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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION
OF US MAGNESIUM LLC FOR
DETERMINATION OF LONG-TERM
ECONOMIC DEVELOPMENT RATES
AND CONDITIONS OF INTERRUPTIBLE
SERVICE

Docket No. 03-035-19

PACIFICORP, dba UTAH POWER &
LIGHT CO.

vs.

US MAGNESIUM LLC

Docket No. 04-035-20

PREFILED REBUTTAL TESTIMONY OF ROGER J. SWENSON

US Magnesium LLC hereby submits the Prefiled Rebuttal Testimony of Roger J. Swenson in each of Dockets 03-035-19 and 04-035-20.

DATED this 5th day of November, 2004.

Gary A. Dodge,
Attorney for US Magnesium LLC

PREFILED REBUTTAL TESTIMONY

Of

ROGER J. SWENSON

On behalf of US Magnesium LLC

IN THE MATTER OF THE APPLICATION OF US MAGNESIUM LLC FOR
DETERMINATION OF LONG-TERM ECONOMIC DEVELOPMENT
RATES AND CONDITIONS OF INTERRUPTIBLE SERVICE

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November 5, 2004

1 **Q. What is the purpose of this testimony?**

2 A. To provide rebuttal testimony concerning positions taken by the other parties in
3 this case.

4 **Q. In general what are the positions of the other Parties?**

5 A. The other parties have, for the most part, used unproven or discredited
6 methodologies to derive an unreasonable base rate for service to US Magnesium.
7 These methodologies lead the parties to support extraordinary new rate increases
8 for US Magnesium, despite the burdensome increases already imposed over the
9 last 3 years. Neither these methodologies nor the rates derived from them are
10 reasonable or supportable.

11 **Q. What is the magnitude of the rate increases proposed by the other parties
12 over existing rates?**

13 A. The other parties suggest that US Mag's base rate for service (before
14 consideration of reserves) should increase from \$21/MWH to a base rate in the
15 range of \$25.94 - \$26.50. Given US Mag's market exposure costs, US
16 Magnesium could see its cost for purchased power from PacifiCorp increase to a
17 range of \$29.00-\$30.00/MWH.

18 **Q. What is the magnitude of proposed increases in base rates to US Mag from
19 the 2001 level?**

20 A. The 2001 rate was \$18/MWH, subject to system integrity interruptions but no
21 buy-through market exposure. The increased base rates proposed by the other
22 parties in this docket would result in an increase of roughly 45% since 2001.

1 After considering the market exposure created by the 2002 Commission order, if
2 the other parties' proposals in this docket are accepted, US Mag's rates for
3 purchased power will have increased by about 60% in just three short years. Such
4 a dramatic increase is unconscionable by any measure, particularly for a troubled
5 Utah company struggling to emerge from bankruptcy and compete in a tough
6 world market.

7 **Q. Please explain the cost associated with US Mag's market exposure.**

8 A. The current contract, and the conditions proposed by all parties going forward,
9 expose US Magnesium to the risk of market prices during certain specified hours
10 of interruption. This exposure has added a cost of roughly \$3/MWH to US Mag
11 in the past. While we understand that this buy-through exposure is a condition of
12 interruptible service, it must still be taken into account in understanding the cost
13 impact on US Mag when compared to its previous service arrangements.

14 **Q. Will US Mag experience other costs under the arrangements proposed for**
15 **2005 and beyond?**

16 A. Yes. All parties agree that US Magnesium should sell PacifiCorp spinning
17 reserves. This is a new service that will be provided by US Mag, and has a value
18 to PacifiCorp of about \$3/MWH. However, by providing this new service, US
19 Mag will be subjected to new costs and lost production from physical
20 interruptions for up to 100 hours per year. It is thus misleading for the other
21 parties to quote a "net" rate, deducting the anticipated reserve payments from the
22 base rate and then comparing that rate to the existing \$21 rate. This new reserve

1 service provides new value to PacifiCorp, and it comes at the expense of new
2 costs and production impacts to US Mag.

3 **Q. All things considered, by how much will US Mag's net cost of receiving**
4 **electric service from PacifiCorp have increased in the three years since 2001**
5 **if the other parties' current proposals are accepted?**

6 A. If the other parties' positions are accepted, after considering the proposed credit to
7 US Mag for reserves to be provided, but also factoring in potential costs to US
8 Mag to provide this new service, the net overall cost exposure to US Mag for
9 electric energy received from PacifiCorp in 2005 would be in the range of \$28-
10 \$29/MWH, an increase of about 50-60% over its 2001 costs. This is an incredible
11 burden for any customer to be exposed to.

12 **Q. Does this new reserve service arrangement expose US Magnesium to other**
13 **problems as well?**

14 A. Yes. The new exposure from the non-spinning reserve product that US
15 Magnesium is offering to provide will hurt the economics of the US Magnesium
16 plant. US Magnesium is trying to implement a small expansion in product output.
17 The expansion is driven by the fact that additional productive capacity can be put
18 in service with minor increases in fixed costs. The new exposure to full
19 curtailment will reduce total plant output up to 1.4% while fixed costs remain
20 unchanged, thereby undoing some of that gain. Do not misunderstand. US Mag
21 wants to provide the reserves and should be able to do so in a manner that will

1 provide benefit to the PacifiCorp system. However, reserves will be provided at a
2 cost to US Mag, and these new costs cannot be ignored.

3 **Q. Is there agreement on the basis for each Party's position on cost of service?**

4 A. No. The positions on determining base cost of service numbers are quite different.

5 The Company and the Division resort to the COS model, eliminating US Mag's
6 coincident peak cost allocations for months of interruption. This method was
7 generally discredited in the last docket and in the task force. The concern is
8 perhaps best illustrated by noting that the model effectively gives the same value
9 whether the months that are chosen for interruption are peak summer and winter
10 months or non-peak shoulder months. Everyone knows that there is far more
11 value in avoiding system peaks during certain peak months, but the other parties
12 have failed to quantify that higher value or to adjust their cost-of-service numbers
13 to reflect it. The inadequacy of the cost of service approach can also be illustrated
14 by the fact that the exact same value is produced whether you assume interruption
15 for just one hour per month (the hour of system peak) or all 720 (or so) hours in
16 the month. We recognize that the utility cannot reasonably be expected to predict
17 the specific hour of system peak in advance. My point is that the model produces
18 the exact same value regardless of the number of hours of interruption. For every
19 hour in addition to the hour of system peak, additional revenues are generated for
20 the utility, but those additional revenues are not accounted for in any manner in
21 the other parties' cost-of-service-based approach.

1 **Q. Did the CCS use a similar cost of service method to determine proposed base**
2 **costs?**

3 A. No. Committee witness Hayet used a different approach that is somewhat related
4 to the proxy peaking plant method discussed in the DPU task force report. This
5 approach is similar to the West Valley plant calculation that I used to derive a
6 capacity credit of roughly \$13/MWH, which supported US Magnesium's pricing
7 proposal. We applaud Mr. Hayet's efforts in moving away from the discredited
8 COS model as the determinant mechanism. The CCS representatives clearly paid
9 attention in the Interruptible Task Force meetings and we applaud their
10 institutional memory.

11 **Q. Do you agree with Mr. Hayet's calculations to derive a base rate?**

12 A. No. While I generally support his approach, I take strong issue with a few of his
13 critical assumptions. For example, in determining a proposed base rate of 26.94,
14 Mr. Hayet uses the assumption that a peaking plant will be operated 15% of the
15 year, and he uses that percentage to derive what he calls a capacity value. His
16 analysis produces a capacity value of \$3.64/MWH. My assumption as to the
17 number of hours that a peaking plant will operate is taken directly out the
18 company's acknowledged IRP, and is found in the IRP Table C.20. That table
19 assumes that an SCCT will be run at a 12% utilization factor. If the IRP's
20 expected operating hours are used, Mr. Hayet's capacity value would be
21 \$4.55/MWH, or an additional credit of \$.91/MWH. Mr. Hayet also uses an
22 annualized value of \$61.94/kw-yr, a projection taken from an avoided cost

1 determination. A more accurate value is available based on actual peaking plant
2 costs for the West Valley facility - \$102.03/kw-yr. If the \$102.03 cost derived
3 from the West Valley plant is used, the capacity value goes to \$7.49/MWH, for an
4 increase in value of \$3.85/MWH.

5 **Q. If these adjustments are made to the CCS method, what would be the**
6 **resulting base cost to USM?**

7 A. The base cost to USM would be \$21.91 - \$24.85. Exhibit USM 1R.1 shows these
8 calculations. After crediting these base rates by the proposed reserve values, the
9 rate to US Mag would be in the range of \$19.45 - \$22.39, which is fully consistent
10 with the \$21.00 net rate that US Mag is requesting. The \$21 rate results in actual
11 projected costs to USM, after considering market exposure and the cost of
12 interruption to provide operating reserves, in the range of \$25 - \$28/MWH.

13 **Q. Would your requested rate make a contribution to fixed costs, as has been**
14 **the recommended policy for contracts of this nature?**

15 A. Yes. If you use the FERC form 1 data an average variable cost of power is
16 determined to be \$16.42/MWH. See Exhibit USM 1R.2. The contribution to
17 fixed cost at our proposed \$21 net rate, with an implicit \$24 base rate, is then
18 approximately \$6 million, representing over 30% of the fixed cost for full firm
19 service (not including any extra revenue from market prices paid for days when
20 interruption is not required).

21 **R. Do you have any comments on other aspects of the CCS testimony?**

1 **Q.** Yes. The CCS suggests a contract term of 3 to 5 years. US Magnesium needs to
2 have some sense of stability so that plant economics can be established. At a very
3 minimum, US Magnesium needs no less than a five-year contract. If a five year
4 contract is approved, I disagree with the Committee's proposal to escalate the rate.
5 I proposed an escalator in my prior testimony, based upon our request for a ten-
6 year contract. The parties objected to my proposed escalator, which incorporated
7 special contract rates in Utah and elsewhere. If a contract term of only five years
8 is approved, particularly given the significant rate increases that US Mag has
9 already absorbed in the past few years and is being asked to absorb again, there
10 should be no escalation, at least until the average rate increases absorbed by other
11 Utah ratepayers equal the percentage rate increases that US Magnesium has seen.

12 **Q.** **If Mr. Brown's proposal for a ten year contract with a rate of \$21/MWH**
13 **with escalation is approved, what should the escalator be based upon?**

14 A. The CCS correctly notes that no resources should be constructed to meet the US
15 Magnesium load. Therefore, if an escalator is used, it should reflect changes in
16 energy costs. This type of escalator has been applied to other interruptible
17 contracts in Utah and US Magnesium requests similar treatment.

18 **Q.** **Do you have comments on issues other than the base rates from the other**
19 **parties' testimony?**

20 A. I dispute PacifiCorp's calculation of the value of non-spinning reserves, which the
21 other Parties have adopted. PacifiCorp has proposed prices, but the model it used
22 to support those values is suspect. PacifiCorp claims that reserves have a value in

1 the range of \$2.46 - \$2.94/MWH, depending on how the calculation is done. I
2 have reviewed the model that PacifiCorp used to derive that rate and that review
3 does not provide any evidence or comfort that the PacifiCorp values are correct.
4 In fact, other sources of information support a higher value for operating reserves.

5 **Q. What other reserve values have you found?**

6 A. One such reserve value is based directly on the testimony of Mr. Griswold in the
7 recent QF case, Direct Testimony of Bruce W. Griswold, page 6, line 18, Docket
8 03-035-14. Mr. Griswold stated that the difference in pricing between firm and
9 non-firm indexes represents the value of reserves. Mr. Griswold identified the
10 difference as 7%, and that value was used in the QF stipulation. Using
11 PacifiCorp's official price forecast for the 5 year period starting January 1, 2005,
12 7% of the firm index price would equal \$3.18/MWH. See Exhibit 1R.3. Reducing
13 that value by the number of available hours produces a value of \$3.00/MWH. An
14 alternative valuation comes from reported reserve values from the California ISO.
15 PacifiCorp has service territory in California and there is a delivery point directly
16 to the California ISO in Utah. The California ISO's 12-month weighted value of
17 non-spinning reserves is \$3.82/MWH.

18 **Q. Are you asking that the reserve pricing be tied to either of these measures?**

19 A. No. Either approach would be a reasonable and supportable basis for determining
20 the value of reserves, but we believe a reasonable value should be determined up
21 front and included in determining the net price to US Mag.

22 **Q. The DPU's testimony asks for more information in support of some of the**

1 **proposed adjustments. Are you working on those items?**

2 A. Yes, I am. I hope to be able to provide more information and support soon, and
3 we will provide as much detail and support as possible.

4 **Q. Ms. Coon of the DPU states that US Magnesium is asking to be compensated**
5 **for its choice to buy through rather than curtailing. Is that the case?**

6 A. No, not at all. There clearly are days in which interruption will not be required to
7 avoid the system peak. As discussed above, if we are required to pay higher
8 market costs during hours that cannot reasonably be expected to have anything to
9 do with missing the system peak, that additional cost to US Mag (or the
10 corresponding value to the system) must be reflected in a proper cost of service
11 analysis.

12 **Q. Mr. Hayet also discusses your example of interruption on a 70 degree day.**
13 **Do you agree with his conclusions?**

14 A. Yes, to an extent. His gist seems to be that the utility obtains value by
15 interrupting US Magnesium even when it is not needed to avoid system peaks. I
16 agree. The interruptions are clearly beneficial to the utility because it collects
17 extra revenue. What is needed is a recognition of that extra revenue in any
18 legitimate cost of service analysis. Given that the cost of service valuation being
19 used by these parties is derived solely by avoidance of the monthly system peak,
20 excess revenue generated during hours when the monthly system peak is not
21 implicated simply provides a bonus to the utility. If we are required to pay the
22 bonus, so be it, but this source of extra revenue must be recognized in a valid cost

1 of service analysis. A proper cost of service analysis cannot ignore either costs or
2 revenues relative to the affected service. On days when interruption is required to
3 avoid system peaks, the buy-through cost is a cost of interruptibility in lieu of
4 physical interruption. On other days, that is simply not the case. On those days, it
5 is a source of additional revenue that must be factored into a cost of service
6 analysis.

7
8 The Committee also suggests that we should simply curtail usage if we don't want
9 to pay extra costs. That suggestion ignores economic realities and the well-being
10 of the Utah economy. It is harmful to the economic well being of a business and
11 this state to force any business to curtail production when it is not needed. We
12 should be striving to keep businesses running, not suggesting ways that will hurt
13 them. The fact is that interruptible customers such as US Mag pay for their
14 interruptible rates through production losses.

15 **Q. Do you have any comments concerning the 100 degree temperature**
16 **curtailment offered by PacifiCorp?**

17 A. Yes, the proposed value is simply not worth the cost and risk to US Magnesium.
18 The value proposed by PacifiCorp of \$.16/MWH is insufficient to offset the cost
19 and risk associated with such a provision. We therefore respectfully decline the
20 offer.

21 **Q. What is your reaction to the DPU determination that the deposit should be**
22 **established at \$411,000, with a 15-day shut-off provision?**

1 A. We proposed a \$211,000 deposit with a seven-day shut-off right. Our number is
2 therefore generally consistent with the Division's number, given the extra days of
3 risk. While we believe a 7-day shut-off right and a \$211,000 deposit is adequate,
4 we acknowledge that a \$411,000 deposit and a 15-day shut off provision is also
5 reasonable.

6 **Q. Can you sum up your rebuttal testimony?**

7 A. Yes. US Magnesium has already experienced dramatic increases in power costs
8 over the last 3 years. I am confident that no other Utah customer has seen rate
9 increases anywhere near as large as those shouldered by US Magnesium. US
10 Magnesium is now being asked to bear cost increases yet again, based largely on a
11 discredited methodology that was found wanting in the last rate hearings and in
12 the task force.

13
14 US Magnesium has offered to accept an increase in its base electric costs of about
15 \$3/MWH, an increase of about 14%. After considering all potential costs and
16 benefits of our proposal, the total new cost of electricity to US Mag is estimated to
17 be in the range of \$25 - \$28/MWH, an increase from current costs in the range of
18 4% - 16%. We propose that these rates last for at least 5years with no escalation
19 factor other than that involved in market exposure. The spinning reserves will
20 provide additional system benefits and will come with a price to the US
21 Magnesium bottom line, which should be recognized by the parties. US
22 Magnesium has endeavored to provide every type of value to the PacifiCorp

1 system that it can possibly provide. It is doing so in an attempt to survive in these
2 very difficult times.

3
4 It has become clear that no specific method has yet been identified that will
5 produce a “true” cost of service to everyone’s reasonable satisfaction. Rather,
6 what has been shown is that a broad range of values can be demonstrated to be
7 reasonable, appropriate and cost-based. Given that fact, there is no legitimate
8 basis for thrusting an additional 25% increase onto the US Magnesium base rate.
9 The rates and conditions of service proposed by US Magnesium are reasonable,
10 will cover US Magnesium’s cost of service, and will hopefully continue to give
11 US Magnesium a chance to survive and produce economic benefits to its
12 employees, the citizens of Tooele County, and the State of Utah.

13 **Q. Does this complete your testimony?**

14 **A. Yes.**

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served by email or US Mail, postage prepaid, this 5th day of November, 2004, on the following:

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