contributed \$100,000 towards the completion of the Lewis & Clark Overlook, and the construction of the Rainbow Overlook & Crooked Falls Overlook near Rainbow Dam. (MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term	

Project	FERC Article, Regulation or Letter	Description	PPLM Person Responsible	Last Filing or Approval Date	Next Filing or Approval Date	Project Status
		6. North Shore Conservation Easement PPLM retains and manages as a natural area the lands it owns on the north shoreline of the Missouri River adjacent to Rainbow, Cochrane, Ryan and Morony Reservoirs. (MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Management ongoing. PPLM has O&M and compliance obligations for this recreation site for 40-year license term
		7. Rainbow-Morony Pedestrian Bike Trail PPLM contributed \$150,000 for construction of a pedestrian-bike trail from Rainbow Dam to Sulfer Springs Trailhead. (MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term
		8. Sulpher Springs Trailhead PPLM contributed \$100,000 toward the design and construction of Sulfer Springs Trailhead, and provides \$10,000 annually for O&M. (MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term
		9A. Cochrane Dam Crossing PPLM constructed pedestrian access across Cochrane Dam to link the north and south shore pedestrian-bike trails. PPLM contributed \$30,000 for the improvements and provides \$2,000 annually for maintenance and reservoir closures. (PPLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term
		9B. Reservoir Closures PPLM cooperated with the MFWP Commission for boating, floating, swimming and sailing closures on Cochrane, Ryan and Morony Reservoirs. (PPLM manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term
		10. Carter Ferry Access Site PPLM contributed \$50,000 to the short term trust in 2002 to acquire and reconstruct this site. (MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	PENDING Negotiating with landowner for site purchase.
		11. Great Falls Rec Sites O&M PPLM provides \$55,000 annually for O&M at the North Shore, Rainbow-Morony Pedestrian Bike Trail, Sulfer Springs, Black Eagle Island, Widow Coulee FAS, and South Shore Overlooks. (MFWP manage)	Jourdonnais	9/27/00 Lic Order	as necessary	Ongoing. PPLM has O&M and compliance obligations for this recreation site for 40-year license term
Black Eagle	FERC Project 2188-05					
		8. Document Project Flows and Report Violations	Jourdonnais	9/27/00 Lic Order	as necessary	
	18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	9/27/00 Lic Order	as necessary	
Rainbow	FERC Project 2188-04					
		8. Document Project Flows and Report Violations	Jourdonnais	9/27/00 Lic Order	as necessary	
	18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	9/27/00 Lic Order	as necessary	
Cochrane	FERC Project 2188-03					
		8. Document Project Flows and Report Violations	Jourdonnais	9/27/00 Lic Order	as necessary	
	18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	9/27/00 Lic Order	as necessary	
Ryan	FERC Project 2188-02					
		8. Document Project Flows and Report Violations	Jourdonnais	9/27/00 Lic Order	as necessary	
	18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	9/27/00 Lic Order	as necessary	
Morony	FERC Project 2188-01					
		8. Document Project Flows and Report Violations	Jourdonnais	9/27/00 Lic Order	as necessary	
	18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	9/27/00 Lic Order	as necessary	
Project 2188		Four River Access Sites				
	Article 426	1. Four River Access Sites PPLM will acquire, develop and maintain four existing or new public access sites to the Missouri River offsetting the lost recreational opportunities on Cochrane, Ryan & Morony Reservoirs. PPLM will contribute up to \$200,000 for the acquisition and development of each site and up to \$10,000 annually to operate and maintain each site (see items A, B, C, D below). 1(A). Fort Benton Motorized Boat Launch and Canoe Launch CG PPLM cooperated with Choteau County, City of Fort Benton and BLM to construct these facilities. PPLM contributed \$200,000 for the site design and development and provides \$10,000 annually to operate and maintain these sites. (City of Fort Benton manages boat launch and Choteau County manages canoe launch CG) 1(B). Widow Coulee Fishing Access Site PPLM cooperated with Choteau County, BLM, MFWP and MDNRC to construct this site. PPLM contributed \$200,000 for site development. (MFWP manage - see Great Falls item 11) 1(C). Cottonwood Grove Access Site PPLM is cooperating with MFWP and Cascade County to develop an access site in this section of the Missouri River. PPLM contributed \$200,000 to the acquisition, design and construction of the Lillienthal site and will contribute \$10,000 annually to operate and maintain. (MFWP manage) 1(D). Cascade Access Site PPLM is cooperating with the Town of Cascade and Cascade County to develop an access site in this section of the Missouri River. PPLM contributed \$200,000 for site development and will contribute \$10,000 annually to operate and maintain the site.	Jourdonnais	9/27/00 Lic Order	as necessary	See 1(A) thru 1(D) below
			Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term
			Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term
			Jourdonnais	9/27/00 Lic Order	as necessary	Complete. PPLM has O&M and compliance obligations for this recreation site for 40-year license term
Mystic	FERC Project No. 2301					
		401MDEQ3a Water Quality Plan	Jourdonnais	FERC approved on 5/3/11	31-Dec-19	10 year plan being implemented
		401MDEQ4 Chemical Spill & Containment Plan	Jourdonnais	FERC approved on 5/24/10	implement over license term	being implemented
		401USFS19 Weed Management Plan	Jourdonnais	FERC approved on 4/19/10	implement over license term	being implemented
		401USFS20 Wilderness Use Plan	Jourdonnais	FERC approved on 4/22/09	implement over license term	being implemented
		401MDEQ3b Update Fisheries Plan	Jourdonnais	FERC approved on 9/30/10	30-Sep-16	
		File Annual Fisheries Plan Report with MFWP, USFS, Commission	Jourdonnais	Filed 5/6/13	May, 2014	annual report
		401MDEQ5 Septic System Maintenance Plan	Jourdonnais	FERC approved on 3/17/11	implement over license term	being implemented
		401MDEQ6 Emergency Flow Plan	Jourdonnais	FERC approved on 4/22/10	implement over license term	being implemented
		401USFS9 Scenery Management Plan	Jourdonnais	FERC approved 10/12/10	implement over license term	being implemented
		401USFS10 Public Access Management Plan	Jourdonnais	FERC approved 10/19/10	implement over license term	being implemented
		401USFS11 Recreation Plan	Jourdonnais	FERC approved on 4/7/10	implement over license term	being implemented
		401USFS11a Whitewater Flow Plan	Jourdonnais	FERC approved on 4/7/10	7-Apr-15	being implemented
		401USFS13 Biological Evaluation	Jourdonnais	12/17/07 Lic Order		90 days prior to ground disturbing activities
		401USFS17 Soil Erosion Management Plan	Jourdonnais	12/17/07 Lic Order		90 days prior to ground disturbing activities
		401USFS18 Riparian Monitoring Plan	Jourdonnais	FERC approved on 4/12/10	12-Apr-30	being implemented
		401USFS12 Wildlife PM&E measures	Jourdonnais	FERC approved on 9/27/10	implement over license term	being implemented
		402 File shoreline erosion and monitoring plan	Jourdonnais	FERC approved on 12/17/07	only if changes	being implemented
		402 Fishway reservation	Jourdonnais	12/17/07 Lic Order		over license term as required
		403 File operation plan for nine Project 2188 developments	Jourdonnais	12/17/07 Lic Order		implement over license term
		403 Cultural programmatic agreement & HPMP	Jourdonnais	12/17/07 Lic Order		begin implementation in 2008
		403 Annual Cultural/HPMR Report to USFS, Commission	Jourdonnais	Filed 1/3/13	by May 15	annual report
		404 Use and Occupancy	Jourdonnais	12/17/07 Lic Order		license term as required
		Flow Excursion Concerns	Jourdonnais	12/17/07 Lic Order	as necessary	
		Erosion Monitoring	Jourdonnais	12/17/07 Lic Order		
Appendix A	Montana DEQ 401 Mandatory 401's					
1		Project Flows and Ramp Rates	Jourdonnais	12/17/07 Lic Order		implement over License term
2		20 cfs minimum flow below re-reg	Jourdonnais	12/17/07 Lic Order		implement over License term
3		10 year Water Quality Plan	Jourdonnais	filed w/FERC 11/9/10	9-Nov-19	implement over License term

Project	FERC Article, Regulation or Letter	Description	PPLM Person Responsible	Last Filing or Approval Date	Next Filing or Approval Date	Project Status
	4	Chemical Spill and Containment Plan	Jourdonnais	FERC approved on 5/24/10	only if changes	implement over License term
	5	Septic System Maintenance Plan	Jourdonnais	FERC approved on 3/17/11	implement over license term	
	6	Emergency Flow Plan	Jourdonnais	FERC approved on 4/22/10	only if changes	implement over License term
	7	Notify of Potential Pollutant Discharge	Jourdonnais	12/17/07 Lic Order		2 wks prior to activity
	8	Notify of Actual Pollutant Discharge	Jourdonnais	12/17/07 Lic Order		within 24 hours
	9	Access to Project and Records	Jourdonnais	12/17/07 Lic Order		license term as requested
	10	Obtain all state and federal WQ permits	Jourdonnais	12/17/07 Lic Order		license term as required
	11	Terms of Compliance with 401	Jourdonnais	12/17/07 Lic Order		license term
	12	401 Expiration Terms	Jourdonnais	12/17/07 Lic Order		license term
	Appendix B	USFS Mandatory 4(e)'s				
	1	Special use permits outside project boundary	Jourdonnais	12/17/07 Lic Order		license term as required
	2	Approval of final construction designs	Jourdonnais	12/17/07 Lic Order		license term as required
	3	Approval of construction changes	Jourdonnais	12/17/07 Lic Order		60 days prior to change
	4	Annual consultation with USFS	Jourdonnais	12/17/07 Lic Order		w/in 60 days prior January 1
	5	Surrender or transfer of license	Jourdonnais	12/17/07 Lic Order		file plan 1 year prior
	6	Maintenance of improvements	Jourdonnais	12/17/07 Lic Order		license term
	7	Project Construction Safety Plan	Jourdonnais	12/17/07 Lic Order		60 days prior to activity
	8	Indemnification of risks and hazards to US	Jourdonnais	12/17/07 Lic Order		license term
	9	Scenery Management Plan	Jourdonnais	FERC approved 10/12/10	only if changes	implement over License term
	10	Public Access Management Plan	Jourdonnais	FERC approved 10/19/10	only if changes	implement over License term
	11	Recreation Plan	Jourdonnais	FERC approved on 4/7/10	only if changes	implement over License term
	11a	Whitewater Flow Plan	Jourdonnais	FERC approved on 4/7/10	only if changes	implement over License term
	12	Wildlife Species Protection (PM&E Plan)	Jourdonnais	FERC approved 9/27/10	only if changes	implement over License term
	13	BE for USFS sensitive species	Jourdonnais	12/17/07 Lic Order	as required	90 days prior to activity
	14	Instream flow requirements	Jourdonnais	12/17/07 Lic Order		implement over License term
	15	Emergency flow & shutoff	Jourdonnais	FERC approved on 4/22/10	implement over license term	implement over License term
	16	Fisheries Management Plan	Jourdonnais	FERC approved on 9/30/10	30-Sep-16	Annual fisheries report to Commission, MFWP and USFS required.
	16	File Annual Fisheries Plan Report with MFWP, USFS, Commission	Jourdonnais	Filed 5/6/13	by May 15	annual report
	17	Erosion Control Plan	Jourdonnais	12/17/07 Lic Order		90 days prior to ground activity
	18	Riparian Monitoring Plan	Jourdonnais	FERC approved on 4/12/10	12-Apr-30	implement over License term
	19	Weed Management Plan	Jourdonnais	FERC approved on 5/19/10	only if changes	implement over License term
	20	Wilderness Occupancy and Use Plan	Jourdonnais	FERC approved 4/22/09 Order	only if changes	implement over License term
	18 CFR Part 8	8. Document Project Flows and Report Violations	Jourdonnais	12/17/07 Lic Order	as necessary	
	18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	12/17/07 Lic Order	as necessary	
Kerr	FERC Project No. 5					
	43	Fluctuation of Reservoir	Jourdonnais	1997 FERC Order	if changes	implement over license term (2035)
	44	Minimum Flow	Jourdonnais	1997 FERC Order	if changes	implement over license term (2035)
	45	Fish Management Plan	Jourdonnais	1997 FERC Order	if changes	implement over license term (2035)
	46	Wildlife Plan	Jourdonnais	1997 FERC Order	if changes	implement over license term (2035)
	47	Wildlife Habitat	Jourdonnais	1997 FERC Order	if changes	implement over license term (2035)
	48	Recreation Facilities	Jourdonnais	26-Aug-86	if changes	implement over license term (2035)
	52	Cultural Resources	Jourdonnais	1985 Lic Order	if changes	implement over license term (2035)
	54	Article DELETED - Additional Capacity	Jourdonnais	Deleted 08/26/1986	if changes	implement over license term (2035)
	55	Baseload Operation	Jourdonnais	1997 FERC Order	if changes	implement over license term (2035)
	56	Minimum Flow	Jourdonnais	1997 FERC Order	if changes	implement over license term (2035)
	57	Between Day Flows	Jourdonnais	1997 FERC Order	if changes	implement over license term (2035)
	58	Ramping Rates	Jourdonnais	1997 FERC Order	if changes	implement over license term (2035)
	59	Ramping Rate Studies	Jourdonnais	21-Apr-00	if changes	Filed an amendment to the License 04/21/00. Approved 12/14/00
	60	Drought Management Plan	Jourdonnais	24-Jun-05	pending DOI EIS	PPLM filed a drought management plan with DOI and FERC in 2002 (federal EIS in progress)
	61	Releases from Hungry Horse	Jourdonnais	1985 Lic Order		
	62	Monthly/Annual Operations Schedule	Jourdonnais	1985 Lic Order	Annually	implement over license term (2035)
	63	Fish, Wildlife Implementation Strategy (FWIS)	Jourdonnais	1997 FERC Order	if changes	implement over license term (2035)
	64	Fish Stocking (FSSR Fund)	Jourdonnais	21-Apr-00	if changes	
	65	Habitat Acquisition & Development	Jourdonnais	21-Apr-00		Filed an amendment to the license 04/21/00
	66	FWIS Payments	Jourdonnais	21-Apr-00	Annually	Annually + a one-time payment for time frame 1985-1985 of \$15,619,923 by 08/24/97. Filed an amendment to the License 04/21/00. Approved 12/14/00
	67	Habitat Acquisition (FWHA Fund)	Jourdonnais	21-Apr-00		Filed an amendment to the License 04/21/00. Approved 12/14/00
	68	Erosion Structures	Jourdonnais	Revised 02/03/1998	Final Completion Report 12/30/2013	North shore erosion beach & habitat construction completed March, 2013 with monitoring thru 2014
	69	DELETED Island Construction	Jourdonnais	FERC Deleted 02/03/1998		
	70	Habitat Acquisition (North End)	Jourdonnais	Revised 02/03/1998		complete
	71	Habitat Development (North)	Jourdonnais	Revised 02/03/1998	Final Completion Report 12/30/2013	North shore erosion beach & habitat construction completed March, 2013 with monitoring thru 2014
	72	Habitat Acquisition (North)	Jourdonnais	Revised 02/03/1998		
	73	Erosion Structures	Jourdonnais	1985 Lic Order	Final Completion Report 12/30/2013	North shore erosion beach & habitat construction completed March, 2013 with monitoring thru 2014
	74	Erosion Structures - Cofferdam	Jourdonnais	1997 FERC Order	as necessary	

Project	FERC Article, Regulation or Letter	Description	PPLM Person Responsible	Last Filing or Approval Date	Next Filing or Approval Date	Project Status
	75	Erosion Structure Plan	Jourdonnais	1997 FERC Order	Final Completion Report 12/30/2013	Final report to FERC in 2012
	76	Habitat	Jourdonnais	1997 FERC Order	Final Completion Report 12/30/2013	North shore erosion beach & habitat construction completed March, 2013 with monitoring thru 2014
	77	DELETED Drought Management	Jourdonnais	FERC Deleted 10/30/1998		
	78	DELETED Island Construction	Jourdonnais	FERC Deleted 02/03/1998		
	79	FWIS Schedule	Jourdonnais	26-Jan-98	if changes	
	80	Bull Trout Impact Review	Jourdonnais			CSKT responsible under License terms
	81	Waterfowl Protection Area	Jourdonnais	1997 FERC Order	Final Completion Report 12/30/2013	North shore erosion beach & habitat construction completed March, 2013 with monitoring thru 2014
	18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	1997 FERC Order	as necessary	
Thompson Falls	FERC Project No. 1869					
		402 File shoreline erosion and monitoring plan	Jourdonnais	1979 Lic Order	complete	
		403 File operation plan	Jourdonnais	1979 Lic Order	complete	
	18 CFR Part 8	8. Document Project Flows and Report Violations	Jourdonnais	1979 Lic Order	as necessary	
	18 CFR Part 8	9. Post Recreation Signs	Jourdonnais	1979 Lic Order	as necessary	

NorthWestern Energy
Docket D2013.12.85
PPLM Hydro Assets Purchase

Public Service Commission (PSC)
Set 7 (104-120)

Data Requests served February 6, 2014

PSC-120

Regarding: Carbon Price Forecast
Witness: Fine

Please provide the primary source document from the AEO, called GHG15 in the 2013 RPP (page 5-6), that supports your carbon price forecast.

RESPONSE:

Please see the attached excerpt from Appendix E of the Annual Energy Outlook 2013. The entire document is available on the Energy Information Administration website.

offsetting impacts of variations in technology improvement in the supply/conversion sectors. Assumptions for each end-use sector are described in the sector-specific sections above.

No Sunset case

In addition to the *AEO2013* Reference case a No Sunset case was run, assuming that selected federal policies with sunset provisions—such as the PTC, ITC, and tax credits for renewable and CHP equipment in the buildings and industrial sectors—will be extended indefinitely rather than allowed to sunset as the law currently prescribes. Specific assumptions for each end-use sector and for renewables are described in the sector-specific sections above.

Extended Policies case

In the Extended Policies case, assumptions for tax credit extensions are the same as in the No Sunset case described above. Further, updates to federal appliance efficiency standards are assumed to occur at regular intervals, and new standards for products not currently covered by DOE are assumed to be introduced. Finally, fuel economy standards for LDVs, including both passenger cars and light-duty trucks, are assumed to continue increasing after 2025. Specific assumptions for each end-use sector and for renewables are described in the sector-specific sections above.

Greenhouse gas cases

Given concerns about climate change and possible future policy actions to limit GHG emissions, regulators and the investment community are beginning to push energy companies to invest in technologies that are less GHG-intensive. To reflect the market's current reaction to potential future GHG regulation, a 3-percentage-point increase in the cost of capital is assumed for investments in new coal-fired power plants without CCS and for all capital investment projects at existing coal-fired power plants in the Reference case and all other *AEO2013* cases except the No GHG Concern case, GHG10 case, GHG15 case, GHG25 case, GHG10 and Low Gas Prices case, GHG15 and Low Gas Prices case, and GHG25 and Low Gas Prices case. Those assumptions affect cost evaluations for the construction of new capacity but not the actual operating costs when a new plant begins operation.

The seven alternative GHG cases are used to provide a range of potential outcomes, from no concern about future GHG legislation to the imposition of a specific economywide carbon emissions price, as well as an examination of the impact of a combination of specific economywide carbon emissions prices and low natural gas prices. *AEO2013* includes six economywide CO₂ price cases, combining three levels of carbon prices with two alternative gas price projections. In the GHG10 case and GHG10 and Low Gas Prices case, the carbon emissions price is set at \$10 per metric ton CO₂ in 2014. In the GHG15 case and GHG15 and Low Gas Prices case, the carbon emissions price is set at \$15 per metric ton CO₂ in 2014. In the GHG25 case and GHG25 and Low Gas Prices case, the price is set at \$25 per metric ton CO₂ in 2014. In all cases the price begins to rise in 2014 at 5 percent per year. The GHG10, GHG15, and GHG25 cases use the Reference case assumptions regarding oil and gas resource availability. The GHG10 and Low Gas Prices case, GHG15 and Low Gas Prices case, and GHG25 and Low Gas Prices case use the assumptions from the High Oil and Gas Resource case, as described above in the "Oil and gas supply" section. The GHG cases are intended to measure the sensitivity of the *AEO2013* projections to a range of implicit or explicit valuations of CO₂. At the time *AEO2013* was completed, no legislation including a GHG price was pending; however, the EPA is developing technology-based CO₂ standards for new coal-fired power plants. In the GHG cases for *AEO2013*, no assumptions are made with regard to offsets, policies to promote CCS, or specific policies to mitigate impacts in selected sectors.

The No GHG Concern case was run without any adjustment for concern about potential GHG regulations (without the 3-percentage-point increase in the cost of capital). In the No GHG Concern case, the same cost of capital is used to evaluate all new capacity builds, regardless of type.