

1 **Q. Please state your name, business address and position with PacifiCorp dba Utah**  
2 **Power & Light Company (the Company).**

3 A. My name is David L. Taylor. My business address is 825 N. E. Multnomah, Suite  
4 800, Portland, Oregon, where I am employed as the Revenue Requirement and Cost  
5 of Service Director.

6 **Qualifications**

7 **Q. Please briefly describe your education and business experience.**

8 A. I received a BS in Accounting from Weber State College in 1979 and an MBA from  
9 Brigham Young University in 1986. I have been employed by PacifiCorp since the  
10 merger with Utah Power in 1989. Prior to the merger I was employed by Utah Power,  
11 beginning in 1979. At the Company I have worked in the Accounting, Budgeting, and  
12 Pricing and Regulatory areas. From 1987 to the present, I have held several  
13 supervision and management positions in Pricing and Regulation.

14 **Q. Have you appeared as a witness in previous regulatory proceedings?**

15 A. Yes. I have testified on numerous occasions in California, Idaho, Montana, Oregon,  
16 Utah, Washington and Wyoming.

17 **Purpose of Testimony**

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

19 A. In my testimony I will present PacifiCorp's Cost of Service results in support of a  
20 new contract rate for US Magnesium (US Mag). The current contract between the  
21 Company and US Mag expires on December 31, 2004. As part of the process to  
22 negotiate a new contract and provide a fair and equitable rate to US Mag, it is  
23 necessary to determine US Mag's current cost responsibility. Additionally, I will

1 address several issues raised in the testimony of US Mag witness Roger Swenson.  
2 Finally, I will discuss my concerns with a number of the cost of service  
3 representations contained in the US Magnesium Interruption 2003 Report submitted  
4 by the Division of Public Utilities to the Utah Commission on June 21, 2004 and  
5 included as USM Exhibit 1.1 in this proceeding.

6 **Cost of Service Results**

7 **Q. Please identify Exhibit No. UP&L\_\_ (DLT-1) and explain what it shows.**

8 A. Exhibit No. UP&L\_\_ (DLT-1) are summary tables from PacifiCorp's year end March  
9 2003 Class Cost of Service Study for the State of Utah. This is the cost of service  
10 study that reflects the final resolution of Docket No. 03-2035-02, the basis for current  
11 rates in Utah. Page one summarizes class cost of service results by customer group  
12 and by function. Page two provides that same information for US Mag on a unit cost  
13 basis. This shows a cost of service for US Mag, based on their test period usage of  
14 \$14.6 million, or approximately \$29 per MWH.

15 **Q. How does US Magnesium's current revenue compare to its cost of service?**

16 A. US Mag's current price of \$21 per MWH is significantly below PacifiCorp's cost to  
17 serve that company. As a result, an annual revenue shortfall of over \$4 million is  
18 associated with PacifiCorp's service of US Mag under the current arrangement. Other  
19 Utah electric customers bear the burden of US Mag's below-cost rates, as the revenue  
20 shortfall is currently passed on to these other customers through higher rates.

21 **Q. Does the \$29 per MWH cost of service shown in Exhibit No. UP&L\_\_ (DLT-1)  
22 reflect the cost savings associated with US Mag's interruptible service?**

23 A. Yes. Consistent with the direction of Utah Commission given in their order in Docket

1 01-035-38, US Magnesium's contributions to system peak and energy consumption  
2 during the June through September curtailment periods were removed from the  
3 development of the allocation factors used in both the jurisdictional allocation of  
4 system costs and in the class cost of service study. US Mag's energy consumption  
5 during the curtailment periods was also removed from the calculation of system net  
6 power costs.

7 **Q. The current contract allows US Mag to buy through an economic curtailment at**  
8 **a spot market surrogate price. How were the costs of the power acquired during**  
9 **those buy through periods treated in the cost of service study?**

10 A. The cost of service study treats the economic curtailments as physical interruptions  
11 even though US Mag currently has the option, and almost always chooses to buy  
12 through the curtailments. During the economic curtailment periods the cost of any  
13 buy through purchased power and the corresponding revenue were removed from the  
14 studies. As mentioned earlier, the loads during those periods were also removed.  
15 Only the cost associated with service provided from PacifiCorp's resource portfolio is  
16 included in the cost of service study.

17 **Q. Does economic curtailment with the option to buy through provide the same**  
18 **benefit and cost savings to PacifiCorp as physical interruptions?**

19 A. No. Mr. Griswold addresses this in his testimony.

20 **Q. If the interruption provisions of the contract are changed would this result in a**  
21 **change to the US Magnesium cost of service?**

22 A. Yes. If a new contract results in changes to the interruptible provisions, the cost of  
23 service would need to be revised to reflect the changes to system net power costs,

1 jurisdictional allocation of system costs to Utah, and to the class cost of service study.

2 **Q. Generally speaking, how would those interruptibility provisions proposed in Mr.**  
3 **Swenson's testimony affect PacifiCorp's cost of service to US Mag, when**  
4 **compared with the costs associated with the existing interruptibility**  
5 **arrangement?**

6 A. As I discuss later in my testimony, it is very likely that Mr. Swenson's changes in the  
7 interruptibility provisions would increase US Mag's cost of service. This is  
8 particularly true of his suggestion to reduce the number of days and hours US Mag  
9 would be subject to economic curtailment.

10 **Q. Why have you relied on a cost of service study from a previous test period rather**  
11 **than the cost of service study just filed with the Commission in Docket 04-035-**  
12 **42?**

13 A. As I indicated earlier, the March 2003 cost of service study reflects the final  
14 resolution of Docket No. 03-2035-02, the basis for current rates in Utah. It includes  
15 costs that were stipulated to by the parties in that case and accepted by the Utah  
16 Commission. The cost of service results for US Mag in the recently filed Docket 04-  
17 045-42 are approximately \$29 per MWH, essentially the same as the shown in Exhibit  
18 No. UP&L\_\_ (DLT-1). This is assuming the same four month economic curtailment  
19 period with the cost of service calculated using the state average return produced by  
20 current revenue levels.

21 **Q. Should US Magnesium be subject to general rate increases along with other**  
22 **Utah customers?**

23 A. Yes. Adopting a contract rate of \$29 per MWH would align US Mag's prices with

1 the current rate levels for other Utah customers. To ensure that US Mag's prices  
2 remain aligned with those of other Utah customers, the US Mag contract rate should  
3 be changed consistent with price changes for tariff customers.

#### 4 **Alternative Cost of Service Approaches**

5 **Q. Rather than reflecting a reduction in loads and net power costs associated with**  
6 **curtailments, are there other approaches to determining an interruptible**  
7 **contract rate for US Magnesium?**

8 A. Yes. An alternative approach, one that is used for other special contracts in Utah and  
9 Idaho, is to determine an equivalent price for firm service and then provide an offset,  
10 a discount, to that price for the system value of the interruptibility provisions of the  
11 contract. This has the benefit of ensuring that the customer is served at their full cost  
12 of service, and then receives credit for the additional benefits that they can provide to  
13 the Company and its other customers. While this approach can be covered in a single  
14 contract, it is more easily understood when viewed as two transactions: PacifiCorp  
15 sells the customer electricity at the firm equivalent retail service rate and then buys  
16 the electricity back during the interruption period at the ancillary service contract rate.

17 **Q. Under such an approach how are the customer loads treated in the cost of**  
18 **service study?**

19 A. The interruptible attributes of the contract are viewed not as a reduction in load, but  
20 rather as the acquisition of resources to meet Company load. Therefore, when  
21 interruptions of the customer's service occur, the customer loads for allocation  
22 purposes and the retail service revenue are calculated as though the interruption did  
23 not occur. This is necessary to determine the firm equivalent retail rate. The discount

1 from the firm equivalent retail rate is designed to recognize the value of the  
2 customer's interruptibility attributes. For regulatory purposes, the discount is not  
3 considered a reduction to revenue, but is viewed as a payment for a resource  
4 acquisition. Like other power purchases, it is allocated among all states.

5 **Q. Have you prepared a cost of service study that shows a firm equivalent cost of**  
6 **service for US Mag?**

7 A. Yes. Exhibit No. UP&L \_\_ (DLT-2) shows the cost of service summary and unit cost  
8 tables for the same test period assuming there were no interruptions in the service to  
9 US Mag. This shows a cost of service for US Mag, based on their non interrupted test  
10 period usage, of \$18 million or approximately \$34 per MWH.

11 **Q. Under this approach how would PacifiCorp propose to value the interruptibility**  
12 **attributes US Magnesium is willing to provide?**

13 A. Mr. Griswold covers the characteristics and the system value of the interruptibility  
14 options that are available to US Mag in his testimony.

15 **Q. On page 12 and 13 of his testimony, Mr. Swenson suggests that reducing the**  
16 **number of hours that US Mag is subject to curtailment to no more than four**  
17 **hours on non-holiday weekdays is sufficient to avoid system peaks. Do you**  
18 **agree?**

19 A. No. While I agree with his assessment that in recent history, the hour of monthly  
20 system peaks during the summer have occurred during a four-hour period, I note that  
21 all of those peaks have included US Mag's load as well as the loads of other  
22 customers that are now interruptible during those periods. As was shown in my  
23 rebuttal testimony in Docket 01-035-38, the case that set the current price for US

1 Mag, if the interruption period is too narrow, the hour of system peak can move to  
2 another hour when the interrupted customers are back on line taking service. When  
3 that happens there is very little reduction in system peak and limited system benefit.  
4 This point was further reinforced with additional analysis performed for the  
5 interruptible service taskforce arising from that docket. The December 11, 2002  
6 Status on Report from that taskforce makes the following observation:

7 “His (Mr. Taylor’s) analysis suggests that as the curtailment period shrinks,  
8 the effectiveness of economic curtailment decreases. Similarly, as the amount  
9 of total curtailable load increases, the effectiveness of the economic  
10 curtailment decreases. In both instances, the issue is that the likelihood of the  
11 curtailment offsetting the system CP is diminished as either curtailable load  
12 increases or the curtailment period decreases.” (Pages 5 & 6)

13  
14 In addition to US Mag, Monsanto is also subject to economic curtailment service on  
15 one of its furnaces. It is quite likely that when both US Mag and Monsanto are being  
16 interrupted during the same four hour window, that the hour of system peak could  
17 simply move to another hour when one or both of these customers are taking service.

18 **Q. Mr. Swenson also recommends that during June and September US Mag’s**  
19 **service only be interrupted when the temperature is forecast to be 100 degrees or**  
20 **more. Would interruption provisions with such limited parameters provide**  
21 **much value to other Utah customers?**

22 A. No. First, under such parameters, it is quite likely that there would be no  
23 interruptions during June or September. Second, even if there are one or two 100  
24 degree days, there is no assurance that the hour of system peak will occur on those  
25 days. The bulk of PacifiCorp’s generation fleet consists of base load, coal fired  
26 resources that generally run with capacity factors in excess of 80 percent. US

1 Magnesium proposes to remove the majority of capacity related costs while offering  
2 to be interrupted a few hours when the temperature exceeds 100 degrees. Under US  
3 Magnesium's proposal, other customers would in effect be picking up the cost of a  
4 base load resource in exchange for minimal interruptibility rights, which in turn may  
5 be limited by a buy-through provision. This is not a fair exchange.

6 **Q. Mr. Swenson claims that using a cost of service analysis developed for firm  
7 service to determine a cost of service for US Mag is inherently flawed. He also  
8 suggests that a rate of \$21 per MWH is justified because it would provide a  
9 contribution to fixed costs. Do you agree?**

10 A. No. Historically we have used two types of standards to develop interruptible  
11 contracts: (a) Cost of Service and (b) Contribution to Fixed Costs. As I explain  
12 below, the contribution to fixed costs standard doesn't work today for a customer like  
13 US Magnesium. For this reason, both the Utah Commission and PacifiCorp have  
14 chosen to use the cost of service standard. On page 8 and 9 of their order in Docket  
15 01-035-38 the Utah Commission states:

16 PacifiCorp, the Division, and the Committee each introduces embedded-cost  
17 analysis to support its views of appropriate interruption price and terms. Each  
18 of these embedded-cost analyses is consistent with prior Commission rulings.  
19 ... we employ the analyses of PacifiCorp, the Division and the Committee to  
20 define the areas within which we can consider the value of interruptibility.

21  
22 The cost of service standard assumes a monopoly environment in which the customer  
23 does not have viable alternatives to taking service from the regulated utility. In this  
24 environment, prices are set based on the utility's cost of providing service. In Utah,  
25 the Commission uses the utility's embedded costs to ensure that all customers are  
26 paying their full and fair share of the utility's costs to provide service. Because US



1 Mag is an interruptible customer, full cost of service is only the starting point. It must  
2 be adjusted to reflect the cost savings associated with US Mag's contractual terms of  
3 interruptibility.

4 The contribution to fixed costs standard is a market or economic efficiency  
5 test. It is used when a customer has viable alternatives to the service provided by the  
6 regulated utility. The theory is that if the customer leaves the utility's system and  
7 takes service through one of its alternatives, remaining customers will be worse off  
8 because they will have to make up in their rates the contribution the departed  
9 customer made to the recovery of fixed costs. To avoid this situation, regulatory  
10 commissions may approve a special contract with the customer that is priced below  
11 the embedded cost of service, provided the price recovers the utility's full incremental  
12 cost of service and provides a contribution to the recovery of fixed costs that would be  
13 otherwise be borne by other utility customers. This price reduction to the contract  
14 customer is justifiable because of the benefits provided to other customers, who  
15 would receive no contribution to fixed costs if the customer chose to depart the  
16 system. The test, then, is to determine whether other customers benefit (that is, have  
17 lower rates) as a result of the utility's electric service to the customer, at rates lower  
18 than full cost of service, when compared with the rate effect of the utility not serving  
19 the customer at all. To benefit other customers, the rate for the contract customer  
20 must be sufficient to (1) permit recovery of the utility's full incremental cost of  
21 providing service to the contract customer and (2) pick up at least some of the  
22 contribution to fixed costs that would otherwise be borne by remaining customers.

23 As Mr. Larson discusses in his testimony, the contribution to fixed costs

1 standard is not a viable alternative in this case because the Company's incremental  
2 costs for the term of the contract are expected to be higher than embedded costs.  
3 Using the contribution to fixed costs standard today would result in a US Mag  
4 contract price above even the firm service level proposed in this case. In fact, the  
5 energy costs alone from the Company's approved avoided costs are higher than US  
6 Mag's proposed contract rate. Because the incremental costs of supplying power to  
7 US Mag exceed that of any of the rates proposed in this case, US Mag's current  
8 contribution to fixed costs would be negative. This is why PacifiCorp is using an  
9 embedded cost analysis.

10 **Q. Mr. Swenson argues that as long as US Mag's price covers embedded variable**  
11 **costs they are making a contribution to fixed costs. Do you agree with this?**

12 A. No. What Mr. Swenson misses in his arguments is that the basis for the contribution  
13 to fixed costs standard is incremental costs, not variable costs. This is spelled out in  
14 both the 1992 and 1999 Special Contract Task Force reports. The first Decision  
15 Criteria for Special Incentive Contracts listed on page 3 of the 1999 report states:

16 "1. Contract prices cover all incremental capacity and energy costs, including  
17 incremental cost of generation, transmission and distribution as appropriate to  
18 make a contribution to fixed costs."  
19

20 As used in this context, the term "incremental costs" refers to the additional costs  
21 PacifiCorp would incur to serve the US Mag load as opposed to not serving the US  
22 Magnesium load, or the difference between the cost of service without the US  
23 Magnesium load and the cost of service with the US Mag load. If PacifiCorp serves  
24 US Mag at a price lower than its full incremental costs, other customers must pick up  
25 the shortfall in incremental costs incurred to serve US Mag. This is not an issue in an

1 embedded cost analysis.

2 **Q. Does the request for a 10 year contract cause you concern?**

3 A. Yes. There can be many changes in both Company costs and customer usage  
4 characteristics over a 10 year period. PacifiCorp would certainly not agree to a 10  
5 year fixed price contract. Applying the same price changes as Schedule 9 to the US  
6 Mag contract rate, as suggested by Mr. Swenson, would mitigate much of that risk  
7 and uncertainty. However, over a 10 year period there is the possibility that the load  
8 characteristics for US Mag could change significantly, which could alter its cost of  
9 service relative to that of other Utah customers. The Company believes shorter  
10 contract terms are much more prudent.

11 **US Magnesium Interruption 2003 Report**

12 **Q. Mr. Swenson draws some of his conclusions from the US Magnesium**  
13 **Interruption 2003 Report submitted to the Utah Commission by the Division of**  
14 **Public Utilities. Do you have some concerns with this report?**

15 A. Yes. There are a number of places in the DPU report that double count the benefits of  
16 the US Mag interruptions. The most obvious double count occurs on pages 6 and 7  
17 where the report states:

18 “After the COS is adjusted for the \$65 million rate increase, the cost of service  
19 to USM increase to \$14,569,628, for a difference from revenues of \$4,283,304  
20 and an average COS rate of 29.25 mills.  
21 However, because Utah’s revenue requirement is reduced by \$2,939,573 (as  
22 estimated by PacifiCorp), the firm COS could be adjusted to reflect this  
23 reduction in cost to Utah. The result is a firm COS after the rate increase of  
24 \$11,630,055, or a difference between the cost of service and the revenues  
25 received by USM of \$1,343,731. This would indicate a required COS rate of  
26 23.35 mills (\$11,630,055/498,097 MWH).”

1           What the report fails to recognize is that the \$14,569,628, or 29.25 mills is not the  
2           firm cost of service for US Mag. Rather, this amount already reflects the benefits of  
3           the interruptions. The Utah revenue requirement is already lower by the \$2.9 million  
4           and US Mag's allocated share of Utah's revenue requirement reflects a smaller  
5           allocation of the total revenue requirement, not just the NPC savings, because its  
6           loads during the curtailment periods were removed. Subtracting the \$2.9 million from  
7           the calculated US Mag cost of service to arrive a new cost of service incorporates the  
8           benefits of the curtailments twice; once through the reduced allocation and then again  
9           by directly subtracting the \$2.9 million reduction in the Utah revenue requirement. It  
10          is double counting to reflect the allocation benefit in the cost of service results and  
11          then also directly assign the system cost savings.

12                       As discussed earlier in my testimony, if you want to directly assign the system  
13          cost savings to US Mag, you need to start with their COS assuming there were no  
14          interruptions, or the firm equivalent COS. As shown in Exhibit No. UP&L\_\_(DLT-  
15          2) the firm cost of service for US Mag is \$18.1 million or \$34 per MWH.

16          **Q. Do you have an exhibit that shows the benefits of the economic curtailment**  
17          **interruptions on the Utah revenue requirement and on US Mag's cost of service?**

18          A. Yes. Exhibit No. UP&L\_\_(DLT-3) shows the revenue requirement and cost of  
19          service impacts of the interruptions. Column A shows the final results from Docket  
20          02-2035-02, the source for Exhibit No. UP&L\_\_(DLT-1). Column B shows the  
21          calculated Utah revenue requirement and US Mag cost of service assuming no  
22          interruptions, the source for Exhibit No. UP&L\_\_(DLT-2). Column B reflects both a  
23          higher system net power costs and a higher allocation to Utah of total system costs

1 associated with including US Mag's loads during the economic curtailment period.  
2 Column C shows the Utah revenue requirement and US Magnesium cost of service  
3 savings associated with the interruptions. As can be seen in Column C, Utah's  
4 revenue requirement in Docket 02-2035-02 is \$3.4 million lower than it would have  
5 been if there had been no interruption option for US Mag. You can also see in  
6 Column C that the cost of service for US Mag is \$3.5 million lower than it would  
7 have been if there had been no interruption option. All of the Utah cost savings, and  
8 then a bit more, associated with the interruptions to US Mag are reflected in their cost  
9 of service.

10 **Q. Have you discussed your concerns with the DPU?**

11 A. Yes. Based on those discussions, I believe the errors in the report were based on a  
12 misunderstanding of the data by former DPU staff. They have indicated to me that  
13 they may choose to provide a revised report to the Commission.

14 **Conclusion**

15 **Q. Mr. Taylor, based on your analysis what price do you support for US**  
16 **Magnesium?**

17 A. Using the cost of service approach adopted by the Utah Commission, and assuming  
18 the interruptible provisions in the contract remain the same as in the current contract, I  
19 recommend a net contract price of \$29 per MWH. This is very similar to the net price  
20 recommended by Mr. Griswold in his analysis. I also recommend that going forward  
21 the US Mag contract price should be adjusted concurrent with price changes for other  
22 Utah customers.

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

2 **A. Yes it does.**