

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

DOCKET NO. 07M-230E

IN THE MATTER OF THE COMMISSION ADOPTING POLICIES AS REQUIRED BY
HOUSE BILL 07-1228.

COMMENTS OF THE INTERWEST ENERGY ALLIANCE

The Interwest Energy Alliance (Interwest) appreciates the opportunity to present its thoughts on appropriate policy development as it relates to the Commission's responsibilities contained in House Bill 07-1228 (HB 1228). Formed in 2002, Interwest is a trade association that brings the nation's renewable energy industry together with the West's advocacy community. Our members support state-level public policies that harness the West's abundant – and inexhaustible–renewable energy and energy efficiency resources. Interwest includes many of Colorado's renewable energy suppliers who together have generated over 1,000 construction jobs in the state in the last few years, as well as dozens of permanent, well-paying jobs in the state's local rural communities. Interwest works in Arizona, Colorado, Nevada, New Mexico, Utah and Wyoming.

Interwest requests that copies of comments, other filings, decisions and orders be provided to the following individuals:

Craig Cox, Executive Director
Interwest Energy Alliance
P.O. Box 272
Conifer, Colorado 80433
303-679-9331
cox@interwest.org

Rick Gilliam, Director, Western States Policy
SunEdison LLC
590 Redstone Drive
Broomfield, CO 80020
303-465-0018
rgilliam@sunedison.com

Introduction

The Commission's decision in this matter requesting comment is derived from Section 7 of HB 1228, which added a new section to the Colorado Revised Statutes as follows:

40-2-109.5. Incentives for distributed generation - definition.

(1) THE COMMISSION SHALL DEVELOP A POLICY TO ESTABLISH INCENTIVES FOR CONSUMERS WHO PRODUCE DISTRIBUTED GENERATION, INCLUDING, BUT NOT LIMITED TO SMALL WIND TURBINES, THERMAL BIOMASS, ELECTRIC BIOMASS, AND SOLAR THERMAL ENERGY. THE COMMISSION SHALL CONSIDER WHETHER A CREDIT PROGRAM SIMILAR TO THE RENEWABLE ENERGY STANDARD SET FORTH IN SECTION 40-2-124 WOULD WORK FOR CONSUMERS WHO PRODUCE DISTRIBUTED GENERATION. THE COMMISSION SHALL PRESENT THE POLICY AND FINDINGS REGARDING A CREDIT PROGRAM TO THE HOUSE OF REPRESENTATIVES TRANSPORTATION AND ENERGY COMMITTEE AND THE SENATE AGRICULTURE, NATURAL RESOURCES, AND ENERGY COMMITTEE, OR THEIR SUCCESSOR COMMITTEES.

(2) AS USED IN THIS SECTION, "DISTRIBUTED GENERATION" MEANS A SYSTEM BY WHICH A CONSUMER GENERATES HEAT OR ELECTRICITY USING RENEWABLE ENERGY RESOURCES FOR HIS OR HER OWN NEEDS AND MAY ALSO SEND SURPLUS ELECTRICAL POWER BACK INTO THE POWER GRID.

The general purpose of Section 7 of HB 1228 is to "develop a policy to establish incentives for consumers who produce distributed generation." We think it is important at the outset to clarify what is intended by this language. First, this language is clearly intended to encourage distributed generation (DG). The statute goes so far as to define what it means by DG: a system by which a consumer generates heat or electricity using renewable energy resources for his or her own needs and may also send surplus electrical power back into the power grid. It will be critical to keep this definition in mind as the Commission deliberates on this matter. A renewable energy system which generates heat can be used to reduce consumption of other energy sources such as natural gas, propane or electricity for water or space heating. A renewable energy system which generates electricity can be used to reduce consumption of other energy sources that would otherwise supply electrical appliances (lights, motors, heating etc.).

Second, the statutory language is silent with respect to location of the DG, so it must be assumed that it is intended to encourage DG without regard to the location of that generation in Colorado. While the Commission has limited jurisdiction with respect to utilities that provide energy services, the statute is not seeking implementation of rules for PUC-jurisdictional utilities, but rather to tap into the expertise that exists at the Commission on matters related to energy, and in particular, renewable energy. Indeed, in our view, it is because of the expertise gained in recent years with renewable energy technologies, such as those identified in 40-2-109.5(1), C.R.S. through development of rules related to the renewable energy standards, and before that, with other forms of renewable resource acquisition, that the General Assembly has sought the advice of the Commission in this matter.

Interwest's comments will address the policies related to DG that generates electricity using renewable resources.

Incentives for Consumers Who Produce Distributed Generation

It is important to note that there are two general categories of incentives when it comes to policy matters – those that encourage a certain behavior or practice, and those that discourage that practice. It would make little sense to develop policies that encourage DG if there wasn't consideration given to policies already in existence that *discourage* DG. As a starting point, we will discuss basic policies that if done right, level the playing field for DG, but if not done right, present barriers to the development of DG resources.

Currently, DG policies vary by utility across Colorado. This patchwork of policies and practices makes it difficult for both consumers and renewable energy technology providers to implement these generation technologies. DG is generally encouraged by consistent statewide

policies that address the electrical connection to the retail utility's distribution system, and the economics of the electricity produced by the DG system between the utility and the consumer.

Interconnection policy: great strides have been made in recent years towards a set of policies that could be considered best practices across the nation. We, in Colorado, have adopted these policies for our investor-owned utilities as Commission rule 4-CCR 723-3-3665.

Moreover, House Bill 07-1169 required the rural electric cooperatives to adopt these policies as well. Thus, we believe that these policies are effective, protect the safety and reliability of the electrical grid, and should be adopted statewide.

Net metering policy: Net metering addresses the economics surrounding the DG — employing consumers' relationship with their retail electricity provider. The concept is to level the economic playing field through the fair treatment of electricity generated by the DG facility. The policy that incorporates this philosophy and addresses the economic relationship is generally known as net-metering. Here again, Colorado has adopted best practices for its investor-owned utilities as Commission rule 4-CCR 723-3-3664. This rule has several basic but key components in dealing with customer produced electricity produced using DG.

- Electricity generated by the customer can be consumed on-site, thereby reducing electricity purchased from the retail utility;
- Electricity generated by the customer that exceeds its consumption in a given billing period can be carried forward as a credit, one for one, for electricity consumed in subsequent months;
- At the end of a twelve month period, any excess generation is purchased by the retail utility at its avoided cost of generation;
- For small systems, only one meter is necessary; and
- A customer generating electricity is not to be forced to a new rate.

In addition, there is a limit of 2 MW as the maximum size of a DG system that would be subject to these rules. This is becoming the norm for states that have reviewed their net metering policies recently, although New Mexico has an 80 MW limit.

Here again with net metering, as above with interconnection policy, we urge the Commission to remove barriers to DG through a recommendation to the legislature to adopt the Commission's net metering policy statewide.

Beyond these two policy prerequisites, there are other policies that would move from level playing field to promotion of DG technologies. These include rate structure and financial incentives.

Rate Structure: The retail electric utility's rate structures can provide both incentives and disincentives to the development of DG. Many DG technologies can supply a portion of the electricity consumed by a retail electricity consumer, but may not affect the maximum electricity used in any 15' period in a given billing month. In practical terms, this means that the consumer's DG system can reduce the energy charges on his bill, but has less impact on the demand charges. Thus, to the extent that demand charges can be minimized, and cost recovery can occur through the energy charges, there is greater incentive for the electricity consumer to develop DG, because that is the economic cost to the customer that it can actually do something about. While this subject can get very detailed very quickly, one method of addressing the issue on a statewide basis would be the following:

- Recognize that the DG consumer is investing in the capital costs of his own renewable electricity generating system;
- Require all utilities to offer an optional rate for DG customers (that have demand charges) that would recover only the fixed costs associated with the wires, i.e. transmission and distribution systems, through the demand charge. All other

costs including fuel, purchased power, and generation costs would be recovered through the energy charge.

Financial Incentives: Beyond these policies that address current practices that have resulted from the development of the current utility infrastructure over the past 100 years, would be explicit financial incentives. For example, Xcel Energy has a rebate program that reduces the cost of photovoltaic generation on homes and businesses, in order for it to help meet its portfolio standard requirements. An advantage of this approach is that it leverages the capital of customers willing to invest in these DG technologies. If the state intends to encourage DG technologies, it can require a small revenue collection of perhaps 2% on current electric bills throughout the state to establish a fund for such buy-down programs. Two percent would be sufficient for a very robust statewide program, and is the current retail rate impact cap embodied in House Bill 07-1281. Such a program could be done utility by utility, or statewide.

To summarize, there are two basic policies – interconnection and net metering – that address the basic electrical connection and economic fairness of implementing renewable DG facilities and provide a level playing field. Literal *encouragement* of renewable DG systems requires a change in ratemaking philosophy and quite possibly financial incentives.

Credit Program for Distributed Generation

The Commission has also been asked to consider whether a credit program similar to the Renewable energy Credit (REC) program of § 40-2-124, et seq. C.R.S., would work for consumers who produce DG. In our view, there is no need for a separate credit program for DG. HB 1228 defines DG as using renewable energy resources. Thus, to the extent that such

resources are eligible electric generation technologies under § 40-2-124, et seq. C.R.S., as we believe most would be, the current REC trading system already established by the commission should be adequate for valuing these RECs.

One important caution is that utilities have sometimes asked that all RECs associated with a renewable DG project be transferred to the utility in exchange for the ability to interconnect with the utility system and use proper net metering policies for the DG facility. This practice holds appropriate renewable energy policy hostage and has the effect of erecting a barrier to the promotion of DG technologies as it does not provide the DG customer with the full value of the RECs. It must be explicitly precluded.

With respect to DG systems that generate heat, as opposed to electricity, it may be worthwhile to consider such a system, since the current REC system does not address these resources. We offer no further comment on this issue at this time.

Interwest thanks the Commission for this opportunity to comment on the proposed rules, and looks forward to working with the Commission and interested parties to develop a workable set of implementation rules to promote a robust renewable energy market in Colorado.

Respectfully submitted this 5th day of July, 2007.

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Craig Cox
Executive Director
Interwest Energy Alliance
P.O. Box 272
Conifer, Colorado 804333
303-679-9331
cox@interwest.org