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IDAHO PUBLIC
UTILITIES COMMISSION

BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE)
APPLICATION OF ROCKY MOUNTAIN)
POWER FOR APPROVAL OF)
CHANGES TO ITS ELECTRIC)
SERVICE SCHEDULES AND A PRICE)
INCREASE OF \$27.7 MILLION, OR)
APPROXIMATELY 13.7 PERCENT)
_____)

CASE NO. PAC-E-10-07

Surrebuttal Testimony of

Brian C. Collins

(Economic Valuation of Monsanto Interruptible Products)

On behalf of

Monsanto Company

Project 9210
January 24, 2011



BRUBAKER & ASSOCIATES, INC.
CHESTERFIELD, MO 63017

PACIFICORP dba ROCKY MOUNTAIN POWER
BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. PAC-E-10-07

Surrebuttal Testimony of Brian C. Collins

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Brian C. Collins. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

5 A I am appearing on behalf of Monsanto Company ("Monsanto"), a special contract
6 customer of Rocky Mountain Power ("RMP" or "Company"). RMP is a division of
7 PacifiCorp.

8 **Q ARE YOU THE SAME BRIAN C. COLLINS WHO PREVIOUSLY FILED**
9 **TESTIMONY IN THIS PROCEEDING?**

10 A Yes, I am. On November 1, 2010 I provided direct testimony as to the interruptible
11 nature of Monsanto's loads, the treatment of Monsanto by RMP in its Integrated
12 Resource Plan ("IRP"), and the economic benefits to RMP, its customers and the
13 power system as a whole from a long-term interruptible program such as Monsanto's.
14 On December 22, 2010 I provided direct testimony regarding the economic valuation
15 of Monsanto interruptible products, and on January 14, 2011 I provided rebuttal
16 testimony on the same issues.

17 **Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

18 A This information was included in my direct testimony filed November 1, 2010.

1 Q WHAT IS THE SUBJECT OF THIS SURREBUTTAL TESTIMONY?

2 A I am responding to the January 2011 rebuttal testimonies of Paul H. Clements and
3 Gregory N. Duvall submitted on behalf of RMP.

4 Q WOULD YOU PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS?

5 A My findings and conclusions are as follows:

- 6 1. RMP continues to ignore the capacity resource costs avoided by the
7 interruptibility of Monsanto's load.
- 8 2. RMP's valuation methods incorrectly value Monsanto's interruptibility on a
9 short-term basis, ignoring Monsanto's 60-year history as an interruptible load to
10 RMP and its predecessors, as well as its continued commitment to remain an
11 interruptible customer as long as it takes power from RMP.
- 12 3. Since simple cycle combustion turbine capacity is the lowest cost and most
13 readily available capacity that could be constructed, the avoided cost of a simple
14 cycle combustion turbine is appropriate to use in a long-term valuation of
15 Monsanto's interruptibility.

16 **Response to the Rebuttal Testimony of Paul H. Clements**

17 Q WHAT METHOD DOES MR. CLEMENTS ASSERT IS APPROPRIATE FOR
18 DETERMINING A RESOURCE'S VALUE?

19 A At page 3 of his rebuttal testimony, Mr. Clements asserts that resource value is best
20 determined by evaluating the cost one would incur to replace the resource if it were
21 no longer available for use. He further asserts that the Company's methods calculate
22 the cost the Company would incur to replace the interruptible products provided by
23 Monsanto.

1 Q IS MR. CLEMENTS' APPROACH APPROPRIATE FOR DETERMINING THE
2 VALUE OF MONSANTO'S INTERRUPTIBILITY?

3 A No. The basic premise of Mr. Clements' rebuttal testimony is that short-term
4 replacement costs are appropriate for determining the value of Monsanto's
5 interruptibility. Mr. Clements' premise is incorrect and his valuation methods based
6 on the GRID and Front Office Models produce flawed results.

7 The value of Monsanto's interruptibility has nothing to do with short-term
8 replacement costs. Monsanto has been an interruptible customer since 1951. Since
9 it has adequate ore to be mined for approximately another 40 years, Monsanto plans
10 to remain an interruptible customer as long as it is a customer of RMP. Monsanto's
11 long-term commitment to interrupt has provided long-term value to RMP (and its
12 predecessors) for approximately 60 years, and will continue to provide long-term
13 value to RMP for decades in the form of avoided generating resource costs.
14 Mr. Clements' valuation methods completely disregard the long-term value of
15 Monsanto's interruptibility. As a result, his short-term replacement cost methods
16 produce results that are radically different from an appropriate long-term valuation of
17 Monsanto's interruptibility.

18 Q WHAT EVIDENCE DOES MR. CLEMENTS CLAIM VALIDATES THE COMPANY'S
19 METHODS AND MODELS AS REASONABLE INDICATORS OF VALUE FOR
20 INTERRUPTIBLE PRODUCTS?

21 A Mr. Clements argues that since other industrial customers entered into recent
22 contracts at prices he alleges are supported by the Company's methods and models,
23 the Company's methods and models are reasonable indicators of "value" for
24 interruptible products.

1 **Q DO YOU AGREE WITH MR. CLEMENTS' CLAIM?**

2 A No. The specific circumstances under which other industrial customers executed
3 contracts with RMP are unknown, and in any event are irrelevant to a determination
4 of Monsanto's interruptibility value. In addition, as Monsanto witness Ms. Iverson has
5 testified, Monsanto provides interruptibility that is superior to what is provided by
6 these other customers, and it would be reasonable for Monsanto's net rate paid to
7 RMP to be lower than the rates of other interruptible customers.

8 **Q MR. CLEMENTS ASSERTS ON PAGES 4 AND 5 OF HIS REBUTTAL TESTIMONY**
9 **THAT A COMBUSTION TURBINE WOULD NOT BE BUILT IF MONSANTO'S**
10 **INTERRUPTIBLE CONTRACT WERE NOT AVAILABLE. WHAT IS THE BASIS**
11 **FOR HIS ASSERTION?**

12 A Once again, it's a short-term view. He claims that the Company can meet its existing
13 operating reserve obligations with existing resources in the test period used in the
14 2010 general rate case without Monsanto's interruptible contract. Since he asserts
15 that no new resources would be required to replace Monsanto's interruptible contract
16 in the short-run, he argues the Company's GRID and Front Office Models should be
17 utilized to determine the value of Monsanto's interruptibility.

18 **Q HOW DO YOU RESPOND TO MR. CLEMENTS' ARGUMENTS?**

19 A Since Mr. Clements' GRID and Front Office Model analyses focus solely on the test
20 year used in the rate case, his analyses reflect only short-term considerations. He
21 continues to ignore the long-term resource costs that the Company has avoided, and
22 continues to avoid, due to Monsanto's long-term interruptibility. If Monsanto's load
23 were not interruptible, RMP would have to acquire long-term resources to serve
24 Monsanto as a firm load. The specific type of long-term resource RMP would acquire

1 or construct would depend on a resource analysis performed by RMP taking into
2 consideration the resource needs of its entire system. However, since simple cycle
3 combustion turbine capacity is the most readily available and lowest cost capacity
4 available to RMP, the avoided cost of a new simple cycle combustion turbine is
5 appropriate to use in a long-term valuation of Monsanto's interruptibility.

6 **Q MR. CLEMENTS CLAIMS AT PAGE 6 OF HIS REBUTTAL TESTIMONY THAT**
7 **MONSANTO'S INTERRUPTIBLE PRODUCTS DO NOT ALLOW RMP TO AVOID**
8 **THE CONSTRUCTION OR ACQUISITION OF GENERATING RESOURCES.**
9 **WHAT IS THE BASIS FOR HIS CLAIM?**

10 **A** Mr. Clements asserts that Monsanto's interruptible products are not equal to the
11 products available to the Company through the construction or acquisition of a
12 generating resource. He argues that generation resources are required to provide
13 these products and for that reason claims that Monsanto's interruptible products do
14 not avoid or defer the acquisition of generating resources.

15 **Q DO YOU AGREE WITH MR. CLEMENTS' ASSERTION THAT MONSANTO'S**
16 **INTERRUPTIBLE PRODUCTS DO NOT AVOID THE CONSTRUCTION OR**
17 **ACQUISITION OF GENERATING RESOURCES?**

18 **A** No. Mr. Clements is incorrect in asserting that since Monsanto cannot provide all of
19 the products that a generating resource can provide, its interruptible load does not
20 avoid or defer RMP's acquisition of generating resources. He again fails to consider
21 the avoided capacity resource value provided by Monsanto's interruptibility.
22 Monsanto's inherent interruptibility value results from the capacity resource avoidance
23 it provides to RMP. The fact that Monsanto can provide RMP with operating reserves

1 in addition to capacity avoidance further enhances its long-term resource value to
2 RMP.

3 **Q MR. CLEMENTS CLAIMS AT PAGE 6 OF HIS REBUTTAL TESTIMONY THAT THE**
4 **COMPANY HAS PERFORMED AN IRP ANALYSIS TO EVALUATE THE**
5 **REMOVAL OF MONSANTO'S INTERRUPTIBLE PRODUCTS. DID HE PRESENT**
6 **THIS ANALYSIS OR ITS RESULTS WITH HIS TESTIMONY?**

7 A No. Mr. Clements claims that the Company's analysis demonstrates that the removal
8 of Monsanto's interruptible products did not create the need for a new resource.
9 However, Mr. Clements has not identified the analysis to which he is referring, nor
10 has he described how the analysis was performed, nor has he presented the results
11 in his rebuttal testimony. Therefore, his claim is completely unsupported, and entitled
12 to no weight.

13 **Q AT PAGES 7-9 OF HIS REBUTTAL TESTIMONY, MR. CLEMENTS CLAIMS THAT**
14 **COMBUSTION TURBINES ARE UTILIZED DIFFERENTLY AND PROVIDE**
15 **SIGNIFICANT ADDITIONAL VALUE WHEN COMPARED TO MONSANTO'S**
16 **INTERRUPTIBLE PRODUCTS. WHAT IS THE BASIS OF HIS CLAIM?**

17 A Mr. Clements argues that since combustion turbines can provide other ancillary
18 services besides operating reserves, the full cost of a combustion turbine is not
19 reasonable and should not be considered when establishing value for Monsanto's
20 interruptible products. He also argues that the difference between the total annual
21 operational hours (or utilization rates) of combustion turbines and the number of
22 interruption hours provided by Monsanto further supports the Company's position that
23 the differences between a combustion turbine and Monsanto's interruptible products
24 are significant.

1 Q HAS MR. CLEMENTS QUANTIFIED THE VALUE OF THE OTHER PRODUCTS HE
2 ARGUES ARE PROVIDED BY COMBUSTION TURBINES?

3 A No.

4 Q IN HIS ARGUMENTS, DOES MR. CLEMENTS COMPARE MONSANTO'S
5 INTERRUPTIBLE PRODUCTS TO THE OPERATION OF BOTH SIMPLE CYCLE
6 COMBUSTION TURBINES AND COMBINED CYCLE FACILITIES?

7 A Yes. Mr. Clements does not make a distinction between simple cycle combustion
8 turbines and combined cycle facilities in his arguments. For example, in the table at
9 pages 8 and 9 of his testimony, he includes the annual operational hours or utilization
10 rates for both combined cycle and simple cycle facilities. The Gadsby 4, 5, and 6
11 units are the only combustion turbines in the table that are operated solely as simple
12 cycle combustion turbines. Mixing combustion turbines in combined cycle facilities
13 with simple cycle combustion turbines for comparison to Monsanto's interruptibility is
14 incorrect. Monsanto's interruptibility should be compared to a simple cycle
15 combustion turbine.

16 Q ARE THERE DIFFERENCES IN HOW SIMPLE CYCLE COMBUSTION TURBINES
17 AND COMBUSTION TURBINES IN COMBINED CYCLE FACILITIES OPERATE?

18 A Yes. Simple cycle combustion turbines operated independently and not part of a
19 combined cycle plant are typically peaking resources. Combustion turbines in
20 combined cycle facilities are typically operated as baseload or load-following units.
21 Simple cycle combustion turbines operated as simple cycle units have higher heat
22 rates as compared to combined cycle units, and as a result, have higher variable fuel
23 costs. Simple cycle combustion turbines typically will operate fewer hours in a year
24 as compared to combined cycle units because of higher variable operating costs.

1 Q HAVE YOU USED THE COST OF A COMBINED CYCLE FACILITY IN YOUR
2 AVOIDED PEAKER ANALYSIS?

3 A No.

4 Q WHAT WOULD BE THE VALUE OF MONSANTO'S INTERRUPTIBILITY BASED
5 ON A COMBINED CYCLE FACILITY?

6 A Based on cost data for combined cycle facilities in the Company's 2008 IRP,
7 Monsanto's interruptibility value would be \$28.4 million if the avoided cost of a
8 combined cycle unit was utilized. This is \$2.9 million more than Monsanto's
9 interruptibility value of \$25.5 million based on the avoided cost of a simple cycle
10 combustion turbine, as was presented in my direct testimony.

11 Q DO SIMPLE CYCLE COMBUSTION TURBINES OPERATED SOLELY AS SIMPLE
12 CYCLE UNITS TYPICALLY PROVIDE ALL OF THE ANCILLARY SERVICES
13 MR. CLEMENTS CITES ARE PROVIDED BY COMBUSTION TURBINES?

14 A No. Simple cycle combustion turbines typically provide spinning and non-spinning
15 operating reserves. Some of the ancillary services or products he cites require
16 cycling of generating units. Simple cycle combustion turbines are typically not cycled
17 due to their higher variable operating costs. Because of their quick start capabilities,
18 simple cycle combustion turbines typically are turned on and off providing blocks of
19 power while other generating units are cycled.

20 Q HAS MR. CLEMENTS EXPLAINED HOW RMP SPECIFICALLY OPERATES ITS
21 GADSBY SIMPLE CYCLE COMBUSTION TURBINES TO PROVIDE ANCILLARY
22 SERVICES?

23 A No, he has not.

1 Q WHAT IS YOUR UNDERSTANDING OF HOW THE COMPANY OPERATES ITS
2 GENERATING UNITS WITH RESPECT TO PROVIDING ANCILLARY SERVICES?

3 A It is my understanding that the Company does not use its thermal generating
4 resources, including combustion turbines, primarily for providing ancillary services.
5 According to its 2009 FERC Form No. 714 filed May 2010, the Company states the
6 following:

7 "At PacifiCorp, demand following is NOT primarily performed by
8 thermal generating units, therefore a system lambda is not
9 calculated. PacifiCorp East and West balancing areas are dispatched
10 in a coordinated manner to achieve overall maximum efficiency,
11 economy, and reliability for the company as a whole, while meeting the
12 performance criteria for each balancing area as established by NERC,
13 WECC, and the NWPP. In this largely base-load thermal system,
14 dispatching is performed to keep the thermal units at a maximum
15 efficiency by utilizing hydro generation and hydro-based
16 dispatchable purchases to provide regulating margin and
17 spinning reserves. The PacifiCorp West balancing area has the bulk
18 of its regulating margin and reserves in such hydro resources, with
19 occasional limited participation by selected thermal units in the
20 PacifiCorp West balancing area. The PacifiCorp East balancing area
21 primarily utilizes a dynamic schedule to overlay regulating margin
22 onto available hydro resources in the PacifiCorp West balancing
23 area, with occasional limited participation by selected thermal
24 units in the PacifiCorp East balancing area to provide backup
25 margin and reserves." (Emphasis added)

26 Since it appears the Company relies primarily on its hydro units to provide
27 load-following, regulating margin and spinning reserves, Mr. Clements' criticisms of
28 Monsanto's interruptibility with respect to ancillary service value are without merit.
29 Mr. Clements' criticisms of Monsanto just as easily apply to the existing combustion
30 turbines on RMP's own system. However, these criticisms do not diminish the
31 resource capacity value of these units.

1 Q IS MR. CLEMENTS CORRECT TO RELY ON THE TOTAL ANNUAL
2 OPERATIONAL HOURS OF A SIMPLE CYCLE COMBUSTION TURBINE AS THE
3 BASIS FOR COMPARING MONSANTO'S INTERRUPTIBILITY VALUE TO THAT
4 OF A SIMPLE CYCLE COMBUSTION TURBINE?

5 A No. Mr. Clements does not make a distinction in his table for hours when the units
6 were operated as must-run units because of transmission constraints, when the units
7 were operated for specific ancillary services, or when the units were operated to meet
8 the load demands of the Company's system. To compare the total operational hours
9 of a simple cycle combustion turbine to the number of hours of interruptibility
10 Monsanto provides is misleading and incorrect without explaining the circumstances
11 under which the simple cycle combustion turbine operated.

12 Q MR. CLEMENTS ALLEGES AT PAGE 10 OF HIS REBUTTAL TESTIMONY THAT
13 THE COMPANY HAS COMPLETE CONTROL OVER WHEN TO UTILIZE A
14 COMBUSTION TURBINE. IS THIS ACCURATE?

15 A No. Mr. Clements fails to consider that a combustion turbine does not start 100% of
16 the time when called upon. Since Monsanto has never failed to interrupt when called
17 upon, Monsanto has demonstrated greater reliability and dependability than a
18 combustion turbine.

19 Q MR. CLEMENTS CLAIMS AT PAGE 11 OF HIS REBUTTAL TESTIMONY THAT
20 THE PRESENCE OF AVAILABILITY GUARANTEES, LIQUIDATED DAMAGES
21 FOR NON-PERFORMANCE, AND OTHER CONTRACT TERMS THAT ARE NOT
22 FOUND IN MONSANTO'S CONTRACT INVALIDATES YOUR QF ANALYSIS. DO
23 YOU AGREE?

24 A No. Monsanto's contract also has penalties for non-performance. Further, Monsanto

1 has also never had an instance where it did not comply with an interruption request
2 from RMP. Mr. Clements' arguments are without merit.

3 **Q AT PAGE 12 OF HIS REBUTTAL TESTIMONY, MR. CLEMENTS PROVIDES A**
4 **CITE TO AN ORDER ISSUED BY THE COMMISSION THAT HE CLAIMS**
5 **PROVIDES THE COMMISSION'S OPINION ON THE PEAKER METHOD. HOW DO**
6 **YOU RESPOND?**

7 **A** This citation states that the Commission has not found the avoided peaker resources
8 to be the definitive methodology for valuing the interruptibility credit.

9 **Q DID THE COMMISSION IN THAT SAME ORDER FIND THE COMPANY'S**
10 **PROPOSED METHOD AND MODEL TO BE THE DEFINITIVE METHOD FOR**
11 **VALUING MONSANTO'S INTERRUPTIBILITY?**

12 **A** No.

13 **Q WITH RESPECT TO SYSTEM INTEGRITY INTERRUPTIONS, MR. CLEMENTS**
14 **ASSERTS THAT MONSANTO SHOULD NOT RECEIVE ADDITIONAL**
15 **COMPENSATION FOR VOLTAGE-RELATED INTERRUPTIONS SINCE ALL**
16 **IDAHO CUSTOMERS ARE SUBJECT TO OCCASIONAL INTERRUPTION**
17 **PURSUANT TO ELECTRIC SERVICE REGULATIONS. DO YOU AGREE?**

18 **A** No. If Monsanto were to receive only \$100,000 in return for being the "first one in the
19 dark," then Monsanto would probably reconsider inclusion of this product in a future
20 Electric Service Agreement. RMP would then need to locate another large load
21 which could easily and reliably curtail in seconds to avoid the possibility of curtailing
22 hundreds – perhaps tens of thousands – of other customers.

1 One example of this occurred in the winter of 2005. On December 6, 2005,
2 RMP lost a line which triggered a power outage. The low temperature that day was
3 9 degrees, and dropped to 19 degrees below zero the next day. A system
4 emergency event was called upon Monsanto and all three furnaces were shut down.
5 As RMP crews worked to resolve the problem, the furnaces were brought back on-
6 line only when the system was stable. The two smaller furnaces were brought back
7 within four to eight hours of the emergency. However, the largest furnace was kept
8 off for 42 hours, with Monsanto incurring substantial damages due to icing.

9 That curtailment for system integrity purposes provided a direct benefit to the
10 Company's system during this extraordinary event, but it came at substantial cost to
11 Monsanto. Thus, if RMP hopes to retain this provision in any contract with Monsanto,
12 it needs to properly value this option.

13 **Q MR. CLEMENTS ALSO ASSERTS SINCE THERE IS AN EQUAL PROBABILITY**
14 **THAT A DOUBLE CONTINGENCY EVENT CAN OCCUR THROUGHOUT THE**
15 **YEAR THAT IT IS APPROPRIATE TO USE A VALUE EQUAL TO THE AVERAGE**
16 **MARKET PRICE. DO YOU AGREE?**

17 **A No.** During a system integrity event, if power is available at all for purchase from the
18 market, scarcity of power will likely result in high market prices as compared to the
19 average annual market price. For example, when regional resources were stressed
20 on July 25, 2006, RMP was willing to pay Monsanto \$300/MWh.

1 **Response to the Rebuttal Testimony of Gregory N. Duvall**

2 Q AT PAGE 2 OF HIS REBUTTAL TESTIMONY, MR. DUVALL STATES THAT “THE
3 COMPANY INCLUDES BOTH PEAKERS AND MARKET PURCHASES IN THE
4 EVALUATION OF THE IDAHO IRRIGATION LOAD CONTROL PROGRAM.” IS
5 MR. DUVALL CORRECT?

6 A Yes, Mr. Duvall is correct. However, his testimony fails to adequately explain the
7 valuation of the Idaho Irrigation Load Control Program, and how Monsanto's
8 interruptibility should be valued higher.

9 Q PLEASE EXPLAIN HOW THE COMPANY VALUES THE IDAHO IRRIGATION
10 LOAD CONTROL PROGRAM.

11 A According to RMP's Demand Side Management Annual Report – Idaho, dated
12 March 15, 2010, the Irrigation Load Control Program 2009 value is \$73.09 per
13 kW-year at site (i.e., before the adjustment for line losses) as determined by the
14 agreed upon Valuation Methodology. This Valuation Methodology was described in
15 PacifiCorp's "Proposed Valuation Methodology for the Idaho Irrigation Load Control
16 Program" ("Valuation Methodology Report") provided in late 2007 as a result of the
17 stipulation in the last General Rate Case (Case No. PAC-E-07-05). The methodology
18 conducted two resource deferral scenarios: (1) a peaking resource deferral, and (2) a
19 firm market purchases deferral, also termed "front office transactions" or FOT. The
20 first scenario was labeled a "Peaking Resource Deferral" and was explained as:

21 *“Peaking resource deferral – This scenario was designed to enable the*
22 *model to defer an intercooled aeroderivative single-cycle combustion*
23 *turbine (SCCT) resource. This scenario acknowledges that program*
24 *value comes from capacity deferral potential, and that resource*
25 *investment plans need to be fluid to account for rapidly changing*
26 *regulatory and market conditions. Procurement of peaking resources–*
27 *although not included in PacifiCorp's latest resource plan —remains*
28 *a viable option in the future.” (page 3)*

1 Q SO THE COMPANY DOES VALUE THE IRRIGATION LOAD CONTROL
2 PROGRAM ON THE BASIS OF BOTH PEAKER DEFERRAL AS WELL AS
3 "FRONT OFFICE TRANSACTIONS?"

4 A Yes, however, as the report states, "the value of the irrigation load control program
5 comes from a longer-term view of resource deferral potential as opposed to
6 short-term FOT." (page 5). The report concludes by explaining that the Peaking
7 Resource Deferral should be weighted more heavily:

8 In summary, this recommendation accommodates the Company's
9 current resource planning strategy of relying on short-term markets to
10 help meet peak load obligations as well as its portfolio analysis
11 approach for valuing resource additions. However, it also
12 acknowledges the longer-term outlook towards demand-side
13 resources and the national trend in the valuation of load control
14 programs. This trend leans on the assumption that over time, if the
15 acquired demand-side resource is *reliable* and *sustainable*, peaking
16 resource deferral likely exists. (Reliability and sustainability are
17 pivotal components of program performance. Growers need to keep
18 this in mind as the Company assumes a contractual obligation that, at
19 a minimum, is 10-years.) Peaking resource deferral value is thus
20 weighted more heavily than firm market purchase deferral value in the
21 weighted-average calculations summarized above. (page 7, emphasis
22 added)

23 Q HOW MUCH MORE DID PACIFICORP WEIGHT THE PEAKING DEFERRAL
24 RESOURCE VALUE THAN THE FRONT OFFICE TRANSACTIONS?

25 A The Valuation Methodology Report recognizes that benefits range from \$13 per
26 kW-yr under the short-term FOT to \$83 per kW-yr under the Peaking Resource
27 Deferral. As shown in the following table, the Valuation Methodology weighted the
28 Peaking Resource by 67% and the FOT value by 33%. Thus, the Peaking Resource
29 is given twice the weight of the FOT firm market purchase:

TABLE 1

**2007 Irrigation Load Control Program Benefit,
Levelized NPV (\$ per kW-yr)**

	<u>150 MW</u>	<u>175 MW</u>	<u>Average</u>	<u>Weight</u>	<u>Weighted Average</u>
Peaking Resource	\$80.29	\$70.70	\$75.50	67%	\$50.33
Firm Market Purchase	(1)	\$12.41	\$12.41	33%	<u>\$4.14</u>
Total Weighted Average					\$54.47
Rounded					\$54.50

(1) The variation in values across participation sizes is small for the firm market purchase deferral scenarios, so the 175-megawatt value is assumed to be reasonable for use in the weighted-average calculation.

1 The \$54.50 per kW-year value shown above has been updated to \$73.09 per
2 kW-year in the March 15, 2010 Demand Side Management Annual Report - Idaho.

3 **Q HOW MANY HOURS OF INTERRUPTION DOES THE IRRIGATION LOAD**
4 **CONTROL PROGRAM OFFER?**

5 **A** The Irrigation Load Control Program offers only 52 hours of interruption per irrigation
6 season (June 1 – September 15) according to the Valuation Methodology Report.
7 Monsanto offers 1,050 hours of interruption annually, or more than 20 times the hours
8 of the Irrigation Load Control Program with no seasonal limits on when interruptions
9 can occur. Hence, PacifiCorp primarily values the Irrigation Load Control Program on
10 the basis of peaking resource deferral with only 52 hours of interruption, yet refuses
11 to recognize the peaking resource deferral capability of Monsanto which clearly offers
12 many more hours of interruption and has proven itself to be both a reliable and

1 sustainable resource over the past 60 years. The Company's unreasonably low value
2 for Monsanto should be rejected.

3 **Q AT PAGES 2-3 OF HIS REBUTTAL TESTIMONY, MR. DUVALL ARGUES THAT**
4 **SINCE THE IRRIGATORS ARE PAID ONLY 41% OF THEIR ESTIMATED VALUE**
5 **OF \$73.09 PER KILOWATT-YEAR, THE RESULTS OF MONSANTO'S PEAKER**
6 **VALUATION METHOD SHOULD BE DISCOUNTED IN A SIMILAR FASHION.**
7 **WHAT IS THE BASIS FOR HIS ARGUMENT?**

8 **A** His argument is strictly one of consistency. Mr. Duvall argues that the peaker
9 valuation results "would need to be modified to be consistent with the treatment of the
10 Idaho Irrigation Load Control Program."

11 **Q DOES MR. DUVALL EXPLAIN WHY MONSANTO'S PEAKER VALUATION**
12 **RESULTS SHOULD BE DISCOUNTED CONSISTENT WITH THE IRRIGATORS'**
13 **LOAD CONTROL PROGRAM VALUATION?**

14 **A** No.

15 **Q IS MR. DUVALL'S ARGUMENT FOR CONSISTENT TREATMENT OF BOTH**
16 **MONSANTO AND THE IRRIGATORS' INTERRUPTIBILITIES CONSISTENT WITH**
17 **PAST TESTIMONY HE HAS PROVIDED TO THE COMMISSION?**

18 **A** No. In his rebuttal testimony in Case No. PAC-E-07-05, Mr. Duvall discusses how the
19 Monsanto contract and the Idaho Irrigation Load Control Program differ. At page 2 of
20 his rebuttal testimony in that case, Mr. Duvall states the following:

21 "The Idaho irrigation load control program is **significantly different**
22 **than the Monsanto contract in that it does not provide ancillary**
23 **services, it is not contractually as firm, it is not separately metered, and**
24 **it is integrated into the local Idaho distribution system."** (emphasis
25 added)

1 His arguments for discounting Monsanto's peaker valuation results are without merit.

2 **Q AT PAGE 3 OF HIS REBUTTAL TESTIMONY, MR. DUVALL ALLEGES THAT**
3 **MONSANTO'S ASSUMPTION THAT ITS INTERRUPTIBLE PRODUCT WOULD**
4 **AVOID THE ADDITION OF A PEAKING UNIT HAS NO BASIS IN FACT. DO YOU**
5 **AGREE?**

6 **A** No. As I stated previously in my testimony, if Monsanto were not an interruptible
7 customer, RMP would have to acquire long-term resources to serve Monsanto's load
8 on a firm basis. The specific type of long-term resource RMP would acquire or
9 construct would depend on a resource analysis performed by RMP taking into
10 consideration the resource needs of its entire system at that time. However, since
11 simple cycle combustion turbine capacity is the most readily available and lowest cost
12 capacity available to RMP, the avoided cost of a new simple cycle combustion turbine
13 is appropriate to use in a long-term valuation of Monsanto's interruptibility. In fact, as
14 I explained earlier, the avoided cost of a new SCCT is currently used in the valuation
15 of the Irrigation Load Control Program.

16 **Q AT PAGES 3 AND 4 OF HIS REBUTTAL TESTIMONY, MR. DUVALL ARGUES**
17 **THAT YOU MADE UP A FORMULA THAT YOU CLAIM IS IN THE 2008 IRP. DO**
18 **YOU AGREE?**

19 **A** No. Mr. Duvall states that the formula found in my testimony is as follows:

20 *Net Firm Obligation – Purchases – DSM – Interruptible*

21 This formula is not the one found in my testimony nor in the Company's 2008 IRP.
22 Therefore, his arguments are without merit.

1 Q AT PAGE 4 OF HIS REBUTTAL TESTIMONY, MR. DUVALL STATES THAT THE
2 MONSANTO LOAD IS TREATED AS FIRM LOAD IN THE IRP. IS THIS
3 ACCURATE?

4 A No. All of Monsanto's load, both firm and interruptible, is treated as an obligation in
5 the IRP, where obligation is defined as peak load plus firm sales. Then, Monsanto's
6 interruptible load is treated as an existing firm capacity resource in the IRP, thereby
7 offsetting the load.

8 Q HOW DOES THE COMPANY USE ITS CALCULATIONS OF ITS OBLIGATION
9 AND FIRM CAPACITY RESOURCES IN ITS 2008 IRP?

10 A The Company determines its capacity position using the following formula that
11 includes its calculated obligation and existing firm capacity resource amounts:

12
$$\text{Capacity Position} = \text{Existing Resources} - \text{Obligation} - \text{Reserves}$$

13 Q WHY IS THE CAPACITY POSITION IMPORTANT TO THE COMPANY?

14 A The capacity position indicates whether additional resources might be needed on the
15 Company's system.

16 Q WHAT IS THE COMPANY'S CAPACITY POSITION WITH THE MONSANTO
17 INTERRUPTIBLE LOAD TREATED AS A FIRM CAPACITY RESOURCE IN THE
18 IRP?

19 A According to the Company's 2008 IRP Update, the Company's capacity position for
20 the period 2011 -2013 is as follows:

TABLE 2	
RMP Capacity Position with Monsanto's Interruptible Load Recognized as a Resource	
<u>Year</u>	<u>Capacity Position</u>
2011	7 MW
2012	-1,006 MW
2013	-1,276 MW

1 A negative value indicates that RMP is short firm capacity resources.

2 **Q WHAT WOULD BE THE COMPANY'S CAPACITY POSITION IF MONSANTO'S**
 3 **INTERRUPTIBLE LOAD WERE NOT RECOGNIZED AS A FIRM CAPACITY**
 4 **RESOURCE?**

5 **A** If it were not recognized, the Company's capacity position would be as follows for
 6 2011-2013:

TABLE 3	
RMP Capacity Position if Monsanto's Interruptible Load is Not Recognized as a Resource	
<u>Year</u>	<u>Capacity Position</u>
2011	-169 MW
2012	-1,182 MW
2013	-1,452 MW

1 Q IF MONSANTO'S INTERRUPTIBLE LOAD WERE REMOVED AS A FIRM
2 CAPACITY RESOURCE IN THE COMPANY'S IRP, IS IT CORRECT THAT
3 ADDITIONAL FIRM CAPACITY RESOURCES WOULD BE NEEDED?

4 A Yes, an additional 176 MW of firm capacity resources would be needed if Monsanto's
5 interruptible load were not to be recognized as a firm capacity resource. For
6 example, the Company's capacity position in 2011 would be reduced from 7 MW to a
7 negative 169 MW. Monsanto's interruptibility allows the Company to avoid or defer
8 firm capacity resources.

9 Q AT PAGE 5 OF HIS REBUTTAL TESTIMONY, MR. DUVALL STATES THAT
10 MONSANTO'S INTERRUPTIBLE LOAD DOES NOT AVOID PLANNING
11 RESERVES. IS HIS TESTIMONY CONSISTENT WITH THE IRP?

12 A No. At page 87 of the Company's 2008 IRP, the Company states the following:

13 "Interruptible resources directly curtail load and thus planning reserves
14 are not held for them."

15 Further, at page 89 of the 2008 IRP, the formula for determining planning reserves is
16 stated as:

17 *Planning Reserves =*

18 *(Obligation – Purchase – DSM – Interruptible) x Planning Reserve Margin*

19 According to the above formula, interruptible load, including the interruptible load of
20 Monsanto, is removed from the Company's peak load obligation when calculating the
21 level of required planning reserves. As a result, the interruptibility of Monsanto's load
22 does allow the Company to avoid planning reserves. Mr. Duvall's rebuttal testimony
23 is inconsistent with the Company's 2008 IRP and his arguments are without merit.

