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MEMORANDUM

To: Utah Public Service Commission

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Ref: Docket No. 08-035-78. Net Metering Rules.

The Division of Public Utilities (Division) provides comments regarding proposed rules for Net Metering under Utah Code 54-15. The Division identified four primary issue areas that should be considered in the rulemaking process which include: 1. the disposition of net metering credits; 2. formal reporting requirements; 3. recommendations regarding program caps; and 4. updates for changes to relevant codes and standards. Each area is discussed in detail as follows.

1. Credit for Excess Net Metering at Retail Rates.

Utah code 54-15-104(3)(a)(i) says that "the electrical corporation shall credit the customer for the excess customer-generated electricity … at a value that is at least avoided cost, or as determined by the governing authority..." Excess generation is the amount of electricity produced in a given month that exceeds the amount of electricity consumed. At present, customers are credited for this monthly excess in cash credits, with the amount of credits based upon the avoided cost of each kilowatt-hour. There are two salient issues involved with crediting excess generation: 1) What form monthly credits will take, and 2) What happens to accumulated (unused) credits at the end of each "annualized billing period" (defined in statute running from

April 1 to March 31). The net metering statute defines what must happen to unused credits: "All credits that the consumer does not use during the annualized billing period expire at the end of the annualized billing period (54-15-104 (3)(a)(ii)). It has been proposed by some parties that monthly credits be given in kilowatt-hours instead of avoided cost credits.

In setting the appropriate credit to use as reimbursement for excess generation there are several points to consider. Firstly, unless a net-metering customer produces hour-for-hour every kilowatt consumed, the utility will still need to provide fixed cost general services – generation capacity, distribution and transmission services, plus other administrative services such as billing – to serve that customer. Since hour-for-hour production is unlikely, credits higher than avoided cost will likely create subsidies from ratepayers-at-large to those participating in the net-metering program. In other words, unless a customer completely offsets his own consumption, in which case there would be no need for that customer to be connected to the grid, the utility will still incur costs (primarily fixed in nature) to serve that customer at certain hours. If kilowatt-hour credits are permitted or required for monthly excess generation, these credits should be used to offset only volumetric usage charges and not fixed charges intended to cover some or all of the utility's fixed costs, such as monthly service or line charges.

With the current Rocky Mountain Power rate structure, even if credited kilowatt-hours are prohibited from being used to offset or pay for fixed monthly charges ($2.00 per month for residential customers), there could be some degree of subsidization of net metering customers by other ratepayers, as this charge does not fully cover the Company's fixed costs.

A countervailing argument can be made with regard to the value of a typical net-meter's generated power. The vast majority of net metering customers are currently (and will probably continue to be) generating using solar photovoltaics (PV). By their nature, PV systems generate during the most intense periods of sunlight and produce the most on the longest days (typically in summer). While not exactly coincident with system peak load, PV systems produce a high proportion of their output during peak periods when the actual market price of electricity is greater. Given that the current avoided cost pricing methodology represents the average cost over a full year (nighttime and day, long days and short), the average price for electricity

generated from a PV system will be higher than an average avoided cost price. Looking only at the value of PV-generated power, crediting at avoided cost would represent a subsidy of ratepayers generally by net meters. The two cross subsidies – working in opposite directions – will, to some extent, balance or at least mitigate each others' effect.

Finally, administering a net-metering program based solely on avoided cost may be overly burdensome to administer, especially if participation in the net-metering program mushrooms. Allowing for a kilowatt for kilowatt offset during the annualized billing period and retiring any excess kilowatts at the end of the annualized billing period both potentially reduces the administrative burden and mitigates cross-subsidization. However, the Commission (or other governing bodies) may need to seriously consider customer charges higher than current levels or other alternative methods of recovery of fixed costs such as decoupling mechanisms.

Crediting monthly excess generation in cash at avoided cost (the current practice) creates an incentive for the net metering customer to size his or her system to the projected lowest monthly output. From the policy perspective (of encouraging increased renewable energy production), this incentive structure is undesirable. The Division feels that it is appropriate to incent customers to install systems that are sized to average, rather than minimum, monthly usage. Crediting monthly excess generation in kilowatt-hours does this and allows for the maximum annual output without creating excess generation whose value would be lost to the customer (when credits are surrendered at the end of annualized billing period).

On balance, the Division support credits for excess generation in kilowatt hours that offset the energy portion of the bill and not any fixed monthly customer charges. This is most appropriate for residential customers. However, commercial and industrial customers create different issues, as addressed in #5, below.

2. Reporting Requirements.

The Commission's June 13, 2008 order approving the Rocky Mountain Power's revisions to Schedule 135 (Net Metering Service), recommended that Rocky Mountain Power submit an annual report informing the Commission of the number of participants, individual capacity of

each installation, and total program capacity. The Division recommends that similar reporting requirements be instituted within this rule. As with the requirements indicated above, the rule should require the governing authority to report program growth and participation on an annual basis. The entity should be required to track the number of net metering customers, the individual and total program capacity, or any other relevant measure that would show how close the entity is to the designated net metering cap.

In discussions with other parties under this docket, the issue has been raised whether capacity should be measured as the capacity of the inverter or the installed capacity of the generation source. Two factors should be taken into account in deciding how to measure capacity. First, while the inverter may limit the ultimate capacity of the generation source, it is possible to install a larger inverter initially, anticipating adding additional generation at a later date. Second, some systems will not require an inverter. Thus, it seems logical to measure the capacity as the capacity of the inverter for those required to have one, and to measure capacity as the installed capacity for those systems not requiring an inverter. Therefore, in addition to the reporting requirements previously discussed, the utility should report on the type of system installed and the method of measuring capacity.

3. Flexible Policies Regarding Program Participation Caps of Limits.

The rules should contain sufficient flexibility to account for program growth. The rules should avoid rigid caps or limits. It is recommended that the Commission consider implementing a process to adjust the program caps when program participation approaches a given threshold. For example, when program participation (in terms of KWh) reaches a point that is equal to or greater than 80 percent of the designated cap, then the governing authority should initiate a proceeding to reevaluate or adjust the cap.

4. Accounting for Changes in Codes or Standards.

Rules that reference fixed standards (IEEE, UL, etc.) should include a mechanism to require the utility to periodically review all relevant codes and standards and inform the Commission or governing body of changes to ensure that maximum program safety and efficiency is achieved.

5. Issues Regarding Non-Residential Self-Generation

Senate Bill 84 (2008) increased the system capacity limits for non-residential customers to two megawatts (from the previous cap of 25 kW), creating the possibility for much larger commercial systems taking advantage of net metering. However, the relevant Rocky Mountain Power rate schedules (Schedules 6, 8, 9, and 23) all contain separate demand (maximum kilowatts in the billing period) and the energy (kilowatt-hours consumed) charges. To the extent that a net metered system can offset a customer's peak demand, that customer can realize benefits both of receiving credit for kilowatt hours produced (both in offset of consumption and kWh credits for excess production) and reducing the demand charge. Assuming that a customer's peak demand is fairly coincident to peak production of his/her net metered system (for example in the case of a commercial building using PV), such a customer can realize the full benefit of net metering. However, for customers whose peak demand does not coincide with the peak output of their net metered system (for example an industrial customer whose peak occurs at morning start-up or a customer generating with a wind turbine), offsetting only kilowatt hours is a significant deterrent to the installation of a renewable system. In the latter case, it may be more appropriate to permit customers to opt for either of the two following options: 1) Use generation to offset kilowatt hours and credit excess in kilowatt-hours (as for residential customers); or 2) Install a separate meter to measure production from the renewable system and credit that production at avoided cost. Providing this option would allow the customer to determine whether projected peak production would help to lower their peak demand charges or whether taking avoided cost pricing would provide them greater payback. In either case, per the factors discussed in #1 above, cross-subsidization or overpayment for the power produced is either absent or minimal. Furthermore, if the customer elects taking avoided cost pricing, the Commission may consider allowing the customer different pricing options other than the average avoided cost. For example, per Schedule 37, the customer may choose to take on- and off-peak pricing.

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