Before the

Idaho Public Utilities Commission

In the Matter of the Application of PacifiCorp DBA Rocky Mountain Power for Approval of Changes to its Electric Service Schedules	**Case No. PAC-E-07-05**

Direct Testimony and Exhibits of

Kathryn E. Iverson

On Behalf of

Monsanto Company

September 28, 2007
Project 8819

BAI
BRUBAKER & ASSOCIATES, INC.

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Idaho Public Utilities Commission

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Table of Contents to the Direct Testimony of Kathryn E. Iverson

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Direct Testimony of Kathryn E. Iverson

I. INTRODUCTION AND QUALIFICATIONS

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A My name is Kathryn E. Iverson; 17244 W. Cordova Court, Surprise, Arizona 85387.

Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?

A I am a consultant in the field of public utility regulation and employed by the firm of Brubaker & Associates, Inc. (BAI), regulatory and economic consultants with corporate headquarters in St. Louis, Missouri.

Q WOULD YOU PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE?

A I have a Bachelor of Science Degree in Agricultural Sciences and a Master of Science Degree in Economics from Colorado State University. I have been a consultant in this field since 1984, with experience in utility resource matters, cost allocation and rate design. More details are provided in Appendix A to this testimony.

Q ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A I am testifying on behalf of Monsanto Company, along with my colleague, Mr. Mike Gorman.

II. PURPOSE OF TESTIMONY AND SUMMARY OF CONCLUSIONS

Q WHAT SUBJECTS DO YOU ADDRESS?

A I have been asked to review Rocky Mountain Power's (or, "Company's") request for an increase in rates to serve Monsanto's Soda Springs facility. Mr. Gorman and I will make recommendations to the Idaho Public Utilities Commission ("Commission") on the adjustments to the Company's revenue requirement request as well as the allocation of the overall net increase to Monsanto.

Q WHAT SPECIFIC AREAS DOES YOUR TESTIMONY COVER?

A My testimony provides the analysis on the class cost of service study used to allocate costs among all Idaho customers, as well as the valuation of Monsanto's interruptibility. Specifically, I provide testimony on ensuring that Monsanto does not face additional costs through the fact that other customer class' loads are understated in the Idaho class cost of service study ("Idaho COS"), as well as the proper treatment of the revenue reduction associated with the rate mitigation cap. My testimony also quantifies the impact of revenue requirements as discussed in Mr. Gorman's testimony. In addition, I provide information as to the appropriate value of Monsanto's interruptible products in the context of the general rate case, and the appropriate credit to the firm demand charge.

Q ARE YOU SPONSORING ANY EXHIBITS IN CONNECTION WITH YOUR TESTIMONY?

A Yes. I am sponsoring **Exhibit 205 (KEI-1)** through **Exhibit 213 (KEI-9)**. These exhibits were prepared either by me or under my supervision and direction.

Q WHAT PRICE DOES ROCKY MOUNTAIN POWER PROPOSE TO CHARGE MONSANTO FOR SERVICE?

A The Soda Springs facility currently pays an overall average price of $25.55 per MWH:

Total Firm Revenues:	$48,668,727
Less: Non-Firm kW Credit:	($13,019,289)
Net Revenues:	$35,649,438

Divided by 1,395,545.2 MWH = $25.55 per MWH

In its filed case, Rocky Mountain Power originally proposed to increase Monsanto rates by 33% to $33.96 per MWH:

Total Firm Revenues:	$60,411,081
Less: Non-Firm kW Credit:	($13,019,289)
Net Revenues:	$47,391,792

Divided by 1,395,545.2 MWH = $33.96 per MWH

Q WOULD YOU PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS?

A My findings and conclusions are as follows:

Cost of Service and Revenue Requirements:

- Rocky Mountain Power has filed two revisions to its Idaho COS study in response to requests by Monsanto. The cost study reflecting both of these changes should be the starting point for any further modifications.

- The class coincident peaks and energy loads included in the Idaho COS study are understated when compared with the loads used in the JAM study to allocate costs to the Idaho jurisdiction. If the loads in the Idaho COS study do

not wholly reflect the JAM study loads, then customers such as Monsanto will be forced to pick up more than their fair share.

- The Idaho COS study should be adjusted in order to align the monthly loads to the JAM study loads.

- While I agree with the Company's determination of the dollar amount of the reduction to its revenue requirement as a result of the rate mitigation cap, I do not agree with the Company's approach to distributing the reduction.

- The rate mitigation cap exists to mitigate (that is, lessen) the impact of moving to the Revised Protocol method. Distribution costs are not affected by the choice of allocation methodology since these costs are situs and directly assigned to their respective jurisdictions.

- The Company proposes to lower the rate of return across all functions in order to reflect the revenue reduction stemming from the rate mitigation cap. I recommend this reduction be allocated to classes on the basis of their generation and transmission rate base. This will better distribute the mitigation dollars to the classes impacted by the transition from to the Revised Protocol method.

- My testimony includes the estimated impact of revenue requirement adjustments for return on equity, severance costs, pension expenses, SO2 allowances and 2007 plant additions.

- As a result of the modifications to the cost study and the revenue requirement adjustments, the firm revenue requirement to serve Monsanto is $53.1 million, or an increase of 9.2% in firm rates.

Valuation of Monsanto Interruptibility:

- Monsanto has been an exemplary interruptible customer since 1951. As a reliable customer, it allows Rocky Mountain Power to avoid or defer incurring capacity costs for generation. It also provides opportunities to reduce fuel or purchased power expenses during high cost periods.

- Based on its current products of operating reserves, economic curtailment and system integrity, the avoided peaker cost indicates a value of $20 million for Monsanto.

- Price stability and rate certainty have been consistent priorities for Monsanto's management. Valuations methods which produce widely swinging or erratic values year-to-year cannot be considered either stable or certain.

- The Company has offered its valuation of Monsanto's product under two methods: the Front Office model and the GRID model. These models do not adequately consider the avoided capacity costs associated with avoiding or deferring generation.

- Furthermore, the models support conflicting conclusions on the value of Monsanto and demonstrate wide swings in values. The Front Office model, in particular, focuses exclusively on valuing Monsanto's reserves on the basis of its least-profitable gas units.

- The results of the Company's "lost profit" reserve valuation in this case are simply not robust and do not reflect a sound basis on which to value Monsanto's interruptibility. Results can be greatly manipulated merely by including – or excluding – certain resources. I recommend the Commission place no weight on the Company's reserve valuations.

- The anticipated benefits of using interruptibility as a hedge against market price increases is entirely missing from the Company's filing. A proper reflection of the value would alleviate the double-digit increase to Monsanto and help keep its rates affordable.

- I recommend the value of Monsanto's interruptible products be set at not less than $18 million for purposes of setting rates in this case.

- The impact of an increase in firm rates, together with the interruptible valuation results in a net price of $25.27 per MWH to Monsanto.

Q HOW IS YOUR TESTIMONY ORGANIZED?

A My testimony will first discuss the treatment of Monsanto loads in the cost study. Next, I discuss the allocation of costs to Monsanto as a firm customer with revisions to the Company cost study and adjustment for various revenue requirement issues. Third, my testimony will address the quantification of valuing Monsanto's interruptibility and how Rocky Mountain Power's proposed models fail to account for a proper level of avoided capacity costs.

III. BACKGROUND ON THE TREATMENT OF MONSANTO IN COST STUDIES

Q DOES MONSANTO RECEIVE FIRM SERVICE FROM ROCKY MOUNTAIN POWER?

A Only a very small portion (9 MW) of Monsanto's total 180 MW is served under firm rates. The vast majority of Monsanto's load is interruptible and is charged a lesser

demand charge. For cost allocation purposes Monsanto is treated as though it were 100% firm, although in reality Monsanto is primarily an interruptible customer.

Q IF MONSANTO IS PRIMARILY AN INTERRUPTIBLE CUSTOMER, THEN HOW DOES ROCKY MOUNTAIN POWER DETERMINE THE COSTS TO SERVE THE LOAD?

A Rocky Mountain Power adjusts Monsanto's test period loads to reflect what Monsanto would have consumed had it been a firm customer. Then once the cost to serve Monsanto as a firm customer is established, Rocky Mountain Power deducts from the firm rate a credit for the interruptibility. The current credit is $6.36 per kW-month. Applied to 2,047,058 kW-months this results in a $13.0 million credit. My testimony will discuss the valuation credit in Section V.

Q WHAT ADJUSTMENTS MUST ROCKY MOUNTAIN POWER MAKE TO MONSANTO'S ACTUAL METERED LOADS FOR TREATMENT IN ITS COST STUDIES?

A Metered loads reflect "buy through" or "replacement" energy at times. Metered loads also reflect the fact that one or more furnaces were curtailed or interrupted at times. Consequently, Rocky Mountain Power must first deduct any "replacement" energy taken by Monsanto from the actual metered loads. It then adds back the curtailment/interrupted energy to arrive at a total firm load for Monsanto.

Q WHAT IS MEANT BY "REPLACEMENT" ENERGY?

A During times of economic curtailment, Monsanto may elect to buy through rather than physically curtail its electric phosphorous furnace load. Under this option, Monsanto can buy-through by paying Rocky Mountain Power for replacement energy at an

adjusted index price. This price is meant to directly compensate Rocky Mountain Power for the costs associated with acquiring the replacement energy from another entity. Monsanto may not buy-through during interruptions called for operating reserves or system integrity.

Q HAS THE COMPANY PROPERLY ACCOUNTED FOR MONSANTO'S LOADS IN ITS ORIGINAL FILING?

A No. Rocky Mountain Power acknowledges that it did not deduct 67 MW of buy-through in the coincident peaks of September, November and December in its originally filed Idaho COS.[1] Correction of this error has been made in a revised Exhibit 30 provided as Attach Monsanto 9.6 to the Company's response to Monsanto Data Request 9.6. I have attached this response and the summary pages of the revised Idaho COS study as **Exhibit 205 (KEI-1)**.

IV. MODIFICATIONS TO ROCKY MOUNTAIN POWER CLASS COST STUDY

Q WHAT ARE THE RESULTS OF THE IDAHO CLASS COST STUDY AS ORIGINALLY FILED BY ROCKY MOUNTAIN POWER?

A Table 1 presents the results of Rocky Mountain Power's cost study:

[1]Response to Monsanto Data Request 9.6 a.

TABLE 1

Rocky Mountain Power Results of Class Cost of Service as Initially Filed in Case No. PAC-E-07-05

	Present Revenue	Increase (Decrease) to Equal ROR	Percentage Change
Residential	$ 51,015,604	$ 3,681,443	7.2%
General Service	34,512,075	(1,635,836)	-4.7%
Irrigation	39,404,679	3,876,845	9.8%
Other	977,444	221,661	22.7%
Agrium	3,998,852	580,053	14.5%
Monsanto	48,668,727	11,742,384	24.1%
Total	$178,577,381	$18,466,550	10.3%

Source: Exhibit No. 28

As the above results illustrate, the Company's filed class cost of service results in an increase to Monsanto's firm rates of 24.1%.

Q HAS THE COMPANY PROVIDED ANY UPDATES TO ITS COST STUDIES SINCE IT INITIALLY FILED ITS GENERAL RATE CASE?

A Yes, it has provided two updates. First, it was discovered that the power supply costs presented in the Company's rate case were incorrect due to a categorization error in which one of the Company's systems did not differentiate gas purchases from gas sales. A revised Exhibit 30 (Idaho COS) was provided in the Company's response to Monsanto Data Request 7.2.

Second, as explained earlier Rocky Mountain Power overstated Monsanto's coincident peaks in its originally filed Exhibit 30. A corrected Idaho COS study was provided in the Company's response to Monsanto Data Request 9.6. The results of these two corrections are shown in Table 2:

TABLE 2

Rocky Mountain Power Results of Class Cost of Service

As Corrected for Gas Categorization Error and the Overstatement of Monsanto Loads

	Present Revenue	Increase (Decrease) to Equal ROR	Percentage Change
Residential	$ 51,015,604	$ 3,842,580	7.5%
General Service	34,512,075	(1,535,457)	-4.4%
Irrigation	39,404,679	3,739,469	9.5%
Other	977,444	224,339	23.0%
Agrium	3,998,852	585,019	14.6%
Monsanto	48,668,727	9,358,982	19.2%
Total	$178,577,381	$16,214,931	9.1%

Source: Response to Monsanto Data Request No. 9.6. See also Exhibit 205 (KEI-1)

Based on this corrected cost study, the overall change in Monsanto's net rate would be 26% compared to the 33% as originally filed, assuming no change in the interruptibility credit:

Total Firm Revenues:	$58,027,709
Less: Non-Firm kW Credit:	($13,019,289)
Net Revenues:	$45,008,420

Divided by 1,395,545.2 MWH = $32.25 per MWH

Q WHAT MODIFICATIONS HAVE YOU MADE TO THE IDAHO CLASS COST OF SERVICE STUDY?

A I have made two modifications to the Company's Idaho COS. First, I have adjusted class coincident peaks and energy of most non-contract classes to better align Idaho

COS total loads with those in the JAM study. Second, I have applied the revenue reduction stemming from the rate mitigation cap to all customer classes based on their share of generation and transmission rate base. This is an alternative to Rocky Mountain Power's approach which lowered the rate of return on all functions.

Lastly, as detailed in Mr. Gorman's testimony, there are five other adjustments to Rocky Mountain Power's revenue requirement which must also flow through the cost study. I have made separate adjustments to account for the estimate of these proposals. Other parties may have further revenue requirement adjustments that could also ultimately impact the cost to serve each class and would then need to also be incorporated in the JAM study and in the Idaho COS.

Alignment of Loads Between the JAM Study and the Idaho COS Study

Q PLEASE EXPLAIN THE LEVEL OF IDAHO LOADS USED IN ROCKY MOUNTAIN POWER'S JAM STUDY.

A **Exhibit 206 (KEI-2)** details the coincident peaks and energy loads employed by Rocky Mountain Power in its JAM study. Page 1 provides the coincident peaks by month starting with the metered loads at input and page 2 details the energy loads. Replacement (or buy-through) amounts are shown in column 2 on each page, and the addition of curtailments are shown in column 3. The fourth column shows the temperature adjustments made in order to normalize load for weather. The total 12 CP for Idaho is 5,784 MW, and the total MWH load is 3,689,647 MWH. These amounts were used in the JAM study for purposes of allocating costs to the Idaho jurisdiction.

Q HOW DO THESE AMOUNTS COMPARE TO THE LOADS ASSUMED IN THE IDAHO CLASS COST STUDY?

A A comparison of the JAM study monthly loads to the Idaho COS study is provided in **Exhibit 207 (KEI-3)**. The total coincident peaks of the Idaho COS are 2.1% lower than the peaks used in the JAM study and the energy loads are 2.5% lower than the energy used in the JAM study.[2]

Q ARE THE DIFFERENCES IN LOADS BETWEEN THE JAM STUDY AND IDAHO COS STUDY MORE NOTICEABLE IN CERTAIN SEASONS?

A Yes. Almost the entire difference for the peaks occurs in the June, July, August time frame. When we look at just those three months, the Idaho COS loads are 6.8% less than the loads used for the same months in the JAM study. This is a critical discrepancy as those three months are used in the development of allocation factors applicable to seasonal resources:

> The costs of Seasonal Resources are allocated using seasonal factors because they are designed to be used more intensively at certain times of the year. (Exhibit 30, Tab 1, page 7)

Q WHY ARE THE TOTAL LOADS SO DIFFERENT BETWEEN THE JAM STUDY AND THE IDAHO CLASS COST STUDY?

A Rocky Mountain Power explains this discrepancy in their response to IIPA Data Request 1.3:

> The state load data that is used for jurisdictional allocation will not reconcile to the sum of the class loads used in the cost of service study because they are calculated differently. Because the metering points and the treatment of losses are different between the two calculations, the numbers will not match.

[2]See Response to IIPA Data Request 1.3. Rocky Mountain Power's comparison of JAM study loads and Idaho COS loads was made before it was discovered that Monsanto's coincident peaks were overstated in the Idaho COS.

Q WHICH CLASSES ARE CONTRIBUTING TO THE DEVIATION OF LOADS BETWEEN THE JAM STUDY AND THE IDAHO COS STUDY?

A We know for certain this deviation is <u>not</u> from the two special contract loads – Monsanto and Agrium. These customers are metered with interval demand meters and consequently their loads are known with certainty for all 8,760 hours of the year. The deviation of loads thus lies with other customer classes. The load for the majority of all other classes comes from either load research sample data, historical load research, or data from a prior year. Schedule 8 and 9 are taken from census data.[3]

Q ROCKY MOUNTAIN POWER CLAIMS THAT THE DIFFERENCES IN LOADS BETWEEN THE JAM STUDY AND THE IDAHO CLASS COST STUDY ARE ONLY 1.5% AND 2.6% IN TOTAL. DOES THIS DIFFERENCE REALLY MATTER?

A Yes, it most certainly does for customers who are allocated a large share of the Idaho jurisdictional costs. Costs are allocated to the Idaho jurisdiction based on the monthly peaks and energy loads of the JAM study, and then those allocated costs are transferred into the Idaho COS study. If the loads in the Idaho COS study do not wholly reflect the full JAM study loads, then customers such as Monsanto and Agrium are forced to pick up more than their fair share.

For example, Monsanto's share of the total 12 CP of the JAM study is 36.2% (2,093,891 ÷ 5,783,958 kW). However, because the coincident peaks in the Idaho COS study are understated, Monsanto picks up 37.0% (2,093,891 ÷ 5,660,775), a <u>higher</u> share of the 12 CP.

The energy discrepancy impacts Monsanto even more so. Monsanto's share of the total energy load included in the JAM study is 39.54% (1,458,945 ÷ 3,689,647

[3]Response to Data Request IIPA 1-2.

MWH). Since the energy loads in the Idaho COS study are so understated, Monsanto picks up a full percentage point more of costs allocated on the basis of energy; Monsanto's energy allocator in the Idaho COS is 40.56% (1,458,945 ÷ 3,596,569).

As a result of these discrepancies, Monsanto is being allocated more costs than are warranted based on the costs stemming from the JAM study. Furthermore, the Company proposes to increase rates for Monsanto and Agrium equal to their full cost of service results. Thus, it is even more important that these contract customers' costs not be unfairly raised as a result of understating the loads of the non-contract customers.

Q HOW CAN THIS PROBLEM BE RECTIFIED?

A The loads of the customer classes other than special contract, Schedule 8 and Schedule 9 should be adjusted either up or down in order to align Idaho COS study monthly peaks and energy sales to the amounts employed in the JAM study. In order to determine these monthly adjustments, I have compared the non-contract/Schedule 8/9 loads of the JAM study against the non-contract/Schedule 8/9 loads of the Idaho class cost study. Adjustment factors were then determined for each month for both the peaks and energy as shown on **Exhibit 208 (KEI-4)**. The overall adjustment reflects an increase of 3.8% for coincident peaks, and 4.9% for energy. Thus, when the cost study is run based on loads which better align to the JAM study, Monsanto's increase is $8.0 million as summarized below:

TABLE 3

Rocky Mountain Power Results of Class Cost of Service

As Corrected for Gas Categorization Error, the Overstatement of Monsanto Loads and the Alignment of Class Loads to the JAM Study Loads

	Present Revenue	Increase (Decrease) to Equal ROR	Percentage Change
Residential	$ 51,015,604	$ 4,140,5828	8.1%
General Service	34,512,075	(1,274,058)	-3.7%
Irrigation	39,404,679	4,644,790	11.8%
Other	977,444	228,725	23.4%
Agrium	3,998,852	479,387	12.0%
Monsanto	48,668,727	7,995,505	16.4%
Total	$178,577,381	$16,214,931	9.1%

Source: Monsanto Workpapers

Based on this corrected cost study, the overall change in Monsanto's net rate would be 22.4% compared to the 33% as originally filed:

Total Firm Revenues:	$56,664,232
Less: Non-Firm kW Credit:	($13,019,289)
Net Revenues:	$43,644,943

Divided by 1,395,545.2 MWH = $31.27 per MWH

Treatment of the Rate Mitigation Cap

Q WHAT IS THE REDUCTION TO THE REQUESTED INCREASE AS A RESULT OF THE RATE MITIGATION CAP?

A Rocky Mountain Power has reduced the Revised Protocol revenue requirement by $3,561,268 in its original filing.[4] This amount has now been adjusted downward to $3,308,193 as a result of the correction of the gas categorization error.[5]

Q HOW DOES ROCKY MOUNTAIN POWER PROPOSE TO HANDLE THIS REDUCTION?

A The Company has reduced its overall requested rate of return in its Idaho COS study from 8.52% down to 8.07% in order to provide the revenue reduction back to its customers.[6] The Idaho COS study is based on the Revised Protocol method JAM results, not on the Rolled-In method since the Company no longer performs class cost studies based on the Rolled-In allocation.[7]

Q DO YOU AGREE WITH ROCKY MOUNTAIN POWER'S TREATMENT OF THE RATE MITIGATION CAP?

A No. While I agree with Rocky Mountain Power's determination of the dollar amount of the reduction to its revenue requirement, I do not agree with the Company's approach to distributing the reduction. By using a lower rate of return in the Idaho COS study, the Company's method mitigates the increase across all functions. However, the

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[4]Page 1.0 of Exhibit No. 11.

[5]Rocky Mountain Power Response to IPUC Audit Data Request 107, Attachment IPUC 107 b 2.

[6]See Response to Monsanto Data Request 7.9.

[7]See Response to Monsanto Data Request 1.16: "Separate cost of service allocations for Rolled-In are no longer calculated in any of the company's jurisdictions."

movement of going from the Rolled-In allocation method to the Revised Protocol allocation methodology impacts system-wide costs that are allocated among all of PacifiCorp's jurisdictions, that is, generation and transmission-related costs. Distribution costs are not affected by the choice of allocation methodology since these costs are situs and directly assigned to their respective jurisdictions. Lowering the return to distribution functions is not a proper use of the revenue reduction from the rate mitigation cap.

Q WHY IS LOWERING THE RETURN TO THE DISTRIBUTION FUNCTION IMPROPER?

A A review of the Revised Protocol and Rolled-In workpapers show that distribution expenses and distribution total plant are exactly the same between the two jurisdictional allocation methodologies.[8] Since the distribution function is unaffected by the transition to the Revised Protocol methodology it does not make sense to provide any portion of the rate mitigation cap to reducing the distribution revenue requirement.

In other words, the rate mitigation cap exists to mitigate (that is, lessen) the impact of moving to the Revised Protocol method. Since there are no added costs to mitigate for the distribution and retail functions, it makes no sense to apply any of the rate mitigation cap dollars to the distribution and retail functions. Instead, the reduction in revenues should apply only to the generation and transmission functions.

[8]See Pages 2.12 and 9.12 of Exhibit 11 showing that distribution expense is $10,136,621 for both methods. See Pages 2.26 and 9.26 of Exhibit 11 showing that distribution total plant is $229,476,980 for both methods.

Q HOW DO YOU PROPOSE THE RATE MITIGATION CAP BE TREATED IN THIS CASE?

A Rocky Mountain Power should first calculate the increases to the customer classes based on the full authorized rate of return. The rate mitigation cap reduction should then be allocated to all classes based on their share of generation and transmission rate base. I should emphasize this does not impact the overall amount of rate mitigation cap dollars, it correctly distributes those mitigation dollars to the classes impacted by the transition from the Rolled-In method to the Revised Protocol.

Q HAVE YOU QUANTIFIED THE IMPACT OF YOUR PROPOSAL?

A Yes. **Exhibit 209 (KEI-5)** quantifies the distribution of the $3.3 million revenue reduction as proposed by the Company in column (1). Column (2) shows the same amount of revenue reduction, however, allocated under our proposal on the basis of generation and transmission rate base. This analysis is based on the results of the cost study presented in Table 3, and assumes the Company's request for a return on equity of 10.75%.

Other Revenue Requirement Adjustments

Q WHAT OTHER REVENUE REQUIREMENT ADJUSTMENTS SHOULD BE INCORPORATED IN THE CLASS COST STUDY?

A Mr. Gorman addresses the following revenue requirement issues. The impacts of these adjustments are as follows:

Return on Equity: Mr. Gorman supports a return on equity ("ROE") of 10.00% compared to the Company's request for 10.75%, reducing the Company's request by roughly $3 million.

Transition Severance: This adjustment reduces Idaho's revenue requirement by $542,387. As an adjustment to Account 930, it is functionalized on the LABOR allocator and allocated to the classes.

Pension Expenses: This adjustment reduces Idaho's revenue requirement by approximately $1 million. It is functionalized and allocated on the same basis as the severance adjustment above.

SO_2 Allowances: This adjustment reduces Idaho's revenue requirement by approximately $850,000.

2007 Plant Additions: This adjustment reduces Idaho revenue requirement by approximately $4.7 million.

Q HAVE YOU ESTIMATED THE IMPACT OF EACH OF THESE ADJUSTMENTS ON CUSTOMER CLASSES?

A Yes. Starting with the results of the Idaho COS study shown on Table 3, I have separately estimated the impact of the various adjustments on **Exhibit 210 (KEI-6)**. While the proper method would be to run these adjustments through the JAM study (both the Rolled-In and Revised Protocol methods for purposes of the rate mitigation cap) as well as the Idaho COS study, for purposes of this testimony we have simply shown the adjustments made external to the cost studies. Any compliance study created as a result of the Commission's decision in this case would of course adjust the JAM studies and the Idaho COS study so that all adjustments flow through to their proper functionalization and allocation.

Summary of Cost Allocation Studies

Q PLEASE SUMMARIZE THE RESULTS OF YOUR COST STUDIES AND MODIFICATIONS.

A Table 4 summarizes the results of the cost studies with the treatment of Monsanto as a firm customer:

TABLE 4

Adjusted Cost of Service Study Results

	Present Revenue	Increase (Decrease) to Equal ROR	Percentage Change
Residential	$ 51,015,604	$ 1,617,290	3.2%
General Service	34,512,075	(3,092,821)	-9.0%
Irrigation	39,404,679	2,647,368	6.7%
Other	977,444	177,234	18.1%
Agrium	3,998,852	207,001	5.2%
Monsanto	48,668,727	4,472640	9.2%
Total	$178,577,381	$ 6,028,712	3.4%

Source: Exhibit 210 (KEI-6)

Based on this adjusted results of the cost study, Monsanto's firm cost of power would be $38.08 per MWH. With no change in the interruption valuation, Monsanto's net rate would be $28.75 per MWH, or an increase of 12.5% above the current net rate of $25.55 per MWH.

Total Firm Revenues:	$53,141,367
Less: Non-Firm kW Credit:	($13,019,289)
Net Revenues:	$40,122,078

Divided by 1,395,545.2 MWH = $28.75 per MWH

Based on the above firm revenue requirement, the firm rates for Monsanto would be $1,275 per month customer charge, a demand charge of $10.92 per kW-month and an energy charge of 2.1205¢ per kWh.

V. VALUATION OF MONSANTO INTERRUPTIBILITY

Q WHAT AMOUNT OF CREDIT DOES MONSANTO CURRENTLY RECEIVE FOR ITS INTERRUPTIBILITY?

A The majority of Monsanto's load is served under an interruptible demand charge of $3.64 per kW-month. This represents a credit of $6.36 off the $10.00 firm demand charge. As I stated earlier, the $13 million credit offsets the firm revenue requirement and results in a current net rate to Monsanto of $25.55 per MWH.

Q IS THE CURRENT CREDIT BASED ON ANY PARTICULAR VALUATION METHODOLOGY?

A No. The 2007 Electric Service Agreement ("2007 ESA") was negotiated in spring 2006 with rates agreed upon by the parties as reasonable and acceptable for service to the Soda Springs facility. While information was provided by the Company on its cost study, there was never an attempt to tie either the firm rates to a compliance cost study, or to claim any particular method as the basis for the reduced demand charge for non-firm service.

Q WHAT AMOUNT OF INTERRUPTIBILITY DOES MONSANTO PROVIDE ROCKY MOUNTAIN POWER?

A The 2007 ESA provides for three products: (1) Operating Reserves of 95 MW which can be called upon 188 hours per calendar year; (2) Economic Curtailment of 67 MW available for 800 hours per calendar year; and (3) System Integrity of 162 MW available 12 hours per calendar year.

Q WHAT RECOMMENDATIONS DO YOU MAKE TO THE COMMISSION FOR PURPOSES OF ESTABLISHING A PROPER CREDIT FOR MONSANTO'S INTERRUPTIBLE PRODUCTS?

A Before going into the details, let me first start with a few basic points regarding the valuation:

1. Monsanto is a **long-term** customer. It has been an exemplary interruptible customer complying with Rocky Mountain Power's curtailment requests over the last fifty-plus years. Given its long-term commitment, we believe this surely justifies valuing Monsanto on the basis of avoided capacity and energy.

2. Price **stability** and rate **certainty** have been consistent priorities for Monsanto's management. Valuation methods which produce widely swinging or erratic values year-to-year can not be considered either stable or certain.

3. Rocky Mountain Power assumes that Monsanto's interruptible load contract is extended to the end of their resource planning period.[9] In order to retain such contracts in their portfolio, the Company should encourage commitment through **fair and reasonable valuations**.

4. Demand response resources, such as interruptible contracts, promote efficient use of resources in general and depending on generation fuel mix, can help reduce externalities in power generation and reduce emissions.[10] Protecting and enhancing the **environment** is at the forefront of Rocky Mountain Power's business strategy and the Monsanto interruptible contract is consistent with that strategy.

Q DO YOU BELIEVE THAT ROCKY MOUNTAIN POWER HAS FAILED IN ITS TESTIMONY TO RECOGNIZE THESE BASIC POINTS?

A Yes, I do.

1. Rocky Mountain Power handles valuation on a year-to-year basis. It never approaches the valuation of Monsanto as a **capacity-focused program**.

2. Results of Rocky Mountain Power's models are **conflicting** and show **erratic swings** in valuation. For example, the introduction of a single new resource in a single month can result in wiping out $1.4 million of the annual value.

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[9]PacifiCorp 2007 Integrated Resource Plan, Chapter 4, page 74.

[10]PacifiCorp 2007 Integrated Resource Plan, Appendix B, page 8.

3. The Company's valuation offers no hedge against market prices. Claiming that the value has decreased 25% since last year, while simultaneously seeking a rate increase of 24% to Monsanto's firm rates, does not constitute a fair and reasonable approach to encourage retention of its interruptible contract.

Treatment of Monsanto as a Capacity-Focused Long-Term Resource

Q HOW LONG HAS MONSANTO BEEN A CUSTOMER?

A Monsanto has been a reliable interruptible customer since 1951 and has adequate ore to be mined for another 40 years. The fact that Monsanto has been an unfailing customer these fifty-plus years along with its commitment to remain operating in Idaho in the foreseeable future all point to treating Monsanto's interruptibility as a long-term resource.

Q WHAT ARE THE ECONOMIC BENEFITS TO THE UTILITY, THE CONSUMERS AND THE POWER SYSTEM AS A WHOLE FROM A LONG-TERM INTERRUPTIBLE PROGRAM SUCH AS MONSANTO'S CONTRACT?

A According to PacifiCorp's IRP, there are a host of economic benefits, but cost avoidance and cost reduction are the main economic drivers. Perhaps the Company's 2007 IRP stated it best:

> Demand response allows utilities to avoid or defer incurring costs for generation, transmission, and distribution, **including capacity costs**, line losses, and congestion charges. (PacifiCorp 2007 IRP, Appendix B, page 7, emphasis added)

Q ARE THERE OTHER SYSTEM BENEFITS AS WELL?

A The support of reliability in power supply and delivery during system emergencies is also a benefit when customers such as Monsanto can shed load during emergency conditions. This is further explained in the 2007 IRP:

> Customer demand management can enhance reliability of the electric supply and delivery systems by providing the utility with the means to

better balance loads with supply during system emergencies and/or high-use periods. In this context, (demand response) can help improve the adequacy and security of the power supply and delivery (T&D) systems by augmenting the utility's ancillary services, such as supplemental reserve. (PacifiCorp 2007 IRP, Appendix B, pages 7-8)

Q DOES MONSANTO PROVIDE THESE BENEFITS TO ROCKY MOUNTAIN POWER AND ITS CUSTOMERS?

A Yes it does. Monsanto's contract allows Rocky Mountain Power to avoid or defer incurring capacity costs for generation. It also allows the Company to reduce its fuel or purchased power expense by calling upon Monsanto for economic curtailment over 800 hours each year. Furthermore, since Monsanto is able to interrupt within a ten-minute time period, it qualifies as a resource that can provide operating reserves. For the test period 2006, the Company called on Monsanto 70 times for operating reserves, with the interruptions occurring fairly consistently across the year. Interruptions for operating reserves can occur at any time and in any month, and Monsanto stands available 24 hours per day to provide this product.

Monsanto also provides Rocky Mountain Power the means to balance system loads during system emergencies. The loads of its three furnaces – 162 MW – are available for curtailments for system integrity purposes.

Q IS MONSANTO A "CAPACITY-FOCUSED" RESOURCE?

A Yes. Monsanto's load is a flexible, price-responsive load that may be curtailed in whole or in part during system emergencies, or during periods of high market prices or stressed regional resources. In valuing the resource then, it makes sense to base its avoided cost not on some short-term value, but the long-run avoided cost of resources with similar attributes. A combustion turbine ("CT"), like Monsanto, is used

to meet peak periods of high demand, or in situations where numerous generator outages result in scarce resources.

Q DO YOU BELIEVE THAT ROCKY MOUNTAIN POWER CURRENTLY USES MONSANTO'S INTERRUPTIBLE PRODUCTS MUCH LIKE IT WOULD A COMBUSTION TURBINE?

A Yes. Rocky Mountain Power calls upon Monsanto practically every month of the year to provide either operating reserves or economic curtailment. In times of emergency, the Company has called on Monsanto to interrupt all three of its furnaces, or has sought Monsanto's cooperation to keep furnaces from coming on-line. Monsanto has been highly successful in its performance and the Company has even sought additional curtailments at critical times. A recent example occurred on July 25, 2006 when Monsanto was able to respond quickly to Rocky Mountain Power's appeal for an additional 47 MW of curtailment above the existing 67 MW already under curtailment. The fact that Monsanto is willing to provide additional curtailments when needed showcases its on-going commitment to work with Rocky Mountain Power for the good of the system.

Q ARE THERE PENALTIES IF MONSANTO DOESN'T PERFORM?

A Yes, there are penalties set forth in the 2007 ESA, but Rocky Mountain has never had to exercise them since Monsanto has complied 100% with all requests. In fact, if Monsanto does not comply, there is a $150,000 penalty for each occurrence and with only "two strikes" Rocky Mountain Power can petition the Commission for appropriate relief.

Q SINCE MONSANTO'S LOAD IS TREATED LIKE A COMBUSTION TURBINE, SHOULD ITS VALUE BE LIKEWISE DETERMINED ON THE BASIS OF THE AVOIDED COST OF A COMBUSTION TURBINE?

A Yes. The credit should be based on the costs Rocky Mountain Power would incur if it were to build and install a new CT. A turbine that can provide quick-start capability in less than ten minutes, such as aero-derivative simple cycle combustion turbine ("Aero SCCT") should be used as the basis for the load which Monsanto can curtail within ten minutes, in particular the 95 MW of operating reserves. While the 67 MW of economic curtailment can also be interrupted in a matter of seconds for the 12 hours of system integrity, the contract currently requires a two-hour notice for the 800 hours of economic curtailment. Thus, to be conservative I have used the lesser capacity cost of a turbine that does not have quick-start capability, e.g., a 2 Frame "F" simple cycle combustion turbine ("Frame CT"), to model the value associated with the 67 MW furnace load.

Q WHAT ARE THE COSTS ASSOCIATED WITH THESE TWO TYPES OF TURBINES?

A The avoided capital and running costs of these turbines are shown in **Exhibit 211 (KEI-7)**. These figures represent Rocky Mountain Power's own estimates of peaking resources in the East as detailed in the May 2007 Integrated Resource Plan ("2007 IRP").

The real levelized[11] cost of an Aero SCCT ranges between $92.94 and $100.79 per kW (2006$) based on construction in Utah of a 78 or 79 MW unit at a carrying charge of 9.51% and including fixed operation and maintenance and other

[11]Real levelized capacity costs used in this analysis comprise the first year's deferral. Real levelization (in contrast to a nominal levelization), assumes that the avoided capital portion would increase each year by the rate of inflation.

costs.[12] The avoided energy costs range between $68.04 and $81.61 per MWH. The lower capacity cost of the Frame CT is $47.89 per kW-year on a real levelized basis, with higher energy costs of $90.70 per MWH.

Applying these two sets of resource costs to the 95 MW of operating reserves, and the 67 MW of economic curtailment results in a value of roughly $20 million: $11.8 million attributable to the operating reserves portion[13] and $8.5 million for the economic curtailment.

Q YOU HAVE STATED THAT THE COMPANY NEVER APPROACHES THE VALUATION OF MONSANTO AS A CAPACITY-FOCUSED PROGRAM. WHAT HAS LED YOU TO THIS CONCLUSION?

A Rocky Mountain Power has valued Monsanto under two methods: the Front Office model, and its GRID net power costs model. The Front Office model separately values each of Monsanto's products, but only based upon projected forward price curves and lost "profits" for the years 2008 and 2009. Consequently, the value from the Front Office model is simply the result of short-run projected market prices (and to some degree on the running costs of its own "highest cost" plants).

Likewise, the GRID model also values Monsanto based on additional sales in a single year (either 2008 or 2009) under projected market prices, whether as a result of reduced sales to Monsanto or additional generation from existing resources. The GRID model is incapable of calculating a value for the system integrity component. The only capacity value captured by these two models, consequently, is the extent to which the forward market prices include an *implied* capacity payment, as suggested by the Company:

[12] 2007 IRP, page 93 and 95.

[13] This also includes the avoided energy cost associated with system integrity as well.

The market prices used in the company's filing are based on price quotes from independent third party brokers and other market intelligence. The company believes there is an implied capacity component in the market price, but has not attempted to measure the amount. (Response to Monsanto Data Request 9.8)

Q HAVE YOU QUANTIFIED THE IMPLIED CAPACITY COMPONENT OF THE COMPANY'S VALUES?

A Yes. A quantification of the implied avoided capacity component is presented in **Exhibit 212 (KEI-8)** under two scenarios: the incremental generating units are assumed as either peaking resources with an average running cost of $80.12 per MWH, or the incremental units are assumed as intermediate type resources, such as a combined cycle unit, with running costs of $52.21 per MWH. These two scenarios present reasonable approximations for analyzing what amount of capacity costs are implied within the Company's projected market prices.

For operating reserves (shown on page 1 of Exhibit 212), the implied capacity costs from the Company's models range from $13 per kW-year to a high of $44 per kW-year. These low values aptly demonstrate the failure of the Company's models to reasonably reflect the avoided capacity cost of an Aero SCCT averaging $97 per kW-year. Furthermore, these implicit capacity values are all substantially less than PacifiCorp's $98 avoided cost of capacity used in its recent assessment of long-term, system-wide demand side resources.[14]

For the economic curtailment component (shown on page 2 of Exhibit 212), the implied capacity values range from $8 to $40 per kW-year. While the amounts stemming from the Front Office model (line 12, columns 1 and 2) are somewhat

[14] "Assessment of Long-Term, System-Wide Potential for Demand-Side and Other Supplemental Resources," prepared for PacifiCorp, July 11, 2007, page 17.

closer to the avoided cost of a Frame CT ($48/kW-yr), the implied capacity costs from the GRID model are 40% less than the first year deferral cost of a Frame CT.

Q WHAT DO YOU CONCLUDE FROM YOUR QUANTIFICATION?

A The annual market values used in the Company's models do not adequately reflect the avoided capacity costs associated with peaking resources. While the implied capacity costs found in the Front Office model value of economic curtailment come to within 84% of Rocky Mountain Power's avoided cost of capacity of a Frame CT, the operating reserves valuation performed by the Company significantly understates the avoided capital cost of the Company. The $20 million value determined in Exhibit 211 properly accounts for the avoided costs and the Company's methods do not.

Price Stability and Erratic Swings under the Company's Methods

Q WHAT IS ROCKY MOUNTAIN POWER'S UNDERLYING PRINCIPLE TO VALUING INTERRUPTIBLE PRODUCTS?

A As outlined in Mr. Widmer's Supplemental Testimony, the Company follows a "ratepayer indifference" approach:

> The Company follows a "ratepayer indifference" approach similar to what is used in calculating avoided costs for qualifying facilities. In other words, the Company seeks to pay industrial customers who can offer curtailment products the same price the Company would otherwise pay if it were to acquire those same products from other sources, such as the market or its own resources. ...
>
> Therefore, ratepayer equity suggests that the price paid to industrial customers for curtailment products should be no greater than the amount the Company would incur if it were to acquire those same products from the next lowest cost available resource." (Supplemental Direct Testimony of Mark Widmer, page 3)

Q DO ROCKY MOUNTAIN POWER'S MODELS YIELD CONFLICTING RESULTS?

A Yes. First, looking at the Front Office model, the results show a drop of over 40% in the value attributed to the 95 MW reserves between years 2008 and 2009 (Exhibit 212, page 1, line 1, columns (1) and (2)). However, the GRID model shows an increase of 33% in the same time frame. The two models support conflicting conclusions about the changing value of operating reserves.

Second, the Front Office model values economic curtailment consistently at $5.8 million in both 2008 and 2009 (Exhibit 212, page 2, line 1, columns (1) and (2)). However, the GRID model values this curtailment 14% less than the Front Office model even though their market price curves are within three months of each other. This difference is not explained by the Company.

Third, the Front Office model considers "lost profits" from only gas-fired resources in its valuation of operating reserves. The GRID model, however, considers additional sales from both gas-fired and coal-fired generation. In fact, in the 2009 GRID model reserves value, the GRID model assumes that additional coal-fired generation (72,342 MWH) surpasses additional gas-fired generation (66,401 MWH) because of the inclusion of Monsanto's reserves product.

Q WHY IS IT IMPORTANT WHETHER GAS-FIRED OR COAL-FIRED GENERATION IS ASSUMED IN THE VALUATION OF OPERATING RESERVES?

A The Company uses a "lost profits" method for placing a value on reserves. The choice of resource type held for reserves and its associated running cost, can result in huge differences in the "lost margins" assumed in the "lost profits" method.

Q WHAT IS A "LOST PROFITS" METHOD?

A To value reserves under the Front Office model, Rocky Mountain Power determines which unit has the highest running cost that is "in the money", that is, where running costs are less than the market price. This least profitable unit is designated as the unit being held back for reserves, and thus the Company is losing any profits it could have made had it not been held back. The opportunity cost, or foregone margin, is the value the Company ascribes to operating reserves. In the Front Office model, "lost profits" from only gas-fired resources are included in the reserve value. In the GRID model, additional coal-fired generation occurs as a result of Monsanto being available for reserves. Coal units are less costly to run, thus they provide a greater margin (that is, a greater "lost profit" potential), and thus ultimately a greater valuation of Monsanto's 95 MW. Because the Front Office model uses only gas-fired generation, and it uses only the least profitable gas units, it sets the absolute minimum value on reserves.

Q HAS ROCKY MOUNTAIN POWER USED COAL FIRED GENERATION IN ITS PRIOR VALUATION OF OPERATING RESERVES?

A Yes, in Case No. PAC-E01-16, the Company provided a valuation of operating reserves based on both a coal-fired facility, Cholla (40 MW), and a gas-fired facility, Gadsby (55 MW). Together, these two resources represented the broad spectrum of opportunity profits from both types of resources. Cholla's profitability of $25 per MWH accounted for $4,730,000 of the 2002 valuation, while Gadsby's "out of the money" loss dropped the value by $361,565 resulting in a net value for the 95 MW of

operating reserves of $4,368,435.[15] Consequently, the Commission was provided a straight-forward reserve valuation by the Company in 2002, with easily understood assumptions and no "black-box" highly confidential spreadsheets. Unfortunately, in this case, the models used for reserve valuation are considered extremely confidential, and the actual units assumed for reserve are not readily apparent from its models.[16]

Q WHAT IF THE COMPANY WERE TO UPDATE ITS 2002 RESERVE VALUATION?

A If Rocky Mountain Power were to simply update its 2002 reserve valuation for today's prices and costs, as well as Monsanto's additional availability, the value of reserves would be $10.4 million. The details of this calculation are shown in **Exhibit 213 (KEI-9)**. This method brings the value of the reserves much closer to the $11.6 million value I have previously shown in Exhibit 211 based on the avoided peaker.[17]

Q BUT ROCKY MOUNTAIN POWER HAS ADDED SEVERAL NEW RESOURCES TO ITS RESERVE STACK SINCE THE 2002 CASE. WHY SHOULD RESERVE VALUES CONTINUE TO BE BASED ON CHOLLA AND GADSBY IN THIS CASE?

A If the Commission wishes another reference point for the reserve value, the 2002 "lost profits" method should be retained for several reasons. First. the method shown in Exhibit 213 is a straight-forward analysis of reserves based on both types of

[15]In 2002, Cholla's lost profit calculated as $25 per MWH ($39 market price less $14 operating cost) x 40 MW x 11 months x 430 hours per month = $4,730,000. Gadsby's lost profit calculated as negative $1.39 per MWH ($39 market price less $40.39 operating cost) x 55 MW x 11 months x 430 hours per month = ($361,565).

[16]For example, there is no direct way to determine which unit is the incremental resource selected each month in the Company's extremely confidential Front Office model.

[17]In fact, this $10.4 million value is based on average market prices and costs for 2008 and 2009. Had I simply used 2008 data, the value would have been $11.4 million, even closer to the $11.6 million avoided peaker value.

resources: coal and gas. The GRID model already demonstrates that under the Company's net power cost model, additional sales can be made from the Company's coal units when Monsanto's reserves are modeled. The Front Office model neglects to reflect this opportunity for higher "lost margins". Consequently, the 2002 method provides a clear-cut analysis that reserves are held on both types of resources.

Second, in examining the detailed results of the GRID model, we find that the Cholla unit represents over half of the additional coal-fired generation. Furthermore, Cholla represents the coal unit with the highest fuel expense per MWH. Consequently, Cholla is a conservative representative for the reserves value stemming from additional sales from coal units.

Third, the addition of new resources should not be used to penalize Monsanto's reserve value. The addition of newer resources has not entirely eliminated the opportunity of additional sales from coal-fired generation as the GRID model demonstrates.

And finally, as the Commission pointed out in the previous 2002 case, it does not help in assessing the reasonableness of a model when a product is not available in the market and there are no counter parties willing to sell this product.[18] While the Commission was speaking to the problems with the valuation of economic curtailment and the Black Scholes model in that case, we have much the same situation here in valuing reserves. The Company has no alternative in the market, so it has chosen to model reserve values on "lost profit". However, unlike the 2002 case, it masks the valuation in highly confidential spreadsheets and complex net power cost models. And particularly, with respect to the Front Office model, the Company's method is focused exclusively on valuing Monsanto on the basis of its least-profitable plants.

[18]Final Order No. 29157, Case No. PAC-E-01-16, page 12.

We firmly believe that the Company's reserve values do not provide a point in an estimated range of reasonableness. Thus, if any "lost profits" method is to be used in the estimated range, it should be the 2002 method updated for costs, prices and additional availability.

Q DO ROCKY MOUNTAIN POWER'S MODELS EXHIBIT ERRATIC SWINGS IN THE VALUATION RESULTS?

A Yes. For example, under the Front Office reserve valuation the highest monthly profit margin was $22.91 per MWH in July 2008, and the lowest monthly profit margin was only $0.35 in February 2009. These huge swings in profit can cause the reserve value to swing widely month to month and even year to year. As mentioned previously, the reserve valuation under the Front Office model dropped by over $2 million between 2008 and 2009.

Furthermore, even tiny movements in the market price and/or running costs can make huge declines in the reserve valuation in the Front Office model. For example, the average 2009 market price was only $0.11 per MWH lower than the average 2008 market price. However, even though the average market price dropped by only 0.2%, the reserve value dropped 42% -- from $4.9 million in 2008 down to $2.8 million in 2009.

Q ARE THESE HUGE SWINGS THE RESULT OF MARKET PRICE SWINGS?

A No, not really. Suppose the forecast market prices for 2009 had gone the other direction each month, such that the average market price would have increased by $0.11 per MWH in 2009. Interestingly, the valuation of the operating reserves would still have gone down from the 2008 levels by 35% to $3.2 million. Consequently, no

matter if market prices go up slightly or down slightly, the Front Office model produces huge drops in value.

Q WHAT ELSE INFLUENCES THESE DOWNWARD SWINGS IN VALUE?

A The drop in value is also partly caused by the fact Rocky Mountain Power's plants assumed held for reserve are getting more expensive to run in 2009, and thus less profitable. The average running cost of the highest cost "in the money" plant went up by 5.6% in 2009 in the Company's Front Office model. So even if the Company's operating costs are climbing each year, the value attributed to Monsanto's reserves are going down. This is just the reverse of what one would expect from a true avoided cost analysis.

Another reason for the erratic swings in valuation comes from bringing on the new Lake Side generation facility. As explained in Response to Monsanto Data Request No. 7.5, the impact of including Lake Side in the reserve stack causes the value to go down by $1.4 million in a single month.[19] It also appears the Company is removing another $1.9 million of reserve value "... attributed to the Mid-C to PACEU spread" that was previously credited to Monsanto before the Lake Side resource was included in the reserve stack assumptions. However, the Company now claims that "With the addition of Lakeside (sic), the $1.9 million in value ... can no longer be supported."[20]

[19]Response to Monsanto Data Request No. 7.5 1st supplemental.

[20]Attachment Monsanto 3.2L to Response to Monsanto Data Request No. 3.2.

Q DO SWINGS IN VALUE EVER GO THE OTHER WAY – THAT IS, UP?

A As shown in Exhibit 212, page 1, the value of reserves under the GRID model go up 33% between 2008 and 2009. The Company states that this increase is related to the May 2008 expiration of the West Valley lease:

> With respect to the GRID model, the year-on-year increase in value is related to the May 2008 expiration of the West Valley lease. With the expiration, reserves are carried on lower cost units than West Valley, which increases the value of the reserves for 2009. (Response to Monsanto Data Request 3.5)

Interestingly, the existence of the West Valley lease was not even a consideration in the Front Office model. Thus, depending on what resources are included (or omitted as in the case of the Front Office model) will lead to huge swings in the reserve value.

Q ARE THE SWINGS AS NOTICEABLE IN ROCKY MOUNTAIN POWER'S VALUE OF ECONOMIC CURTAILMENT?

A No, they do not appear to be. The value attributed to economic curtailment is based on the 800 highest cost hours in the Front Office model, and thus is not influenced by the problems which plague the "lost profits" method. The forward market price curves, as well as the scalars used to shape those forward prices, are more influential in the economic curtailment value in the Front Office model. The GRID model is primarily influenced by the assumed market prices for system balancing sales and purchases.

Q WHAT CONCLUSIONS DO YOU DRAW FROM YOUR EXAMINATION OF THE SWINGS AND ERRATIC RESULTS OF THE COMPANY'S MODELS?

A The results of the Company's "lost profit" reserve valuation in this case are simply not robust and do not reflect a sound basis on which to value Monsanto's interruptible credit. Results can be greatly manipulated merely by including – or excluding --

certain resources. The entire method revolves around providing the very least value for Monsanto's reserves based on the least profitable plants. For these reasons, we recommend that the Commission place no weight on the Company's reserve valuations. If any "lost profit" method should be considered, it should be similar to that previously made by Rocky Mountain Power and updated for current market prices and costs, as shown in Exhibit 213. This method clearly outlines the units held for reserve and is less susceptible to manipulation.

As for the results of the Company's economic curtailment valuation, these appear somewhat more stable, and thus could possibly provide one reference point for valuation. However, the Commission should be aware that the Company's economic curtailment valuations are based on short-run annual market prices which do not properly reflect the Company's avoided capacity costs.

Encouraging Commitment through Fair and Reasonable Valuations

Q HOW LONG DOES THE COMPANY ANTICIPATE MONSANTO TO BE AN INTERRUPTIBLE CUSTOMER?

A The 2007 IRP states "For planning purposes, PacifiCorp assumes that current Qualifying Facility and interruptible load contracts are extended to the end of the IRP study period." (2007 IRP, page 74) The end of the IRP study period is 2016.

Q HOW DO ROCKY MOUNTAIN POWER'S VALUATIONS COMPARE WITH THEIR REQUEST FOR CHANGES IN FIRM RATES?

A Rocky Mountain Power is seeking an increase of 24% from Monsanto for its firm rates in this case.[21] Oddly at the same time, it purports that it now values Monsanto at only

[21]Recall that the original filing sought an increase of 24% from Monsanto for firm rates. Not until two corrections were made to its Idaho COS was the proposed increase dropped to 19%.

$10 million[22] despite it valuing the products at $13.4 million[23] just last May. This is a 25% drop in the value for Monsanto's curtailment.

Q DOES THIS SEEM A FAIR OR REASONABLE APPROACH TO ENCOURAGE RETENTION OF AN INTERRUPTIBLE CONTRACT?

A No, not at all. In an earlier section, I addressed the economic benefits that accrue to the utility, its customers, and the power system as a whole from a long-term interruptible program. There are also economic benefits that can accrue directly to Monsanto, and it seems Rocky Mountain Power is intent on eliminating Monsanto's benefits, while retaining its own. For example, as explained in the 2007 IRP, these customer benefits are:

> Economic benefits may also accrue directly to participants in the form of incentives, rate discounts, and greater ability to adjust their loads to prices, thereby gaining greater control over their energy use and **managing their energy costs**. (Demand response) has also been credited with several harder to quantify economic benefits, such as **creating a hedge against market exposure** (price objectives), helping create a more elastic demand curve by sending appropriate price signals (elasticity objectives), and reducing the overall market price by alleviating pressure on reserves (market efficiency objectives). (2007 IRP, Appendix B, page 7, emphasis added)

As the Company's IRP notes, a customer such as Monsanto should rightfully expect certain benefits as a result of their commitment to curtail loads. Monsanto actively manages its energy costs through careful planning, and direct communication with the Company on curtailment requests, buy-through of energy, and even scheduling of furnace maintenance. More importantly though, as the 2007 IRP notes, Monsanto's interruptible contract should offer a "hedge against market exposure". In this case, while firm costs for Rocky Mountain Power capacity go up and up, the Company's

[22]Supplemental Direct Testimony of Mark Widmer, page 4, line 7.

[23]Attach Monsanto 7.6 to Response to Monsanto Data Request No. 7.5, value in 2008 of $13.4 million.

models show Monsanto's value becoming less and less. This is certainly counter to the notion of the benefits of a hedge against market exposure.

Q HAS THE COMMISSION STAFF PREVIOUSLY RECOGNIZED THE BENEFITS OF USING INTERRUPTIBLE RESOURCES AS A HEDGE?

A Yes. In Case No. PAC-E-06-9, the Staff anticipated, specifically, this benefit in its comments last year:

> Revenue paid under the contract to Monsanto for these interruptible services help to offset the increased costs incurred by Monsanto to receive electrical service. ... As explained in Section 2.2 of the Agreement, adjustments may be made to, but not limited to, the customer charges, demand charges, energy charges, as well as the credit value.
>
> . . .
>
> Not only will the Company be able to collect revenues from Monsanto based on its cost of service, but the price paid to Monsanto will reflect the value of the products it provides the Company. Both the Company and Monsanto have assured Staff that there are opportunities for either side to reevaluate the credits in the context of a general rate case. Staff believes it is important for Monsanto to have an opportunity to reevaluate the value of the credits at the same time rates are changed to reflect changes in cost of service. **This ability will help keep rates affordable for Monsanto** and reduce the need to argue cost of service in a general rate case. (Case No. PAC-E-06-9, Comments of the Commission Staff, November 3, 2006, page 3, emphasis added)

Despite these hopeful comments penned less than a year ago, Rocky Mountain Power's filing offers no hedging opportunities whatsoever.

Q HOW SO?

A As I have alluded to previously, the Company's valuation methods are rife with inconsistencies and manipulated assumptions. For example, Rocky Mountain Power wants to value Monsanto only for what the Company would gain by running its least profitable plants more hours, i.e., the "lost profits" structure of the model. But Rocky Mountain Power could never had made any sales from those least profitable plants

unless it had first built and sought recovery of their capital costs. All customers of Rocky Mountain Power, including Monsanto, will be paying for the capital costs of Gadsby, Currant Creek and other newer resources in their firm rates. Despite customers paying these capital costs, however, Rocky Mountain Power is only willing to pay "lost profits" to Monsanto that clearly do not reflect the Company's avoided capacity cost.

As another example, Rocky Mountain Power has fundamentally changed its valuation of system integrity since 2002.

Q HOW HAS ROCKY MOUNTAIN POWER FUNDAMENTALLY CHANGED ITS VALUATION OF SYSTEM INTEGRITY IN THIS CASE?

A In the previous contested case, Rocky Mountain based its value of system integrity on a system cap of $250 per MWH, for a value of $486,000. The Commission accepted this valuation as part of the overall Company valuation in establishing an estimated range of reasonableness. Rocky Mountain Power now declares that the "probability of a double contingency is constant throughout the year."[24] Under this assumption, the Company claims that the value of system integrity should be based on an annual average on peak market price. This average price is roughly $75 per MWH, or only 1/4th of the previous $250 per MWH value.

Q IS THIS A PROPER VALUATION OF SYSTEM INTEGRITY?

A No. There is little basis to assume that Rocky Mountain Power will be able to buy energy on the market at $75 during times of system emergency. During times of contingency, market price can easily soar above $300 per MWH. For example, a

[24]Exhibit No. 42, page 3 of 3.

$1,000 per MWH price ceiling is currently imposed by all independent system operators and regional transmission operators except CAISO and ERCOT. The ceiling is currently $400 per MWH in CAISO's real time imbalance market, and $1,500 per MWH in ERCOT. Furthermore, it is set to rise to $3,000 per MWH in ERCOT by March 2009.[25] All of these markets have increased the bid caps in hopes of encouraging non-utility capacity. Yet here in Idaho, Rocky Mountain Power has slashed the value of system integrity by 70%.

Q IS THE SYSTEM INTEGRITY VALUE A LARGE COMPONENT OF THE OVERALL TOTAL VALUE OF MONSANTO'S CONTRACT?

A No, not really. At 162 MW, it was valued at $486,000, or less than 4% of the total $13 million credit currently in place. Rocky Mountain Power has slashed that value back to $146,000 now based on an average market price of $75 per MWH. While this is not a huge difference in actual dollars, it speaks volumes about Rocky Mountain Power's lack of recognition of the value Monsanto brings to the system.

First, Rocky Mountain Power is placing a value on system integrity that recognizes absolutely no capacity value. Since the running cost of CT is likely to be in the range of $75 per MWH, valuing system integrity at $75 has effectively assumed a $0 cost for capacity for reliability purposes.

Second, the Company's use of an average on-peak market price assumes that times of system emergency are no different than the average times. Clearly, this is short-sighted. As an example of the costs during regional stress, Rocky Mountain Power was willing to pay $300 per MWH to Monsanto on July 25, 2006. If this was

[25]Docket Nos. RM07-19-000 & AD07-7-000, Comments of the Electricity Consumers Resource Council (ELCON), American Iron and Steel Institute (AISI), and American Chemistry Council (ACC), page 22.

just an "average" event, why didn't the Company just purchase the needed power at $75? The answer is evident: It couldn't.

Lastly, if Monsanto were to only receive $146,000 in return for being the "first one in the dark", then Monsanto would probably reconsider inclusion of this product its 2007 ESA. Rocky Mountain Power would then need to locate another large load which could easily and reliably curtail in seconds to avoid the possibility of curtailing hundreds – perhaps thousands – of other customers. One recent example of this occurred in the winter of 2005. On December 6, Rocky Mountain Power lost a line which triggered a power outage. The minimum temperature that day was 9 degrees which dropped to 19 degrees below zero the next day. A system emergency event was called upon Monsanto and all three furnaces were shut down. As Rocky Mountain Power crews worked to resolve the problem, the furnaces were brought back on-line only when the system was stable. The two smaller furnaces were brought back within four to eight hours of the emergency. However, the largest furnace was kept off for 42 hours, with Monsanto incurring substantial damages due to icing. We see that curtailment for system integrity purposes provided a direct benefit to the Company's system during this extraordinary event, but it came at substantial cost to Monsanto. Thus, in order for Rocky Mountain Power to retain this provision of the 2007 Agreement, it needs to properly value this option.

Q WHAT DO YOU RECOMMEND FOR THE VALUE OF SYSTEM INTEGRITY?

A At the very least, the system integrity should continue to be valued at the $250 per MWH in the Company's valuation. While there may be arguments to raise this value to $400 per MWH to reflect the current ceiling in CAISO, for purposes of my recommendation in this case, the value can be held at $250 per MWH in the Company's valuation.

Q WHAT DO YOU CONCLUDE OVERALL REGARDING THE COMPANY'S TREATMENT OF MONSANTO IN THIS CASE?

A Claiming that the value has decreased some 25% since last year, while simultaneously seeking a rate increase of 24% to Monsanto's firm rates does not constitute a fair and reasonable approach to encourage retention of Monsanto. The anticipated benefits of using interruptibility as a hedge against market price increases is entirely missing from the Company's filing. A proper reflection of the value would alleviate the double-digit increase to Monsanto and help keep its rates affordable as anticipated by the Commission Staff.

Potential Environmental Benefits

Q YOU MENTIONED EARLIER THAT DEMAND-SIDE RESPONSES CAN OFFER POTENTIAL ENVIRONMENTAL BENEFITS. HAVE YOU QUANTIFIED THESE BENEFITS?

A No, a quantification of environmental benefits is not available. While interruptible resources promote efficient use of resources in general and have the potential to reduce emissions during peak times, there is currently no valuation of these environmental benefits performed by Company either in this case or its 2007 IRP.[26] Rocky Mountain Power is taking a leading role to protect and enhance the environment and the Monsanto interruptible contract is consistent with that role.

[26] 2007 IRP, Appendix B, page 11.

Recommended Value for Monsanto Credit

Q GIVEN YOUR REVIEW AND ANALYSIS, WHAT IS YOUR RECOMMENDATION FOR THE VALUE TO BE USED FOR THE MONSANTO CREDIT?

A I recommend that the value of Monsanto's interruptible products be set not less than $18 million for purposes of setting rates in this case.

Q UPON WHAT BASIS DID YOU ARRIVE AT THIS VALUATION?

A First, the value must recognize a proper valuation of avoided capacity costs. Second, the evidence is clear that the results of the Company's "lost profit" reserve valuation in this case are simply not robust and do not reflect a sound basis on which to value Monsanto's interruptible credit. If any "lost profit" method should be considered, it should be similar to that previously made by Rocky Mountain Power and updated for current market prices and cost as well as Monsanto's availability. That method plainly outlines the units held for reserve and is less susceptible to manipulation. As for the value associated with economic curtailment portion, the Company's models, while not fully reflective of avoided capacity costs, at least provide a point of consideration for valuation in this case, despite their shortcomings. The total value from the Company's methods should be:

Reserves – "Lost Profits" (Exhibit 213, line 10)	$10,385,564
Company's Models of Economic Curtailment (Average of Exhibit 212, page 2, line 1)	$ 5,378,381
System Integrity	$ 486,000
Total Company Method	$16,249,945

The average of the Company's models and the avoided peaker approach result in a value of $18.3 million:

Peaker Valuation (Exhibit 211, line 12)		$20,243,456
Company Method		$16,249,945
Average Peaker/Company		**$18,246,701**

Q WHAT IS THE MONTHLY DEMAND CREDIT BASED ON AN $18 MILLION VALUE?

A The credit would be $8.79 per kW-month. The resulting net power costs would be slightly lower than the current net rate of $25.55 per MWH:

Total Firm Revenues:	$53,141,367
Less: Non-Firm kW Credit:	($18,000,000)
Net Revenues:	$35,141,367

Divided by 1,395,545.2 MWH = $25.18 per MWH

Q WOULD THIS VALUATION IMPACT THE FILED NET POWER COSTS IN THIS CASE?

A Yes. The Company's filed net power costs assume the value of Monsanto to be $12.4 million. Any additional power cost associated with appropriately recognizing the interruptible value would need to be reflected in the development of firm rates in this case. For example, a credit of $8.79 per kW would increase the system-wide net power costs by roughly $4.7 million (162 MW x 12 months x ($8.79 - $6.36)), which would increase Idaho's power costs by approximately $300,000 based on its allocation factor of 6.306%. This added cost would be allocated among all customer classes with approximately $120,000 allocated to Monsanto's firm cost. This would raise Monsanto's net cost to $25.27 per MWH.

Q DOES THIS CONCLUDE YOUR TESTIMONY IN THIS CASE?

A Yes.

Qualifications of Kathryn E. Iverson

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Kathryn E. Iverson; 17244 W. Cordova Court, Surprise, Arizona 85387.

Q PLEASE STATE YOUR OCCUPATION.

A I am a consultant in the field of public utility regulation with Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A In 1980 I received a Bachelors of Science Degree in Agricultural Sciences from Colorado State University, and in 1983, I received a Masters of Science Degree in Economics from Colorado State University.

In March of 1984, I accepted a position as Rate Analyst with the consulting firm Browne, Bortz and Coddington in Denver, Colorado. My duties included evaluation of proposed utility projects, benefit-cost analysis of resource decisions, cost of service studies and rate design, and analyses of transmission and substation equipment purchases.

In February 1986, I accepted a position with Applied Economics Group, where I was responsible for utility economic analysis including cogeneration projects, computer modeling of power requirements for an industrial pumping facility, and revenue impacts associated with various proposed utility tariffs. In January of 1989, I was promoted to the position of Vice President. In this position, I assumed the additional responsibilities of project leader on projects, including the analysis of alternative cost recovery methods, pricing, rate design and DSM adjustment clauses,

and representation of a group of industrial customers on the Conservation and Least Cost Planning Advisory Committee to Montana Power Company.

In March 1992, I accepted a position with ERG International Consultants, Inc., of Golden, Colorado as Senior Utility Economist. While at ERG, I was responsible for the cost-effectiveness analysis of demand-side programs for Western Area Power Administration customers. I also assisted in the development of a reference manual on the process of Integrated Resource Planning including integration of supply and demand resource, public participation, implementation of the resource plan and elements of writing a plan. I lectured and provided instructional materials on the key concept of life-cycle costing seminars held to provide resource planners and utility decision-makers with a background and basic understanding of the fundamental techniques of economic analysis. My work also included the evaluation of a marginal cost of service study, assessment of avoided cost rates, and computer modeling relating engineering simulation models to weather-normalized loads of schools in California.

In November of 1994, I accepted a position with Drazen-Brubaker & Associates, Inc. In April, 1995 the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and Staff. Since joining this firm, I have performed various analyses of integrated resource plans, examination of cost of service studies and rate design, fuel cost recovery proceedings, as well as estimates of transition costs and restructuring plans.

Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?

A Yes. I have testified before the regulatory commissions in Colorado, Georgia, Michigan, Montana, Oregon, Texas, Washington and Wyoming.

PAC-E-07-05/Rocky Mountain Power
September 14, 2007
Monsanto 9th Set Data Request 9.6

Monsanto Data Request 9.6

Reference Exhibit 29, Tab 5, Page 7 (Idaho Cost of Service Study). For the coincident peaks in September, November and December for Monsanto, the cost study uses the following data (kW at sales):

September: 166,800 + 67,000 = 233,800
November: 167,690 + 67,000 = 234,690
December: 172,582 + 67,000 = 239,582

However, the information provided in response to Attachment Monsanto 1.17-2 clearly shows that Monsanto was purchasing buy-through (i.e., replacement) energy during those coincident peaks as follows:

9/5/2006: 4 hours @ 67 MW
11/29/2006: 5 hours @ 67 MW
12/18/2006: 8 hours @ 67 MW

Furthermore, the "Monsanto Adjustment" tab of Attachment Monsanto 1.17.2 also shows the buy-through MW for these three months, as well as Page 10.12 of Mr. McDougal's Exhibit 11. Mr. McDougal has removed the buy-through load from both the monthly energy loads, as well as the appropriate monthly coincident peaks.

a. Please confirm or deny that Monsanto coincident peaks for the months of September, November and December are overstated by 67 MW (at sales) in Exhibit 29 as a result of double-counting the buy-through kW.
b. If denied, please explain how Monsanto's loads could physically reach a maximum load of close to 240 MW and/or how those loads correctly reflect Monsanto's loads when the JAM model has reduced the metered loads by the buy-through MW.

c. A revised Exhibit 30 is provided as Attach Monsanto 9.6. This version of the cost of service model also incorporates the net power cost adjustment that was provided in response to Monsanto 7.2.

[Mark E. Tucker prepared this response, is the recordholder, and is expected to sponsor this response at hearing. Please contact Brian Dickman at 801-220-4975 to discuss this response.]

IDAHO

PAC-E-07-05

ROCKY MOUNTAIN POWER

MONSANTO DATA REQUESTS SET 9 (1-13)

ATTACHMENT MONSANTO 9.6

ON THE ENCLOSED CD

Summary

PacifiCorp
Cost Of Service By Rate Schedule
State of Idaho
12 Months Ending December 2006
MSP Protocol
6.07% = Earned Return on Rate Base

	A	B	C	D	E	F	G	H	I	J	K	L	M
Line No.	Schedule No.	Description	Annual Revenue	Return on Rate Base	Rate of Return Index	Total Cost of Service	Generation Cost of Service	Transmission Cost of Service	Distribution Cost of Service	Retail Cost of Service	Misc Cost of Service	Increase (Decrease) to = ROR	Percentage Change from Current Revenues
1	01	Residential	29,653,369	6.49%	1.07	29,299,266	15,660,584	808,958	8,447,824	4,021,823	360,077	(354,103)	-1.19%
2	36	Residential - TOD	21,362,235	6.97%	1.15	20,827,795	12,776,297	619,470	5,438,812	1,822,007	171,209	(534,440)	-2.50%
3	06	General Service - Large	18,609,425	10.41%	1.71	16,527,412	12,790,014	630,991	2,897,940	163,406	45,061	(2,082,013)	-11.19%
4	08	General Service - Medium Voltage	130,255	9.94%	1.64	117,281	92,408	4,700	19,627	287	259	(12,974)	-9.96%
5	09	General Service - High Voltage	5,061,143	13.01%	2.14	4,295,488	4,073,124	187,692	17,224	7,990	9,457	(765,655)	-15.13%
6	10	Irrigation	39,404,679	6.06%	1.00	39,418,729	25,346,366	1,109,267	12,420,668	430,673	111,756	14,050	0.04%
7	07,11,12	Street & Area Lighting	326,298	-18.03%	(2.97)	562,341	76,176	2,451	415,169	61,681	6,863	236,043	72.34%
8	12	Traffic Signals	15,526	14.29%	2.35	12,724	7,299	334	2,962	1,907	222	(2,802)	-18.05%
9	19	Space Heating	635,620	11.97%	1.97	540,842	400,926	20,300	104,007	13,247	2,362	(94,778)	-14.91%
10	23	General Service - Small	10,711,252	11.60%	1.91	9,187,281	5,698,291	288,831	2,428,658	692,771	78,730	(1,523,971)	-14.23%
11	SPC	Contract 1	3,998,852	3.93%	0.65	4,229,793	3,956,234	206,889	59,025	184	7,461	230,941	5.78%
12	SPC	Contract 2	48,668,727	2.49%	0.41	53,558,429	51,001,461	2,420,618	49,465	(4,013)	90,898	4,889,702	10.05%
13	Total	State of Idaho -	178,577,381	6.07%	1.00	178,577,381	131,879,181	6,300,502	32,301,381	7,211,961	884,355	0	0.00%

Footnotes :
Column C : Annual revenues based on 12-2006.
Column D : Calculated Return on Ratebase per 12-2006 Embedded Cost of Service Study
Column E : Rate of Return Index. Rate of return by rate schedule, divided by Idaho Jurisdiction's normalized rate of return.
Column F : Calculated Full Cost of Service at Jurisdictional Rate of Return per the 12-2006 Embedded COS Study
Column G : Calculated Generation Cost of Service at Jurisdictional Rate of Return per the 12-2006 Embedded COS Study.
Column H : Calculated Transmission Cost of Service at Jurisdictional Rate of Return per the 12-2006 Embedded COS Study.
Column I : Calculated Distribution Cost of Service at Jurisdictional Rate of Return per the 12-2006 Embedded COS Study.
Column J : Calculated Retail Cost of Service at Jurisdictional Rate of Return per the 12-2006 Embedded COS Study.
Column K : Calculated Misc.Distribution Cost of Service at Jurisdictional Rate of Return per the 12-2006 Embedded COS Study.
Column L : Increase or Decrease Required to Move From Annual Revenue to Full Cost of Service Dollars.
Column M : Increase or Decrease Required to Move From Annual Revenue to Full Cost of Service Percent.

PacifiCorp
Cost Of Service By Rate Schedule
State of Idaho
12 Months Ending December 2006
MSP Protocol
8.10% = Target Return on Rate Base

	A	B	C	D	E	F	G	H	I	J	K	L	M
Line No.	Schedule No.	Description	Annual Revenue	Return on Rate Base	Rate of Return Index	Total Cost of Service	Generation Cost of Service	Transmission Cost of Service	Distribution Cost of Service	Retail Cost of Service	Misc Cost of Service	Increase (Decrease) to = ROR	Percentage Change from Current Revenues
1	01	Residential	29,653,369	6.49%	1.07	32,070,290	16,706,010	1,261,795	9,561,716	4,073,690	467,079	2,416,921	8.15%
2	36	Residential - TOD	21,362,235	6.97%	1.15	22,787,894	13,592,845	970,995	6,161,580	1,844,821	217,652	1,425,659	6.67%
3	06	General Service - Large	18,609,425	10.41%	1.71	18,100,040	13,618,281	987,719	3,279,351	165,411	49,278	(509,385)	-2.74%
4	08	General Service - Medium Voltage	130,255	9.94%	1.64	128,282	98,498	7,343	21,882	290	269	(1,973)	-1.51%
5	09	General Service - High Voltage	5,061,143	13.01%	2.14	4,657,451	4,323,993	295,058	20,715	8,040	9,645	(403,692)	-7.98%
6	10	Irrigation	39,404,679	6.06%	1.00	43,144,148	26,836,027	1,741,753	14,001,651	438,294	126,423	3,739,469	9.49%
7	07,11,12	Street & Area Lighting	326,298	-18.03%	(2.97)	594,443	79,881	3,970	438,887	62,658	9,048	268,145	82.18%
8	12	Traffic Signals	15,526	14.29%	2.35	13,842	7,744	525	3,345	1,937	290	(1,684)	-10.85%
9	19	Space Heating	635,620	11.97%	1.97	593,497	427,446	31,743	118,074	13,443	2,791	(42,123)	-6.63%
10	23	General Service - Small	10,711,252	11.60%	1.91	10,090,845	6,074,606	451,257	2,763,401	702,090	99,490	(620,407)	-5.79%
11	SPC	Contract 1	3,998,852	3.93%	0.65	4,583,871	4,195,378	315,038	65,695	146	7,613	585,019	14.63%
12	SPC	Contract 2	48,668,727	2.49%	0.41	58,027,709	54,114,351	3,773,115	52,114	(4,650)	92,780	9,358,982	19.23%
13	Total	State of Idaho -	178,577,381	6.07%	1.00	194,792,312	140,075,060	9,840,311	36,488,412	7,306,169	1,082,359	16,214,931	9.08%

Footnotes :
Column C : Annual revenues based on 12-2006.
Column D : Calculated Return on Ratebase per 12-2006 Embedded Cost of Service Study
Column E : Rate of Return Index. Rate of return by rate schedule, divided by Idaho Jurisdiction's normalized rate of return.
Column F : Calculated Full Cost of Service at Jurisdictional Rate of Return per the 12-2006 Embedded COS Study
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Column K : Calculated Misc.Distribution Cost of Service at Jurisdictional Rate of Return per the 12-2006 Embedded COS Study.
Column L : Increase or Decrease Required to Move From Annual Revenue to Full Cost of Service Dollars.
Column M : Increase or Decrease Required to Move From Annual Revenue to Full Cost of Service Percent.

ROCKY MOUNTAIN POWER

Idaho Coincident Peak Load From JAM Study

	Metered Loads CP (1)	Less: Replacement (2)	Plus: Curtailments (3)	Plus: Temperature Adjustment (4)	CP Loads for JAM Study (5)
1/31/2006	416.0			4.8	420.8
2/17/2006	451.4			(24.2)	427.2
3/13/2006	424.6			(3.8)	420.8
4/6/2006	380.8			0.4	381.2
5/18/2006	546.7			(7.6)	539.2
6/26/2006	666.0			(2.5)	663.5
7/24/2006	560.9		70.8	1.5	633.2
8/22/2006	512.4		70.8	(6.9)	576.4
9/5/2006	491.7	(70.8)	70.8	(0.4)	491.3
10/31/2006	351.5			(10.5)	341.0
11/29/2006	459.6	(70.8)	70.8	(20.2)	439.4
12/18/2006	465.1	(70.8)	70.8	(15.0)	450.1
Total	5,726.6	(212.5)	354.1	(84.3)	5,784.0
Source: Exhibit 11	Page 10.12	Page 10.12	Page 10.12	Page 10.16	Page 10.14

Note: All loads shown as MW @ input.

ROCKY MOUNTAIN POWER

Idaho Energy Load From JAM Study

	Metered Loads MWH (1)	Less: Replacement (2)	Plus: Curtailments (3)	Plus: Temperature Adjustment (4)	MWH Loads for JAM Study (5)
January	290,582		609	4,659	295,850
February	264,603		606	(2,833)	262,376
March	273,101		135	(1,610)	271,627
April	248,773		323	564	249,659
May	311,230		223	(2,295)	309,158
June	386,312	(841)	1,410	(1,872)	385,009
July	451,549		10,406	(3,682)	458,272
August	373,430	(547)	9,599	(4,529)	377,953
September	286,306	(1,821)	3,526	(2,152)	285,858
October	258,106		407	(1,737)	256,776
November	237,261	(1,261)	1,467	875	238,343
December	296,755	(5,884)	7,825	70	298,765
Total	3,678,008	(10,353)	36,536	(14,544)	3,689,647
Source: Exhibit 11	Page 10.13	Page 10.13	Page 10.13	Page 10.20	Page 10.14

Note: All loads shown as MWH @ input.

ROCKY MOUNTAIN POWER

Comparison of Peak Loads and Energy Used in JAM and Idaho COS Studies

	Coincident Peak Loads			MWH Loads		
	In JAM Study (1)	In Idaho COS Study (2)	Deviation From JAM (3)	In JAM Study (4)	in Idaho COS Study (5)	From JAM Study (6)
January	420,809	401,840	-4.5%	295,850	289,794	-2.0%
February	427,223	461,086	7.9%	262,376	261,329	-0.4%
March	420,819	443,127	5.3%	271,627	268,169	-1.3%
April	381,173	411,130	7.9%	249,659	252,398	1.1%
May	539,168	429,737	-20.3%	309,158	245,348	-20.6%
June	663,486	596,940	-10.0%	385,009	330,512	-14.2%
July	633,160	552,362	-12.8%	458,272	421,838	-8.0%
August	576,370	597,245	3.6%	377,953	420,625	11.3%
September	491,295	542,771	10.5%	285,858	333,196	16.6%
October	340,955	341,180	0.1%	256,776	253,088	-1.4%
November	439,394	421,076	-4.2%	238,343	225,603	-5.3%
December	450,106	462,280	2.7%	298,765	294,669	-1.4%
June, July, Aug	1,873,016	1,746,547	-6.8%	1,221,235	1,172,975	-4.0%
Other Months	3,910,942	3,914,228	0.1%	2,468,412	2,423,593	-1.8%
Total	5,783,958	5,660,775	-2.1%	3,689,647	3,596,569	-2.5%

ROCKY MOUNTAIN POWER

Adjustments to Load to Align with JAM Study

CP ADJUSTMENT

		Idaho Load from JAM			Idaho Load used in Idaho Class COS			
		JAM CP	Contract Loads & Schedules 8 and 9	Remaining Load	Idaho CP	Contract Loads & Schedules 8 and 9	Remaining Load	Monthly Adjustmet
1	1/31/2006	420,809	202,576	218,233	401,840	202,576	199,264	1.09519
2	2/17/2006	427,223	212,061	215,162	461,086	212,061	249,025	0.86402
3	3/13/2006	420,819	212,115	208,704	443,127	212,115	231,012	0.90343
4	4/6/2006	381,173	190,194	190,978	411,130	190,194	220,936	0.86441
5	5/18/2006	539,168	198,014	341,154	429,737	198,014	231,722	1.47225
6	6/26/2006	663,486	208,932	454,554	596,940	208,932	388,007	1.17151
7	7/24/2006	633,160	211,599	421,562	552,362	211,599	340,763	1.23711
8	8/22/2006	576,370	220,577	355,793	597,245	220,577	376,668	0.94458
9	9/5/2006	491,295	203,250	288,045	542,771	203,250	339,522	0.84839
10	10/31/2006	340,955	150,477	190,478	341,180	150,477	190,703	0.99882
11	11/29/2006	439,394	206,558	232,836	421,076	206,558	214,518	1.08539
12	12/18/2006	450,106	211,490	238,617	462,280	211,490	250,791	0.95146
13	Total	5,783,958	2,427,844	3,356,114	5,660,775	2,427,844	3,232,931	1.03810

MWH ADJUSTMENT

		Idaho Load from JAM			Idaho Load used in Idaho Class COS			
		JAM MWH	Contract Loads & Schedules 8 and 9	Remaining Load	Idaho MWH	Contract Loads & Schedules 8 and 9	Remaining Load	Monthly Adjustmet
14	January	295,850	153,106	142,744	289,794	153,106	136,689	1.04430
15	February	262,376	139,258	123,118	261,329	139,258	122,072	1.00857
16	March	271,627	148,067	123,559	268,169	148,067	120,101	1.02879
17	April	249,659	145,900	103,760	252,398	145,900	106,498	0.97429
18	May	309,158	126,496	182,662	245,348	126,496	118,853	1.53688
19	June	385,009	138,683	246,327	330,512	138,683	191,829	1.28410
20	July	458,272	142,437	315,836	421,838	142,437	279,401	1.13040
21	August	377,953	151,574	226,380	420,625	151,574	269,052	0.84140
22	September	285,858	142,680	143,179	333,196	142,680	190,516	0.75153
23	October	256,776	141,230	115,546	253,088	141,230	111,858	1.03297
24	November	238,343	111,223	127,120	225,603	111,223	114,380	1.11139
25	December	298,765	150,531	148,234	294,669	150,531	144,138	1.02842
26	Total	3,689,647	1,691,183	1,998,464	3,596,569	1,691,183	1,905,386	1.04885

ROCKY MOUNTAIN POWER

Allocation of Revenue Reduction as a Result of the Rate Mitigation Cap

Line No.	Schedule No.	Description	Company's Method (1)	Allocated on Generation & Transmission Rate Base (1) (2)	Difference (3)
1	01	Residential	$ 565,074	$ 421,971	$ (143,104)
2	36	Residential - TOD	399,215	328,321	(70,894)
3	06	General Service - Large	323,912	338,275	14,363
4	08	General Service - Medium Voltage	2,205	2,407	202
5	09	General Service - High Voltage	72,199	98,703	26,504
6	10	Irrigation	781,163	627,392	(153,770)
7	07,11,12	Street & Area Lighting	6,581	1,516	(5,065)
8	12	Traffic Signals	229	180	(48)
9	19	Space Heating	10,668	10,598	(70)
10	23	General Service - Small	184,920	152,661	(32,259)
11	SPC	Contract 1	70,667	95,724	25,058
12	SPC	Contract 2	891,339	1,230,423	339,084
13	Total	State of Idaho	$ 3,308,172	$ 3,308,172	$ (0)

(1) Idaho COS results based on Attachment Monsanto 9.6 adjusted to align loads to JAM study

ROCKY MOUNTAIN POWER

Adjusted Total Cost of Service by Customer Class

Line No.	Schedule No.	Description	Annual Revenue (1)	Total Cost of Service (1) (2)	Adjustments to Total Cost of Service: ROE at 10% (3)	Allocation of Rate Mitigation (4)	Severance Expense (5)	Pension Expense (6)	SO2 Revenues (7)	2007 Plant Additions (8)	Total Adjustment (9)	Adjusted Cost of Service (10)	Increase (Decrease) (11)	% (12)
1	01	Residential	$ 29,653,369	$ 32,191,590	$ (483,898)	$ 145,266	$ (127,311)	$ (234,725)	$ (109,381)	$ (603,920)	$ (1,413,969)	$ 30,777,621	$ 1,124,252	3.8%
2	36	Residential - TOD	21,362,235	22,890,012	(335,610)	71,965	(76,498)	(141,039)	(84,885)	(468,673)	(1,034,739)	21,855,273	493,038	2.3%
3	06	General Service - Large	18,609,425	18,349,057	(256,048)	(14,580)	(47,181)	(86,988)	(87,995)	(485,842)	(978,633)	17,370,424	(1,239,001)	-6.7%
4	08	General Service - Medium Voltage	130,255	129,735	(5,957)	(205)	(340)	(626)	(645)	(3,564)	(11,337)	118,398	(11,857)	-9.1%
5	09	General Service - High Voltage	5,061,143	4,763,417	(281,768)	(26,905)	(8,746)	(16,125)	(26,642)	(147,099)	(507,284)	4,256,133	(805,010)	-15.9%
6	10	Irrigation	39,404,679	43,967,706	(642,532)	156,094	(132,038)	(243,439)	(161,586)	(892,158)	(1,915,659)	42,052,047	2,647,368	6.7%
7	07,11,12	Street & Area Lighting	326,298	596,856	(5,759)	5,141	(5,278)	(9,731)	(367)	(2,024)	(18,017)	578,839	252,541	77.4%
8	12	Traffic Signals	15,526	13,890	(191)	49	(53)	(97)	(46)	(255)	(593)	13,297	(2,229)	-14.4%
9	19	Space Heating	635,620	594,155	(8,986)	71	(1,640)	(3,024)	(2,765)	(15,268)	(31,612)	562,542	(73,078)	-11.5%
10	23	General Service - Small	10,711,252	10,153,424	(154,621)	32,747	(34,331)	(63,296)	(39,812)	(219,812)	(479,125)	9,674,299	(1,036,953)	-9.7%
11	SPC	Contract 1	3,998,852	4,478,239	(65,522)	(25,436)	(8,097)	(14,928)	(24,290)	(134,112)	(272,386)	4,205,853	207,001	5.2%
12	SPC	Contract 2	48,668,727	56,664,232	(826,451)	(344,208)	(100,875)	(185,985)	(316,709)	(1,748,636)	(3,522,864)	53,141,367	4,472,640	9.2%
13	Total	State of Idaho -	$ 178,577,381	$ 194,792,312	$ (3,067,345)	$ 0	$ (542,387)	$ (1,000,002)	$ (855,123)	$ (4,721,362)	$ (10,186,219)	$ 184,606,093	$ 6,028,712	3.4%
			Increase - $	16,214,931	13,147,586	13,147,586	12,605,199	11,605,197	10,750,074	6,028,712		6,028,712		
			Increase - %	9.1%	7.4%	7.4%	7.1%	6.5%	6.0%	3.4%		3.4%		

(1) Idaho COS results based on Attachment Monsanto 9.6 adjusted to align loads to JAM study

ROCKY MOUNTAIN POWER

Value of Monsanto Interruptibility Based on Avoided Peakers

		Operating Reserves		Economic Curtailment	Total
		Intercooled Aero SCCT (1)	or SCCT Aero (2)	SCCT Frame (2 Frame "F") (3)	
	Avoided Capital:				
1	Avoided Capacity Cost ($/kW-year) (1)	$100.79	$92.94	$47.89	
2	Capacity (kW)	95,000	95,000	67,000	
3	Adjustment for Reserve Margin	12%	12%	12%	
4	Capacity adjusted for Reserves	106,400	106,400	75,040	
5	Value	$10,724,056	$9,888,816	$3,593,666	
	Avoided Energy:				
6	Hours curtailed	188	188	800	
7	MWH Curtailed	17,860	17,860	53,600	
8	Avoided Energy Cost ($/MWH) (1)	$68.04	$81.61	$90.70	
9	Value	$1,215,194	$1,457,555	$4,861,520	
10	Avoided Energy Cost - System Integrity	$132,270	$158,650		
11	Total Value	$12,071,520	$11,505,020	$8,455,186	
12	**Total Value**	**$11,788,270**		**$8,455,186**	**$20,243,456**

(1) PacifiCorp 2007 IRP, page 95

(2) Includes the 12 hours of system integrity

ROCKY MOUNTAIN POWER

Implicit Avoided Capacity Cost of Operating Reserves

		OPERATING RESERVES			
		Front Office Model		GRID Model	
		2008 (1)	2009 (2)	2008 (3)	2009 (4)
	Assuming Avoided Energy Costs of Peaking Resource				
1	Company's Value for Monsanto	$4,906,463	$2,827,977	$4,186,105	$5,579,642
2	Total MWH curtailed	17,860	17,860	17,860	17,860
3	Avoided Energy Cost ($/MWH) of SCCT (1)	$80.12	$80.12	$80.12	$80.12
4	Avoided Energy Component	$1,430,884	$1,430,884	$1,430,884	$1,430,884
5	Avoided Capacity Component	$3,475,579	$1,397,093	$2,755,221	$4,148,758
6	**Implicit Avoided Capacity Cost ($ per kW-Yr)**	**$32.67**	**$13.13**	**$25.89**	**$38.99**
	Assuming Avoided Energy Costs of Combined Cycle Resource				
7	Company's Value for Monsanto	$4,906,463	$2,827,977	$4,186,105	$5,579,642
8	Total MWH curtailed	17,860	17,860	17,860	17,860
9	Avoided Energy Cost ($/MWH) of CCCT (2)	$52.21	$52.21	$52.21	$52.21
10	Avoided Energy Component	$932,471	$932,471	$932,471	$932,471
11	Avoided Capacity Component	$3,973,992	$1,895,506	$3,253,634	$4,647,171
12	**Implicit Avoided Capacity Cost ($ per kW-Yr)**	**$37.35**	**$17.81**	**$30.58**	**$43.68**

(1) Based on average avoided energy cost of SCCT shown on Exhibit 211.
(2) Based on average avoided energy costs of CCCT shown on page 95, 2007 IRP.

	Levelized Fuel	O&M		Total
CCCT (Wet "F" 1x1)	$50.11	$2.60		$52.71
CCCT (Wet "F" 2x1)	$49.69	$2.60		$52.29
CCCT (Wet "G" 1x1)	$49.08	$2.55		$51.63
		Average	=	$52.21

ROCKY MOUNTAIN POWER

Implicit Avoided Capacity Cost of Economic Curtailment

		ECONOMIC CURTAILMENT			
		Front Office Model		GRID Model	
		2008 (1)	2009 (2)	2008 (3)	2009 (4)
	Assuming Avoided Energy Costs of Peaking Resource				
1	Company's Value for Monsanto	5,838,301	5,816,368	4,993,624	4,865,232
2	Total MWH curtailed	53,600	53,600	53,600	53,600
3	Avoided Energy Cost ($/MWH) of SCCT (1)	$80.12	$80.12	$80.12	$80.12
4	Avoided Energy Component	$4,294,253	$4,294,253	$4,294,253	$4,294,253
5	Avoided Capacity Component	$1,544,048	$1,522,115	$699,371	$570,979
6	**Implicit Avoided Capacity Cost ($ per kW-Yr)**	**$20.58**	**$20.28**	**$9.32**	**$7.61**
	Assuming Avoided Energy Costs of Combined Cycle Resource				
7	Company's Value for Monsanto	$5,838,301	$5,816,368	$4,993,624	$4,865,232
8	Total MWH curtailed	53,600	53,600	53,600	53,600
9	Avoided Energy Cost ($/MWH) of CCCT (2)	$52.21	$52.21	$52.21	$52.21
10	Avoided Energy Component	$2,798,456	$2,798,456	$2,798,456	$2,798,456
11	Avoided Capacity Component	$3,039,845	$3,017,912	$2,195,168	$2,066,776
12	**Implicit Avoided Capacity Cost ($ per kW-Yr)**	**$40.51**	**$40.22**	**$29.25**	**$27.54**

(1) Based on average avoided energy cost of SCCT shown on Exhibit 211.
(2) Based on average avoided energy costs of CCCT shown on page 95, 2007 IRP.

	Levelized Fuel	O&M		Total
CCCT (Wet "F" 1x1)	$50.11	$2.60		$52.71
CCCT (Wet "F" 2x1)	$49.69	$2.60		$52.29
CCCT (Wet "G" 1x1)	$49.08	$2.55		$51.63
		Average	=	$52.21

ROCKY MOUNTAIN POWER

Value of Reserves Based On Cholla and Gadsby

		Cholla (1)	Gadsby (2)	Total (3)
1	Assumed kW	40,000	55,000	95,000
2	Hours assumed available per day	16	16	
3	Days per year	365	365	
4	Hours available per year	5,840	5,840	
5	MWH	233,600	321,200	
6	Market Price (REDACTED)			
7	Cost (REDACTED)			
8	Opportunity Profit (REDACTED)			
9	Times MWH	233,600	321,200	
10	**Opportunity $**			**$10,385,564**

(1) Market price is average 2008-2009 forward price of 7x16 Mona from Attachment 3.2a (CONFIDENTIAL).

(2) Cost of Cholla and Gadsby from Attachment 3.2 a (CONFIDENTIAL) average 2008-2009