Rice, Robin (PUC)

From:	Yaron Cohen <YCohen@seia.org>
Sent:	Friday, February 07, 2014 2:57 PM
To:	#PUC_Public Comments
Cc:	Carrie Hitt; Rick Umoff
Subject:	Docket No. E999/CI-13-720 - Solar Energy Industries Association - Comments in the Matter of the Commission Inquiry into Ownership of Renewable Energy Credits used to Meet Minnesota Requirements
Attachments:	SEIA - MN REC Ownership Comments.pdf

Dr. Burl W. Haar,
Executive Secretary, Minnesota Public Utilities Commission
121 7th Place East, Suite 350, St. Paul
MN 55101-2147
Via Electronic Filing

Dear Dr. Haar,

Enclosed please find the comments of the Solar Energy Industries Association (SEIA) in Docket No. E999/CI-13-720.

Established in 1974, SEIA is the national trade association of the United States solar energy industry. Through advocacy and education, SEIA and its 1,000 member companies are building a strong solar industry to power America. As the voice of the solar industry, SEIA works to make solar a mainstream and significant energy resource by expanding markets, strengthening the industry, and educating the public on the benefits of solar energy. SEIA represents all major solar technologies, including photovoltaic, concentrating solar power, and solar heating and cooling, as well as all points in the value chain, including financiers, project developers, component manufacturers and solar installers. The positions expressed herein are the positions of SEIA and not the positions of any individual member company.

Kind Regards,

Yaron Cohen
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SEIA Solar Energy Industries Association®

Date: February 7, 2014

Dr. Burl W. Haar,
Executive Secretary, Minnesota Public Utilities Commission
121 7th Place East, Suite 350, St. Paul
MN 55101-2147

Via E-mail: PublicComments.PUC@state.mn.us

Dear Dr. Haar,

RE: Comments in the Matter of the Commission Inquiry into Ownership of Renewable Energy Credits used to Meet Minnesota Requirements, Docket No. E999/CI-13-720

The Solar Energy Industries Association (SEIA)[1] greatly appreciates the opportunity to comment on the "Notice of Comment Period on Commission inquiry" (Notice), "In the Matter of Commission Inquiry into Ownership of Renewable Energy Credits used to Meet Minnesota Requirements" issued by the Commission on December 30, 2013.[2] The Comments are written as an integrated response to the Minnesota Public Utilities Commission (Commission) topics open to comment in the notice.

I. Renewable Energy Credits are a Valuable Commodity

The general legal notion is that renewable energy credits (RECs) represent the property rights to the environmental, social, and other non-power attributes associated with renewable electricity generation. Generally, a REC represents one megawatt-hour (MWh) generated from a renewable-based generation source, and can be sold separately (i.e. "unbundled") from the electricity associated with that source.[3]

The Commission in its order in Docket E002/M-08-440 (September 9, 2010), has clearly stated that a REC is a property right which is separate and distinct from the electricity generation to which it is attached:

[1] The positions expressed herein are the positions of SEIA and not necessarily the positions of any individual member company.
[2] Docket No. E999/CI-13-720.
[3] See the Energy Protection Agency (EPA) definition of renewable energy certificates at: http://www.epa.gov/greenpower/gpmarket/rec.htm (last viewed 1/29/2014)

"With the creation of the system of tradable RECs, a new property right has essentially been established; the tradability of the RECs makes them akin to stand-alone personal property, separate and distinct from the generation to which they are attached. As has been amply demonstrated in this proceeding, RECs are valuable economic entities..."[4]

Therefore, a REC, by itself, has a monetary value which is determined separately from the value of the electricity sold by the renewable generation source. In other words, a REC is a valuable commodity which provides revenue to its owner.

In fact, like other commodities, RECs are bought, sold, and delivered between parties in commodity markets which fall into two categories: compliance and voluntary markets:

a. Compliance markets - created by regulatory requirements such as Renewable Portfolio Standards (RPS). In compliance markets, regulated entities purchase RECs from renewable-based generation sources to comply with the mandates that create the market. The Minnesota RPS[5] and Solar Energy Standard are examples of these markets.

b. Voluntary markets - composed of buyers and sellers who choose to invest in renewable energy independent of a compliance requirement. Examples of participants in this market include corporations who wish to invest in renewables so that they may increase their reputation among their clients and potential clients as a "green" company. In 2012, total retail sales of renewable energy in voluntary markets exceeded 48 million MWh, or enough electricity to power more than 4 million homes for a year.[6]

An additional important aspect of a single REC as a valuable commodity is that it represents one claim or one count of the environmental attributes associated with renewable energy. Once the environmental attributes have been claimed, the REC is removed from the market ("retired"), and the REC no longer has value. An example of a claim in the compliance market is a utility using a REC to comply with the RPS. In the voluntary market, RECs may be

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[4] Docket E002/M-08-440 (September 9, 2010), p. 8.
[5] Established by Minn. Stat. § 216B.1691 subd 4.
[6] J. Heeter, T. Nicholas, *Status and Trends in the U.S. Voluntary Green Power Market (2012 Data)*, Golden, CO: National Renewable Energy Laboratory, pg. v, Oct. 2012, 12 Nov. 2013. The home-electricity equivalent was found using the U.S. Environmental Protection Agency's Greenhouse Gas Equivalencies Calculator, http://www.epa.gov/cleanenergy/energy-resources/calculator.html, Accessed 12 Nov., 2013.

retired by individuals, businesses, and governments seeking to demonstrate compliance with a sustainability goal.

II. The Basic Premise: The Owner of the Energy Generated by the System Owns the RECs

It is widely accepted that RECs are owned by the owner of the renewable energy generation. For example, if an individual owns a rooftop PV system that generates electricity for his home, he owns the energy and RECs generated by that system. The value of a REC, as mentioned above, lies in one's ability to make a claim to the environmental attributes associated with renewable energy generation. The generator of the physical electricity is typically the system owner, thus the system owner usually also owns the environmental attributes associated with the energy generation (i.e. the REC). The owner of the energy generation has the sole right to sell both the physical electricity and RECs together or separately, as a bundled or unbundled commodity respectively.

In SEIA's opinion the Commission should clarify that the basic premise is that the owner of the energy generated by the system owns RECs, and deviate from this premise only in transaction scenarios in which prudent public policy requires that the physical electricity and the RECs should be sold and transferred to the buyer as a bundle. However, as clearly stated above, even if the REC is sold together with the physical electricity, it does not mean that the RECs' monetary value is zero, and thus the owner of the energy should receive fair compensation for the REC (otherwise there will be a disincentive for potential system owners to install PV systems – as they will receive lesser return on their investment).

Below is a list of REC transaction scenarios and SEIA's recommendations that the Commission should consider for each scenario:

a. Net Energy Metering

Minnesota's net energy metering (NEM) legislation is silent on the subject of REC ownership and assignment.[7] The legislation refers only to the compensation of the system owner for selling the physical electricity to the utility. Thus, the Commission should follow the basic premise that the owner of the renewable energy generation, most likely the system owner, owns the RECs generated by his system and is free to decide to sell the RECs as bundled or unbundled to the physical electricity.

[7] See Minn. Stat. 216b.164.

A deviation by the Commission from this basic premise would contradict the purpose of Minn. Stat. 216B Subd. 1: "...to give the maximum possible encouragement to cogeneration and small power production consistent with protection of the ratepayers and the public." According to the U.S. Department of Energy's National Renewable Energy Laboratory, REC revenue as a proportion of total project revenue varies, and the differences can be significant—it might be half of the total revenue a project receives in some compliance (i.e. RPS) markets.[8] By not assigning REC ownership to the owner of the energy produced by the system, the Commission will deprive the generator of revenues that would have helped him return his investment in electricity generation and/or the system, and would disincentive investment in renewable energy generation and/or systems. The U.S. Department of Veterans Affairs recently stressed the importance of generating, retaining, and retiring RECs from its own facilities, stating that utility policies that automatically transfer REC ownership from generators "would deter future VA renewable energy investments in the State of Arizona."[9]

In addition, as mentioned above, RECs are a valuable commodity separate from the physical electricity, and thus it would be a poor public policy to decide that by merely paying the value of the physical electricity (as the current regulation orders), a utility acquires ownership of the RECs (i.e. valued as zero). In fact, this would contradict the basic common law notions of private property and the freedom to contract.

Therefore, SEIA recommends that the Commission clarify that, in accordance with the intent of Minnesota's NEM legislation, the generator of renewable energy owns the RECs associated with the electricity generated by the system, unless the RECs "were explicitly contracted for through a separate transaction independent of any Net Metering or interconnection tariff or contract."[10] However, if the Commission does decide to transfer the ownership of RECs together with the physical electricity (and SEIA does not advise it), it should ensure that the owner of the renewable energy receives consideration that reflects the fair market value of both the amount of physical electricity sold and the amount of RECs associated with it.

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[8] Holt et al, *The Role of Renewable Energy Certificates in Developing New Renewable Energy Projects*, Golden, CO: National Renewable Energy Laboratory, pg. 7 , June 2011, http://apps3.eere.energy.gov/greenpower/pdfs/51904.pdf

[9] Arizona Corporation Commission, Docket E-01345A-12-0290, Testimony of U.S. Department of Veterans Affairs, Nov. 26, 2012, pg. 1

[10] IREC, Net Metering Model Rules 2009 edition, p. 5.

b. The Federal Public Utilities Policy Regulatory Act

The Federal Public Utilities Policy Regulatory Act (PURPA) requires large utilities to purchase available energy and capacity from Qualifying Facilities (QFs) at the utility's avoided cost of producing the next incremental unit of electricity.[11] In the case of renewable energy QFs, the owner of the QF generally owns the electricity being generated by the system, and also the environmental attributes generated by the system (i.e. the REC). The Federal Energy Regulatory Commission (FERC) has stated that, absent state law or express contractual provisions: "[c]ontracts for the sale of QF capacity and energy entered into pursuant to PURPA do not convey RECs to the purchasing utility..."[12] FERC reasoned that avoided cost rate is set based on the value of electricity from a fossil generator, and does not include any additional value for the severable environmental attributes of the power.[13] Therefore, avoided costs under PURPA do not compensate renewable energy QFs for the value of their RECs.[14]

Minnesota has implemented PURPA in Statute 216B.164 requiring the purchase of all energy and capacity at avoided cost as defined in the Code of Federal Regulations, title 18, section 292.101, paragraph (b)(6), for all QFs having more than 40kw but less than 1,000kw capacity.[15] The Code of Federal Regulations, title 18, section 292.101, paragraph (b)(6), defines avoided cost as: "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source." In other words, the definition of avoided cost refers only to the value of physical electricity and not to the value of RECs.

The Commission in its order in Docket E002/M-08-440 (September 9, 2010), found FERC's reasoning that avoided cost under PURPA does not include RECs persuasive and concluded that:

> "...avoided cost rates for capacity and energy sold under contracts entered into pursuant to PURPA do not convey renewable energy credits to the purchaser of the energy – here,

[11] 16 U.S.C. § 824a-3.
[12] American Ref-Fuel, 105 FERC ¶ 61,004 at p. 23 (2003), reh'g denied 107 FERC ¶ 61,016 (2004).
[13] *Id.*
[14] In California Public Utilities Commission, 133 FERC ¶ 61,059 at p. 16 (2010), FERC noted that: "although a state may not include a bonus or an adder in the avoided cost rate unless it reflects actual costs avoided, a state may separately provide additional compensation for environmental externalities, outside the confines of, and, in addition to the PURPA avoided cost rate, through the creation of renewable energy credits (RECs)."
[15] Minn. Stat. 216b.164 Subd 3(b)-(c).

Xcel. Instead, for the power purchase agreements entered into under PURPA, the generators own the RECs absent contractual provisions to the contrary."[16]

The Commission should follow this reasoning, and clarify that in accordance with the purpose of Minnesota's PURPA implementation statute, a QF owner owns the RECs associated with the electricity generated by the system, unless there is an express contractual provision in the contract between the QF owner and the buyer. This will prevent an unreasonable outcome which forces the QF to sell the physical electricity and the RECs as bundled, for the mere value of the physical electricity. However, if the Commission decides to transfer the ownership of RECs together with the physical electricity (and SEIA does not advise it), it should ensure that the QF owner receives consideration that reflects the fair market value of both the amount of physical electricity sold and the amount of RECs associated with it.

c. Value of Solar Tariff

Minnesota passed legislation[17] in 2013 that allows Investor-Owned Utilities to apply to the Commission for a Value of Solar Tariff (VOST) as an alternative to net metering. On January 31, 2014 the Minnesota Department of Commerce, Division of Energy Resources submitted the "Minnesota Value of Solar: Methodology"[18] to the Commission. SEIA intends to address the suggested methodology in the relevant docket, but finds it important to note that under the current proposed methodology, RECs do not transfer to the utility from the generator. Therefore, RECs are currently not part of the VOST transaction and must be transacted for separately. However, should RECs be included in the VOST, SEIA believes that the VOST would be akin to a bundled transaction between the Investor-Owned Utility (IOU) and the owner of the energy generation, in which the IOU buys the physical electricity and the REC by paying a premium that adequately compensates the generator for the value of the REC. Therefore, SEIA's position is that RECs are either transacted for outside of a VOST (as is the case under the current proposed methodology) or the value of RECs must be included in a VOST so that renewable energy generators are compensated for both the electricity they generate and its renewable attributes.

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[16] Docket E002/M-08-440 (September 9, 2010), p. 11.
[17] MN Laws 2013, Chapter 85 HF 729, Article 9, Section 10.
[18] https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId=%7bEE336D18-74C3-4534-AC9F-0BA56F788EC4%7d&documentTitle=20141-96033-02

d. 3rd Party Lease

The development of the renewable energy market and the fact that more Americans are turning to renewable energy to meet their energy needs, have led to the creation of lease agreements in which the owner of a renewable energy system leases the system to residential or commercial energy consumers. Pursuant to the common law principle of the freedom to contract, the parties to a lease agreement have the discretion to decide how to allocate the contract's benefits and risks, as long the agreement does not violate federal and/or state law.

As mentioned above, the basic premise is that the owner of the energy generated by the system owns the RECs. Therefore, without a provision in the lease agreement to the contrary, the owner of the energy produced by the system has the discretion to decide whether to transfer REC ownership by including its value in the lease, or to maintain ownership of the RECs by refusing to accept consideration for the RECs through the lease

e. Aggregators/Marketers

Aggregators/Marketers are participants in REC markets which buy and sell RECs (helping to ensure the market competitive and dynamic). Often RECs are purchased from DG owners or developers. Those transactions are contractual and controlled by the common law principle of the freedom to contract. Therefore, SEIA recommends that the Commission clarify that in a contract between an aggregator/marketer and a system owner, the latter owns the RECs and has the discretion to agree to the amount and price of the transferred RECs.

Sincerely,

Carrie Cullen Hitt

Carrie Cullen Hitt
Senior Vice President, State Affairs
Solar Energy Industries Association