BEFORE THE

PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of Rocky Mountain Power for Approval of Changes to Renewable Avoided Cost Methodology for Qualifying Facilities Projects Larger than Three Megawatts

Docket No. 12-035-100

Direct Testimony of

Maurice Brubaker

On behalf of

Kennecott Utah Copper, LLC and Tesoro Corporation

March 29, 2013



Project 9747

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Direct Testimony of Maurice Brubaker

- 1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 2 A Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140,
- 3 Chesterfield, MO 63017.
- 4 Q WHAT IS YOUR OCCUPATION?
- 5 A I am a consultant in the field of public utility regulation and President of Brubaker &
- 6 Associates, Inc., energy, economic and regulatory consultants.
- 7 Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.
- 8 A This information is included in Appendix A to my testimony.
- 9 Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?
- 10 A I am appearing on behalf of Kennecott Utah Copper LLC ("KUC") and Tesoro
- 11 Corporation ("Tesoro"). KUC and Tesoro purchase substantial quantities of electricity

12	from Rocky Mountain Power Company ("RMP" or "Company") in Utah, own large
13	Qualified Facilities ("QF"), and are vitally interested in the outcome of this proceeding.

Q WHAT IS THE SUBJECT OF YOUR DIRECT TESTIMONY?

Α My testimony addresses two subjects. First, I respond to RMP witness Gregory Duvall's testimony concerning the determination of avoided costs. As a part of this discussion, I also address the need for the process of developing and 18 communicating to requesting entities avoided cost information in a way that is open and transparent. The second issue I address is the request presented through the testimony of Mr. Paul Clements concerning the ownership of renewable energy credits ("RECs").

Avoided Costs

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23 Q WHAT IS RMP'S REQUEST CONCERNING THE METHOD FOR DETERMINING

AVOIDED COSTS?

Specifically, RMP seeks certain changes to the currently effective avoided cost pricing for large wind QFs that was approved by the Public Service Commission of Utah ("Commission") in Docket No. 03-035-14 on October 31, 2005 ("2005 Order").

More generally, RMP seeks to use the Proxy/Partial Displacement Differential Revenue Requirement ("Proxy/PDDRR") for the avoided cost pricing for all QFs. (Direct testimony of Gregory Duvall, page 15 at line 321.)

31 Q ARE YOU IN AGREEMENT WITH THE METHODOLOGY AS OUTLINED BY 32 MR. DUVALL?

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Generally, yes. The Proxy/PDDRR methodology described by Mr. Duvall appears to be consistent with the definition of avoided cost contained in the Public Utility Regulatory Policies Act ("PURPA"), namely a determination of the cost that would be avoided by the utility if it purchased from the QF instead of generating or purchasing the power from another source. Paying the QF avoided costs is supposed to make the utility customers indifferent as to the source of the power.

My endorsement of the methodology is at a conceptual level and is based on my understanding of the methodology outlined in Mr. Duvall's testimony. I have not examined any of his assumptions, models or calculations, and so cannot unequivocally endorse his particular application or the specifics of the modeling methodology that he has applied. However, from a conceptual point of view, and based on the high level description contained in his testimony, I believe the methodology described is appropriate for determining avoided costs for all QFs.

Q PLEASE PROVIDE SOME HISTORICAL CONTEXT FOR THIS ISSUE.

Under the 2005 Order referenced earlier, the Commission established two separate methodologies for calculating avoided cost prices for wind QF resources between 3 MW and 100 MW. The first, the Market Proxy method, is applicable to wind QF resources up to an IRP target level of megawatts. The second, the Proxy/PDDRR, is applicable to wind QF resources in excess of the Integrated Resource Plan ("IRP") target.

Under the Market Proxy method, Utah wind QFs receive the winning price from the most recent renewable request for proposal as if the Company were actively acquiring new renewable resources.

RMP is not currently seeking to acquire renewable resources. The last RFP conducted by the Company was issued July 8, 2009. The 2009 RFP resulted in the selection of the Dunlap wind facility; therefore, this facility is the resource currently used to set the Market Proxy avoided cost prices.

For wind QFs exceeding the IRP target for wind resources, the Proxy/PDDRR method is used. Under the Proxy/PDDRR method, the Company performs two energy simulations using GRID to determine the system energy value of adding a QF resource, taking into account its specific operating characteristics and point of delivery on the Company's system. This method also provides a capacity payment based on the cost of integrating the intermittent generation into the Company's system. In applying the capacity payment to wind QFs, the Proxy/PDDRR method accounts for the capacity contribution that the wind QF resource makes to displace the next deferrable resource.

According to RMP, at the time of the 2005 Order, the Market Proxy method made sense because the Company was regularly conducting renewable RFPs for wind resources and planned to continue acquiring wind resources on a regular basis for a number of years. This is no longer the case so without changes to the methodology, retail customers will pay prices for QFs that are higher than the avoided cost of energy and capacity from other sources. Since the PURPA standard for avoided cost pricing is that customers remain indifferent as to whether the energy is purchased from a QF or comes from another resource, it is appropriate for the Commission to re-examine the use of the Market Proxy method.

78 Q IS IT IMPORTANT THAT THE PROCESS FOR DETERMINATION OF QF PRICING

BE OPEN AND TRANSPARENT?

A Yes. It is essential that the process be open and transparent so that the entity receiving the avoided cost in return for supplying electricity, as well as customers and regulators, are assured that the price is correct. This requires that a number of practices and procedures be employed.

84 Q PLEASE ELABORATE.

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- In the 2005 Order, the Commission directed RMP to adopt certain practices with respect to its models. To achieve the desired openness and transparency, RMP must continue to follow these practices set forth in the 2005 Order. Specifically, the Commission directed RMP to do the following.
 - 1. Keep records of all changes to the models used in the Proxy/PDDRR methods approved in the Order and require Division review of such changes.
 - 2. Notify the Commission and Division of any updates it makes to the models.
 - 3. Provide reasonable training on the models at no fee.

To assure openness and transparency in the process, the Commission should order RMP to adopt the additional practices listed below regarding the determination of each QF's specific avoided cost using the Proxy/PDDRR or other methodology. The items of information included in the following list should be provided to owners of QFs simultaneous with the initial and any subsequent indicative pricing proposals referenced in Section I.B. of RMP's Electric Service Schedule No. 38:

 RMP should promptly provide a narrative that details all major assumptions made in each model used to determine the avoided energy and capacity costs. 104 2. RMP should promptly provide a manual that contains a narrative and enough specific details of RMP's modeling steps and processes for both 105 the avoided energy and capacity calculations that would enable the 106 107 recipient to replicate via the Company's own models the avoided cost 108 results calculated by the Company. 109 3. RMP should promptly provide access to all GRID models used in the 110 Proxy/PDDRR method to determine the avoided energy cost for each 111 entity seeking QF pricing. 112 4. RMP should promptly provide access to all GRID models via the internet. 113 5. RMP should promptly provide access to all GRID input files and all 114 supporting data for the GRID models used in determining the avoided 115 energy cost component of the QF pricing. Supporting data should include. but not be limited to, all fuel and wholesale power market forecasts, 116 117 generation maintenance schedules, generation equivalent forced outage rates, purchased power contracts, off-system sales contracts, and native 118 119 system load. 120 6. RMP should promptly provide access to all models, input files, and 121 supporting data used in the Proxy/PDDRR method to determine the 122 avoided capacity cost for entities seeking QF pricing. 123 7. RMP should promptly provide draft power purchase agreements upon 124 request. 125 8. RMP should provide timely responses to written questions regarding the 126 modeling processes and calculations. 127 9. Upon request, RMP should promptly provide a representative that can 128 demonstrate to the requesting party the operation of the models and the 129 model calculations used to determine the specific QF pricing provided. 130 10. If the recipient is unable to verify RMP's avoided cost calculations, it 131 should be able to seek verification of the results by the Division. 132 Q DO YOU HAVE OTHER RECOMMENDATIONS ABOUT THE PROCESS USED TO 133 **DETERMINE QF PRICING?** 134 Α Yes. KUC and Tesoro sell QF power to RMP under one-year QF contracts that are 135 renegotiated every year. Schedule 38, which prescribes the process for negotiation QF pricing, has several open-ended timing provisions, and the Commission may 136 137 impose additional timing requirements on the filing of QF contracts, as it did when it required that KUC's electric service agreement be submitted 75 days before the desired effective date. (Report and Order, Docket No. 11-035-181, at 5-6 (Dec 5, 2011)). In addition to addressing openness and transparency of the pricing information, the Commission should, in this docket or in a separate docket, revisit the negotiation procedures set out in Schedule 38 to ensure that the parties have sufficient time to negotiate their QF contracts, the Division has time to adequately investigate them, and that the pricing and negotiation process is as effective as possible at avoiding unnecessary delays.

Renewable Energy Credits

- 147 Q ARE YOU FAMILIAR WITH THE TESTIMONY OF MR. CLEMENTS REGARDING
- 148 THE OWNERSHIP OF RECs?
- 149 A Yes. Mr. Clements' position is that whenever electricity is acquired from a renewable
- resource the ownership of the RECs goes to the acquiring utility.

151 **Q WHAT IS A REC?**

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A REC is a certificate created by the Utah State Legislature to recognize the renewable energy attributes of electricity generated from a qualifying renewable resource. It identifies the source of the energy but has nothing to do with its physical characteristics. As such it is a detachable attribute that can be sold separately from the generated energy without affecting the delivery of the electricity or its physical characteristics.

Q DO YOU AGREE WITH MR. CLEMENTS' BLANKET REQUEST?

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No. While there may be some circumstances under which the treatment he requests is warranted, that should not automatically be the default position. Fundamentally, the ownership of the REC rests with the entity that generates the energy with which the REC is associated.

From a policy and avoided cost perspective, it is obvious that if a utility compensates a QF at the level of the utility's avoided cost the QF is not being compensated for the REC. Rather, the utility is only compensating the QF for the costs which the utility avoids, i.e., the avoided cost. Unless the avoided cost determination explicitly includes the value of RECs, it cannot be said that the utility is compensating the QF for the RECs, or that the utility is entitled to ownership of the RECs.

Though I am not an attorney and am not attempting to provide a legal interpretation, I have been advised by counsel that under Utah law, the RECs associated with a renewable energy facility remain the property of the renewable energy facility's owner unless the owner agrees otherwise by contract.

174 Q DOES PURPA PROVIDE ANY GUIDANCE?

Yes. PURPA was enacted in 1978. At that time, RECs did not exist so PURPA could not have contemplated that in return for being paid the utility's avoided cost a QF would be required to provide something that didn't even exist.

178	Q	IS IT A DIFFERENT CIRCUMSTANCE IF RENEWABLE ENERGY IS ACQUIRED
179		THROUGH A REQUEST FOR PROPOSALS ("RFP") IN WHICH THE RECs ARE
180		EXPLICITLY SOLICITED?
181	Α	It may be. If a renewable energy resource provides the electricity pursuant to an RFP
182		and a subsequent contract which requires delivery of the RECs to the utility, then
183		obviously the circumstances are different. However, unless there is some contractual
184		agreement between the QF and the utility as to the disposition of the RECs, the
185		RECs should remain with the QF.
186	Q	DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
187	Α	Yes, it does.

Qualifications of Maurice Brubaker

1	Q	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
2	Α	Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140,
3		Chesterfield, MO 63017.
4	Q	PLEASE STATE YOUR OCCUPATION.
5	Α	I am a consultant in the field of public utility regulation and President of the firm of
6		Brubaker & Associates, Inc. (BAI), energy, economic and regulatory consultants.
7	Q	PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND
8		EXPERIENCE.
9	Α	I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in
10		Electrical Engineering. Subsequent to graduation I was employed by the Utilities
11		Section of the Engineering and Technology Division of Esso Research and
12		Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of
13		New Jersey.
14		In the Fall of 1965, I enrolled in the Graduate School of Business at
15		Washington University in St. Louis, Missouri. I was graduated in June of 1967 with
16		the Degree of Master of Business Administration. My major field was finance.
17		From March of 1966 until March of 1970, I was employed by Emerson Electric
18		Company in St. Louis. During this time I pursued the Degree of Master of Science in
19		Engineering at Washington University, which I received in June, 1970.
20		In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis,
21		Missouri. Since that time I have been engaged in the preparation of numerous

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studies relating to electric, gas, and water utilities. These studies have included

analyses of the cost to serve various types of customers, the design of rates for utility services, cost forecasts, cogeneration rates and determinations of rate base and operating income. I have also addressed utility resource planning principles and plans, reviewed capacity additions to determine whether or not they were used and useful, addressed demand-side management issues independently and as part of least cost planning, and have reviewed utility determinations of the need for capacity additions and/or purchased power to determine the consistency of such plans with least cost planning principles. I have also testified about the prudency of the actions undertaken by utilities to meet the needs of their customers in the wholesale power markets and have recommended disallowances of costs where such actions were deemed imprudent.

I have testified before the Federal Energy Regulatory Commission (FERC), various courts and legislatures, and the state regulatory commissions of Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming.

The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and assumed the utility rate and economic consulting activities of Drazen Associates, Inc., founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and staff. Our staff includes consultants with backgrounds in accounting, engineering, economics, mathematics, computer science and business.

Brubaker & Associates, Inc. and its predecessor firm has participated in over 700 major utility rate and other cases and statewide generic investigations before utility regulatory commissions in 40 states, involving electric, gas, water, and steam rates and other issues. Cases in which the firm has been involved have included more than 80 of the 100 largest electric utilities and over 30 gas distribution companies and pipelines.

An increasing portion of the firm's activities is concentrated in the areas of competitive procurement. While the firm has always assisted its clients in negotiating contracts for utility services in the regulated environment, increasingly there are opportunities for certain customers to acquire power on a competitive basis from a supplier other than its traditional electric utility. The firm assists clients in identifying and evaluating purchased power options, conducts RFPs and negotiates with suppliers for the acquisition and delivery of supplies. We have prepared option studies and/or conducted RFPs for competitive acquisition of power supply for industrial and other end-use customers throughout the Unites States and in Canada, involving total needs in excess of 3,000 megawatts. The firm is also an associate member of the Electric Reliability Council of Texas and a licensed electricity aggregator in the State of Texas.

In addition to our main office in St. Louis, the firm has branch offices in Phoenix,

Arizona and Corpus Christi, Texas.

CERTIFICATE OF SERVICE

(Docket No. 12-035-100)

I hereby certify that on this 29th day of March 2013, I caused to be e-mailed, a true and correct copy of the foregoing **DIRECT TESTIMONY OF MAURICE BRUBAKER ON BEHALF OF KENNECOTT UTAH COPPER, LLC AND TESORO CORPORATION** to:

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