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BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE APPLICATION OF US MAGNESIUM LLC FOR DETERMINATION OF RATES AND CONDITIONS FOR INTERRUPTIBLE SERVICE FROM AND QF SALES TO ROCKY MOUNTAIN POWER	Docket No. 09-035-20

PREFILED DIRECT TESTIMONY OF ROGER J. SWENSON

US Magnesium LLC hereby submits the Prefiled Direct Testimony of Roger J. Swenson in this Docket.

DATED this 20th day of August, 2009.

/s/ _____
Gary A. Dodge,
Attorney for US Magnesium LLC

PREFILED DIRECT TESTIMONY

Of

ROGER J. SWENSON

On behalf of US Magnesium LLC

IN THE MATTER OF THE APPLICATION OF US MAGNESIUM LLC FOR DETERMINATION OF RATES AND CONDITIONS FOR INTERRUPTIBLE SERVICE FROM AND QF SALES TO ROCKY MOUNTAIN POWER

Docket No. 09-035-20

August 20, 2009

Q. Please state your name and business address.

A. Roger J. Swenson, 1592 East 3350 South, Salt Lake City, Utah 84106

Q. By whom are you employed and in what capacity?

A. I am a principal in the firm E-Quant Consulting, LLC. E-Quant Consulting, LLC is a private consulting firm specializing in energy matters.

Q. Please summarize your educational and professional experience.

A. I have a BS degree in Physics and a MS degree in Industrial Engineering from the University of Utah. I have worked in the energy industry for over 25 years. Prior to working as a consultant I was the Vice President of Energy Marketing for an oil and gas production company that was affiliated with a cogeneration development company. Prior to that I worked for Questar Corporation in various positions including rate making matters.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying for US Magnesium LLC (US Mag).

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support the negotiated settlement that has been arrived at between US Mag and Rocky Mountain Power (RMP) in regards to new interruptible contract provisions for the period from January 1, 2010 through December 31, 2014, as well as a new one-year QF sales agreement.

Q. Please provide a brief history of US Mag and its electrical contracts.

A. US Magnesium has operated magnesium extraction and production facilities near Rowley, Tooele County, Utah, for nearly forty years. For that entire period, USM

has been an interruptible electric service customer of RMP. In a 1968 Order in UPSC Dockets 5639 and 5640, this Commission ordered RMP[1] to provide long-term interruptible electric service to US Mag at discounted prices and under terms and conditions designed to incent the construction and operation of the plant on an economical basis.

Task force studies completed in 1992 and 1999 confirmed that it was in the public interest for RMP to continue to provide interruptible service to US Mag. These studies also concluded that, but for the special economic incentive interruptible service rates, companies like US Mag would most likely not be attracted to Utah or continue to exist and provide economic benefits to the State.

In 2002, a short term contract, including an "experimental" rate and interruption scenario, was put in place based on the Commission's May 24, 2002 Order. Since 2005, a different rate and set of interruption conditions, based on the estimated cost of serving US Mag, has been in place.

The viability of US Mag's operations has always depended and continues to depend upon the availability of a long-term, economical source of electric energy. US Mag is the sole surviving producer of magnesium in the United States today due to intense international competition. Facilities designed to extract magnesium from concentrated salt water brines, such as those operated by US Mag, are extremely electric intensive. Electricity is a direct input into the process.

[1] References in this testimony to RMP or PacifiCorp or to US Mag are intended to also refer, as appropriate given the context, to their respective predecessors in interest.

Electricity is continually fed through cathodes in electrolytic cells into evaporated magnesium chloride brines in order to separate magnesium from chlorine.

Conditions are pretty much the same today as they were over 40 years ago when US Mag's predecessor came to Utah after being offered a 30-year electric contract designed to incent it to construct and operate a magnesium project on the shores of the Great Salt Lake. However, US Mag also faces daunting economic pressures from foreign competition for markets and a weak economic climate.

US Mag cannot afford significant uncertainty over the pricing of electricity. A competitive manufacturing process simply cannot produce and sell its product if it does not know how much it will actually cost on a going forward basis to produce the product.

The justification for the rates established over the years for service to US Mag has always gone further than simply low rates based on economic development. It is certainly true that US Mag has always provided significant economic contributions to Tooele County and the State of Utah by providing numerous jobs, purchasing tens of millions of dollars of in-state goods and services and significantly contributing to tax base. In addition, however, as an interruptible load, US Mag has always made a significant contribution to the PacifiCorp system by taking power on an interruptible basis, contributing to system fixed cost recovery and providing reserve capacity, while not creating the same requirements to develop generation capacity that firm customers require. US Mag's rates in the past have been based on a combination of economic need

for low cost service and the lower cost to serve the facility on an interruptible basis.

Q. Please describe the nature of the service and the basis for the current rates.

A. In a 2004 Report and Order in UPSC Docket 03-035-19, the Commission approved the existing agreement pursuant to which US Mag receives interruptible service. This contract is scheduled to expire on December 31, 2009. That Order included the following primary elements:

1. US Mag is subject to curtailment at any time based on emergency conditions.
2. US Mag is subject to curtailment if the forecast temperature is greater than 99 degrees.
3. US Mag is subject to curtailment during the months of December and January for up to four hours per day and during the months of June through September for four hours per day if the temperature is forecast to be above a certain level.
4. The starting rate for such service was based on the cost of service calculation with the monthly interruptions described in the paragraph above taken into account for reducing the peak demand. There was also some value attributable to the emergency interruption value and curtailment above 99 degrees that was included as part of the rate determination.
5. The rates changed based on a percentage of commission ordered rate changes to schedule 9.

Q. Have changed system circumstances including new gas fired resources dramatically affected RMP's calculation of US Mag's cost of service?

A. Yes. Changes to the mix of resources in the PacifiCorp system has made the calculated cost of providing power much more dependent on the cost of natural gas and the allocation of those costs on a variable basis. This has caused US Mag's projected cost of service, based on RMP's current cost of service methodology, to be higher than is being collected under current rates.

Q. Do you agree that the utility's projected cost of service for US Mag is correct?

A. No. As I stated in my testimony in the last US Mag contract approval proceeding, US Mag maintains that the approved cost of service analysis does not appropriately allocate costs, particularly with respect to an interruptible contract such as US Mag's. US Mag has been and will continue to work in cost of service working groups and in cost of service proceedings to improve the allocation methods. Nevertheless, for purposes of this contract, US Mag has agreed to step-increases in rates to RMP's projected cost of service number.

Q. How have US Mag and RMP agreed to price US Mag's electric service for the period 2010-2014?

A**.** We have agreed to target US Mag's cost of service as projected in RMP's cost of service calculations in the last general rate case proceeding, and to move in steps to that calculated rate within 4 years. The contract pricing is front-end-loaded, with 30% of the difference between current rates and projected cost of service being made up in the first year, 25% in the second year, and decreasing by 5% each year to 10% in the final year. This will tend to push US Mag towards

RMP's projected cost of service more quickly. The rate that US Mag will pay in 2014 is RMP's projected cost of service to US Mag in the most recently completed rate case, plus any rate case percentage changes to schedule 9 rates during this period.

Q. Will this approach cause US Mag's rates to increase substantially?

A. Yes. Our calculations project that the base rate that US Mag is paying for interruptible power will increase by more than 56% in 4 years, assuming an annual increase in Schedule 9 rates of 5% per year.

Q. Why did US Mag agree to move US Mag's rates to RMP's projected cost of service in four years?

A. While we have serious concerns over the cost of service methodology, we have concluded that we are willing to live with the utility's cost of service approach for purposes of this contract. Gradually (although aggressively) phasing this significant increase in over time will hopefully permit US Mag to absorb the rate increases in its business planning and product pricing. This should also give US Mag the chance over time in regulatory proceedings to work toward an appropriate cost allocation basis on which cost of service for the US Mag interruptible service should be based.

Q. Can you summarize the basis for the interruptible contract pricing?

A. For purposes of this contract, we utilized RMP's cost of service projections for US Mag from the last rate case, including billing determinants, to set the target contract price for interruptible service. We utilized the approved methodology

from the last US Mag rate determination, which was found to be just and reasonable and in the public's interest. US Mag agreed to make up the difference between the existing contract interruptible rate and the projected full cost of service rate with step increases, front-loaded in the early years. In addition, the rates will increase by any percentage increases to schedule 9 during the 5-year contract term.

Q. What agreement has been reached with respect to a QF contract?

A. We have agreed to use the current Commission-approved methodology for a 1 year contract for QF sales to PacifiCorp on a non-firm basis.

Q. What about line losses attributable to the QF contract?

A. The QF contract includes an avoided line-loss adjustment. This adjustment is necessary to accurately reflect the avoided cost to RMP of purchasing US Mag's QF energy. But for its purchase of US Mag's QF energy, RMP would need to deliver energy over a transmission line and incur line losses associated with that delivery. The QF contract properly recognizes this savings.

Q. How was the line losses adjustment determined?

A. My understanding is that the Commission has ruled that line loss adjustments for QF contracts are to determined on a case-by-case basis. Mr. Clements of PacifiCorp has suggested a mechanism to calculate a line loss adjustment of 4.36% that I believe is reasonable for purposes of this one-year contract. I understand that Mr. Clements will explain the development of this line loss number in his testimony.

Q. Is Mr. Clements' line-loss calculation applicable to a firm or a non-firm QF contract?

A. Both. I reject as patently unreasonable and contrary to the laws of physics any kind of suggestion that there should be a different line loss percentage adjustment for a resource based on whether the resource is a firm or a non firm resource.

Q. Please explain.

A. The laws of nature apply equally to electricity while it is being delivered to a purchaser over a transmission line regardless of the contractual conditions that determine when the purchaser may draw on the resource and regardless of regulatory mandates. To suggest otherwise is an affront to those of us that believe in the laws of physics.

Q. Can you provide an example?

A. Whether I buy a plane ticket with a specific departure time or a ticket that is for standby travel that will only allow me to leave any time that a seat is available, the amount of energy required to lift me off the ground is exactly the same. The laws of physics dictate how much energy will be used, not the contractual terms that govern when and how the ticket may be utilized or its cost. While this simple airplane example should be obvious to almost everyone, it is just as obvious to those with a background in engineering and science that the amount of avoided line loss will be identical whenever a QF resource is being delivered, regardless of how or when the purchaser is contractually permitted to call upon the resource.

Q. Are you saying that there is no value difference between a firm resource and a non-firm resource?

A. Of course not, there are significant price and value differences between firm and non-firm resources. However, labeling a resource as firm or non-firm does not change the physical basis for avoided line losses when the resource is being delivered. If two resources are operating exactly alike, even though one is firm and the other is non-firm, the percentage of line loss will be exactly the same.

Q. But what about the value of the losses?

A. The value of the losses differs with the value of the energy being purchased and that value is captured if the QF pricing methodology is correct. As long as we are using an appropriate QF valuation measure that captures avoided energy value and avoided capacity value in the QF contract, then the value of the avoided line losses is also captured appropriately. A firm contract with a higher rate would thus receive more line loss value by the use of the exact same percentage gross up used in the US Mag non-firm contract. Since US Mag's non-firm contract has a lower rate, it will receive a lower line loss value from the same percentage gross up.

Q. What is your recommendation to the Commission?

A. I recommend that the Commission approve both contracts. I believe they are fair and reasonable to all parties and are in the public interest.

Q. Does that conclude your direct testimony?

A. Yes it does.

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 20th day of August, 2009, on the following:

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