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IDAHO PUBLIC
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 Paul H. Clements**
ELECTRIC SERVICE SCHEDULES)
AND A PRICE INCREASE OF \$27.7)
MILLION, OR APPROXIMATELY)
13.7 PERCENT)

ROCKY MOUNTAIN POWER

CASE NO. PAC-E-10-07

January 2011

1 **Q. Please state your name, business address and present position with Rocky**
2 **Mountain Power (the Company), a division of PacifiCorp.**

3 A. My name is Paul H. Clements. My business address is 201 S. Main, Suite 2300,
4 Salt Lake City, Utah 84111. My present position is Originator/Power Marketer
5 for PacifiCorp Energy. PacifiCorp Energy and Rocky Mountain Power are
6 divisions of PacifiCorp (the Company).

7 **Q. Are you the same Paul H. Clements who previously filed testimony in this**
8 **proceeding?**

9 A. Yes. On September 30, 2010 I filed direct testimony in which I provided a
10 recommendation and analysis regarding the economic valuation of the
11 interruptible products offered by Monsanto to the Company to establish the
12 contract rates for Monsanto starting January 1, 2011.

13 **Purpose and Summary of Testimony**

14 **Q. What is the purpose of your testimony?**

15 A. The purpose of my testimony is to provide responses to the direct testimony of
16 Monsanto witnesses Mr. Brian C. Collins and Ms. Kathryn E. Iverson and the
17 direct testimony of staff witness Mr. Keith D. Hessing as it relates to the
18 determination of an appropriate valuation of Monsanto's interruptible products. I
19 will respond to Mr. Collins' critique of the Company's proposal and will provide
20 evidence demonstrating that Monsanto's peaker method is not appropriate for use
21 in determining the value of Monsanto's interruptible products. I will provide
22 comments on Ms. Iverson's comparison of Monsanto to two other industrial
23 customers and an explanation of why her comparison is incorrect. I will also

1 provide comments on Mr. Hessing's valuation method and will suggest certain
2 reasonable and needed modifications to the method that must be implemented
3 should the Commission elect to adopt it.

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

5 A. My testimony addresses the following points:

- 6 • The Company's proposed values for Monsanto's interruptible products are
7 just and reasonable and should be adopted to set the interruptible product
8 values in Monsanto's contract.
- 9 • The Company's proposal best represents the cost the Company will incur
10 if it were to replace the Monsanto interruptible products with other
11 resources.
- 12 • Monsanto's peaker method overvalues Monsanto's interruptible products
13 and is not appropriate for use since it does not accurately take into account
14 the vast differences between the products a combustion turbine provides
15 and the products Monsanto offers, nor does it consider the Company's
16 resource needs.
- 17 • If the Commission elects to assign incremental capacity value to
18 Monsanto's non-spinning operating reserve product¹ as proposed by Staff,
19 certain adjustments are required in order for the proposal to be reasonable.
- 20 • The Company recommends two modifications to staff's method should the
21 Commission chose to adopt it: 1) an adjustment to incorporate the cost of
22 other units besides Carrant Creek and 2) an adjustment to account for the

¹ Throughout my testimony I may refer to non-spinning operating reserves as simply "operating reserves".

1 fact that combustion turbines provide other valuable products besides non-
2 spinning operating reserves.

3 **Q. Could you please provide your summary of the parties' positions regarding**
4 **valuation of Monsanto's interruptible products?**

5 A. Yes. The primary difference between the parties' positions is the applicability of
6 capacity value to the products that Monsanto provides. The Company's proposal
7 assigns capacity value based on the implied capacity value reflected in the market
8 prices for electricity for the term of the contract offered by Monsanto.
9 Monsanto's proposal assigns capacity value based on the full all-in cost of a new
10 simple cycle combustion turbine. Staff's proposal accepts the Company's
11 proposal for economic curtailment, system integrity and operating reserves but
12 takes an additional step of assigning incremental capacity value for the operating
13 reserves product based on the full cost in rates of the Company's existing Currant
14 Creek combined cycle gas unit.

15 **Comments on Mr. Collins' Statements on the Company's Proposal**

16 **Q. Mr. Collins asserts that the Company's methods are strictly short-term and**
17 **do not properly reflect resource values. Do you agree with this assertion?**

18 A. No. A resource value is best determined by evaluating the cost one would incur
19 to replace the resource if it were no longer available for use. The Company's
20 method calculates the cost the Company would incur to replace the interruptible
21 products provided by Monsanto.

1 **Q. What evidence do you have supporting your position that the Company's**
2 **models accurately reflect the value of the resource or product Monsanto**
3 **provides?**

4 A. As explained in my direct testimony, the Company has recently executed similar
5 contracts for interruptible products with other industrial customers. These
6 customers offer products that are very similar to those offered by Monsanto.
7 Also, similar to Monsanto's contract, these customers receive firm service from
8 the Company but have specific terms and conditions in their contracts under
9 which service can be interrupted. The prices reflected in the contracts of these
10 industrial customers were supported by using the results of the same methods and
11 models the Company is proposing to use to determine the value for the Monsanto
12 interruptible products. These industrial customers were willing to enter into
13 contracts at the prices supported by the Company's models and methods. I
14 believe this validates the Company's methods and models as reasonable indicators
15 of value for interruptible products since a definition of "value" is the price at
16 which two parties are willing to enter into an agreement.

17 **Q. Mr. Collins asserts that Monsanto's interruptible products displace a**
18 **combustion turbine². Do you agree that a combustion turbine would be built**
19 **if Monsanto's interruptible contract were not available?**

20 A. No. In fact, for the test period used in the 2010 general rate case, the Company
21 would only need to replace approximately 37 percent of the operating reserve
22 product that Monsanto provides. Furthermore, the Company is currently able to
23 replace that 37 percent by cost effectively utilizing existing resources. Monsanto

² Mr. Collins Direct Testimony, page 12, lines 21-25.

1 provides 770,880 megawatt hours of operating reserves each year³. The
2 Company performed an analysis to determine the system impact if the Monsanto
3 operating reserves contract were not available. This was done by comparing the
4 base case GRID run with the Monsanto contract available to a second GRID run
5 with the Monsanto contract removed. The results of the second GRID run show
6 that only 282,127 megawatt hours of operating reserves, or 37 percent of the total
7 amount that Monsanto provides, are replaced when Monsanto's contract is
8 removed.

9 **Q. What do you conclude from the results of this GRID analysis?**

10 A. The GRID analysis demonstrates three key factors for the test period analyzed; 1)
11 the Company is able to meet its operating reserves obligation with existing
12 resources if the Monsanto contract is not available, 2) not all of Monsanto's
13 operating reserves product will need to be replaced if the contract is not available,
14 and 3) since no new resources are required to replace Monsanto's contract the
15 Company's GRID and Front Office models should be utilized to determine the
16 value of the interruptible product since those models accurately reflect the cost to
17 the Company of replacing Monsanto's interruptible product with available
18 existing resources.

³ The GRID run assumes an average of 88 megawatts of reserves are available 8,760 hours each year.

1 **Comments on Mr. Collins' Peaker Valuation of Interruptibility**

2 **Q. Do Monsanto's interruptible products allow RMP to avoid the construction**
3 **or acquisition of generating resources⁴?**

4 A. No. Monsanto's interruptible products are not equal to the products available to
5 the Company through construction or acquisition of a generating resource. A
6 generating resource can provide many needed and valuable products that
7 Monsanto does not have the capability to provide. Generation resources are still
8 required to provide those products, and therefore Monsanto does not avoid or
9 defer their acquisition.

10 **Q. Has the Company performed an Integrated Resource Plan (IRP) analysis to**
11 **determine if Monsanto avoids the acquisition of a generating resource?**

12 A. Yes. The Company performed an IRP analysis to evaluate if the removal of the
13 Monsanto interruptible products as a resource created a need for a new resource.

14 **Q. What were the results of the IRP study?**

15 A. Removal of the Monsanto interruptible product as a firm resource in the IRP did
16 not create the need for a new resource.

17 **Q. What conclusion do you draw from those results?**

18 A. Monsanto's interruptible product does not avoid the acquisition by the Company
19 of generation resources.

⁴ Collins Direct Testimony, page 6, lines 13-16.

1 **Q. Mr. Collins further asserts that RMP currently uses Monsanto's**
2 **interruptible products much like it would a combustion turbine. Is he**
3 **correct in this assertion?**

4 A. No. A combustion turbine provides many additional products and benefits that
5 Monsanto does not provide. Therefore, combustion turbines are utilized
6 differently and provide significant additional value when compared to Monsanto's
7 interruptible products.

8 **Q. Could you please summarize the differences between the products provided**
9 **by a combustion turbine and the products provided by Monsanto?**

10 A. Yes. I have prepared the table below to summarize some of the differences. The
11 table includes a list of some energy products, a brief definition of each product,
12 and whether or not a combustion turbine and Monsanto can provide the specified
13 product. I have listed the products in the order in which I believe is reflective of
14 their relative operational value to the Company in regards to responding to
15 deviations in the system load and resource balance, with the most responsive
16 product listed first and the least responsive product listed last.

Product	Definition	Combustion Turbine Provides?	Monsanto Provides?
Reactive Supply and Voltage Control	Generation that is under the control of the control area operator that is operated to produce (or absorb) reactive power.	YES	NO
Regulation and Frequency Response	Generation that provides for the continuous balancing of resources to maintain frequency at 60 Hz. Generation that follows moment-by-moment changes in load.	YES	NO

Energy Imbalance (Load Following)	Generation that is used to react to differences between the scheduled and the actual loads within a single hour.	YES	NO
Operating Reserve – Spinning Reserve	Generation that is used to serve load immediately in the event of a system contingency.	YES	NO
Operating Reserve - Non Spinning Reserve	Generation or non generation sources that are used to serve load in the event of a system contingency that are not available immediately but within a short period of time.	YES	YES

1 The table shows that a combustion turbine provides many products that
2 are needed and utilized by the Company on a daily basis that cannot be provided
3 by Monsanto and are much more valuable than what Monsanto provides. Of the
4 products listed, Monsanto is only capable of providing non-spinning operating
5 reserves while a combustion turbine is able to provide all of these products that
6 allow the Company to respond to changes in the load and resource balance.

7 Therefore, comparing Monsanto to the full cost of a combustion turbine is not
8 reasonable and should not be considered when establishing value for Monsanto’s
9 interruptible products.

10 **Q. Are combustion turbines operated with more frequency than the amount of**
11 **interruptible products Monsanto provides?**

12 **A. Yes. The table below shows the actual operational hours for some of the**
13 **Company’s combustion turbines for the period 2007 through 2009⁵.**

Year	Combustion Turbine	Operational Hours
2007	Currant Creek #1	8,058
2007	Currant Creek #2	7,897

⁵ See Company response to Monsanto Data Request 16.11.

2007	Gadsby #4	4,995
2007	Gadsby #5	4,869
2007	Gadsby #6	4,805
2007	Lake Side #1	2,451
2007	Lake Side #2	2,476
2007	Little Mountain	8,302
2008	Chehalis #1	1,924
2008	Chehalis #2	1,503
2008	Currant Creek #1	7,081
2008	Currant Creek #2	6,786
2008	Gadsby #4	3,949
2008	Gadsby #5	3,894
2008	Gadsby #6	3,823
2008	Lake Side #1	6,509
2008	Lake Side #2	6,449
2008	Little Mountain	8,040
2009	Chehalis #1	4,083
2009	Chehalis #2	4,060
2009	Currant Creek #1	6,789
2009	Currant Creek #2	6,698
2009	Gadsby #4	5,265
2009	Gadsby #5	5,539
2009	Gadsby #6	5,668
2009	Lake Side #1	5,399
2009	Lake Side #2	5,203
2009	Little Mountain	7,976
Average		5,375

1 The average amount of time these turbines were operated on an annual
2 basis over a three year time period was 5,375 hours. Monsanto offers a total of
3 1,000 hours⁶ of interruptible products on an annual basis. On average, the
4 combustion turbines were operating and providing value to the Company five
5 times more often than Monsanto's interruptible products would allow. This
6 difference in utilization rates further supports the Company's position that the

⁶ Assumes 188 hours of operating reserves, 800 hours of economic curtailment, and 12 hours of system integrity. Note that Monsanto has been willing to offer up to 850 hours of economic curtailment in the existing contract.

1 differences between a combustion turbine and Monsanto's interruptible products
2 are significant.

3 **Q. Does the Company have complete control over when the 1,000 hours of**
4 **Monsanto interruptible products are used?**⁷

5 A. No. The Company only has complete control over the timing of economic
6 curtailment interruptions. The Company does not have complete control over the
7 timing of operating reserve interruptions and system integrity interruptions since
8 those interruptions require a specific event to occur prior to interruption being
9 allowed. If the specific event does not occur, the Company cannot interrupt
10 Monsanto's load.

11 **Q. Why is this significant in comparison to the Company's ability to control a**
12 **combustion turbine?**

13 A. The Company has complete control over when to utilize a combustion turbine.
14 Under the Monsanto contract, for a certain percentage of the interruptible hours
15 Monsanto provides, the Company cannot interrupt Monsanto unless a specific
16 event occurs. In fact, the maximum amount of megawatts the Company can
17 interrupt without a specific event occurring is 67 megawatts. This is significant in
18 that the Company may require additional resources at times but would be unable
19 to call upon portions of the Monsanto contract unless a specific event was to
20 occur. The Company's use of a combustion turbine is not limited by these event
21 triggers.

⁷ Mr. Collins Direct Testimony, page 12 line 26 through page 13 line 6.

1 **Q. Mr. Collins also performs an analysis using the Company's QF rates in Utah**
2 **to establish the value of Monsanto's interruptible products.⁸ Is this analysis**
3 **appropriate for use in determining the value of Monsanto's interruptible**
4 **products?**

5 A. No. The QF rates used by Mr. Collins are based on the full cost of a combustion
6 turbine. Therefore, the QF rate analysis he performed is very similar to his peaker
7 analysis and should be rejected for the same reasons set forth in my testimony
8 regarding his peaker valuation method. Furthermore, QF contracts typically have
9 availability guarantees, liquidated damages for non-performance, and other
10 contract terms that are not found in Monsanto's contract.

11 **Q. What conclusion have you drawn after reviewing Mr. Collins' proposed**
12 **peaker valuation of interruptibility and his proposed value of \$25.5 million**
13 **for Monsanto's interruptible products?**

14 A. Mr. Collins' proposed peaker valuation of interruptibility is not a reasonable
15 method to use to calculate the value of the Monsanto interruptible products. Mr.
16 Collins' method assigns much more value to Monsanto's interruptible products
17 than the Company's customers receive in benefits through utilization of the
18 products. A combustion turbine provides more valuable products, is operated
19 with more frequency, and provides greater operational control to the Company
20 than Monsanto's interruptible products. These differences are significant enough
21 that a comparison to the full cost of a combustion turbine is inaccurate and should
22 not be considered by the Commission when determining the value of Monsanto's
23 interruptible products.

⁸ Mr. Collins Direct Testimony, page 16, lines 1-19.

1 **Q. Has the Commission previously provided an opinion on the use of the peaker**
2 **method to set Monsanto's contract value?**

3 A. Yes. In Final Order No. 29157 issued January 27, 2003, the Commission stated
4 the following:

5 "Therefore, we cannot find the avoided peaker resource to be the
6 definitive methodology for valuing the interruptibility credit."⁹

7 **Comments on Mr. Collins' System Integrity Valuation**

8 **Q. Could you please summarize how Mr. Collins has valued the system integrity**
9 **product?**

10 A. Mr. Collins proposes the system integrity product be valued at \$400 per megawatt
11 hour, which equates to \$806,000. He bases his approach on the premise that a
12 system integrity interruption will always occur at a time when market prices are at
13 the Western Electric Coordinating Council ("WECC") price cap of \$400 per
14 megawatt hour.

15 **Q. Is this approach reasonable to value Monsanto's system integrity product?**

16 A. No. Mr. Collins' proposal assigns more value to the system integrity product than
17 the benefit the Company receives in utilizing the product. The Company can call
18 for a system integrity interruption under two scenarios:

- 19 1. A voltage related event.
20 2. A double contingency event, defined as the forced outage of two or
21 more PacifiCorp generating units totaling 500 MW or more of
22 capacity.

⁹ Final Order No. 29157, page 12.

1 Idaho Electric Service Regulation No. 4 sets forth rules regarding the supply and
2 use of the Company's electric service. Section 3 allows the Company to interrupt
3 load for safety and reliability purposes as needed¹⁰. Therefore, Monsanto should
4 not receive additional compensation for voltage related interruptions since all
5 Idaho customers are subject to occasional interruption pursuant to Electric Service
6 Regulation No. 4.

7 For double contingency related interruptions, the Company's proposal is
8 more representative of the value this product provides in that it more accurately
9 reflects the costs the Company would incur if Monsanto's system integrity
10 product was not available. The Company values the interruptible system integrity
11 hours using a price that is based on the average annual heavy load hour (6x16)
12 market price for energy. This method is reflective of the fact that the probability
13 of a double contingency event is constant throughout the year. When a double
14 contingency event occurs, the Company is able to avoid market purchases. Since
15 the probability of a double contingency event is constant throughout the year, the
16 appropriate price to use to value the product is the average price for the year. It is
17 highly unlikely that all 12 hours of system integrity interruption will occur during
18 hours in which the WECC price cap of \$400 is setting the market price.
19 Therefore, Monsanto's system integrity valuation should not be considered.

¹⁰ Electric Service Regulation No. 4 State of Idaho, Original Sheet Nos. 4R.2 and 4R.3.

1 **Comments on Ms. Iverson's Comparison to Two Other RMP Customers**

2 **Q. Ms. Iverson attempts to compare the contract rates for two other RMP**
3 **industrial customers to Monsanto's proposed contract rate¹¹. Is such a**
4 **comparison relevant to the determination of Monsanto's interruptible**
5 **products value?**

6 A. If performed correctly, such a comparison is relevant. Ms. Iverson's comparison
7 is not performed correctly in that it includes a comparison of base retail rates and
8 does not always compare like products. Ms. Iverson does not attempt to perform
9 a comparison of the easily identifiable operating reserve product, which is the
10 only product that is similar enough between the three contracts (Monsanto and the
11 two other RMP customers) to warrant a comparison.

12 **Q. Has the Company prepared a comparison of the operating reserve contract**
13 **values for these three RMP customers?**

14 A. Yes. In my direct testimony pages 16 through 19, I provide a detailed comparison
15 of the values included in two recent operating reserve contracts with other RMP
16 industrial customers to the Company's proposed value for operating reserves in
17 the Monsanto contract. All three customers provide a non-spinning operating
18 reserves product as defined by WECC. Therefore, a comparison of this product
19 between these three customers is appropriate.

20 **Q. What did your analysis show?**

21 A. My analysis showed that the two recent operating reserves contracts support the
22 Company's proposed operating reserve value for a new Monsanto contract.

¹¹ Ms. Iverson Direct Testimony, pages 22-32.

1 **Comments on Staff Witness Keith Hessing's Proposed Interruptible Products Value**

2 **Q. Please summarize Mr. Hessing's proposed method for determining the**
3 **interruptible products value for Monsanto's contract.**

4 A. Mr. Hessing accepts the Company's proposed value for the system integrity and
5 economic curtailment products. Mr. Hessing accepts the Company's proposed
6 value for the operating reserves product as estimated energy value but believes
7 there is an additional capacity component that must be added.¹² In summary, Mr.
8 Hessing agrees with the Company's proposal but believes an incremental value
9 should be added to the operating reserve product to account for capacity value.

10 **Q. Does the Company agree that an incremental value needs to be added to its**
11 **proposed operating reserve value to account for capacity value?**

12 A. No. The Company believes that its proposal already accurately reflects any
13 implied capacity value for the distinct time period considered in its proposal
14 (2011-2013) since the Company utilized recent market price curves for firm
15 energy products for this time period and because the Monsanto interruptible
16 products do not avoid a resource acquisition in this time period, as explained
17 earlier in my rebuttal testimony.

18 **Q. Please provide a brief summary of how Mr. Hessing determines the**
19 **incremental capacity value.**

20 A. Mr. Hessing starts by describing a preferred method in which an analysis is
21 performed to allocate capacity costs to non-spinning operating reserves based on
22 the percent of time each resource holds these reserves with and without the

¹² Mr. Hessing Direct Testimony, page 6, lines 3-9.

1 Monsanto operating reserves contract¹³. This method would determine the
2 implied operating reserve portion of the capital costs of the actual units that hold
3 reserves if Monsanto's contract was not available. Mr. Hessing acknowledges
4 that this method might produce the most accurate results, but the amounts of data
5 and calculations are administratively impractical.

6 In place of this detailed method, Mr. Hessing proposes a surrogate
7 methodology in which he uses the full plant in service cost of the Currant Creek
8 unit from PacifiCorp's FERC Form 1 as the proxy capacity value for the
9 operating reserve product.

10 **Q. Is there a scenario in which Mr. Hessing's proposed method would have**
11 **merit in determining a contract value for Monsanto's operating reserves**
12 **product?**

13 A. Yes. If the Commission were to determine that it is reasonable to assign some
14 incremental capacity value above what is already included in the forward market
15 prices to Monsanto's operating reserves product, a method similar to Mr.
16 Hessing's proposal, in which he utilizes the capacity costs of existing resources,
17 may have merit if certain reasonable adjustments are made.

18 **Q. Why must certain adjustments be made to Mr. Hessing's method?**

19 A. As I noted earlier in my testimony a combined cycle resource such as Currant
20 Creek provides much greater value than the non-spinning operating reserves
21 product provided by Monsanto. Mr. Hessing's method must be adjusted to more
22 accurately reflect the actual cost to the Company of providing a non-spinning
23 operating reserves product. The following two adjustments must be made:

¹³ Mr. Hessing Direct Testimony, page 8 line 22 though page 9 line 13.

1 1. Mr. Hessing's method must be modified to utilize the capacity costs of
2 multiple resources that are used by the Company to provide non-spinning
3 operating reserves instead of using the single Currant Creek resource costs.

4 2. Mr. Hessing's method must be modified to account for the fact that the
5 resources provide other products besides non-spinning operating reserves.

6 **Q. Please explain why Mr. Hessing's method must be modified to utilize the cost**
7 **of other resources besides Currant Creek.**

8 A. Mr. Hessing's preferred method, which he deemed too administratively
9 impractical, would have taken into account the weighted average cost of all the
10 resources utilized by the Company to meet its non-spinning operating reserves
11 obligation. While the Company agrees such calculations may be impractical if
12 performed on a frequent basis, Mr. Hessing's proposal to utilize only the capacity
13 costs of the combined cycle gas plant Currant Creek oversimplifies the analysis
14 since other types of resources besides Currant Creek provide non-spinning
15 operating reserves. The Company suggests modifying Mr. Hessing's analysis to
16 include the capacity costs of other resources besides Currant Creek.

17 **Q. Please explain why Mr. Hessing's method must also be modified to account**
18 **for the fact that the units provide other products besides non-spinning**
19 **operating reserves.**

20 A. As explained in detail earlier in my testimony, generating resources provide many
21 products in addition to non-spinning operating reserves. Each product provided
22 by a combustion turbine has a value (cost), and the sum of the individual product
23 values (costs) should equal 100 percent of the cost of the resource. Therefore, to

1 assign 100 percent of the capacity cost of a resource to a single product, such as
2 non-spinning operating reserves, when the resource is used for multiple products
3 is not accurate. That would imply that the other products provided by that
4 resource, such as base load energy, load following, regulation control, and
5 spinning reserves, have zero capacity value (cost). Such an approach overvalues
6 non-spinning operating reserves and undervalues the other products provided by
7 the resource. The Company suggests modifying Mr. Hessing's analysis to
8 account for the fact that resources provide other products in addition to non-
9 spinning operating reserves.

10 **Q. Please explain the Company's proposal for adjusting Mr. Hessing's method**
11 **for valuing the non-spinning operating reserves product.**

12 A. The Company's recommends two modifications be made to staff's proposed
13 method. The Company has prepared recommended values using a modified staff
14 method for a contract of up to three years in length for the term 2011 through
15 2013. The primary deficiencies of Mr. Hessing's method are he uses only one
16 resource type (Currant Creek) as a cost basis and he assigns 100% of that
17 resource's capacity cost to just the non-spinning operating reserves product.

18 My first proposed adjustment would be to use the average of the capacity
19 cost of multiple units instead of just the single capacity cost of Currant Creek. I
20 propose to use the average capacity costs of the combined cycle Currant Creek
21 unit and the simple cycle Gadsby units. Ideally, this calculation would be a
22 weighted average cost based on each PacifiCorp resource that is used to meet the

1 total operating reserves requirement. However, for purposes of this evaluation, a
2 simple average of these two types of gas units provides a reasonable result.

3 My second adjustment would be to allocate the appropriate percentage of
4 the total capacity cost to the non-spinning operating reserve product by taking into
5 account the amount of time the resource is used to provide other products. Mr.
6 Hessing allocates 100 percent of the total cost of the resource to just the non-
7 spinning operating reserves product. I propose to allocate 46.2 percent of the total
8 cost instead of 100 percent, since, on average, 46.2 percent of the time the
9 resource is being used to provide a non-spinning operating reserves product and
10 53.8 percent of the time the resource is being used to provide products other than
11 a non-spinning operating reserves product.

12 Using data taken from the same GRID study referenced in Mr. Hessing's
13 testimony¹⁴, the Company calculated the amount of the time the Gadsby and
14 Currant Creek resources were used for operating reserves as a percentage of the
15 total amount of time they were in operation. This average, based on the GRID
16 study referenced by Mr. Hessing, is 46.2 percent. This means these resources, on
17 average, were used for other purposes besides operating reserves 53.8 percent of
18 the time they were in operation. Again, a weighted average calculation based on
19 each PacifiCorp resource that is used to meet the total reserve requirement would
20 be ideal. However, for purposes of this evaluation, a simple average of these two
21 gas units provides a reasonable result.

¹⁴ Mr. Hessing Direct Testimony, page 11, lines 4-5.

1 **Q. What adjustment results from applying these two modifications to Mr.**
2 **Hessing's proposed method?**

3 A. These two modifications adjust Mr. Hessing's proposed incremental operating
4 reserves capacity value from \$7.3 million to \$3.0 million. The details of this
5 calculation are provided in RMP Exhibit No. 97.

6 **Q. Can you provide evidence that supports the use of Gadsby and Currant**
7 **Creek values as proposed by the Company instead of just the Currant Creek**
8 **value proposed by Mr. Hessing?**

9 A. Yes. Mr. Hessing's method uses the Company's Front Office and GRID model
10 results as the basis for what he considers to be the energy value of the non-
11 spinning operating reserves product. The results of the Front Office model show
12 that both combined cycle resources and simple cycle resources are used.
13 Therefore, since both resource types are used in the model that determines the
14 staff's proposed energy value, both resource types should be used in the model
15 that determines staff's proposed incremental capacity value.

16 **Q. Please summarize the Company's recommendation for contract values for**
17 **the Monsanto interruptible products for years 2011 through 2013.**

18 A. The Company recommends the Commission adopt the Company's proposed
19 values as described in my direct testimony. The Company recommends a total
20 credit to Monsanto of \$6.1 million in 2011. If the term of the Monsanto contract
21 covers 2012 or 2013, then the Company recommends values of \$7.1 million and
22 \$7.6 million for 2012 and 2013, respectively, as shown in the table below:

<u>Product</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Operating Reserves	\$2.4	\$3.0	\$3.3
Economic Curtailment	\$3.6	\$4.0	\$4.2
System Integrity	\$0.1	\$0.1	\$0.1
Total	\$6.1	\$7.1	\$7.6

1 The Company does not agree with Monsanto's peaker method and has
2 provided evidence demonstrating how the value produced by that method greatly
3 exceeds the benefit the Company receives from the Monsanto interruptible
4 products.

5 If the Commission determines incremental capacity value should be added
6 to the operating reserves product, the Company recognizes that staff's proposal
7 has merit. However, the Company recommends the Commission adopt the
8 modifications to Mr. Hessing's method as described in my rebuttal testimony.
9 These modifications are necessary to more accurately reflect the actual value of
10 the operating reserves product to the Company.

11 If the Commission determines incremental capacity value should be added
12 to the operating reserves product as proposed by staff, the Company's
13 recommended values using a modified staff method are as follows:

<u>Product</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Operating Reserves	\$5.4	\$6.0	\$6.3
Economic Curtailment	\$3.6	\$4.0	\$4.2
System Integrity	\$0.1	\$0.1	\$0.1
Total	\$9.1	\$10.1	\$10.6

14 **Q. What conditions does the Company note in conjunction with its proposed**
15 **contract values?**

16 **A. The proposed contract values assume Monsanto will enter into a contract with**

1 terms and conditions equal to those found in the existing agreement and that

2 Monsanto's load characteristics remain similar to historical patterns.

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

4 **A. Yes.**

Case No. PAC-E-10-07
Exhibit No. 97
Witness: Paul H. Clements

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IDAHO PUBLIC
UTILITIES COMMISSION

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

ROCKY MOUNTAIN POWER

Exhibit Accompanying Rebuttal Testimony of Paul H. Clements
Capacity Value of Monsanto's Non-Spinning Operating Reserves

January 2011

CAPACITY VALUE OF MONSANTO'S NON-SPINNING OPERATING RESERVES

Description	Units	Gadsby 4, 5 & 6	Currant Creek												
Capital Cost ¹	(\$)	77,063,978	352,856,465												
Installed Capacity ¹	(kW)	181,100	566,900												
Unit Cost	(\$/kW)	426	622												
Levelized Carrying Charge Rate		0.1112	0.1043												
Annual Revenue Requirement	(\$/kW)	47.3	64.9												
Annual Fixed O & M Costs ²	(\$/kW)	10.45	8.27												
Annual Revenue Requirement	(\$/kW)	57.8	73.2												
Monsanto Non-Spinning Operating Reserves															
Contract Capacity	(kW)	95,000	95,000												
Capacity Losses ³	(%)	4.98	4.98												
Contract Capacity at Generation	(kW)	99,731	99,731												
Capacity Value	(\$)	5,760,111	7,301,756												
Staff's Proposed Capacity Value			7,301,756												
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border: none;">PacifiCorp Adjustment #1 <i>Averaging of Gadsby and Currant Creek Values</i></td> <td style="width: 10%; border: none; text-align: center;">(\$)</td> <td style="width: 20%; border: none; text-align: right;">6,530,934</td> <td style="width: 20%; border: none;"></td> </tr> <tr> <td style="border: none;">PacifiCorp Adjustment #2 <i>Applying 46.2% Multiplier to Account for Other Products</i></td> <td style="border: none; text-align: center;">(%)</td> <td style="border: none; text-align: right;">46.2</td> <td style="border: none;"></td> </tr> <tr> <td style="border: none;">PacifiCorp Adjusted Capacity Value</td> <td style="border: none; text-align: center;">(\$)</td> <td style="border: none; text-align: right;">3,017,291</td> <td style="border: none;"></td> </tr> </table>				PacifiCorp Adjustment #1 <i>Averaging of Gadsby and Currant Creek Values</i>	(\$)	6,530,934		PacifiCorp Adjustment #2 <i>Applying 46.2% Multiplier to Account for Other Products</i>	(%)	46.2		PacifiCorp Adjusted Capacity Value	(\$)	3,017,291	
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PacifiCorp Adjusted Capacity Value	(\$)	3,017,291													

¹ 2009 FERC Form 1 - Page 402.4

² PacifiCorp 2008 IRP - Table 6.4

³ Case No. PAC-E-10-07, COS "Input" sheet