

REDACTED

Docket No. 20000-418-EA-12

Witness: Chad A. Teply

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

REDACTED
Rebuttal Testimony of Chad A. Teply

March 2013

1 **Q. Are you the same Chad A. Teply who submitted direct testimony in this**
2 **proceeding?**

3 A. Yes.

4 **Q. How is your rebuttal testimony organized?**

5 A. My rebuttal testimony is organized as follows:

- 6 1) Introduction and Summary of Testimony;
- 7 2) Certificate of Public Convenience and Necessity Approval Process;
- 8 3) EPC Contract Status and Docket Procedural Schedule;
- 9 4) Transmission Planning Considerations;
- 10 5) Future Environmental Compliance Considerations; and
- 11 6) Conclusion.

12 **Introduction and Summary**

13 **Q. What is the purpose of this rebuttal testimony?**

14 A. The purpose of this rebuttal testimony is to respond to the direct testimony of Mr.
15 Bryce J. Freeman and Mr. Leo H. Stander on behalf of the Wyoming Office of
16 Consumer Advocate (OCA), Mr. Randall J. Falkenberg on behalf of the Wyoming
17 Industrial Energy Consumers (WIEC), and Dr. Jeremy Fisher on behalf of Sierra
18 Club.

19 This testimony will specifically respond to concerns regarding:

- 20 1) the current status of the engineering, procurement, and construction (EPC)
21 contract for the Jim Bridger Units 3 and 4 SCR Project (SCR Project or
22 the Project) as it may impact the Commission's review and Order in this
23 proceeding;

- 1 2) perceived compliance deadline flexibility that WIEC and Sierra Club
2 continue to propose as a compliance alternative that the Company has
3 failed to effectively pursue and analyze; notwithstanding the
4 Commission's recent findings and conclusions incorporated into its Order
5 Denying Motion for Stay or Continuance in this docket;
- 6 3) the effects of the SCR Project on planning assumptions for potential future
7 transmission projects, such as the Company's currently proposed Energy
8 Gateway project; and
- 9 4) uncertainties regarding potential outcomes of future environmental
10 regulations on the SCR Project and future operation of Jim Bridger Units 3
11 and 4.

12 Other Company witnesses will provide rebuttal testimony specifically responding
13 to Parties' concerns regarding:

- 14 1) updates to the Company's System Optimizer Model analysis supporting
15 this case (see rebuttal testimony of Mr. Rick T. Link);
- 16 2) Bridger Mine coal cost and mine reclamation cost assumption updates (see
17 rebuttal testimony of Ms. Cindy A. Crane); and
- 18 3) the potential effects of pending U.S. Environmental Protection Agency
19 (EPA) action on the Wyoming Regional Haze 309(g) State
20 Implementation Plan (Wyoming SIP) on SCR Project compliance
21 obligations and the Company's interaction in that process. (see rebuttal
22 testimony of Ms. Cathy S. Woollums).

1 **Q. Please summarize your rebuttal testimony.**

2 A. Since the time of its initial application, the Company has continued its evaluation
3 and analysis in light of the best available information in order to address Parties'
4 concerns raised in this docket. My rebuttal testimony can be summarized as
5 follows:

- 6 1) the Company's application and subsequent filings for a Certificate of
7 Public Convenience and Necessity (CPCN) to construct the SCR Project
8 provides the necessary basis to support thorough and timely review of the
9 SCR Project by Parties and the Commission as intended by the Stipulation
10 and Agreement (Stipulation) approved by the Commission in Docket No.
11 200000-384-ER-10 (Sub 384);
- 12 2) the Company has aligned the timing of its application in this docket with
13 significant ongoing parallel path procurement and permitting activities to
14 provide its customers, governing agencies, and regulators with the best
15 real-time information available, while maintaining an implementation
16 timeline that supports the Company's current environmental compliance
17 obligations and its planned major maintenance outage cycle for the unit;
- 18 3) the Jim Bridger Units 3 and 4 SCR Project decision-making process at
19 hand is not dictated by the future configuration possibilities of the Energy
20 Gateway transmission project, nor is the Energy Gateway project decision-
21 making dictated by the outcome of the Jim Bridger Units 3 and 4 SCR
22 Project. The future need and timing of the Energy Gateway project will be
23 driven by then-current information and vetted with stakeholders through

1 the appropriate planning and regulatory processes; and
2 4) the Company has incorporated reasonably anticipated proxy compliance
3 costs for future environmental regulations into its analyses supporting the
4 application. The Company regularly updates its environmental compliance
5 planning assumptions to align with updated agency actions and emerging
6 industry information.

7 **Certificate of Public Convenience and Necessity Approval Process**

8 **Q. Does the Company believe that this docket will result in the opportunity for**
9 **stakeholders to meaningfully review the proposed environmental compliance**
10 **projects prior to major investment being made?**

11 A. Yes. In accordance with the Stipulation discussed above, the Company believes
12 that the Jim Bridger Units 3 and 4 SCR Project CPCN docket allows Parties and
13 the Commission an opportunity to meaningfully review and conclude whether the
14 proposed capital expenditures for Jim Bridger Units 3 and 4 are reasonable,
15 prudent and in the public interest.

16 **Q. Does the Company believe that the evidence submitted with its application**
17 **and in subsequent filings in this docket has provided stakeholders with the**
18 **best information available upon which to review this major investment**
19 **decision?**

20 A. Yes. The Company has submitted a complete application including the required
21 analyses and support, has provided additional information through discovery, and
22 will continue to provide appropriate information in response to Parties' arguments
23 and Commission requests. The Company's understanding of the intent of the

1 Stipulation as it pertains to the Company's environmental investments is to
2 transparently and thoroughly assess the best information available to the
3 Company at the time it is required to make a major investment decision. Due to
4 mandated compliance obligations, the Company must effectively analyze and
5 prudently implement multi-year, highly complex projects for the benefit of
6 ratepayers and for the Company's fleet. The very intent of the Stipulation and the
7 CPCN process is to allow stakeholders the opportunity to participate in decision-
8 making prior to the Company proceeding with such major expenditures.

9 **Q. Please summarize Parties' positions and/or recommendations for**
10 **Commission action on the Company's CPCN application.**

11 A. Parties have taken the following positions in direct testimony regarding the
12 Company's request for CPCN for the Jim Bridger Units 3 and 4 SCR Project:

13 1) The OCA supports Commission approval of the CPCN with a
14 recommendation to the Commission to require the Company to submit for
15 review by the Parties a final project cost estimate based upon final
16 negotiated EPC contract terms in lieu of the current engineering estimate
17 basis.

18 2) WIEC recommends that the Commission deny the Company's CPCN
19 request and require instead that the Company file a new application that
20 addresses the right issues and incorporates the latest forecasts and
21 planning information.

22 3) Sierra Club does not provide a specific recommendation to the
23 Commission but does provide their opinion that retrofit of Jim Bridger

1 Units 3 and 4 is not in the best interest of ratepayers. Sierra Club's
2 position is that their analysis shows a marginal, at best, outcome for
3 ratepayers and that this entire docket is premature because the Company
4 should pursue an extension of the date to install the SCR Project given
5 EPA's decision to delay its final BART determination.

6 **Q. Does the Company agree with OCA's position?**

7 A. Largely. Recognizing that an EPC contract for the Jim Bridger Units 3 and 4 SCR
8 Project has not been executed, it is reasonable for the Commission to
9 conditionally approve the Jim Bridger Units 3 and 4 SCR Project CPCN subject
10 to confirmation that the final executed EPC contract terms and conditions support
11 the representations made in the Company's application.

12 **Q. Does the Company agree with WIEC and Sierra Club assertions that the**
13 **Company's analyses are insufficient to determine whether this resource**
14 **decision is prudent?**

15 A. No. As is further described in the rebuttal testimony and exhibits of Mr. Link, the
16 Company's updated analyses continue to support investment in the Jim Bridger
17 Units 3 and 4 SCR Project. While the Company has made updates and
18 adjustments to its originally submitted analyses in response to the stakeholder
19 concerns, the Company disagrees that the analyses are insufficient and/or lacking
20 of critical information to allow Parties to thoroughly review the proposed SCR
21 Project.

1 **Q. Does the Company agree with WIEC and Sierra Club assertions that several**
2 **major system planning scenarios have not been adequately studied as part of**
3 **the analyses supporting the Company's application?**

4 A. No. The Company has incorporated appropriate underlying assumptions for
5 transmission system configuration and the amount and placement of future
6 generation resources. My testimony will further discuss the Company's
7 underlying transmission planning considerations, particularly addressing certain
8 intervenors' concerns regarding the Energy Gateway project. Mr. Link further
9 discusses additional sensitivity analyses regarding the Energy Gateway
10 transmission project and future generation resources in his rebuttal testimony.

11 **Q. What action does the Company request the Commission take regarding the**
12 **Company's CPCN application?**

13 A. The Company requests that the Commission approve the CPCN application based
14 on the information and analyses presented in the case, recognizing that the
15 Company's proposed course of action meets its compliance obligations in a
16 timely and effective manner based upon the best information available to the
17 Company. If the Company's compliance obligations change going forward, the
18 Company remains obligated to reassess its compliance alternatives in the face of
19 then-current information.

20 **Q. Does the Company, as WIEC contends, intend to proceed with its plans to**
21 **install the Jim Bridger Units 3 and 4 SCR Project under the current schedule**
22 **regardless of whether the Commission grants a CPCN or not?**

23 A. No. WIEC's assertion in this regard is inaccurate when reviewed in light of the

1 entire exchange on the subject. The Company was asked during an Open Meeting
2 in front of the Commission on January 17, 2013, whether it would “press
3 forward” if a CPCN were not approved for the Jim Bridger Units 3 and 4 SCR
4 Project. The Company provided a lengthy explanation to the Commission
5 regarding its specific intentions regarding its plans to install the SCR Project as
6 currently structured; nonetheless in summary, the Company offered that such an
7 outcome would place the Company in the difficult position of having an existing
8 compliance obligation with the state of Wyoming’s environmental regulator, but
9 lacking CPCN approval for the Company’s proposed environmental compliance
10 alternative. The Company further commented that it would likely need to “press
11 forward” in the context of determining how to meet its remaining independently
12 enforceable legal obligations regarding environmental compliance deadlines. The
13 Company noted that it would have to determine whether to commit the Company
14 to significant costs to maintain the SCR Project as currently structured, and
15 recognized that failure to comply could result in unit shutdowns and the
16 associated customer impacts.

17 To build upon the Company’s response during the Open Meeting
18 referenced above, without an approved CPCN for the proposed SCR Project, the
19 Company will be unable to proceed with the Project within its current structure.
20 Under such a scenario, the Company would re-assess remaining compliance
21 alternatives and endeavor to effectuate the next best alternative for customers in
22 accordance with any specific parameters set forth by the Commission in its Order
23 in this docket.

1 **EPC Contract Status and Docket Procedural Schedule**

2 **Q. What is the OCA's position with respect to the EPC contract for the Jim**
3 **Bridger Units 3 and 4 SCR Project?**

4 A. The OCA recommends that the Commission require the Company to submit for
5 review by the Parties a final project cost estimate based upon final negotiated
6 EPC contract terms to establish a formal project cost in support of future
7 administration of the Stipulation.

8 **Q. What is the current status of the bidding process and negotiations related to**
9 **the EPC contract for the Jim Bridger Units 3 and 4 SCR Project?**

10 A. The Company's competitive bidding process for the EPC contract for the Jim
11 Bridger Units 3 and 4 SCR systems is underway. The Company is currently
12 finalizing its technical and commercial evaluations of short-listed EPC contract
13 proposals received.

14 **Q. What is the current schedule for completion of negotiations with EPC**
15 **contractors and the scheduled contract execution date?**

16 A. Negotiations with short-listed EPC contractors to establish final terms and
17 conditions and select the preferred EPC contractor are expected to be complete by
18 a target date of approximately March 31, 2013, or as otherwise required to
19 effectively support the ongoing regulatory processes reviewing the SCR Project.
20 The Company has negotiated bid validity periods with the short-listed EPC
21 contract bidders which allow contract execution no later than May 15, 2013. This
22 timeframe is intended to align with the anticipated worst-case procedural schedule
23 outcomes in the ongoing regulatory proceedings in the states of Wyoming and

1 Utah reviewing the proposed SCR Project, while still supporting the SCR Project
2 critical path implementation timeline in the most cost effective manner.

3 **Q. Does the current schedule for execution of the EPC contract for the SCR**
4 **Project appropriately support the Company's compliance obligations for Jim**
5 **Bridger Units 3 and 4?**

6 A. Yes. The current competitive market proposals and the established critical path
7 timeline for tie-in of the Jim Bridger SCR Project are aligned with the compliance
8 deadlines established by the Wyoming Department of Environmental Quality and
9 the planned major maintenance outages for the units. However, should the
10 currently scheduled contract execution date be delayed beyond May 15, 2013, the
11 SCR Project will be at risk for increased costs and delayed tie-in, and depending
12 upon its duration, a delay may ultimately render the Project critical path schedule
13 unachievable.

14 **Q. Can you provide additional context around the potential cost and schedule**
15 **risks described above?**

16 A. Yes. The SCR Project schedule and bid received have been developed to take
17 advantage of the 2013 construction season to the greatest extent practicable.
18 Delays in releasing the EPC contractor to begin Project activities will result in
19 compression to the overall project schedule. To successfully execute upon such a
20 compressed schedule will require the EPC contractor to increase manpower, work
21 hours, and support resources, and will also add to the complexity of construction
22 site logistics with previously sequential construction activities becoming parallel
23 path construction activities. With each of these schedule acceleration measures

1 comes additional cost, and depending upon the duration of the delay may not be
2 achievable regardless of cost.

3 **Q. Could the Company revise its planned major maintenance / tie-in outages to**
4 **accommodate delays in receipt of the CPCN?**

5 A. To an extent. For example, if the EPC contractor was not released to begin Project
6 activities until the end of 2013, it is very likely that the currently scheduled Spring
7 2015 tie-in outage for the Unit 3 SCR system, at a minimum, would need to be
8 moved to Fall. The Company typically attempts to avoid planned major
9 maintenance outages in the Fall due to increased replacement power costs across
10 the system during that time of the year. Shifting an outage the duration of that
11 required for SCR tie-in would likely have a net power cost impact in the ■
12 ■ range at Jim Bridger.

13 In addition, a Fall tie-in outage would significantly limit the EPC
14 contractor's ability to mitigate any initial operation shortcomings prior to
15 performance guarantee testing and year-end compliance demonstration, especially
16 if any of the shortcoming were due to long-lead equipment failures during initial
17 operation. Such a schedule change would incur the schedule compression costs
18 and impacts discussed above. Indicative cost increase information received from
19 the short-listed bidders in this regard are on the order of magnitude of ■
20 ■ of the contract price.

21 Beyond delaying tie-in from Spring to Fall, the Company's ability to
22 reschedule outages on the four-unit Jim Bridger site is quite limited, with a major
23 planned maintenance outage, and the associated man-power, resources, and

1 materials, already occurring on an annual basis.

2 **Q. Was it appropriate for the Company to commence the competitive**
3 **procurement process for the Jim Bridger Units 3 and 4 SCR Project when it**
4 **did?**

5 A. Yes. Competitive procurement and solicitation of EPC bids for a major multi-year
6 retrofit project such as the Jim Bridger Units 3 and 4 SCR Project requires
7 significant effort, planning, and deployment of resources by the Company, its
8 owner's engineer, and market participants to fully assess, incorporate, and align
9 design requirements, market risks, resource availability, bid validity periods,
10 project specific constraints, concurrent permitting and regulatory review
11 timelines, construction requirements, and compliance deadlines into a thorough
12 and binding project proposal. Evaluation and negotiation of those proposals is
13 then incrementally executed with the intent of ultimately concluding the effort in
14 alignment with the conclusion of regulatory reviews and permitting efforts. The
15 efforts underway in support of procuring the Jim Bridger Units 3 and 4 SCR
16 Project remain appropriately aligned to support the Company's existing
17 compliance obligation deadlines, while also allowing the Company to solicit
18 binding commercial terms from short-listed bidders to assess the potential for
19 more stringent emission limits resulting from pending EPA action and alternate
20 project schedules and associated costs in response to potential regulatory
21 outcomes, should they be required.

1 **Q. What is the current schedule for the start of construction and for initial**
2 **startup of the SCR's?**

3 A. Site activities are currently expected to start in the second quarter of 2013 with
4 confirmation of underground utilities being the initial focus. Foundation
5 construction is currently expected to begin in the third quarter of 2013 with piling
6 installation. The planned completion of unit SCR tie-in is June 6, 2015, for Unit 3
7 and June 7, 2016, for Unit 4.

8 **Q. What is the commercial operations date relative to compliance deadline?**

9 A. The established environmental compliance deadlines for the Jim Bridger Units 3
10 and 4 SCR Project are December 31, 2015, for Unit 3 and December 31, 2016, for
11 Unit 4. The Company has scheduled tie-in of the individual unit SCRs within the
12 planned major maintenance outages for each unit. As currently planned (subject to
13 change due to a variety of factors including the final commercial negotiations with
14 short-listed EPC contractors as well as system needs at the time of tie-in), the
15 tentative major maintenance outage period for Unit 3 is from March 28, 2015 through
16 June 6, 2015, and for Unit 4 from March 12, 2016, through June 7, 2016.
17 Accordingly, the Company would currently forecast commercial operations dates of
18 June 6, 2015, for Unit 3 and June 7, 2016, for Unit 4. Following the commencement
19 of commercial operations, a time interval is required to establish boiler full-load
20 operation, tune the system, complete performance testing, demonstrate performance
21 compliance, and remedy any identified performance deficiencies.

1 **Q. Assuming that the Jim Bridger 3 and 4 SCR Project is not completed, what is**
2 **the latest date each unit is expected to be able to operate under current**
3 **regulations?**

4 A. The Wyoming SIP and the November 3, 2010 BART Settlement Agreement and
5 associated Wyoming Environmental Quality Commission Order require that SCR,
6 or equivalent NO_x reducing equipment, be installed on Jim Bridger Units 3 and 4
7 by December 31, 2015, and December 31, 2016, respectively. As such, under a
8 scenario where SCR Project is not installed, Unit 3 will not be able to operate in
9 compliance beyond December 31, 2015, and Unit 4 will not be able to operate in
10 compliance beyond December 31, 2016.

11 **Q. What action has the EPA taken in regard to the Wyoming SIP requiring**
12 **NO_x reducing equipment to be installed on Jim Bridger Units 3 and 4?**

13 A. The EPA originally proposed to approve the Wyoming SIP requirements
14 described above with final EPA action expected to be taken by December 15,
15 2012. However, EPA has since delayed its action on the Wyoming SIP to March
16 29, 2013, for proposed action and September 27, 2013, for final action.

17 **Q. How does delayed EPA action on the Wyoming SIP affect the Company's**
18 **compliance obligations for Jim Bridger Units 3 and 4?**

19 A. The Company remains under an independent legally enforceable obligation to
20 complete the SCR Project or otherwise meet the associated unit-specific emission
21 limits on Jim Bridger Units 3 and 4 as described above if the Company is going to
22 continue to operate these units. Specifically, pursuant to the Wyoming SIP, the
23 BART Settlement Agreement between the state of Wyoming and the Company,

1 and the associated Wyoming Environmental Quality Commission Order, the state
2 of Wyoming has imposed upon the Company an obligation to complete the SCR
3 Project by December 31, 2015, for Unit 3 and December 31, 2016, for Unit 4 (the
4 Deadlines). Wyoming has not given any indication that it will amend the
5 Deadlines to accommodate EPA's delayed action, nor that it is willing to forgo
6 compliance with the Deadlines. Indeed, this Commission rejected the Sierra
7 Club's request to delay a hearing on a Certificate of Public Convenience and
8 Necessity based on the EPA's new timeline. In its Order, the Commission stated:

9 We find and conclude that RMP has a legal obligation under the
10 BART Settlement Agreement with WDEQ to complete the work
11 on Jim Bridger Units 3 and 4 by December 31, 2015, and
12 December 31, 2016, respectively. This obligation is independent of
13 EPA actions. We are concerned that, if RMP is not in compliance
14 with the SIP by the December 31, 2015, deadline, it would have to
15 shut down Jim Bridger Unit 3. Loss of this low cost resource could
16 drive up the cost of electricity for ratepayers. This problem would
17 be similarly exacerbated if RMP failed to meet the December 31,
18 2016, deadline for Jim Bridger Unit 4. The only way to avert this
19 expensive problem is to proceed with the public hearing in March
20 2013. Because the project is in its design and planning phase and
21 construction has not begun, if the EPA were to alter emission
22 requirements, RMP would still be able to implement any necessary
23 changes. RMP has included room for adjustment to emission limits
24 in its bid process, requiring contractor guarantees that their
25 technology can meet a range of levels of emission limits. The
26 hearing in this matter will proceed but must be rescheduled to
27 allow the parties time to adequately prepare for the hearing.¹

28 Thus, as stated, the Company is under an independent obligation to the state of
29 Wyoming to meet the Deadlines despite any lack of ruling by the EPA.

¹ Order issued February 4, 2013, Paragraph 14, Page 4, Record No. 13314, Docket No. 20000-418-EA-12.

1 **Q. Absent action by the state of Wyoming to amend existing deadlines, is it**
2 **reasonable to assume, as WIEC and Sierra Club assert, that a new federal**
3 **compliance deadline of September 2018 at the earliest should be utilized by**
4 **the Company in this docket as its basis for economic analyses of compliance**
5 **alternatives?**

6 A. No. Such an assumption would run contrary to the Commission’s findings and
7 conclusions referenced above. Also, as discussed in the testimony of Ms.
8 Woollums, the position taken by the Sierra Club in particular regarding deferred
9 compliance deadlines runs contrary to their public comments filed in the EPA’s
10 Regional Haze docket regarding the Wyoming SIP. WIEC seemingly adopts
11 Sierra Club’s position under the same faulty premise.

12 Conversely, OCA witness Mr. Stander has correctly noted:

13 In the Order to Modify consent Decree, it was stated: “In its re-
14 proposal, EPA will propose to determine, for each source subject
15 to BART, the period of time for BART compliance that is as
16 expeditious as practicable, as required by 42 U.S.C. §7491.”²

17 Thus, EPA’s own stated intent belies the position WIEC and Sierra Club would
18 urge upon the Commission.

19 **Q. Does the Company agree with WIEC’s assessments of the net present value**
20 **to customers in deferring the SCR Project under either of their hypothetical**
21 **scenarios: a one-year compliance date deferral [REDACTED] or until**
22 **September 2018 [REDACTED]?**

23 A. Not entirely. From the Company’s review of WIEC’s work papers in this regard,
24 it appears that WIEC incorrectly accounted for remaining depreciable life of the

² OCA/Stander testimony pages 40 and 41 of 26, lines 27-2.

1 Jim Bridger Units 3 and 4 SCR Project investment in their one-year Project
2 compliance date deferral scenario, and possibly in their 2018 Project deferral
3 scenario as well, although the Company was unable to identify WIEC's work
4 papers for the 2018 deferral scenario. When correcting for this inaccuracy,
5 WIEC's baseline assessment of potential one-year deferral value is reduced to
6 approximately [REDACTED]. Using WIEC's methodology, the baseline assessment
7 of potential 2018 deferral value is approximately [REDACTED], which is
8 comparable to WIEC's original reference in that regard.

9 In either scenario presented above, it is extremely important to note that
10 the risk of initial capital cost of the Project increasing due to market conditions or
11 other factors during the hypothetical deferral periods is not captured in WIEC's
12 assessment. With this in mind, the Company assessed the Project initial capital
13 cost breakeven point for the corrected net present value calculations performed
14 for each scenario above. In WIEC's one-year deferral scenario, an initial project
15 capital cost increase of approximately [REDACTED] (exceeding inflation) would
16 negate the customer savings referenced above, and in WIEC's 2018 deferral
17 scenario an initial project capital cost increase of approximately [REDACTED]
18 (exceeding inflation) would do the same. With any competitive market re-opener
19 for the EPC contract for the SCR Project, the Company would currently expect
20 costs for the SCR Project to increase due to anticipated competitive market
21 pressures on labor, commodities, and equipment availability for the equipment
22 being installed. In short, the percentages referenced above are within a range of
23 reasonably anticipated market pricing increases that could be realized in the

1 deferral scenarios proposed by WIEC, which could quickly overcome any
2 perceived savings opportunity associated with deferring the project.

3 **Q. If the state of Wyoming were to amend its compliance Deadlines for Jim**
4 **Bridger Units 3 and 4, would the Company take the appropriate actions to**
5 **comply with an amended compliance schedule?**

6 A. Yes. The Company recognizes the planning and review complexity that has been
7 created by the EPA's delayed action on the Wyoming SIP and remains committed
8 to timely and appropriately updating its assessments of Project risks and
9 opportunities associated with our existing state of Wyoming compliance
10 obligations, future actions by the state of Wyoming, future EPA actions, and the
11 competitive EPC market. The Company's primary objective in analyzing and
12 implementing emissions control projects is to determine the most economic
13 means of meeting mandated compliance obligations. The Company will continue
14 to pursue that objective.

15 **Q.** [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED] ?

19 A. [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]

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[REDACTED]

Q. [REDACTED]?

A. [REDACTED]

Q. **WIEC’s Mr. Falkenberg states that one end of the range of potential outcomes of EPA action on the Wyoming SIP could be to eliminate the need for SCR systems on Jim Bridger Units 3 and 4. Does the Company agree that this is a plausible uncertainty regarding the outcome of pending EPA action?**

A. No. The Company concurs with the OCA’s testimony in this regard inasmuch as the EPA does not have a history of proposing less stringent limits or deadlines than those promulgated by state and local agencies. With the range of reasonably anticipated emissions limit outcomes discussed in the filings supporting this docket, SCR technology is the only viable retrofit technology available to support the level of emissions performance required from a coal-fueled unit.

Q. **What other key contracting and/or permitting activities remain to be completed to allow the SCR Project to be constructed?**

A. The Company filed an air quality permit application on April 3, 2012 (see

1 Mr. Teply Direct Testimony Exhibit RMP__(CAT2-3)). The application
2 submitted by the Company to the Wyoming Air Quality Division on April 3,
3 2012, is required to obtain a permit authorizing the construction of the Unit 3 and
4 Unit 4 SCR Project. Although the November 3, 2010 BART Appeal Settlement
5 Agreement requires the installation of emissions reduction equipment on the two
6 units, the Company is required to obtain a permit from the Wyoming Air Quality
7 Division, New Source Review, prior to the commencement of construction.

8 **Q. What is the status of the Wyoming Air Quality Division review of the air**
9 **permit application described above?**

10 A. The Wyoming Air Quality Division has deemed the Company's air permit
11 application complete, and the Company is currently in the process of responding
12 to agency questions regarding application of Best Available Control Technology
13 (BACT) for particulate matter emissions 2.5 microns and smaller (PM_{2.5}) control.

14 **Transmission Planning Considerations**

15 **Q. Please summarize WIEC's and Sierra Club's concerns with respect to the**
16 **Company's transmission planning considerations incorporated into the Jim**
17 **Bridger Units 3 and 4 SCR Project analyses.**

18 A. WIEC and Sierra Club have expressed the following concerns with the
19 Company's transmission planning assumptions incorporated into the Jim Bridger
20 Units 3 and 4 SCR Project analyses:

21 1) WIEC asserts that additional scenario analyses should be completed to
22 demonstrate whether opportunities exist to defer future transmission
23 expenditures or create cost savings for customers related to future

1 transmission expenditures, particularly as those opportunities may be
2 impacted by the installation of the Jim Bridger SCR Project.

3 2) Sierra Club asserts that the retirement and replacement of Jim Bridger
4 Units 3 and 4 with capacity closer to PacifiCorp's load centers would
5 likely allow avoided or deferred transmission system expenditures.

6 **Q. Are the Company's current plans for future Energy Gateway transmission**
7 **project segments at issue in this case?**

8 A. No.

9 **Q. Is the Jim Bridger Units 3 and 4 SCR Project decision-making process under**
10 **review in this docket dictated by the future segments of the Energy Gateway**
11 **transmission project?**

12 A. No.

13 **Q. Has the Company incorporated reasonable assumptions regarding the**
14 **Energy Gateway segment scenarios into its System Optimizer analyses**
15 **supporting this docket?**

16 A. Yes. The System Optimizer Model analyses used to support this docket assume
17 the Energy Gateway project is implemented and includes Energy Gateway West
18 transmission investments (Windstar to Populus and Populus to Hemmingway).

19 **Q. Did WIEC witness Mr. Falkenberg's analyses of the impacts of potential**
20 **future Energy Gateway transmission project segments identify any material**
21 **impacts on the Jim Bridger Units 3 and 4 SCR Project investment decision?**

22 A. No. Mr. Falkenberg's testimony surmises:

23 Consequently, the Gateway project does not, by itself, enhance the
24 value of continued coal operation of Bridger Units 3 and 4, nor

1 does it appear that completion of Gateway is necessary to enable
2 continued efficient operation of Bridger Units 3 and 4.³

3 Nonetheless, Mr. Falkenberg spends considerable time and testimony providing
4 his evaluation of the cost effectiveness of the Company's currently planned
5 Energy Gateway transmission project segments against various Jim Bridger plant
6 dispatch scenarios and compliance options. However, this information would not
7 affect the Company's recommendation in this docket.

8 **Q. Mr. Falkenberg takes issue with several of the Company's responses to data**
9 **requests provided in discovery, including the question as to whether early**
10 **retirement of Jim Bridger Units 3 and 4 would enable the deferral or**
11 **avoidance of any of the Energy Gateway transmission segments. Does the**
12 **Company's response to this question remain the same?**

13 A. Yes. While the question does not affect the decision at hand, the Company's
14 response remains that retirement of Jim Bridger Units 3 and 4 would eliminate the
15 need to transport those thermal resources westward between the proposed
16 Anticline substation and existing Populus substation from Wyoming to the
17 Company's load centers, but it would not avoid the need for more transmission
18 capacity out of Wyoming, and hence the need for various Energy Gateway
19 segments in that regard.

20 Additionally, it is not practical to determine with any certainty the change
21 in need, modifications or delays in various Energy Gateway segments due to Jim
22 Bridger Units 3 and 4 retirements without that scenario having been demonstrated
23 as the preferred compliance alternative for customers; the timing, location, type

³ WIEC/Falkenberg testimony page 21 of 26, lines 6-8.

1 and size of replacement resources would be the determining factor for such an
2 analysis.

3 **Q. Would the answer to the preceding question be the same if it were assumed**
4 **that the Jim Bridger Units were retired and replaced by combined cycle**
5 **plants located closer to load centers?**

6 A. Yes. Company witness Mr. Link describes a sensitivity analysis in his rebuttal
7 testimony showing the SCR Project investment is favorable to an early retirement
8 alternative that replaces Jim Bridger Unit 3 and Unit 4 with a new combined cycle
9 facility located in southern Utah.

10 **Future Environmental Compliance Considerations**

11 **Q. What is OCA's position with respect to the Company's analyses of**
12 **uncertainties related to future environmental compliance associated with the**
13 **Jim Bridger Units 3 and 4 SCR Project at issue in this case?**

14 A. OCA's position with respect to the Company's analyses of uncertainties related to
15 future environmental compliance associated with the Jim Bridger Units 3 and 4
16 SCR Project is that the Company has taken a reasonable approach to modeling
17 costs associated with emerging environmental rulemaking outcomes, including
18 MATS, regulation of coal combustion residuals (CCR), and updated Clean Water
19 Act effluent guidelines.

20 **Q. Has the Company appropriately analyzed proxy compliance costs associated**
21 **with future environmental costs?**

22 A. Yes. The Company's analyses include reasonably foreseeable proxy compliance
23 costs associated with future environmental regulations based upon the best

1 information available at the time of analysis. I will explain the Company's current
2 assessment of key emerging environmental regulations and the associated cost
3 assumptions further below.

4 **Coal Combustion Residuals (CCR) Regulations**

5 **Q. What is the Company's current assessment of emerging CCR rulemaking?**

6 A. The EPA's proposed coal combustion residuals rulemaking is currently
7 anticipated to be finalized in late 2014 at the earliest, with case specific
8 compliance deadlines five to seven years thereafter, or by late 2019 at the earliest,
9 according to EPA's current forecasts. To assess this proposed EPA rule, the
10 Company has incorporated the EPA's proposed Resource Conservation and
11 Recovery Act (RCRA) Subtitle D⁴ compliance scenario as a proxy into its
12 analyses of the Jim Bridger investment decisions. The Company does not believe
13 that the EPA's proposed RCRA Subtitle C rules represent a reasonable outcome
14 for the power generation industry and is not aware of the EPA promulgating
15 guidance on their assessment of the breadth of a Subtitle C impact on the industry
16 and the economy as a whole. However, should Subtitle C rules be enacted as it
17 pertains to handling and storage of coal combustion residuals, much of the cost
18 associated with a Subtitle C compliance scenario would be otherwise incurred by
19 the Company because of past operations at the facility and would not be
20 avoidable. The Company will be faced with certain CCR storage, handling, and
21 long-term management costs at its Jim Bridger facility whether individual units at
22 the facility continue to operate with coal as the fuel supply or not. These CCR

⁴ In general, RCRA Subtitle D compliance can be summarized as a non-hazardous waste rule, while RCRA Subtitle C is a hazardous waste rule.

1 closure costs are accounted for as an Asset Retirement Obligation (ARO)
2 expense.

3 **Q. Please discuss the specific actions in the Company’s current proxy CCR**
4 **compliance plan that would not contribute to compliance with proposed**
5 **Subtitle C compliance obligations, should they be promulgated.**

6 A. In a general sense, Subtitle C compliance as proposed would require all CCR
7 material to be treated as a “special waste” (i.e. hazardous waste) from the “point
8 of their generation to the point of final disposition, including during and after
9 closure of any disposal unit” (75 Fed. Reg. 35133). Three general expectations
10 exist for Subtitle C compliance: 1) the processing, handling, and treatment of all
11 CCR material as hazardous waste from the point of generation through the point
12 of final disposition; 2) the conversion of all CCR processing, transport, and
13 storage infrastructure and processes from wet to dry; and 3) the closure of all
14 CCR surface impoundments (i.e. ponds) within seven years of the promulgation
15 of the rule.

16 The specific actions in the Company’s proxy compliance plan that would
17 not be expected to contribute to compliance with the proposed Subtitle C
18 regulations would be continued management and construction of on-site
19 impoundments, which would be generally expected to be replaced with alternate
20 means of dry disposal of CCR designated as a hazardous waste.

21 **Q. What efforts is the Company taking to plan for and assess potential CCR**
22 **rulemaking outcomes at the Jim Bridger facility?**

23 A. There are three primary CCR-related efforts underway at the Jim Bridger facility

1 that will ultimately position the Company to comply with and/or further assess
2 potential CCR rulemaking outcomes. First, FGD Pond 1 on the Jim Bridger plant
3 site is being dewatered, contoured, capped, and re-vegetated with an expected
4 final reclamation completion date in the 2016-2018 timeframe. Second, FGD
5 Pond 2 on the Jim Bridger plant site is being evaluated for segmenting options
6 from a single large impoundment into what would eventually be 2 to 3 compliant,
7 lined cells by the 2018 timeframe. Finally, new bottom ash and dry ash landfill
8 cells within the existing CCR landfill footprint are being sited, developed, and
9 permitted on an as-needed basis pursuant to Wyoming Department of
10 Environmental Quality requirements.

11 **Q. Will the installation of the Jim Bridger Units 3 and 4 SCR Project exacerbate**
12 **anticipated CCR compliance project obligations due to increased waste**
13 **streams or other detrimental effects of operation?**

14 A. No.

15 **Proposed Clean Water Act 316(b) Regulations**

16 **Q. What is the Company's current assessment of the ability of Jim Bridger**
17 **Units 3 and 4 to comply with proposed Clean Water Act 316(b) water intake**
18 **regulations?**

19 A. Due to the preliminary status of the 316(b) rulemaking process, the Company has
20 not completed specific detailed studies to fully ascertain and verify that intake
21 structure retrofits or new technologies will be necessary to comply with the
22 currently proposed 316(b) water intake regulations, particularly since a key
23 element of the proposed rule is to conduct plant-specific studies and assessments.

1 The Jim Bridger plant utilizes cooling towers and closed cycle cooling,
2 significantly reducing potential 316(b) rulemaking exposure. Nonetheless,
3 modifications may be needed at the Jim Bridger cooling water intake structure,
4 located at the Green River diversion, to comply with the proposed impingement
5 mortality standards. Installation of the Jim Bridger Units 3 and 4 SCR Project is
6 not expected to negatively impact any such compliance costs.

7 **Clean Water Act Effluent Guidelines Update**

8 **Q. What is the Company's current assessment of the ability of Jim Bridger**
9 **Units 3 and 4 to comply with proposed effluent rulemaking?**

10 A. The EPA's announced intention to undertake effluent rulemaking has not yet
11 materialized into a proposed rule to regulate effluent limits for wastewater
12 discharges from steam electric plants.

13 **Q. What effluents (e.g. waste water) are discharged off-site from the Jim**
14 **Bridger facility?**

15 A. No waste water is discharged off-site from the Jim Bridger facility. Waste water
16 generated at the Jim Bridger plant is collected and stored in a flue gas
17 desulfurization pond and an evaporation pond.

18 **Q. Considering no waste water is discharged off-site from the Jim Bridger**
19 **facility, would the Company expect material compliance cost impacts from**
20 **the future rulemaking?**

21 A. While specific impacts of future rulemaking are not possible to predict at this
22 time, the Company would expect to be able to achieve the objectives of the EPA's

1 updated effluent guidelines when proposed with relatively minor compliance
2 project investments.

3 **National Ambient Air Quality Standards**

4 **Q. How will installation of the Jim Bridger Units 3 and 4 SCR Project impact**
5 **the state of Wyoming's ability to maintain compliance with NAAQS?**

6 A. Increasingly more stringent NAAQS have been and are being adopted for criteria
7 pollutants, including SO₂, NO₂, ozone, and PM_{2.5}. Installation of the Jim Bridger
8 Units 3 and 4 SCR Project will directly benefit NO₂ and ozone attainment, and the
9 units are currently equipped with wet scrubbers that directly benefit SO₂
10 emissions performance. As part of the permitting process for the SCR Project, the
11 units are also undergoing Best Available Control Technology (BACT) review as
12 it pertains to PM_{2.5} emissions. The Company is not aware of future incremental
13 NAAQS compliance obligations that have been overlooked in its analyses. In
14 aggregate, installation of the SCR Project and the associated permitting
15 requirements are helping to avoid the negative consequences of the Jim Bridger
16 plant area being declared a nonattainment area.

17 **Conclusion**

18 **Q. Do you have any final comments?**

19 A. Yes. As summarized at the start of my testimony as well as thoroughly explained
20 in my detailed answers, I believe the Company has provided sufficient
21 information for the Commission to enter a finding in this docket to support
22 approval of the Jim Bridger Units 3 and 4 SCR Project CPCN. The Company's
23 updated base case analysis and various sensitivities discussed in the Company's

1 testimony and supporting exhibits continue to support investment in the Jim
2 Bridger Unit 3 and Unit 4 SCR Project as the least-cost compliance alternative for
3 the Company's and its customers. I request that the Commission approve the
4 CPCN based on the information and analyses presented in the case, recognizing
5 that the Company's proposed course of action meets its compliance obligations in
6 a timely and effective manner based upon the best information available to the
7 Company.

8 **Q. Does this conclude your rebuttal testimony?**

9 A. Yes.