

**Before the  
Public Utilities Commission  
of the State of Idaho**

**In the Matter of the Application of PacifiCorp, )  
dba Utah Power & Light Company for )  
Approval of Interim Provisions for the Supply )  
of Electric Service to Monsanto Company )**

**CASE NO. PAC-E-01-16**

Direct Testimony of  
**Kathryn E. Iverson**

On Behalf of  
**Monsanto Company**

July 2002  
Project 7402



**PACIFICORP**

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**Direct Testimony of Kathryn E. Iverson**

1 **I. INTRODUCTION AND QUALIFICATIONS**

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

3 A My name is Kathryn E. Iverson; 5555 DTC Parkway, Suite B-2000; Greenwood  
4 Village, Colorado 80111.

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

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

9 **Q WOULD YOU PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND**  
10 **EXPERIENCE?**

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

1 **Q ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

2 A I am testifying on behalf of Monsanto Company, along with my colleague, Dr.  
3 Rosenberg.

4 **II. PURPOSE OF TESTIMONY AND SUMMARY OF CONCLUSIONS**

5 **Q WHAT SUBJECTS DO YOU AND DR. ROSENBERG ADDRESS?**

6 A Dr. Rosenberg and I have been asked to review PacifiCorp's rationale and support for  
7 the offered special contract price, terms and conditions for service to Monsanto's  
8 Soda Springs facility. We will make recommendations to the Idaho Public Utilities  
9 Commission ("Commission") on a reasonable contract price for serving Monsanto.

10 **Q WHAT SPECIFIC AREAS DOES YOUR TESTIMONY COVER?**

11 A My testimony provides the analysis to quantify the cost of service studies used in the  
12 development of the special contract rate. Specifically, I provide testimony on the  
13 quantification of the allocation of jurisdictional costs and class cost of service studies  
14 used as one input to the design of the Monsanto rate. Dr. Rosenberg's testimony  
15 provides a policy framework for the Commission to evaluate the proposed rates,  
16 terms and conditions for service to Monsanto.

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

19 A Yes. I am sponsoring Exhibits 216 (KEI-1) through 220 (KEI-5). These exhibits were  
20 prepared either by me or under my supervision and direction.

1    **Q     WHAT PRICE DOES PACIFICORP PROPOSE TO CHARGE MONSANTO FOR**  
2    **SERVICE?**

3    A     The Company has separated its proposal into two contractual arrangements. The  
4         first contract is for PacifiCorp to sell firm energy to Monsanto at an overall average  
5         price of \$31.4 per MWH. PacifiCorp’s proposed rate design includes seasonal and  
6         hourly price differentials, with both capacity and energy prices. The second contract  
7         is for PacifiCorp to buy interruptible energy from Monsanto as needed. Despite  
8         PacifiCorp’s testimony that the net effect of these two separate contracts is a cost of  
9         \$27 to \$28 per MWH, the actual net cost is indeterminate since the second contract’s  
10        quantity, price and timing are all unknown.

11   **Q     WOULD YOU PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS?**

12   A     My testimony examines the allocated costs for Monsanto under three different types  
13         of analysis, or treatments. The first treatment follows the proposal of the Company  
14         whereby the firm price is derived for Monsanto, and then a separate valuation of  
15         interruptibility is determined and netted with the firm price to come up with the overall  
16         interruptible cost of service. With my revisions to the cost study as filed by the  
17         Company, the cost of firm power to Monsanto is determined to be in the range of  
18         \$26.1 to \$28.1 per MWH.

19                 The second treatment explicitly recognizes that Monsanto is taking a lower  
20         quality service in the allocation and assignment of costs. Under this alternative, the  
21         overall price for providing interruptible service is derived as ranging from \$19.6 to  
22         \$20.9 per MWH based on cost allocation studies recognizing 50% of Monsanto’s non-  
23         firm demands in the allocation factors.

24                 The third treatment provides a “hold harmless” analysis that maintains the  
25         other Idaho ratepayers at status quo levels. This approach yields an interruptible rate

1 for service to Monsanto of \$21.7 per MWH under the Company's cost study, and  
2 even less under alternative cost studies. Dr. Rosenberg incorporates these results  
3 together with a valuation of interruptibility and arrives at an overall price of \$19.4 per  
4 MWH for service to Monsanto, an increase of almost \$1 per MWH above the current  
5 rate, or roughly a 5% increase.

6 **Q WHY DO YOU BELIEVE IT IS NECESSARY TO ANALYZE MONSANTO'S COSTS**  
7 **UNDER THESE THREE DIFFERENT TYPES OF TREATMENTS?**

8 A There is considerable dispute about how to best model and recognize interruptible  
9 loads on PacifiCorp's system. While PacifiCorp chose to only provide a single view of  
10 the allocation of costs to interruptible customers (i.e., treat Monsanto as a firm  
11 customer), we offer a more complete picture before this Commission by providing  
12 alternative treatments. To the extent these treatments all point to a relatively narrow  
13 range of pricing provisions, the Commission is provided increased confidence in its  
14 determination of a reasonably accurate overall view of the Company's cost of serving  
15 the Monsanto Soda Springs load.

16 **Q IS A COST OF SERVICE APPROACH THE ONLY WAY TO ASCERTAIN THE**  
17 **COST TO SERVE AN INTERRUPTIBLE CUSTOMER SUCH AS MONSANTO?**

18 A No. We are presenting these alternative cost of service studies only in response to  
19 the new proposal of PacifiCorp to allocate embedded costs to Monsanto. If the  
20 Commission agrees with PacifiCorp's approach for deriving a firm price for Monsanto,  
21 then our testimony will provide additional perspectives on cost allocation. Dr.  
22 Rosenberg will suggest further pricing methods ranging from examination of other  
23 interruptible contracts to an average variable cost plus an adder. The cost studies I  
24 employ in my testimony are but one way of reviewing the costs to serve Monsanto.

1 **Q HOW IS YOUR TESTIMONY ORGANIZED?**

2 A My testimony will first discuss the allocation of costs to Monsanto as a firm customer  
3 with revisions to the Company cost study for five items. Second, my testimony will  
4 provide the allocation of costs continuing the treatment as Monsanto as an  
5 interruptible customer. Third, I will present the “hold harmless” analysis which seeks  
6 to keep the revenue requirement allocated to the non-Monsanto Idaho customers at  
7 their present revenue levels, thus holding all other Idaho customers indifferent to the  
8 change in status of Monsanto from “system” to “situs”.

### **III. BACKGROUND ON THE TREATMENT OF MONSANTO IN COST STUDIES**

9 **Q DOES PACIFICORP PROVIDE FIRM SERVICE TO MONSANTO?**

10 A No. Monsanto’s load is interruptible<sup>1</sup>, and PacifiCorp has treated the load as such in  
11 its resource planning. Even though Monsanto is primarily an interruptible customer,  
12 PacifiCorp proposes that Monsanto be served at a so-called firm rate of \$31.4 per  
13 MWH.<sup>2</sup> My testimony rebuts the Company’s figures.

14 **Q HAS PACIFICORP FILED A COST OF SERVICE STUDY TO SUPPORT ITS FIRM  
15 PRICE TO MONSANTO?**

16 A Yes. PacifiCorp filed three studies in support of its firm price:

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<sup>1</sup> With the exception of 9 MW firm for safety concerns.

<sup>2</sup> Actually the contract terms offered by PacifiCorp are not entirely firm as the contract provides for PacifiCorp to temporarily interrupt or curtail service of power for emergency purposes. See the testimony of Alan Rosenberg for further details.

1 1. Jurisdictional Allocation Model (JAM) with “System” Treatment of Monsanto

2 2. Jurisdictional Allocation Model (JAM) with “Situs” Treatment of Monsanto

3 3. Idaho Class Cost of Service (COS) Study

4 All three of these cost studies employ the same general cost of service methodology  
5 whereby the demand allocator for generation and transmission costs is a combination  
6 of 75% demand-related and 25% energy-related. The demand portion is allocated on  
7 a 12 coincident peak (12 CP) method, while the energy portion is allocated on the  
8 basis of energy at generation level. Consequently, all three Company studies are  
9 based solely upon the “12 CP; 75/25” allocation methodology, and are but one  
10 perspective for use in designing rates for Monsanto.

11 **Q WHY ARE THERE TWO JAM COST STUDIES?**

12 A PacifiCorp provided two different JAM cost studies based on two different treatments  
13 for handling special contracts.

14 The first JAM study with “system” treatment of Monsanto’s special contract  
15 employs the historical method for dealing with special contracts by excluding special  
16 contract usage in the jurisdictional allocation study. Special contracts are not  
17 allocated costs; rather, their revenues are spread to all jurisdictions as an offset to  
18 costs for all the other non-contract customers.

19 PacifiCorp proposes to depart from this “system” practice and instead directly  
20 allocate the costs of serving Monsanto to the Idaho jurisdiction for ratemaking  
21 purposes. The second JAM study employs the proposed new practice for “situs”  
22 treatment. The Idaho jurisdictional results from the “situs” JAM study are then  
23 incorporated in the Idaho COS for determining the allocated costs to Monsanto.



1 Q DOES THE USE OF “SITUS” COST STUDIES IN THIS PROCEEDING MEAN  
2 THAT YOU ACCEPT THE CHANGE IN ALLOCATION TREATMENT FROM  
3 “SYSTEM” TO “SITUS”?

4 A No. The use of any “situs” cost studies in this proceeding is only meant to provide  
5 one type of analytical tool for pricing the cost to serve Monsanto. The broader policy  
6 question of how to treat special contracts by the various Commissions which regulate  
7 PacifiCorp is currently under investigation in the Multi-State Process (MSP) and has  
8 been addressed by Monsanto witness Richard Anderson.

9 Q WHAT ARE THE RESULTS OF PACIFICORP’S IDAHO COS PRESENTED IN  
10 THEIR EXHIBIT 1?

11 A The COS by rate schedule presented by the Company shows that Monsanto’s  
12 present revenues provide a return on rate base of *negative* 5.55%.<sup>3</sup> A negative rate  
13 of return for Monsanto is not surprising however. The present revenues for Monsanto  
14 are for interruptible service, while the Company’s COS is designed to determine the  
15 total cost of firm service. Comparing present interruptible revenues to a proposed  
16 firm revenue requirement is an apples and oranges comparison. Thus, it is not  
17 surprising that Monsanto’s return under the COS is negative.

18 Second, the Company’s COS seems to imply an increase of 70% is necessary  
19 for Monsanto. While a cost study does provide a guiding light for setting rates, the  
20 Company has taken its own particular cost study results as gospel for proposed rates.  
21 PacifiCorp makes no allowances for any other input such as gradualism or rate  
22 shock. Dr. Rosenberg will discuss the need for these additional considerations.

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<sup>3</sup> Exhibit No. 1, D. Taylor, PacifiCorp, Page 1, column E, line 11.

1 Third, the Company's COS provides a basis for the variable costs associated  
2 with serving Monsanto. In other words, we can review the allocated costs to  
3 Monsanto that vary on the basis of usage without any contribution to fixed costs.

4 **Q WHAT ARE THE VARIABLE COSTS TO SERVE MONSANTO?**

5 A Based on the Company's COS, the variable cost to serve Monsanto is \$14 per MWH.  
6 This variable cost is based on the generation expenses plus transmission wheeling  
7 by others, net of the sales for resale allocated to Monsanto, as shown below:

	<u>Amount</u>
Total Production Expense	\$45,929,191
Transmission by Others	<u>\$1,778,074</u>
Total Variable Costs	\$47,707,265
Sales for Resale	<u>(\$28,127,522)</u>
Net Variable Costs	\$19,579,743
Monsanto Energy Usage (MWH)	1,400,846
Average Variable Cost (\$ per MWH)	\$14.00

8 At the current contract price of \$18.50 per MWH, the contribution to fixed costs is  
9 \$4.50 per MWH, or \$6.3 million. Dr. Rosenberg discusses how the above variable  
10 cost with an appropriate fixed cost adder can lead to a reasonable rate for the new  
11 contract.

1 **IV. MODIFICATIONS TO PACIFICORP'S SITUS COST STUDY**

2 **Q WHAT MODIFICATIONS HAVE YOU MADE TO THE JURISDICTIONAL AND**  
3 **IDAHO COST STUDIES PROVIDED BY PACIFICORP?**

4 **A** I have made five modifications to the Company's studies:

- 5 ▪ Correction of the rate of return applied to Monsanto;
- 6 ▪ Modification of the 75% demand/25% energy combination for the allocation of  
7 production and transmission demand-related expenses and rate base, to a  
8 100% demand/0% energy;
- 9 ▪ Use of an 8 CP demand allocator, rather than 12 CP;
- 10 ▪ Adjustment for administrative and general (A&G) expenses allocated to  
11 Monsanto;
- 12 ▪ Incorporation of fuel shaping in the overall allocation of fuel and purchased  
13 power costs.

14 I will explain why each of these modifications are appropriate and necessary.  
15 Furthermore, I should note that I have not made any explicit disallowances or  
16 exclusions to the full costs and investment contained in the Company's cost studies.

17 **Rate of Return**

18 **Q WHAT RATE OF RETURN DOES PACIFICORP USE AS THE BASIS OF THE**  
19 **PROPOSED FIRM MONSANTO RATE?**

20 **A** PacifiCorp proposes a rate of return of 8.418% to be applied to Monsanto. According  
21 to the Company's testimony, the 8.418% rate of return was selected to match the  
22 1999 normalized rate of return for the state of Idaho, prior to the inclusion of  
23 Monsanto as a "situs" customer. In other words, the Company uses the JAM  
24 "system" study to determine the rate of return to apply to Monsanto.

1 Q PACIFICORP CLAIMS THAT PRICING THE MONSANTO CONTRACT AT THE  
 2 8.418% RATE OF RETURN (9.8% RETURN ON EQUITY) WILL LEAVE THE  
 3 RETURN FOR THE STATE OF IDAHO UNCHANGED. DO YOU AGREE?

4 A No. If PacifiCorp’s proposed increase to Monsanto is granted, then the Idaho  
 5 jurisdiction rate of return will increase to 8.867%. This is shown in Exhibit 216 (KEI-  
 6 1), page 1, line 10. Contrary to the Company’s claims, an increase of \$18 million to  
 7 Monsanto, combined with the present revenues of all other Idaho customer classes,  
 8 will afford PacifiCorp an increase in its Idaho return.

9 Q WHY IS THE IDAHO JURISDICTIONAL RATE OF RETURN HIGHER WITH  
 10 PACIFICORP’S PROPOSED \$18 MILLION INCREASE TO MONSANTO?

11 A As summarized in Table 2 below, an overall total increase of \$15 million for Idaho is  
 12 necessary to return the state of Idaho rate of return back to 8.418% under the  
 13 Company’s proposed cost study.

**TABLE 2**

**PacifiCorp Cost of Service by Rate Schedule**

	<u>Present Revenue</u>	<u>Increase (Decrease) to Equal ROR</u>	<u>Percentage Change</u>
Residential	\$ 43,205,288	\$ (8,484,280)	-19.6%
General Service	27,006,334	(3,161,812)	-11.7%
Irrigation	25,800,073	8,704,210	33.7%
Other	5,989,999	(8,738)	-0.1%
Monsanto	<u>25,891,534</u>	<u>18,079,556</u>	<u>69.8%</u>
Total	\$ 127,893,229	\$ 15,128,936	11.8%

Source: Exhibit No. 1, D. Taylor, Page 1 of 4.

1 Even though PacifiCorp's own cost study shows that it requires \$15 million to bring its  
2 rate of return back to 8.418% for the state of Idaho, PacifiCorp proposes to increase  
3 Monsanto's rates by over \$18 million. The difference – close to \$3 million – is  
4 pocketed by PacifiCorp since the Company has no intention of revising any other  
5 classes' rates in this proceeding. Consequently, as a result of increasing Monsanto's  
6 rates the overall rate of return generated for PacifiCorp will actually be higher than  
7 8.418%.

8 **Q WHAT RATE OF RETURN SHOULD BE USED IN DETERMINING THE INCREASE**  
9 **TO MONSANTO?**

10 A The increase to Monsanto should be limited to the overall increase necessary to bring  
11 the Idaho jurisdiction rate of return back to the level prior to including Monsanto as a  
12 "situs" customer. For example, with PacifiCorp's as filed study (which I have referred  
13 to as Study "A" in my exhibit), the increase to Monsanto is limited to the overall  
14 \$15,128,936 jurisdictional increase, which returns the overall Idaho jurisdictional  
15 return back to 8.418%. This is shown on page 2 of Exhibit 216. Under this return  
16 methodology, neither PacifiCorp or the other Idaho ratepayers are impacted as a  
17 result of moving toward "situs" treatment for Monsanto. Limiting Monsanto's increase  
18 to the \$15.1 million amount results in a firm cost of \$29.3 per MWH, and a rate of  
19 return of 6.88% for Monsanto, a significant increase from the present return of  
20 *negative* 5.55% return shown by PacifiCorp. Furthermore, the return for the state of  
21 Idaho is maintained at its 8.418% level, as the Company mistakenly believed its own  
22 method was doing.

1 **Classification of Generation and Transmission Costs**

2 **Q HOW ARE GENERATION AND TRANSMISSION COSTS CLASSIFIED IN THE**  
3 **COMPANY'S JURISIDCTIONAL AND IDAHO COST STUDIES?**

4 A PacifiCorp classifies generation and transmission costs as 75% demand related and  
5 25% energy related.<sup>4</sup>

6 **Q HAS THE IDAHO COMMISSION PROVIDED ANY GUIDANCE ON THIS ISSUE IN**  
7 **THE PAST?**

8 A Yes. In the last Utah Power & Light (UPL) cost of service case, Case No. UPL-E-90-  
9 1, the Commission provided guidance on the use of cost studies, in particular the  
10 issue of the classification and allocation of generation and transmission costs. Order  
11 No. 23508 details the Commission's review of eight different cost-of-service  
12 methodologies presented by UPL in the 1990 proceeding. One study used the  
13 combination of 25% energy and 75% 12 CP, similar to the study as proposed by the  
14 Company in this docket. The Commission in Order No. 23508, though, dismissed the  
15 25% energy/75% demand methodology, and instead opted for studies with 100%  
16 demand classification.

17 **Q DO YOU AGREE THAT THE COST STUDY SHOULD USE THE 100% DEMAND**  
18 **CLASSIFICATION?**

19 A Yes. By allocating 100% of the generation and transmission demand-related rate  
20 base and expenses on the basis of coincident peak demands, all firm customers will  
21 receive equal shares of the cost of constructing the investment on a per kW basis. All  
22 customers then will share proportionately in the cost of the generation and  
23 transmission investments based on their contribution to the monthly coincident peak

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<sup>4</sup> See Direct Testimony, David L. Taylor, page 12.

1 demands. Clearly the investments for generation and transmission are fixed costs,  
2 and so should be allocated on the basis of demand.

3 **Q HAVE YOU RERUN THE COMPANY'S COST STUDIES WITH THE DEMAND**  
4 **ALLOCATOR SET AT 100/0 RATHER THAN PACIFICORP'S 75/25?**

5 A Yes. I have rerun both JAM studies ("system" and "situs") at 100% demand, as well  
6 as the Idaho COS, continuing to use the 12 CP as proposed by PacifiCorp. The  
7 resulting price is shown in Exhibit 217 (KEI-2), labeled as Study "B". Running the  
8 JAM "system" study shows that the Idaho jurisdiction has a rate of return of 8.49%,  
9 and when the "situs" study is run the rate of return drops to 6.31%. In order to bring  
10 the Idaho jurisdiction back up to the 8.49% return requires an overall increase of  
11 \$14.1 million. If Monsanto's revenues are increased by \$14.1 million, their overall  
12 firm rate is \$28.50 per MWH. Monsanto's return increases from *negative* 5.02% to  
13 positive 6.99%.

14 **Q DID THE COMMISSION FIND THE 12 CP METHOD THE ONLY DEMAND**  
15 **METHOD IN ITS 1990 ORDER?**

16 A No. The Commission found the use of an 8 CP method equally compelling for use in  
17 guidance of establishing rates:

18 We further find that both the 8 CP and 12 CP methods of allocating  
19 generation and transmission costs possess advantages as well as  
20 shortcomings. As an effort to capture the advantages of both methods  
21 we will use, an average of the Company's 8 CP and 12 CP methods  
22 for guidance in this case. (Order No. 23508, page 9)

23 **Q WHY DO REGULATORS CONSIDER MULTIPLE COINCIDENT PEAKS (SUCH AS**  
24 **12 CP OR 8 CP) WHEN EVALUATING COST OF SERVICE STUDIES?**

1 A A system that is built to accommodate the single highest peak during the year can  
2 also satisfy the other subordinate monthly peaks. Nevertheless, it is fairly common to  
3 use multiple peaks (usually anywhere from two months (e.g., winter and summer) to  
4 12 months) in a cost analysis to account for the fact that the annual peak does not  
5 always occur in the same month every year. The use of a single CP can also  
6 produce erratic results, as the Commission noted in its 1990 order. Consequently,  
7 using several coincident peaks is generally considered a fairer way to allocate costs.

8 **Q WHAT FACTORS GO INTO THE CHOICE OF THE NUMBER OF PEAKS?**

9 A While there are no hard and fast rules that garner universal acceptance, in general  
10 the flatter the monthly peaks, the more one can justify the 12 CP method.  
11 Conversely, the more pronounced the monthly peaks become, the more a cost  
12 analyst would opt for fewer peaks. Using more coincident peaks than is warranted,  
13 dilutes the message that an electric system must be designed to meet the peak load.  
14 Using more coincident peaks than can be justified also penalizes high load factor  
15 customers, the most efficient users of the system. Thus, the cost analyst seeks to  
16 strike a balance – use enough peaks to accurately capture the responsibility of all  
17 usage that may contribute to an annual peak, but not enough to distort the influence  
18 that peak usage has on cost causation.

19 **Q WHAT IS YOUR OPINION ON THE RELATIVE MERITS OF USING 12**  
20 **COINCIDENT PEAKS VERSUS USING 8 COINCIDENT PEAKS?**

21 A Before I can properly answer that question, we must first distinguish between the JAM  
22 model and the Idaho COS model. The reason we must distinguish between the two  
23 is that: (1) the PacifiCorp system load shape is quite different from the Idaho  
24 jurisdiction load shape, and (2) the two models serve different purposes. The JAM



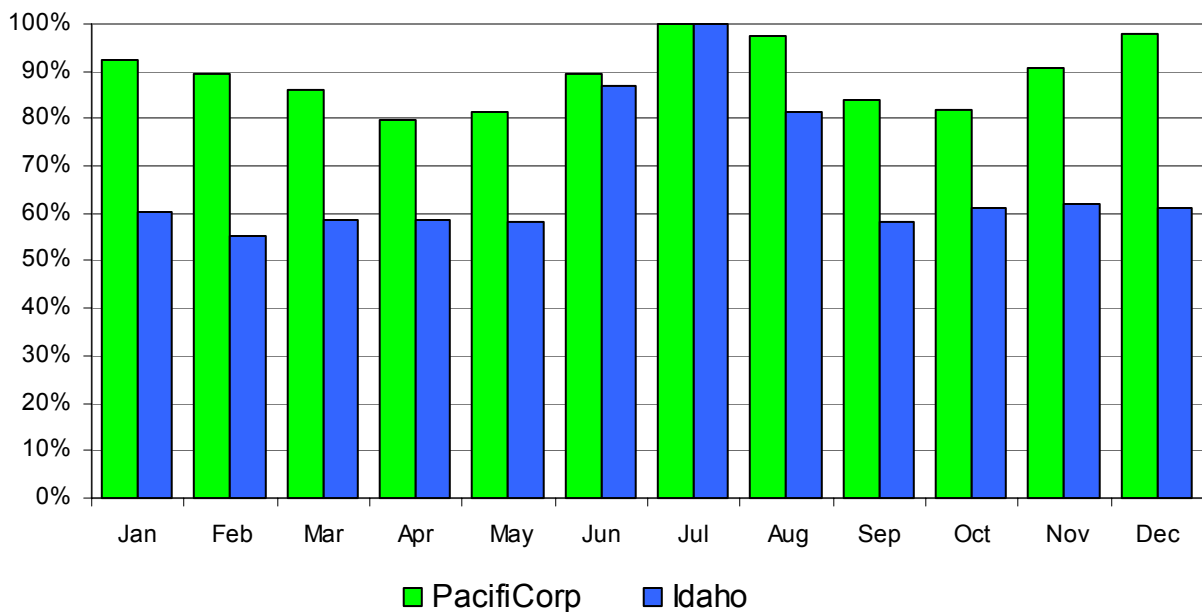
1 study is used to allocate costs among broad jurisdictions (California, Oregon,  
2 Washington, Utah, Wyoming and Idaho), while the Idaho COS model concerns itself  
3 strictly with allocation among the Idaho retail classes.

4 **Q WHAT IS YOUR OPINION ON THE RELATIVE MERITS OF USING 12**  
5 **COINCIDENT PEAKS VERSUS USING 8 COINCIDENT PEAKS IN THE JAM**  
6 **STUDY?**

7 A In my opinion, the 8 CP method is preferable to the 12 CP method. I say that  
8 because in the test year (1999), the four lowest peaks were all between 80% and  
9 84% of the annual peak, while the 8 highest peaks average 93% of the annual peak,  
10 as shown in the following figure (PacifiCorp's monthly peaks shown in the lighter  
11 shade of gray):

**FIGURE 1**

**Monthly Peak Demands as a  
Percent of the Annual System Peaks for PacifiCorp and Idaho**



1 **Q WHAT IS YOUR OPINION ON THE RELATIVE MERITS OF USING 12**  
2 **COINCIDENT PEAKS VERUS USING 8 COINCIDENT PEAKS IN THE IDAHO COS**  
3 **STUDY?**

4 A In the Idaho COS study, the 8 CP method is even more justified than in the JAM  
5 study. As shown in Figure 1 above for Idaho (the darker shaded bars), only two  
6 months out of twelve exhibited peak demands that were within 87% of the annual  
7 Idaho peak. The lowest four monthly peaks average only 58% of the annual peak.  
8 Not only is the 8 CP method even more justified in the Idaho COS study, it is also  
9 more critical. To the extent that the load factor of Idaho, let us say, is similar to that of  
10 Wyoming, it will not make too much difference to the outcome whether you use 8 CP  
11 or 12 CP in the JAM study. However, retail customer classes almost always exhibit  
12 much sharper differences in load shape among each other, than do the load shapes  
13 from one state to another. Thus it is much more important to limit the number of  
14 coincident peaks used in the Idaho COS study. I recommend that the Commission  
15 focus on the 8 CP method for both the JAM as well as the Idaho COS studies.

16 **Q HAVE YOU RERUN THE COMPANY'S COST STUDIES USING AN 8 CP**  
17 **ALLOCATOR?**

18 A Yes, I have. The results are labeled as Study "C" and presented on Exhibit 217.  
19 Running the JAM "system" study shows that the Idaho jurisdiction has a rate of return  
20 of 7.73%, and when the "situs" study is run the rate of return drops to 6.03%. In order  
21 to bring the Idaho jurisdiction back up to the 7.73% return requires an increase of  
22 \$11.3 million. If Monsanto's revenues are increased by \$11.3 million, their overall  
23 firm rate is \$26.50 per MWH.

1    **Q     WHAT IS THE RESULT OF AVERAGING THE RESULTS OF THE 12 CP STUDY**  
2    **AND THE 8 CP STUDY?**

3    A     The results of averaging Study “B” and Study “C” are shown on Exhibit 217. The firm  
4    price to Monsanto would be \$27.50 per MWH, which equates to an increase of 49%  
5    or \$12.7 million.

6    **Administrative & General Expenses**

7    **Q     WHAT ARE THE ALLOCATED COSTS TO MONSANTO FOR A&G EXPENSES IN**  
8    **THE COMPANY’S COST STUDY?**

9    A     Under the Idaho COS proposed by PacifiCorp, the total A&G expenses allocated to  
10   Monsanto are \$4.1 million, or \$2.95 per MWH, as shown in Exhibit 218 (KEI-3). It  
11   makes up over 9% of the total proposed cost of firm power. For example, under  
12   PacifiCorp’s cost study, \$914,889 of “Office Supplies and Expenses” are allocated to  
13   Monsanto alone. A&G salaries allocated to Monsanto are over \$1.8 million.

14   **Q     DOES PACIFICORP CONSIDER \$4 MILLION TO BE HIGH FOR A SINGLE**  
15   **CUSTOMER’S SHARE OF A&G?**

16   A     While the Company has not commented directly on Monsanto’s share of A&G  
17   expenses, PacifiCorp has recently commented on another large industrial customer’s  
18   share. In a recent case in Utah (Docket No. 01-035-38), Magcorp noted that its share  
19   of these costs totaled over \$1 million or \$1.73 per MWH. This is 40% lower than  
20   Monsanto’s A&G expenses. While PacifiCorp agreed that \$1 million “is a very large  
21   number” for a single customer, the Company dismissed Magcorp’s concern with the  
22   insistence that its A&G allocation was “consistent with the allocation methodology the

1 (Utah) Commission has adopted for A&G expenses”.<sup>5</sup> Obviously, Monsanto’s share  
2 of A&G expenses is even higher than the amount PacifiCorp allocated to Magcorp.

3 **Q WHY IS THE ALLOCATION TO MONSANTO SO HIGH FOR THESE OVERHEAD**  
4 **TYPE OF EXPENSES?**

5 A As explained by the Company, most A&G costs are functionalized and allocated to  
6 classes based on generation, transmission and distribution plant. Thus, a customer  
7 such as Monsanto which uses a large amount of energy and is allocated significant  
8 amounts of generation plant in the Company’s cost study will likewise be allocated a  
9 large amount of A&G expenses.

10 **Q DO YOU HAVE AN ALTERNATIVE METHOD OF ALLOCATING A&G EXPENSES?**

11 A Yes. Instead of relying on functionalization based on plant, the following accounts of  
12 the A&G expenses should be functionalized on the basis of labor costs:

- 13 Account 920 A&G Salaries
- 14 Account 921 Office Supplies
- 15 Account 923 Outside Services
- 16 Account 926 Employee Pensions

17 I have rerun the Studies A, B and C using the labor allocations. As a result of the  
18 previous changes, the firm price for Monsanto should be reduced another \$0.32 per  
19 MWH.

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<sup>5</sup> Before the Public Service Commission of Utah, Docket No. 01-35-38, Direct Testimony of David Taylor, page 9.

1 **Shaping Fuel Costs for Recognition of High Load and Low Load Hours**

2 **Q DOES PACIFICORP PROVIDE ANY RECOGNITION OF HIGH LOAD AND LOW**  
3 **LOAD HOURS IN ITS COST STUDY ALLOCATION OF FUEL AND ENERGY-**  
4 **RELATED PURCHASED POWER EXPENSES?**

5 **A** No. The costs of fuel and energy-related purchases are spread to all 8,760 hours of  
6 the year equally.

7 **Q IS THAT ALLOCATION CONSISTENT WITH THE COMPANY’S PROPOSED RATE**  
8 **DESIGN, OR PLANNING ASSUMPTIONS?**

9 **A** No, it is not. The Company proposes a rate design to Monsanto which differentiates  
10 between high load and low load energy in the summer and winter seasons as follows:

<b>TABLE 3</b>		
<b><u>Seasonal Price Differentiation</u></b>		
	<b><u>High Load Hours</u></b>	<b><u>Low Load Hours</u></b>
Summer: May – October	20% premium	10% discount
Winter: November – April	0% premium	10% discount
Definition:	On Peak Hours: 7:00 AM to 10:00 PM, Monday through Friday, except holidays	Off-Peak Hours: All other times

11 The Company’s planning assumptions include similar types of premiums and  
12 discounts for high load and low load hours.<sup>6</sup>

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<sup>6</sup> PacifiCorp Resource and Market Planning Program, RAMPP-6, Appendix: Model Output, Tab 3, June 2001

1 Q WHAT IS THE IMPACT OF RECOGNIZING THE TIME DIFFERENTIATION OF  
2 FUEL AND PURCHASED ENERGY COSTS?

3 A I have analyzed the load shapes of the Idaho jurisdiction for the test period 1999 for  
4 Monsanto's loads, and all other Idaho load. When the premiums and discounts  
5 suggested by PacifiCorp are incorporated into the energy allocation process,  
6 Monsanto's average price declines by \$0.12 per MWH. This adjustment thus  
7 recognizes the load shape of Monsanto and incorporates an allocation of energy-  
8 related costs reflective of the premiums and discounts preferred by the Company.

9

10 **Summary of Cost Allocation Studies**

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

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

	Cost Study Results	A&G Adjustment	Shaping Fuel Cost Adjustment	Firm Monsanto Rate
Study "A": 12 CP; 75/25	\$29.3	(0.32)	(0.12)	\$28.9
Study "B": 12 CP; 100/0	\$28.5	(0.32)	(0.12)	\$28.1
Study "C": 8 CP; 100/0	\$26.5	(0.32)	(0.12)	\$26.1
Average of "B" and "C"	\$27.5	(0.32)	(0.12)	\$27.1

1 While PacifiCorp's singular cost study indicates a firm price of \$31.4 per MWH, the  
2 other various cost studies point toward a firm price in the range of \$26 to \$28 per  
3 MWH.

**V. COST ALLOCATION STUDY**  
**TREATING MONSANTO AS AN INTERRUPTIBLE CUSTOMER**

4 **Q IN THE PREVIOUS SECTION BOTH YOU AND THE COMPANY TREATED**  
5 **MONSANTO AS A FIRM CUSTOMER FOR PURPOSES OF ALLOCATING COSTS**  
6 **AMONG CUSTOMER CLASSES. IS THERE ANOTHER APPROACH THAT**  
7 **COULD BE USED TO ASCERTAIN THE COST TO SERVE MONSANTO AS AN**  
8 **INTERRUPTIBLE CUSTOMER?**

9 A Yes. Rather than include all of Monsanto's non-firm coincident peak demands in the  
10 cost allocation study, a percentage of its non-firm demands could be used instead.  
11 Placing 100% of Monsanto's coincident peaks assumes that the class is to be served  
12 as a firm customer. Alternatively, placing 0% of Monsanto's loads in the cost studies  
13 assumes that Monsanto would have no responsibility for payment of demand-related  
14 expenses. Neither of these extremes truly captures the reality of the service to  
15 Monsanto, however. The answer lies somewhere between 0% and 100%.

16 **Q WHAT PERCENTAGE DO YOU PROPOSE TO USE?**

17 A As explained by Dr. Rosenberg in his direct testimony, the use of a 50% factor for  
18 interruptible loads has precedent in both Idaho and other jurisdictions.

19 **Q HAVE YOU RERUN THE COMPANY'S COST STUDIES INCORPORATING ONLY**  
20 **50% OF MONSANTO'S NON-FIRM LOAD IN THE DEMAND ALLOCATOR?**

1 A Yes. When PacifiCorp's 12 CP 75/25 methodology is modified to include 50% of  
2 Monsanto's loads, the increase to Monsanto is limited to roughly \$7.2 million, or an  
3 increase of around 28%. Exhibit 219 (KEI-4) provides the price resulting from  
4 revising Study "A" (the Company's as filed studies) with 50% of Monsanto's non-firm  
5 loads, as well as the results for Study "B" and Study "C". These studies suggest that  
6 the interruptible price for Monsanto should be in the neighborhood of \$19.6 to \$20.9  
7 per MWH. Consequently, another perspective for the Commission's consideration is  
8 that the Monsanto's interruptible price could be derived with a modified cost allocation  
9 study which incorporates 50% of the non-firm load.

10 **Q DID YOU MODIFY ANY OF THE OTHER SPECIAL CONTRACTS IN OTHER**  
11 **JURISDICTIONS BY 50% AS WELL?**

12 A No. Since we are focusing on developing rates for Monsanto alone, the 50% demand  
13 percentage factor is applied only to Monsanto's peak demands. It would be  
14 presumptuous to make changes to loads in other jurisdictions.

15 **Q DR. ROSENBERG SUGGESTS ANOTHER WAY OF RUNNING THE COST STUDY**  
16 **INCORPORATING A PERCENTAGE DIFFERENT THAN 50%. COULD YOU**  
17 **PLEASE ELABORATE ON THIS ALTERNATIVE "HOLD HARMELSS"**  
18 **APPROACH?**

19 A Yes. As Dr. Rosenberg explains, the objective we sought to achieve was to hold the  
20 remaining Idaho customers of PacifiCorp indifferent to the change in status of  
21 Monsanto going from "system" to "situs". The present revenue of all customers  
22 excluding Monsanto is \$102 million. Thus, we kept this \$102 million revenue  
23 requirement allocated to non-Monsanto Idaho customer the same in the COS by  
24 solving for a percentage to be applied in both the "situs" JAM method as well as the



1 COS study. The target rate of return in the COS was kept at the return on rate base  
2 derived under the “system” JAM cost study.

3 **Q WHAT IS THE RESULT OF THIS ALTERNATIVE “HOLD HARMLESS”**  
4 **APPROACH?**

5 A We found that a percentage of 34% when applied to Monsanto’s non-firm loads in  
6 both the JAM and COS studies would keep the non-Monsanto cost of service at \$102  
7 million when using the Company’s cost study (Study “A”). Application of 34% results  
8 in a cost of service to Monsanto for interruptible service of \$30.5 million, or \$21.7 per  
9 MWH. Under this approach, the total non-Monsanto cost of service is maintained at  
10 \$102 million, while Monsanto receives an increase of 17.6% in its rates. Results for  
11 the alternative “hold harmless” approach for Study “A” are shown on page 1 of Exhibit  
12 220 (KEI-5), and are summarized for Studies “B” and “C” on page 2.

13 **Q PLEASE SUMMARIZE THE RESULTS OF YOUR COST STUDIES RECOGNIZING**  
14 **MONSANTO AS AN INTERRUPTIBLE CUSTOMER.**

15 A Table 5 summarizes the results of the cost studies with the treatment of Monsanto as  
16 an interruptible customer:

**TABLE 5**  
**Summary of Cost Studies**  
**With Monsanto As An Interruptible Customer**  
**(\$ per MWH)**

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	<u>Cost Study Results</u>
<u>Using 50% of Monsanto Non-Firm Demand</u>	
Study "A": 12 CP; 75/25	\$23.6
Study "B": 12 CP; 100/0	\$20.9
Study "C": 8 CP; 100/0	\$19.6
Average of Study "B" and Study "C"	\$20.2
<u>Hold Harmless</u>	
Study "A": 12 CP; 75/25	\$21.7
Study "B": 12 CP; 100/0	\$18.6
Study "C": 8 CP; 100/0	\$18.5
Average of Study "B" and Study "C"	\$18.6

1 Q DOES THIS CONCLUDE YOUR TESTIMONY IN THIS CASE?

2 A Yes.

**Qualifications of Kathryn E. Iverson**

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

2    A     Kathryn E. Iverson; 5555 DTC Parkway, Suite B-2000; Englewood, Colorado 80111.

3    **Q     PLEASE STATE YOUR OCCUPATION.**

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

6    **Q     PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK  
7        EXPERIENCE.**

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

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

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

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

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

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

22 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

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