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August 16, 2013

Via Electronic Mail and Federal Express

Public Utility Commission of Oregon
Attn: Filing Center
550 Capitol St. NE #215
P.O. Box 2148
Salem OR 97308-2148

Re: In the Matter of PACIFICORP 2014 Transition Adjustment Mechanism
Docket No. UE 264

Dear Filing Center:

Enclosed for filing in the above-referenced docket, please find the original and five (5) copies of the Revised Industrial Customers of Northwest Utilities' List of Exhibits to be Entered into the Record. The exhibits are numbered ICNU/200 – ICNU/206. Also enclosed are the original and five (5) copies of the confidential pages of same (ICNU/201 – ICNU/203 in their entirety, and the confidential pages of ICNU/206), which are being filed under seal pursuant to the Protective Order in this docket. Please note that the enclosed List of Exhibits replaces the version filed on August 15, 2013.

Thank you for your assistance, and please do not hesitate to call our office with any questions.

Sincerely,

/s/ Jesse Gorsuch
Jesse Gorsuch

Enclosures
cc: Service List

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day served the foregoing documents upon all parties in this proceeding by causing the same to be sent via electronic mail to each individual's last-known email address, as shown below, and by causing the confidential pages of same to be sent via First Class U.S. Mail, postage prepaid, to all parties who have signed the General Protective Order in this docket.

Dated at Portland, Oregon, this 16th day of August, 2013.

/s/ Jesse Gorsuch
Jesse Gorsuch

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**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UE 264

In the Matter of

PACIFICORP)	THE REVISED INDUSTRIAL
)	CUSTOMERS OF NORTHWEST
2014 Transition Adjustment Mechanism)	UTILITIES' LIST OF EXHIBITS TO BE
)	ENTERED INTO THE RECORD

The Industrial Customers of Northwest Utilities (“ICNU”) identifies the following list of exhibits that ICNU intends to introduce at the hearing. ICNU understands that PacifiCorp does not object to the admission of any of ICNU’s exhibits, and ICNU is not opposed to PacifiCorp supplementing the record with complete versions of the excerpted documents.

<u>Cross Examination Exhibits</u>	<u>Description</u>	<u>PacifiCorp Objection</u>
ICNU/200	PacifiCorp Response to ICNU Data Request No. 5.2	No.
Confidential ICNU/201	Excerpt of Confidential PacifiCorp Coal Inventory Policies & Procedures, Section VII, effective 9/30/2010	No.
Confidential ICNU/202	Excerpt of Confidential PacifiCorp Coal Inventory Policies & Procedures, Section VII, effective 1/1/2013	No.
Confidential ICNU/203	Excerpt of Confidential Pincock Report on Coal Inventory Policies, Section 4, dated 1/28/2012	No.
ICNU/204	Redacted Rebuttal Testimony of Cindy A. Crane in Case No. PAC-E-10-07	No.

PAGE 1 – REVISED ICNU LIST OF EXHIBITS TO BE ENTERED INTO THE RECORD

<u>Cross Examination Exhibits</u>	<u>Description</u>	<u>PacifiCorp Objection</u>
ICNU/205	Redacted Rebuttal Testimony of Cindy A. Crane in Docket No. 20000-384-ER-10	No.
Confidential ICNU/206	Confidential Rebuttal Testimony of Cindy A. Crane in Docket No. 12-035-92	No.

In addition, ICNU will seek the admission of the following pre-filed testimony and exhibits into the record in this proceeding:

<u>Exhibit No.</u>	<u>Description</u>
Confidential ICNU/100	Confidential Responsive Testimony of Michael C. Deen
ICNU/101	Qualifications of Michael C. Deen
Confidential ICNU/102	Confidential Excerpts of PacifiCorp's Responses to ICNU Data Requests 2.1 and 2.3 (UE 263) and 1.12 and 2.1 (UE 264)

ICNU notes that it is not identifying any documents from prior Oregon Public Utility Commission ("OPUC") proceedings, as ICNU understands that both ICNU and PacifiCorp will request that the OPUC take official notice of the documents from prior OPUC proceedings that will be referred to legal briefs.

PAGE 2 – REVISED ICNU LIST OF EXHIBITS TO BE ENTERED INTO THE RECORD

Dated this 16th day of August, 2013.

Respectfully submitted,

DAVISON VAN CLEVE, P.C.

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Of Attorneys for the Industrial Customers of
Northwest Utilities

BEFORE THE OREGON PUBLIC UTILITY COMMISSION

UE 264

In the Matter of)
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PACIFICORP)
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2014 Transmission Adjustment Mechanism)
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EXHIBIT ICNU/200

PACIFICORP RESPONSE TO ICNU DATA REQUEST NO. 5.2

August 15, 2013

UE-264/PacifiCorp
August 2, 2013
ICNU Data Request 5.2

ICNU Data Request 5.2

Please identify all third parties or affiliates that PacifiCorp has attempted to negotiate coal for Jim Bridger, and provide all documents related to any coal supply negotiations with any third parties or affiliates, including but not limited to BCC, Black Butte, Haystack and Kemmerer.

Response to ICNU Data Request 5.2

PacifiCorp, along with Idaho Power, co-owner in the Jim Bridger Plant, entered into a long-term coal supply agreement with Black Butte Coal Company in October 2008 to supply approximately 2.750 million tons of coal to the Jim Bridger plant. The coal supply agreement was effective January 1, 2010, and continues through December 31, 2014. As discussed in the reply testimony of Cindy Crane, transportation costs to truck coal from the Kemmerer mine or the Haystack mine to the Jim Bridger plant make coal supply from those mines uncompetitive, even if supplies from those mines were available. In addition, the Haystack mine is a new facility. PacifiCorp has negotiated a contract for a test burn of coal from the Haystack mine for the Naughton plant. Without conducting a test burn, PacifiCorp does not know whether the Haystack supply presents a viable alternative source for either the Naughton or Jim Bridger plants.

The information provided in ICNU 5.2 is designated as confidential under the protective order in these proceedings and may only be disclosed to qualified persons as defined in that order.

BEFORE THE OREGON PUBLIC UTILITY COMMISSION

UE 264

In the Matter of)
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PACIFICORP)
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2014 Transmission Adjustment Mechanism)
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EXHIBIT ICNU/201

**EXCERPT OF CONFIDENTIAL PACIFICORP COAL INVENTORY POLICIES &
PROCEDURES, SECTION VII, EFFECTIVE 9/30/2010**

CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER

August 15, 2013

BEFORE THE OREGON PUBLIC UTILITY COMMISSION

UE 264

In the Matter of)
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PACIFICORP)
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2014 Transmission Adjustment Mechanism)
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EXHIBIT ICNU/202

**EXCERPT OF CONFIDENTIAL PACIFICORP COAL INVENTORY POLICIES &
PROCEDURES, SECTION VII, EFFECTIVE 1/1/2013**

CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER

August 15, 2013

BEFORE THE OREGON PUBLIC UTILITY COMMISSION

UE 264

In the Matter of)
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PACIFICORP)
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2014 Transmission Adjustment Mechanism)
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EXHIBIT ICNU/203

**EXCERPT OF CONFIDENTIAL PINCOCK REPORT ON COAL INVENTORY
POLICIES, SECTION 4, DATED 1/28/2012**

CONFIDENTIAL SUBJECT TO GENERAL PROTECTIVE ORDER

August 15, 2013

BEFORE THE OREGON PUBLIC UTILITY COMMISSION

UE 264

In the Matter of)
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PACIFICORP)
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2014 Transmission Adjustment Mechanism)
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EXHIBIT ICNU/204

**REDACTED REBUTTAL TESTIMONY OF CINDY A. CRANE IN
CASE NO. PAC-E-10-07**

August 15, 2013

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UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE)	
APPLICATION OF ROCKY)	CASE NO. PAC-E-10-07
MOUNTAIN POWER FOR)	
APPROVAL OF CHANGES TO ITS)	Rebuttal Testimony of Cindy A. Crane
ELECTRIC SERVICE SCHEDULES)	REDACTED
AND A PRICE INCREASE OF \$27.7)	
MILLION, OR APPROXIMATELY)	
13.7 PERCENT)	

ROCKY MOUNTAIN POWER

CASE NO. PAC-E-10-07

November 2010

1 Q. Please state your name.

2 A. My name is Cindy A. Crane.

3 Q. Are you the same Cindy A. Crane who has testified previously in this case?

4 A. Yes, I am.

5 Q. What is the purpose of your rebuttal testimony?

6 A. The purpose of my testimony is to:

- 7 • Rebut the testimony of Idaho Public Utilities Commission Staff ("IPUC")
8 witness Mr. Joe Leckie regarding IPUC's proposed disallowance of the
9 Company's Fuel Stock; and,
10 • Rebut the testimony of PacifiCorp Idaho Industrial Consumers ("PIIC")
11 witness Mr. Randall J. Falkenberg regarding fuel quality problems at the
12 Jim Bridger plant.

13 **Fuel Stock Adjustment**

14 Q. Please summarize the adjustment that IPUC witness Mr. Leckie recommends
15 in regards to fuel stock.

16 A. Mr. Leckie proposes to limit the coal inventory level for each plant site to no
17 more than the actual tons as of December 2009. Mr. Leckie questions the
18 necessity of increasing the tonnage size of the stockpiles from 2009 actual to 2010
19 pro forma and believes that customers should receive the benefit of the
20 Company's ability to operate six coal sites at their reduced tonnage levels but
21 should not bear the cost of the increase tonnage at the other coal sites without just
22 and reasonable cause.

REDACTED

Crane, Di-Reb - 1
Rocky Mountain Power

1 **Q. Do you agree with Mr. Leckie's adjustment?**

2 A. No, the Company believes that Mr. Leckie did not consider all the facts before
3 making his recommendations.

4 **Q. Please explain.**

5 A. First, by limiting inventory levels to no more than the actual tons in inventory as
6 of December 2009, Mr. Leckie grossly overstates the increase in coal inventory
7 for the Utah plants. Mr. Leckie's analysis implies that coal inventory levels in
8 Utah increased by 300,691 tons during the test period whereas the pro forma test
9 period reflects only an increase of only 66,606 tons, see Exhibit No. 64. Second,
10 Mr. Leckie's analysis fails to recognize that the actual inventory levels as of
11 December 2009 for the Bridger, Naughton and Hayden plants were below
12 Company targets. The test period reflects inventory levels at these levels
13 conforming to established targets by year-end.

14 **Q. Please explain Mr. Leckie's adjustment for the Utah inventories?**

15 A. Mr. Leckie incorrectly assumes that all the Utah stockpiles are independent of
16 each other. For instance, Mr. Leckie assumes that stockpile reductions at the
17 Huntington plant, (228,206) tons, and Carbon plant, (5,879) tons are unrelated to
18 the increase in the Rock Garden of 246,400 tons.

19 **Q. Are the Huntington and Rock Garden stockpiles interrelated?**

20 A. Yes. All of the Deer Creek mine's production is delivered to the Huntington plant
21 via an overland conveyor. A minimal amount of coal is maintained in silo at the
22 Deer Creek mine. Depending upon mine production levels and quality, Deer
23 Creek coal could be transferred from the Huntington plant to Carbon, Hunter,

REDACTED

Crane, Di-Reb - 2
Rocky Mountain Power

1 Rock Garden or Prep Plant. The Rock Garden pile is located approximately 3
2 miles from the Huntington plant. The Rock Garden pile provides storage and
3 blending capability for the Utah coal fleet. Deer Creek coal production comprises
4 almost 95 percent of the Rock Garden inventory.

5 **Q. How much Deer Creek coal was transferred from the Huntington plant to**
6 **the Rock Garden?**

7 A. The Company transported almost 228,000 tons of high British thermal unit
8 content, low ash Deer Creek coal from the Huntington plant to the Rock Garden
9 during the first half of 2010. Essentially, the increase in the Rock Garden
10 inventory is offset by corresponding decreases in stockpiles at the Carbon and
11 Huntington plants.

12 **Q. Does the test period reflect increases at other Utah sites?**

13 A. Yes. As shown in Exhibit No. 64 the stockpiles at Hunter and the adjacent Prep
14 Plant increase by 2,755 tons and 51,035 tons respectively, or 53,790 tons in total.

15 **Q. Please explain the increase at the Prep Plant and Hunter plant.**

16 A. The majority of the coal is supplied by Arch's Sufco mine under a long-term coal
17 supply agreement. The Arch contract provides for a price reset of the Sufco
18 contract in 2011. Though the parties are still in negotiations, the Company
19 projects the 2011 contract price will increase by [REDACTED]
20 [REDACTED], if not more, over the 2010 price. The Company has prudently
21 minimized future costs by purchasing and stockpiling the lower priced coal in
22 2010 and reducing the amount of Sufco coal purchased in 2011.

1 **Q. Is this consistent with the Company's inventory policy?**

2 A. Yes. The Company's inventory policy contemplates increasing inventory levels if
3 there are opportunities to procure coal at below-market prices. This prudent
4 management benefits customers, the slight increase in coal inventory carrying
5 costs is more the offset by the lower purchase price of the coal.

6 **Q. Are any of Mr. Leckie's proposed adjustments to the Utah stockpiles**
7 **appropriate?**

8 A. No. Clearly, the transfer of Deer Creek coal from Huntington to the Rock Garden
9 is causative of their large but opposite inventory swings. Increasing stockpiles at
10 both Hunter and the Prep Plant will benefit customers: the savings in fuel costs
11 will more than offset the increased carrying charges. As shown in Exhibit No. 64,
12 Mr. Leckie's proposed adjustment of \$15,970,759 (system) decreases to
13 \$7,782,604 (system) after the erroneous Utah stockpile adjustments have been
14 removed.

15 **Q. Are there other additional problems with Mr. Leckies' analysis?**

16 A. Yes, the Company disagrees with Mr. Leckie's contention that the stockpile
17 increases at Bridger, Naughton and Hayden are not just and reasonable. The
18 stockpile levels at these plants were considerably below Company inventory
19 targets as of December 2009. The test period forecast reflects these stockpiles
20 reaching Company targets by the end of the test period. In fact, as of September
21 2010, actual inventory levels at the Bridger and Naughton plants were slightly
22 above year-end test period balances.

REDACTED

Crane, Di-Reb - 4
Rocky Mountain Power

1 **Q. Please describe the available coal supplies in Southwest Wyoming.**

2 A. There are only three mines currently in operation in Southwest Wyoming: Black
3 Butte, Kemmerer and Bridger Coal. Total annual production from these three
4 mines is estimated at 14.5 million tons, the Jim Bridger and Naughton plants
5 consume almost 80 percent of this production. The lack of a rail unloading
6 facility at the Naughton plant and the absence of other proximate supply
7 alternatives would severely hamper the ability of Naughton and Bridger plants to
8 respond to production shortfalls.

9 **Q. Please explain the Company's inventory target for the Naughton plant.**

10 A. The Company has established a 45 - 55 day inventory target for the Naughton
11 plant. A cessation in production at the Kemmerer Mine would require the
12 Company to divert coal supplies from either the Bridger Mine or Black Butte
13 Mine to the Naughton plant. Such deliveries would be contingent upon the
14 Company's ability to secure sufficient trucking capacity to support the 125 mile
15 haul. Based on prior experience, the Company believes it could take upwards of
16 two months to mobilize a trucking operation that could sustain the plant.

17 **Q. Does the Naughton plant's test period ending balance conform to the**
18 **Company's inventory targets?**

19 A. Yes, the test year ending inventory balance of 350,267 tons is equivalent to
20 approximately 47 days of inventory which is slightly less than the midpoint of the
21 established inventory target. Further, as of September 2010, there was 359,046
22 tons of coal stockpiled at the Naughton plant.

REDACTED

Crane, Di-Reb - 5
Rocky Mountain Power

1 **Q. Please explain the Company's inventory target for the Bridger plant.**

2 A. The Company has established a 50 - 55 day inventory target for the Jim Bridger
3 plant. The supply risk associated with underground mining is dramatically
4 different than a typical surface mine. Quality and mining conditions can vary
5 creating both supply and blending challenges.

6 **Q. What steps has the Company pursued to increase the supply security at the**
7 **Bridger Plant?**

8 A. In early 2009, the Bridger plant received a permit from the Wyoming Department
9 of Air Quality allowing the increase of its long-term (dead) storage from 500,000
10 tons to 1 million tons. When combined with the short-term storage, Jim Bridger
11 plant's inventory capacity will eventually expand to 1.3 million tons. Per permit,
12 this increase will be accomplished over a three-year period: 2009 through 2011.
13 The permit also limited the plant to increasing its long-term pile by no more than
14 200,000 tons per year.

15 **Q. How much coal is now stored in the Bridger Plant's long-term storage pile?**

16 A. At the end of September 2010, PacifiCorp's share of the long-term pile was
17 approximately 567,000 tons. PacifiCorp's share of the Bridger plant stockpile,
18 long-term and short-term, as of September 2010 was slightly above 800,000 tons
19 or 51 days.

20 **Q. Do customers benefit from the increase in the long-term storage pile from**
21 **500,000 tons to 1 million tons?**

22 A. Yes. The Bridger Plant is the Company's largest generating source. Almost 50
23 percent of the plants' requirements are now supplied by the Bridger underground

REDACTED

Crane, Di-Reb - 6
Rocky Mountain Power

1 mine. The increased inventory level minimizes the supply risk associated with
2 underground mining.

3 **Q. Has the Company engaged a third party consultant to review Bridger and**
4 **Naughton stockpile levels?**

5 A. Yes, in early 2010, the Company retained the engineering firm of Pincock Allen
6 & Holt (PAH) to analyze inventory levels for the Company's Wyoming coal fired
7 power plants. The Company's inventory targets are consistent with PAH's
8 recommendations.

9 **Q. Please explain the increase at the Hayden Plant?**

10 A. The majority of the coal is supplied by Peabody's Twentymile Mine, an
11 underground mining operation. Until the rail unloading facility commences
12 operation in 2012, the Company has targeted approximately 60 day inventory
13 target.

14 **Q. Are there any plants whose inventory levels were above Company targets as**
15 **of December 2009?**

16 A. Yes, inventory levels at the Cholla, Craig and Dave Johnston plants were above
17 target. The test period reflects the inventory levels at these plants reduced to
18 Company target by the end of the test period.

19 **Q. How does Mr. Leckie treat these plants in his analysis?**

20 A. Mr. Leckie readily accepts the Company's projected inventory reductions at these
21 plants while ignoring those plants whose inventory levels were increased to align
22 with prudent inventory target levels.

1 **Q. Does the Company expect to reduce inventory levels?**

2 A. There are no plans to reduce plant inventory levels below test period ending
3 balances. The Company will continue to seek opportunities to efficiently manage
4 fuel cost and quality through effective management of its inventory. Further, the
5 Company may need to revise its inventory targets in Utah to even higher levels as
6 longwall mining operations continue to deplete and the Company faces uncertain
7 labor negotiations with the Deer Creek represented workforce.

8 **Q. Can you please identify the primary driver of the Company's increase in test**
9 **period fuel stock?**

10 A. Yes. Of the \$24.6 million system increase in fuel stock, \$24.9 million is driven
11 by price increases in the cost per ton coal, with \$0.3 million reduction due to
12 volume related costs as reflected in Exhibit No. 64.

13 **Q. Did Mr. Leckie review the average price per ton per stockpile?**

14 A. Yes, Mr. Leckie found the average cost per ton to be reasonable for valuing the
15 total value of stockpile.

16 **Q. Please summarize the Company's position regarding the IPUC Staff's**
17 **proposed fuel stock disallowance.**

18 A. The Company believes the Commission should reject the IPUC Staff's proposed
19 \$15,970,759 disallowance. Mr. Leckie adjusted inventory levels in Utah without
20 considering the interrelationship between stockpiles and the economic benefits of
21 the higher stockpile levels in Utah. Further, Mr. Leckie's analysis ignores the
22 supply risks associated with maintaining adequate inventory levels, particularly in
23 Wyoming.

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Crane, Di-Reb - 8
Rocky Mountain Power

1 **Jim Bridger Fuel Deration**

2 **Q. Please explain PIIC's, proposal related to the fuel at the Bridger Plant.**

3 A. PIIC argues that the quality of fuel at the Bridger Plant has resulted in an
4 unnecessarily high number of derations at the plant. PIIC argues that additional
5 costs resulting from fuel quality problems at the Bridger Plant be disallowed,
6 resulting in \$800,037 (system) decrease in net power costs. PIIC also proposes to
7 remove \$1,660,000 (system) related to labor and benefits costs at Bridger Coal
8 from the test period expenses.

9 **Q. Do you agree that the fuel quality at the Bridger plant resulted in additional**
10 **derations relative to other coal plants?**

11 A. Yes. All coal plants are affected by changes in coal quality and their ability to
12 blend coals. In coal mining, quality can vary dramatically from seam to seam or
13 within a seam. Both Bridger Coal Company and the Jim Bridger Plant have
14 established coal quality targets for heat value, ash, sulfur, sodium, etc. Through
15 vigorous blending, both the Bridger mine and the Bridger plant minimize quality
16 variations that undermine optimal plant performance.

17 **Q. Are there times when Bridger Coal deliveries have not met established**
18 **targets?**

19 A. Yes. Although the Bridger mine does attempt to deliver a consistent product, at
20 times it is limited by the size and quality of the mine stockpiles and physical
21 logistics. Bridger mine's surface operation historically delivered a consistent coal
22 blend through mining of coal in multiple exposed seams. The development of the
23 underground mine and the scaling back of the surface operation has resulted in

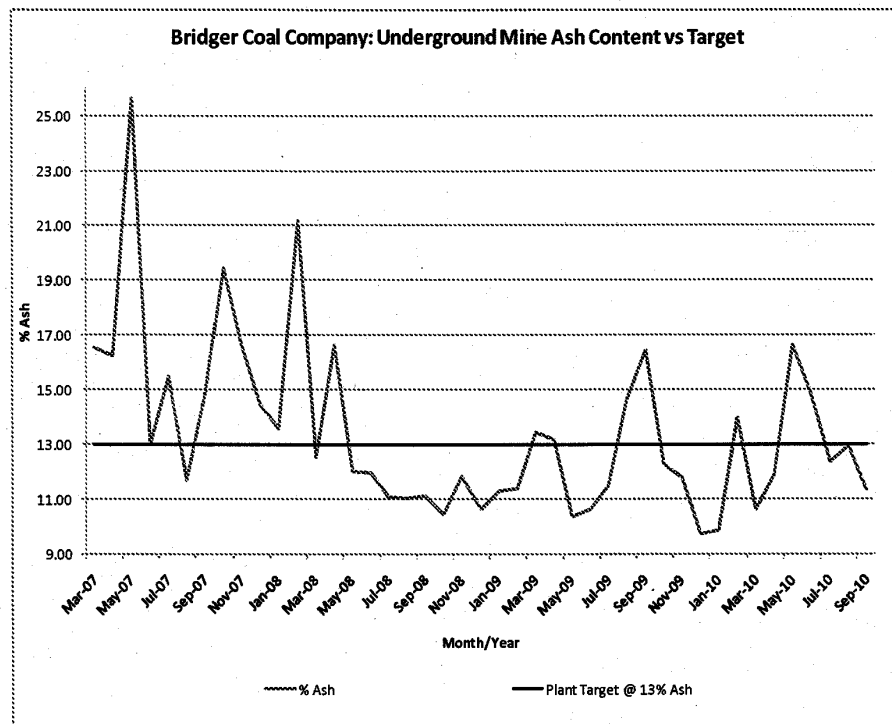
REDACTED

Crane, Di-Reb - 9
Rocky Mountain Power

1 increased blending requirements, greater unpredictability in coal deliveries and
2 the potential for extended periods of high ash coal production.
3 For instance, if the longwall system is in an area in which the coal seam thickness
4 is less than the minimum cutting height of the longwall shearer, coal quality will
5 be negatively impacted. Similarly, if the coal seam is diluted with in-seam
6 partings, coal quality will be negatively impacted.

7 **Q. How has Bridger Coal quality changed with underground mining?**

8 **A.** Bridger Coal Company's ash content is currently the critical quality characteristic.
9 As reflected in the chart below, Bridger Coal Company and the Bridger Plant
10 have established 13 percent as the maximum ash content for optimal plant
11 performance. Prior to underground mining, the mine consistently delivered the
12 Jim Bridger plant coal with a maximum of 13 percent ash. With the advent of
13 underground mining, however, the calculated ash content has at times exceeded
14 13 percent ash.



- 1 **Q. Does the Company routinely blend for ash content at its other locations?**
- 2 **A. All of the coal produced in Utah is currently from underground mining. All of**
- 3 these mines, at times, produce coals that do not meet contract specifications. Coal
- 4 stockpiling and blending facilities at the Hunter and Huntington plants enable the
- 5 Company to mix these coals as necessary to provide the power plants with a
- 6 consistent coal quality. These facilities allow the Company to efficiently and
- 7 economically segregate, stockpile, and reclaim underground coal based on a
- 8 particular coal quality. Without a similar facility at the Bridger Plant, both the
- 9 Bridger mine and the Bridger plant are potentially limited at times in their ability
- 10 to blend Bridger underground coal during periods of high ash and low heat
- 11 content.

1 **Q. Is Bridger Coal evaluating options to improve its blending capabilities?**

2 A. Yes. The Bridger mine currently has stacking tubes adjacent to the underground
3 portal that partially alleviate the quality fluctuations. The mine modified the
4 stockpile footprint of one of its truck dump stations to further segregate coal
5 quality produced by the underground mine. The mine is evaluating enlarging the
6 footprint of this truck dump station to create an even larger inventory surface area
7 to accommodate the expected underground coal quality variability.

8 **Q. Do you agree with PIIC that costs associated with the additional derations**
9 **should be removed from NPC?**

10 A. No. It is inappropriate to remove costs associated with “low-quality” coal from
11 the underground mine, but accept the lower coal costs that result from the
12 favorable economics associated with underground mining. In addition, PIIC
13 incorrectly assumes that the total costs at the Bridger plant would not change from
14 what the Company has included in its filing even though the generation at the
15 plant has increased due to removal of the outages due to “low-quality” coal.

16 **Q. Are there coal quality advantages with the Bridger underground?**

17 A. Yes, the lower sodium content allowed the Bridger plant to minimize potential
18 slagging issues from March 2007 through February 2009 when the Black Butte
19 mine delivered high sodium coal. Due to limited production, Black Butte coal
20 deliveries average in excess of 4.5 percent sodium. The sodium content target is
21 less than 3 percent. Without Bridger’s lower sodium coal, the Bridger plant
22 would have sustained deratings due to boiler slagging.

REDACTED

Crane, Di-Reb - 12
Rocky Mountain Power

1 **Q. What impact would increasing the ratio of surface coal to underground coal**
2 **have on Bridger Coal deliveries?**

3 A. Increasing surface production at the expense of the underground production
4 would likely result in lower ash coal content but higher fuel costs.

5 **Q. Why would Bridger plant fuel costs increase?**

6 A. Increasing the ratio of surface production would likely require additional coal
7 production as the average heat content of the underground operation is typically
8 200 to 300 British thermal units per pound higher than the surface operation.
9 Additionally, the estimated incremental cost of the surface operation is greater
10 than the estimated decremental cost of the underground operation.

11 **Q. Please explain the nature of the \$1,660,000 (system) PIIC proposes removing**
12 **from test period net power costs as they relate to Bridger Coal?**

13 A. Almost \$1,616,000, or 97 percent, of this disallowance is associated with
14 management and union incentives at Bridger Coal Company. Each union
15 employee must meet specific safety goals to be eligible for the incentive, safety
16 incentives are \$698,000 of PIIC's adjustment. The remaining amount, \$918,000,
17 is paid to management employees based on each individual's performance.
18 Management incentives are an important part of the compensation structure.
19 Offering competitive total compensation, including wages and benefits, is critical
20 to Bridger Coal's efforts to attract and retain employees. Bridger mine
21 management employees are eligible for the same annual incentive program as
22 Rocky Mountain Power employees. Mr. Wilson discusses the Company's
23 incentive program in his rebuttal testimony.

REDACTED

Crane, Di-Reb - 13
Rocky Mountain Power

1 The remainder of this adjustment is primarily associated with meal expenses. The
2 majority of the meal expenses are incurred during mine safety training events for
3 surface and underground workforce as well as meal expenses associated with
4 business travel.

5 **Q. Do you agree with PIIC that these labor and benefit costs should be removed**
6 **from NPC?**

7 A. No. PIIC's proposed adjustment is arbitrary and is unrelated to coal quality issues
8 at the Bridger plant. PIIC's disallowance of costs related to mine safety is
9 completely incompatible with the Company's mission to provide a safe working
10 environment. The Company has spent considerable time identifying quality
11 parameters that result in optimized plant performance for its thermal fleet.
12 Bridger mine and Bridger plant personnel focus on coal deliveries and coal
13 quality. Since the majority of the coal blending occurs at the Bridger mine,
14 Bridger mine deliveries are often adjusted daily. Both the increase in Bridger
15 plant's long-term storage capacity and the Bridger mine's ongoing evaluation of
16 increasing surface storage capacity are indicative of the Company's focus on
17 pursuing economic options that maximize performance.

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

19 A. Yes

BEFORE THE OREGON PUBLIC UTILITY COMMISSION

UE 264

In the Matter of)
)
PACIFICORP)
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2014 Transmission Adjustment Mechanism)
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EXHIBIT ICNU/205

**REDACTED REBUTTAL TESTIMONY OF CINDY A. CRANE IN
DOCKET NO. 20000-384-ER-10**

August 15, 2013

Docket No. 20000-384-ER-10
Witness: Cindy A. Crane

BEFORE THE WYOMING PUBLIC SERVICE
COMMISSION

ROCKY MOUNTAIN POWER

REDACTED
Rebuttal Testimony of Cindy A. Crane

May 2011

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

3 A. Yes.

4 **Q. What is the purpose of your rebuttal testimony?**

5 A. The purpose of my rebuttal testimony is to:

- 6 • Rebut the testimony of Wyoming Office of Consumer Advocate (OCA)
7 witness Ms. Denise K. Parrish regarding OCA's proposed disallowance of
8 the Company's fuel stock;
- 9 • Rebut the testimony of Wyoming Industrial Energy Consumers (WIEC)
10 witness Mr. Randall J. Falkenberg regarding fuel quality problems at the
11 Bridger plant; and,
- 12 • Conceptually accept WIEC witness Mr. Mark T. Widmer's adjustment
13 regarding removal of Bridger Coal Company fines and citations, but
14 provide the correct calculation of the amount as a result of joint ownership
15 that Mr. Widmer failed to include in his analysis.

16 **Fuel Stock Adjustment**

17 **Q. Please summarize the adjustment OCA witness Ms. Parrish recommends to**
18 **fuel stock.**

19 A. Ms. Parrish proposes to limit coal inventory levels by computing the 2010
20 average tonnage balance based on the average of the beginning and end-of-year
21 balances. Ms. Parrish then applies the 2010 weighted average price per ton of coal
22 in inventory to the beginning-ending average tonnage balance on a plant-by-plant
23 basis. Ms. Parrish derived a \$27 million dollar adjustment by comparing the sum

1 of the individual plant balances, \$179 million, to the Company's filing of \$206
2 million.

3 **Q. Do you agree with OCA's adjustment?**

4 A. No, the Company disagrees with the OCA's adjustment as well as Ms. Parrish's
5 characterization of the Company's inventory policy. Ms. Parrish, on page 36 of
6 her testimony, states as follows:

7 "I do not take issue with the Company's motivation regarding the
8 coal inventory levels. However, the actions taken to assure fuel
9 supply during this relatively short term period of uncertainty do not
10 necessarily match the way that rates should be established for future
11 periods. So, the OCA adjustment seeks to calculate a coal inventory
12 balance for rates that is more reflective of normal times and
13 operations."

14 The Company maintains that the fuel stock levels incorporated in the test period
15 are reflective of normal times and operations.

16 **Q. Have you compared the Company's fuel stock levels with OCA's analysis?**

17 A. Yes. Confidential Exhibit RMP____(CAC-1R) compares the Company's test
18 period fuel stock balances to OCA's. As reflected in the exhibit, the Company's
19 test period results represent the average of end-of-month December 2010 and
20 December 2011 fuel stock balances, tons and dollars, for each Company coal
21 storage site. In OCA's analysis, Ms. Parrish averaged end-of-month tonnage
22 levels for December 2009 and December 2010 and then applied an average unit
23 cost based on historical coal prices to derive fuel stock dollars.

24 **Q. How did the OCA derive an average unit cost?**

25 A. Ms. Parrish utilized the weighted average cost of coal in inventory for calendar
26 year 2010. The OCA's utilization of 2010 average coal prices, however, is

1 inconsistent with Ms. Parrish's review of coal costs with respect to the net power
2 costs presented by Company witness Mr. Gregory N. Duvall. On page 44 of Ms.
3 Parrish's testimony, she states:

4 "Based on the national trend data I had seen relative to coal costs, a
5 review of the coal contracts described in Ms. Crane's testimony,
6 and the specific explanations regarding the coal increases provided
7 by Rocky Mountain Power, I was satisfied that the increases in
8 coal prices did not warrant any cost disallowances. I offer no
9 adjustment to the net power costs relative to the increasing coal
10 prices."

11 In this case Ms. Parrish has accepted use of 2011 coal prices for net power costs,
12 but argues against using 2011 coal prices for valuing the coal stock.

13 **Q. How do test period tonnage levels compare with OCA's analysis?**

14 As reflected on Confidential Exhibit RMP____(CAC-1R), line 14, the overall
15 difference between the Company's test period results and OCA's analysis is
16 relatively minimal, 116,325 tons, less than a 2 percent difference. There are,
17 however, significant differences like the Bridger plant. As reflected in
18 Confidential Exhibit RMP____(CAC-1R), line 1, the Company's test period
19 includes an average stockpile level of 748,957 tons; OCA adapted an average
20 stockpile level of 671,703 tons, a difference of 77,255 tons.

21 **Q. What is the inventory target for the Bridger plant?**

22 A. The Company established an inventory range of 720,000 tons to 870,000 tons for
23 its share of the Bridger plant, which equates to a 45 - 55 day inventory target.

24 **Q. Has the inventory target for the Bridger plant changed with underground
25 mining at Bridger Coal Company?**

26 A. Yes. Bridger plant's stockpile is segregated into two storage areas: a ready (live)

1 pile and a long-term (dead) pile. The ready pile fluctuates monthly due to
2 differences between coal deliveries and coal consumption; the long-term (dead)
3 storage area normally remains relatively static. In recognizing the increased
4 supply risk associated with underground mining, the Company requested and
5 received a permit from the Wyoming Department of Air Quality in 2009,
6 allowing the increase of the Bridger plant long-term (dead) storage from 500,000
7 tons to 1 million tons. When combined with the ready pile, Bridger plant's
8 inventory capacity has expanded to 1.3 million tons.

9 **Q. How much coal is now stored at the Bridger plant?**

10 A. As of March 2011, PacifiCorp's share of the Bridget plant stockpile was 767,667
11 tons, 18,710 tons or less than 2.5 percent above the Company's average test
12 period projection of 748,957.

13 **Q. Does OCA's analysis reflect the increase in the Bridger plant long-term pile?**

14 A. No. The increase in the long-term pile occurred over multiple years. Since the
15 OCA utilized historical tonnage levels, December 2009 and 2010, OCA's analysis
16 does not capture the full increase associated with the permit and thereby
17 understates the Company's costs.

18 **Q. Does the Company anticipate reducing plant inventories from current levels?**

19 A. No. While plant inventory levels will fluctuate from month to month, the
20 Company does not anticipate any reduction from current target ranges. As Ms.
21 Parrish acknowledged in her testimony, there have been a number of coal mine
22 related issues such as potential coal strikes and contract negotiations that have
23 caused uncertainty. The Company does not expect these uncertainties to diminish

1 over the next few years. In addition to the ever depleting coal reserve base in Utah
2 and Colorado, the Company faces uncertain labor negotiations with the Deer
3 Creek mine's represented workforce, which is a significant source of the
4 Company's fuel supply for the Utah plants.

5 **Q. Do you agree with the average cost per ton used by OCA in determining**
6 **stockpile balances for each inventory site?**

7 A. No. As reflected in Confidential Exhibit RMP____(CAC-1R), column R, of the
8 overall \$27 million difference in coal inventory dollars, almost \$24 million of the
9 difference is due to OCA's use of historical 2010 coal costs. As I discussed in my
10 direct testimony, the price related increase in test period coal costs is largely due
11 to the timing of long-term coal contract reopeners, new multi-year contracts and
12 increases under fixed price contracts. OCA's reliance on 2010 inventory costs
13 ignores the fact that, despite the Company's best efforts to mitigate price
14 increases, 2011 coal costs are increasing due to the factors cited above, and the
15 OCA's recommendation severely understates the Company's inventory costs
16 during the test period.

17 **Q. How are test period inventory costs determined by the Company?**

18 A. Inventory levels are tracked monthly and are determined by adding each month's
19 forecasted coal deliveries to the prior month's inventory balance and subtracting
20 that month's forecasted consumption at the weighted average coal price in the
21 pile.¹ The Company's approach incorporates new contract pricing and captive

¹ The Company provided the data utilized to calculate test period fuel stock balances in response to WIEC 23.7

1 mine costs on a monthly basis during the 2011 test period. OCA's analysis fails to
2 incorporate 2011 pricing altogether.

3 **Q. Please provide an example of how OCA's methodology significantly**
4 **understates inventory costs.**

5 The largest price variance, approximately \$11.2 million, as reflected in
6 Confidential Exhibit RMP____(CAC-1R) (column R, line 7), is associated with
7 the Hunter plant. OCA applied a 2010 inventory cost of \$28.59 per ton to its
8 Hunter plant tonnage balance compared to PacifiCorp's inventory cost of \$34.36
9 per ton. In contrast to OCA's calculation, the Company's average inventory cost
10 for 2011 for the Hunter plant reflects both the impact of the approximate [REDACTED] per
11 ton increase in the Sufco price as of January 1, 2011, and the cost of the new West
12 Ridge coal supply agreement with UtahAmerican Energy also effective January 1,
13 2011. Similarly, OCA's analysis disregards the increase in Huntington plant and
14 prep plant costs associated with the increased Sufco price, the full impact of the
15 July 1, contract reopener at Naughton, the increase in Bridger plant costs due to
16 higher Black Butte costs, and the increase in Dave Johnston plant costs due to
17 fixed price increases under multiple coal supply agreements. The result of the
18 OCA's analysis is a significant understatement of inventory costs by
19 approximately \$24 million, as shown in Confidential Exhibit RMP____(CAC-1R),
20 column R.

21 **Q. Did the OCA propose any adjustment to test period coal costs for any of**
22 **these contracts?**

23 A. No, in fact Ms. Parrish agreed that PacifiCorp is taking whatever actions it can to

1 keep the coal prices at the most reasonable level possible.

2 **Q. Please summarize the Company's position regarding OCA's proposed fuel**
3 **stock disallowance.**

4 A. The Company believes the Commission should reject OCA's disallowance
5 because the OCA incorrectly computed inventory costs by using 2010 average
6 inventory costs which are outdated and do not reflect the appropriate known and
7 measurable adjustments to costs. The OCA did not use the projected test period
8 costs which more accurately reflect the coal costs that the Company will pay
9 during the period the rates from this case will be in effect.

10 **Bridger Outage Rate**

11 **Q. Please explain WIEC's proposal related to Bridger plant outage rates.**

12 A. WIEC's proposal to adjust Bridger plant outage rate includes several aspects. As
13 Mr. Falkenberg states on page 7 of his testimony:

14 "Adjustment 36. This adjustment addresses contractor's failure to
15 complete outage work on time, the low quality of coal and excessive
16 outages due to employee errors at the Bridger plant."

17 The Company disagrees with WIEC's adjustment. Mr. Falkenberg's issues of
18 contractor's failure to complete outage work on time and excessive outages due to
19 employee errors at the Bridger plant have been addressed in the testimony of Mr.
20 Duvall.

21 **Q. How much of WIEC's Adjustment 36, Bridger Outage Rate, relates to low**
22 **quality coal?**

23 A. Mr. Falkenberg's Adjustment 36 Bridger Outage Rate of \$465,664 (total
24 Company basis) includes \$342,173 for low coal quality, \$55,125 on a Wyoming
25 allocated basis.

1 **Q. Please explain WIEC’s proposal related to low quality of coal.**

2 A. WIEC argues that the quality of fuel at the Bridger plant has resulted in an
3 unnecessarily high number of de-ratings at the plant. WIEC argues that additional
4 net power costs resulting from fuel quality problems at the Bridger plant should
5 be disallowed.

6 **Q. Do the Bridger Coal Company and the Bridger power plant have established**
7 **coal quality targets?**

8 A. Yes. Both Bridger Coal Company and the Bridger plant have established coal
9 quality targets for heat value, ash, sulfur, sodium, etc. Through vigorous blending,
10 both the Bridger mine and the Bridger plant minimize quality variations that
11 undermine optimal plant performance. Although Bridger Coal does attempt to
12 deliver a consistent product, at times it is limited by the size and quality of the
13 mine stockpiles and physical logistics. Bridger mine’s surface operation
14 historically delivered a consistent coal blend through mining of coal in multiple
15 exposed seams. The development of the underground mine and the scaling back
16 of the surface operation has resulted in increased blending requirements, greater
17 unpredictability in coal deliveries and the potential for extended periods of high
18 ash coal production.

19 **Q. Has Bridger Coal quality changed with underground mining?**

20 A. Yes, the majority of the plant’s fuel quality de-ratings have been attributed to high
21 ash content associated with the Bridger underground operation. Bridger Coal
22 Company and the Bridger plant have established 13 percent as a maximum for ash
23 content necessary for optimal plant performance. Prior to underground mining,

1 the mine consistently delivered the Bridger plant coal with a maximum of 13
2 percent ash. With the advent of underground mining, however, the calculated ash
3 content has at times exceeded the 13 percent ash target.

4 **Q. Does the Company routinely blend for ash content at its other locations**
5 **where coal is produced from underground mining?**

6 A. Yes. All of the coal produced in Utah is currently from underground mining. All
7 of these mines, at times, produce coal that does not meet contract specifications.
8 Coal stockpiling and blending facilities at the Hunter and Huntington plants
9 enable the Company to mix these coals as necessary to provide the power plants
10 with a consistent coal quality. These facilities allow the Company to efficiently
11 and economically segregate, stockpile, and reclaim underground coal based on a
12 particular coal quality. There is not a similar coal blending facility at the Bridger
13 plant.

14 **Q. Would coal costs be impacted by decreasing production from the Bridger**
15 **underground operation and increasing production from the surface**
16 **operation to reduce ash content?**

17 A. Yes. Increasing surface production at the expense of the underground production
18 would likely result in lower ash coal content, but higher fuel costs since the
19 incremental cost of the surface operation is greater than the decremental cost of
20 the underground operation.

21 **Q. Does WIEC adjust average Bridger plant coal costs for the increased costs of**
22 **the surface operation?**

23 A. No, WIEC incorrectly assumes that average costs at the Bridger plant would

1 remain the same regardless of the Bridger underground production. WIEC
2 inappropriately imputes an adjustment to net power cost, but ignores the reduced
3 coal costs that result from the favorable economics associated with underground
4 mining. Or to frame it differently, they fail to include a corresponding increase to
5 their adjustment for increased costs of surface mine operations.

6 **Q. Please identify the efforts the Company has made to reduce coal quality**
7 **restrictions?**

8 A. The Company has spent considerable time identifying quality parameters that
9 result in optimized plant performance for its thermal fleet. Bridger mine and
10 Bridger plant personnel routinely discuss coal deliveries and quality and Bridger
11 mine deliveries are often adjusted daily. The increase in Bridger plant's long-term
12 storage capacity and the Bridger mine's ongoing evaluation of increasing surface
13 storage capacity are indicative of the Company's focus on pursuing economic
14 options that maximize performance.

15 **Q. Please summarize the Company's position regarding WIEC's adjustment to**
16 **reduce net power costs by \$342,173 on a system basis or \$55,125 on a**
17 **Wyoming allocated basis due to fuel quality restrictions at the Bridger plant.**

18 A. The Company requests that the Commission reject WIEC's adjustment. WIEC
19 inappropriately imputes an adjustment to net power cost and ignores the increase
20 in coal costs that would result from increasing surface coal production and
21 reducing underground coal production.

1 **Bridger Coal Company Fines and Citations**

2 **Q. Please explain WIEC's proposal adjustment to Bridger Plant fuel expense.**

3 A. WIEC proposes that expenses relating to Bridger Coal Company fines and
4 citations be removed from fuel expense.

5 **Q. Does the Company agree with WIEC's position?**

6 A. Yes. The Company agrees that Bridger Coal Company fines and citations should
7 be removed from test period expenses.

8 **Q. Does the Company agree with WIEC's adjustment of approximately \$0.46
9 million on a total Company basis?**

10 A. No. The fines and citation amount used by WIEC in their adjustment represent all
11 of Bridger Coal Company and not the Company's two-thirds interest. When the
12 two-thirds ratio is applied to the adjustment, it results in a reduction of WIEC's
13 adjustment from \$0.46 million to \$0.31 million total Company basis or from
14 \$74,091 to \$49,394 on a Wyoming allocated basis.

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

16 A. Yes.

BEFORE THE OREGON PUBLIC UTILITY COMMISSION

UE 264

In the Matter of)
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PACIFICORP)
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2014 Transmission Adjustment Mechanism)
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EXHIBIT ICNU/206

**REDACTED REBUTTAL TESTIMONY OF CINDY A. CRANE IN
DOCKET NO. 12-035-92**

August 15, 2013

Rocky Mountain Power
Docket No. 12-035-92
Witness: Cindy A. Crane

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

CONFIDENTIAL
Rebuttal Testimony of Cindy A. Crane

February 2013

1 **Q. Please state your name, business address and present position with**
2 **PacifiCorp (“Company”).**

3 A. My name is Cindy A. Crane. My business address is 1407 West North Temple,
4 Suite 310, Salt Lake City, Utah 84116. My position is Vice President, Interwest
5 Mining Company and Fuel Resources for PacifiCorp Energy.

6 **Q. Briefly describe your business experience.**

7 A. I joined PacifiCorp in 1990 and have held positions of increasing responsibility,
8 including Director of Business Systems Integration, Managing Director of
9 Business Planning and Strategic Analysis and Vice President of Strategy and
10 Division Services. My responsibilities have included the management and
11 development of PacifiCorp’s ten-year business plan, assessing individual business
12 strategies for PacifiCorp Energy, managing the construction of the Company’s
13 Wyoming wind plants and assessing the feasibility of a nuclear power plant. In
14 March 2009, I was appointed to my present position as Vice President of
15 Interwest Mining Company and Fuel Resources. In my position I am responsible
16 for the operations of Energy West Mining Company and Bridger Coal Company
17 as well as overall coal supply acquisition and fuel management for PacifiCorp’s
18 coal plants.

19 **Q. Have you previously filed testimony in this proceeding?**

20 A. No. I did not file direct testimony in this proceeding.

21 **Q. What is the purpose of your rebuttal testimony?**

22 A. The purpose of my rebuttal testimony is to:

- 23
 - Present the Company’s update to coal prices utilized in rebuttal;

- 24 • Discuss the Company's fuel cost update to the base case, four-unit
25 operation as well as the two -unit operation;
- 26 • Respond to the testimony of Division of Public Utilities witness Mr. Croft
27 requesting the Company provide a sinking fund calculation for the
28 underground and surface mine for the base case that extends through the
29 life of the mine;
- 30 • Respond to Mr. Croft's recommendation that post-2030 mine reclamation
31 trust contribution costs be a component of the Company's analysis;
- 32 • Respond to the Office of Consumer Services witness Mr. Falkenberg's
33 claim that the Company has created a mismatch between recovery of the
34 final reclamation costs in the selective catalytic reduction ("SCR") and gas
35 firing cases;
- 36 • Address the testimony of Division of Public Utilities witness Mr. Evans
37 regarding the demand for Bridger Coal and describe the overall supply and
38 demand for coal in Southwest Wyoming as well as the current fuel supply
39 arrangements and transportation options for the Company plants;
- 40 • Rebut the contention of Sierra Club witness Dr. Fischer and DPU's
41 witness Mr. Evans that the Company could feasibly sell coal to other
42 facilities, sell coal to other Company coal plants and explore other markets
43 and avoid immediate reclamation of the mine.
- 44 • Rebut Dr. Fischer's contention that if Black Butte coal can be delivered
45 economically, then the Bridger mine could be delivered to other
46 PacifiCorp locations at a competitive price; and

- Rebut the Western Resource Advocates witness Ms. Kelly's claim that it appears the Bridger Coal surface mine would remain competitive and that the timing and purpose of the reclamation costs for beginning reclamation in 2012, prior to beginning installation of the SCR retrofit, does not seem reasonable.

Company Updates to Coal Costs

Q. Has the Company updated coal costs as part of the Company's rebuttal?

A. Yes. The Company has updated its long-term price projections for the coal fleet. The coal update reflects the Company's most recent coal price projections of mine operating costs for the captive mines as well as forward market and transportation prices for purchased coal.

Q. Does the Company's rebuttal testimony include updated coal price projections for both the Jim Bridger plant four-unit and two-unit operations?

A. Yes. Bridger Coal's mine operating costs and mine capital, as well as third party coal costs, have been updated to reflect both plant operating scenarios.

Q. Please explain the nature of the updates and the change in assumptions associated with the Jim Bridger plant scenarios.

A. Subsequent to the original filing, Bridger Coal Company completed extensive life of mine planning and cost analysis, and as a result, the Company has more current and detailed mine plans to rely on as part of this analysis. Consistent with the Company's direct testimony, the two-unit coal operations scenario still reflects the closure of the Bridger Coal surface mine in connection with conversion to gas

of Jim Bridger Units 3 and 4. The base case continues to reflect a two dragline operation, but due to the new mine plan, the draglines are no longer both deployed in the southern part of the surface mine. Instead, one of the draglines will be uncovering coal in [REDACTED] a previously undisturbed mining area. By placing the second dragline in [REDACTED] Bridger Coal dramatically reduces the increasing overburden required to be removed in mining the deeper seams in the southern portion of the mine.

Coal Cost Update

Q. Please explain the coal cost updates to the Jim Bridger plant fuel options included in the Company's rebuttal filing.

A. As shown in Mr. Link's Confidential Exhibit RMP__(RTL-1R), coal costs in the four-unit operation increased. Measured on a price related basis, cash coal costs increased by approximately [REDACTED] on a net present value ("NPV") basis. The increase incorporates updated third party coal prices and transportation costs for Black Butte coal as well as updated cash operating costs for Bridger Coal Company.

Coal costs in the two-unit operation decreased, which is also shown in Mr. Link's Confidential Exhibit RMP__(RTL-1R). On a price related basis, Jim Bridger plant cash coal costs decreased by approximately [REDACTED] on a NPV basis and also incorporate updated third party coal prices and transportation costs for Black Butte coal and Bridger Coal cash operating costs.

Q. Have the final reclamation trust contributions and sinking fund analyses been updated for Bridger Coal Company?

A. Yes. As reflected in Mr. Link's Confidential Exhibit RMP__ (RTL-3R), the Company updated its sinking fund analysis and final reclamation trust contribution rates. The Company's share of annual contributions to the final reclamation trust in the base case increased from [REDACTED] in the original filing to [REDACTED] in the update. In the two-unit scenario, final reclamation trust contributions decreased slightly through 2017 and increased thereafter.

Coal Cost Update – Four-Unit Operation (Base Case)

Q. Can you please identify the primary drivers which resulted in the estimated [REDACTED] coal cost related increase for the base case between the original filing and rebuttal?

A. Yes. The table below lists the major cost related variances from the original filing.

<u>Source</u>	<u>NPV Millions</u>
Black Butte Coal Costs	[REDACTED]
Union Pacific Rail Costs	[REDACTED]
Bridger Coal Operating Costs	[REDACTED]
Change in Supply Mix	[REDACTED]


Approximately [REDACTED] million of the [REDACTED] million increase in Bridger Coal operating costs is associated with the increased final reclamation contribution trust levels identified above. The remainder of the increase is primarily associated with higher mine operating costs during the 2015 - 2017 period while [REDACTED] is being permitted and developed. During this period both draglines continue to operate in the southern portion of the surface mine; however, each dragline is

116 operating on a single shift per day rather than two shifts per day.

117 Q. What is causing the [REDACTED] increase for Change in Supply Mix in the
118 base case?

119 A. The change in supply mix reflects the increase in supply cost for the Jim Bridger
120 plant primarily during the development of the [REDACTED] reserves. The
121 increase principally occurs during the 2015 – 2017 timeframe and reflects the
122 additional cost associated with replacement of Bridger Coal Company with Black
123 Butte deliveries during the 2015-2017 timeframe while the [REDACTED]
124 reserves are being developed.

125 Q. Why are both Black Butte coal costs and Union Pacific rail costs projected to
126 increase in the base case?

127 A. 

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137 Coal Cost Update – Two-Unit Operation

138 **Q. Please identify the primary drivers of the approximate [REDACTED] cost**
139 **related decrease (NPV), between the original filing and rebuttal.**

140 A. There is approximately a [REDACTED] decrease in Bridger Coal cash operating
141 costs and an [REDACTED] increase in plant coal costs due to a change in supply mix
142 between Bridger Coal Company and Black Butte coal supplies. The decrease in
143 Bridger Coal Company cash operating costs reflects reduced underground mine
144 operating costs starting in 2017 partially offset by an increase associated with
145 higher final reclamation costs starting in 2019.

146 **Q. Have mine capital projections been updated?**

147 A. Yes, as provided in Mr. Link's Confidential Exhibit RMP__(RTL-2R), mine
148 capital expenditures have increased in both the base case and two-unit operation
149 scenarios. The increase reflects additional surface and underground mine reserve
150 acquisition costs as well as additional mine extension costs and longwall system
151 rebuild/replacement costs.

152 **Division of Public Utilities/Sinking Fund Calculation**

153 **Q. Please explain the purpose of Bridger Coal Company's sinking fund**
154 **calculation.**

155 A. The Bridger Coal Company owners established a final reclamation trust in 1989
156 to fund actual final reclamation work. The purpose of the sinking fund
157 calculation is to determine the appropriate contribution rate and ensure sufficient
158 funds exist in the trust to support final reclamation work once coal production
159 ceases. Contributions to the final reclamation trust are included as part of Jim

160 Bridger plant coal costs and are a component of net power costs for ratemaking
161 purposes.

162 **Q. On page 10, lines 186-189, of his direct testimony, Mr. Croft recommends**
163 **that the Company be required to provide a surface and underground**
164 **reclamation sinking fund analysis related to the four-unit operation. Has the**
165 **Company updated its sinking fund analysis for the Jim Bridger plant fueling**
166 **operations as part of its rebuttal?**

167 A. Yes. As discussed earlier, the Company has updated its sinking fund analysis for
168 each fueling operations scenario and final reclamation trust contribution rates
169 have been updated accordingly.

170 **Q. A sinking fund analysis was provided in discovery for the different**
171 **operational scenarios. Was a sinking fund analysis previously prepared for**
172 **the four-unit operation base case in the Company's original filing?**

173 A. Yes. A final reclamation plan for the base case was originally prepared in 2009
174 and utilized in development of a sinking fund analysis and final reclamation trust
175 contributions. That final reclamation plan, however, was not updated prior to the
176 original filing and therefore no longer reflected the final reclamation trust
177 contributions necessary to support future final reclamation expenses.

178 **Q. On page 11, lines 211-212, of his direct testimony, Mr. Croft recommends**
179 **that the post-2030 surface mine reclamation costs be a final component in the**
180 **Company's analysis. Has the Company incorporated the post-2030 final**
181 **reclamation contribution costs in its analysis?**

182 A. Yes. As described in the rebuttal testimony of Company witness Mr. Link, the
183 Company's rebuttal analysis now includes the impact of the different final
184 reclamation trust contributions through 2037, when coal production ceases and
185 the Jim Bridger plant is assumed to retire at the end of its book life.

186 **Office of Consumer Services/Mismatch of Final Reclamation Funds**

187 **Q. Mr. Falkenberg states on page 15, lines 410-411, of his direct testimony that**
188 **the Company has created a mismatch between the recovery of the costs**
189 **associated with the final reclamation in the SCR and gas-firing cases because**
190 **in the continued coal operation case, some of the reclamation costs are not**
191 **recovered until the period after the study horizon, while full recovery occurs**
192 **in the gas conversion case. Is this correct?**

193 A. Yes. In the Company's original filing, contributions to the final reclamation trust
194 were included through 2030 as a component of cash costs used in the System
195 Optimizer model ("SO Model"). The Company's rebuttal analysis now includes
196 reclamation costs contributions through 2037.

197 **Bridger Coal Company Surface Mine - Supply and Demand**

198 **Q. With respect to the shutdown of the Bridger surface mine, Mr. Evans, on**
199 **page 14 of his direct testimony, and Dr. Fischer, on page 24 of his direct**
200 **testimony, both contend that the Company has not seriously considered the**
201 **international market or the possibility that other Company coal plants could**
202 **utilize the excess Bridger coal. Further, Mr. Evans contends that the**
203 **Company could continue to extract small quantities of coal through surface**
204 **mining. Please comment.**

205 A. Mr. Evans and Dr. Fischer intimate that the Company has not considered other
206 options for Bridger surface coal. As the Company previously communicated in
207 its responses to data requests DPU 8.7 and OCS 15.1, there is already a significant
208 imbalance between supply and demand for coal in Southwest Wyoming. With the
209 impending gas conversion of Naughton 3, that imbalance surges. The Company
210 believes that under a two-unit coal operation at the Bridger plant at least one other
211 mine in Southwest Wyoming would be shuttered. Southwest Wyoming is a niche
212 market with limited participants. The relatively low heat content in comparison to
213 Colorado and Utah coals and the high ash content relative to Powder River Basin
214 coals confines Southwest Wyoming coal largely to the local area.

215 **Q. Mr. Evans suggests that the coal produced by the Bridger mine can be**
216 **shipped to other Company plants. Do you agree?**

217 A. No, not with the current infrastructure. Significant capital investments by Bridger
218 Coal Company would be required for the construction of a rail loadout facility
219 and a spur to the Union Pacific mainline, and attainment of any necessary permits.
220 Besides ignoring the lack of a rail loadout facility at Bridger Coal Company, Mr.
221 Evans and Dr. Fischer disregard the fact that most of the Company plants are not
222 capable of receiving coal by rail. There are only two Company operated plants
223 that can accept coal delivery by rail: Jim Bridger and Dave Johnston. Dave
224 Johnston is the lowest cost coal resource in the system and served by the
225 Burlington Northern Railway not the Union Pacific, the rail line closest to Bridger
226 Coal Company. Both the Naughton and Wyodak plants receive their coal via
227 overland conveyor. The Utah plants receive all of their coal either via conveyor

from Deer Creek or trucked from local mines; neither the Hunter plant nor the Huntington plant are located near enough to the Union Pacific mainline to make coal deliveries feasible.

Q. Besides the lack of rail infrastructure, are there other obstacles to shipping coal from Bridger Coal's surface mine?

A. Yes. Both Mr. Evans and Dr. Fischer ignore the coal quality characteristics particular to the Bridger Coal surface mine. Relative to other Southwest Wyoming mines, Bridger surface coal is a relatively low heat content, high ash coal and would be problematic for the Naughton plant resulting in increased opacity levels. Bridger surface coal's low heat content and low ash fusion temperature are incompatible with the quality specifications for the Utah plants and result in boiler slagging. The high ash content would likely cause increased opacity levels at the Dave Johnston plant.

In addition to the coal quality challenges discussed above, Mr. Evans and Dr. Fischer also ignore the Company's contractual obligations under its long-term coal supply agreements. With the exception of the Dave Johnston plant, the Company-operated plants have long-term supply commitments that extend through 2020 and failure to take the minimum contract obligations would result in liquidated damages.

Q. Would Bridger Coal shipments to Company non-operated plants face similar obstacles?

A. Yes. With the exception of Colstrip, the Company non-operated plants all have rail unloading facilities. However, the current coal supply arrangements for

Cholla extend through 2024; Hayden through 2027 and Craig through 2020 and failure to take the minimum contract obligations would result in liquidated damages. The jointly owned plants require all coal supplies to meet plant quality specifications. These quality specifications are collectively set and agreed to by the plant owners; the Company cannot arbitrarily elect to consume Bridger coal on its own account in any of the joint owned plants.

Q. Can the Bridger surface mine operate at a reduced level in the two-unit scenario?

A. No. This could not be done economically and not without increasing the production risk of Bridger Coal's underground mine and potentially the safety of its employees. Operation of the surface mine at a reduced level in a two-unit operation would necessitate a further reduction in the underground mine production. Due to the geological characteristics of the roof for the underground mine, the Company cannot shutdown the longwall machine, the main piece of mining equipment for the underground mine, for an extended period of time once longwall mining has commenced in a panel. Once a longwall panel is depleted and the longwall machine is relocated to a new panel and setup face, the Company may be able to idle the longwall machine depending on geologic conditions in the localized area and the propensity for convergence. However, idling the longwall system which produces typically 80-85% of underground mine's coal production would create significant disruptions to the efficient utilization of resources and result in higher costs.

Q. In his direct testimony on page 26, lines 4 through 11, Dr. Fischer states:

In 2011, Black Butte delivered coal to Jim Bridger at an average price of \$1.87/MMBtu and to Valmy at \$2.87/MMBtu. If the differential here of approximately \$1/MMBtu is due to transportation cost alone, evidence indicates that Bridger mine could be delivered to other PacifiCorp locations at a competitive price to their anticipated supply costs.

Has Dr. Fischer presented any evidence to support this claim?

A. No. Dr. Fischer has not provided any evidence nor is Dr. Fischer entitled to his own set of facts. Whether the \$1/MMBtu differential for the Valmy plant is related to transportation costs is entirely irrelevant to the Company's options for Bridger Coal. The actual facts cannot be misconstrued. Black Butte has a rail loadout facility; Bridger Coal does not. Valmy has a rail unloading facility; Dave Johnston is the only Company operated plant, other than Jim Bridger, with a rail unloading facility. Valmy can consume Black Butte coal without any coal quality challenges; the Company-operated plants cannot. The Company would incur contract liquidated damages associated with taking Bridger coal to its coal plants; at this time Valmy would not.

Q. On page 14 of his direct testimony, Mr. Evans suggests that the Company has not seriously considered the international market for excess Bridger coal. Please comment.

A. Mr. Evans does not specify which export terminals or international markets the Company can access. Historically, and due to its coking properties, metallurgical coal has constituted the majority of the United States exports rather than steam coal like Bridger coal. With the demise of the LAXT (Los Angeles) coal terminal in 2003 there ceased to be a domestic outlet in the western United States for coal. Almost all of the steam exports today are shipped through terminal facilities in

Houston, Louisiana, Virginia and Maryland. Transportation rates to these eastern and gulf coal terminals would be prohibitive for Bridger Coal production. Furthermore, even if there were a rail loadout facility in place at Bridger Coal mine, both the cost structure of Bridger Coal coupled with its lower heat content does not allow Bridger coal to compete with the much larger Powder River Basin mines and the higher heat content of coal from the Utah and Colorado coal regions.

Q. Are there any proposed domestic coal terminals in the western United States?

A. Yes. There are several proposed coal export terminals in Oregon and Washington. All of these projects are still in the preliminary stage of the permitting process and each project requires permits and approvals from a myriad of regulatory agencies. There is, however, significant public resistance to exporting coal in the Northwest. Both the governors of Oregon and Washington, native tribes and many cities and counties have raised concerns about the potential environmental and health impacts of these projects.

At this time, the Company can only speculate whether any of these terminals will ever be built; the Company cannot make long-term decisions regarding Bridger Coal's surface operation based on speculation of whether these export facilities will ever be constructed.

Western Resource Advocates - Bridger Coal surface mine

Q. On page 14, lines 259-266, of her direct testimony, Ms. Kelly states:

[I]t appears to me from information contained within the confidential workpapers that the mine would remain

competitive from a cost perspective. WRCA Confidential Exhibit (NLK-2) displays the comparative coal costs and coal cost forecasts from 2007 to 2021 measured in \$/ton for the Bridger surface mine, the underground mine, and the current third party provider. The exhibit demonstrates that the surface mine will remain cost competitive.

Does this exhibit demonstrate that the surface mine will remain cost competitive?

A. No. First, Ms. Kelly grossly understates Bridger surface and underground costs by failing to include any mine capital for either the Bridger surface or the Bridger underground in her analysis. Comparatively, all of Black Butte's capital expenditures would have been amortized as part of the purchase price; therefore, the Company would not incur any mine capital expenses under a purchase contract with Black Butte.

Q. What is the magnitude of the capital expenditures for the Bridger surface and underground mines that Ms. Kelly omitted?

A. Mr. Link's testimony provides the capital expenditures, on a nominal basis in Confidential Exhibit RMP (RTL-2R). Updated mine capital expenditures over the period 2013 through 2030 average \$26 million per year in the 4-unit operation scenario and \$19 million per year in the 2-unit operation scenario.

Q. Are there additional problems with Ms. Kelly's conclusion?

A. Yes, Ms. Kelly ignores the impact of coal production volumes on costs. For instance, WRCA Confidential Exhibit (NLK-2) depicts Bridger surface coal costs dramatically decreasing in 2015 and Black Butte costs significantly increasing at the same time. This sudden shift in Bridger Coal and Black Butte costs is not coincidental.

352 **Q. Please explain.**

353 A. The Company's long-term coal supply agreement with Black Butte extends
354 through 2014 with a provision for a limited amount of carryover tonnage into
355 2015. The decrease in costs for the Bridger surface mine coincide with Bridger
356 Coal's ramping up surface production. With an increase in Bridger's surface
357 production the Company's requirements for coal purchases from Black Butte
358 dramatically decrease. The shift in the Black Butte price reflects a projection of
359 the impact on Black Butte costs of reduced coal production.

360 **Q. Can you identify coal deliveries from the Bridger surface mine and Black**
361 **Butte in the original filing during this period?**

362 A. The table below reflects the Company's tonnage from the original filing.

Annual Tonnage		
	Bridger	Black
Year	Surface	Butte
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		

377 **Q. Do you have any other thoughts about Ms. Kelly's exhibit?**

378 A. Yes. Besides Ms. Kelly's failure to address mine capital, WRCA Confidential
379 Exhibit (NLK-2) is illustrative of how reduced coal production can impact
380 Bridger surface mine's costs. The years with the highest cash mine operating
381 costs, 2013 – 2014, coincide with the years with the lowest production. Long-

382 term operation of the Bridger surface mine under a Jim Bridger two-unit operation
383 would result in excessive costs of the surface mine and increased costs and risks
384 for the underground mine.

385 **Summary**

386 **Q. Please summarize your testimony.**

387 A. The updated coal costs and assumptions reflect the Company's most recent coal
388 price projections of mine operating costs and capital costs for the captive mines as
389 well as forward market and transportation prices. Cash operating costs have been
390 revised to reflect updated final reclamation expenditures. Finally, these updated
391 costs have been incorporated into the rebuttal testimony of Mr. Link.

392 **Q. Does this conclude your testimony?**

393 A. Yes, it does.