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Rep. Robyn Driscoll, Chair

and Members of the Energy & Telecommunications Interim Committee
c/o Ms. Sonja Nowakowski
Montana Legislative Services Division
State Capitol Room 171
Helena, MT 59620-1704

Dear Madame Chair and Members of the Committee,

At the November 9, 2009 meeting of the Energy & Telecommunications Interim Committee, Senator Ron Erickson asked Montana's utilities to offer their opinions of three policy approaches used in other jurisdictions to increase development of renewable energy: feed-in tariffs, community net-metering, and a net-metering limit higher than Montana's 50 kilowatt (kW) cap. NorthWestern Energy (NWE) and Montana Dakota Utilities (MDU) responded to those questions in correspondence to the Committee dated December 16, 2009.

We are concerned that NWE's and MDU's responses to Senator Erickson's questions mischaracterize these policy instruments and their potential benefits to Montana businesses and ratepayers. We focus on NWE's response because it is more detailed than MDU's and because the few remarks that MDU makes are also made by NWE.

First, we should clarify that for the sake of this discussion, our focus is on policy mechanisms related to small-scale renewable energy projects (roof-top solar panels, backyard wind turbines, etc.), rather than the large, utility-scale wind farms being developed in Montana primarily for export energy. The electricity produced by distributed generation systems is quintessentially **Montana Renewables for Montanans**. The fuel sources (mostly sunshine and wind) are clean, widely available across the state, and virtually limitless compared to fossil fuels. The generating technology doesn't require costly and sometimes controversial transmission line upgrades. Potential project sites are ubiquitous, ranging from the roof tops of schools, grocery stores, and garages to the backyards of remote homes in eastern Montana. Currently more than a two dozen businesses across the state sell and install these systems creating cash flow that stays within Montana. Furthermore the "profits" from this form of generation (savings on monthly electric bills) stay in the pockets of Montanans.

Since Montana's net-metering statute was enacted in 1999 (MCA 69-8-301), this industry has grown significantly and has demonstrated that small-scale renewable energy systems are safe and dependable. At present there are around 450 to 500 small-scale distributed generation systems installed in Montana, some powering off-grid homes, some connected to rural electric co-op grids, but the vast majority connected to NorthWestern Energy's system in a net-metering arrangement. 450 systems compared to the hundreds of thousands of electric meters in Montana is a very small percentage; even smaller is the total amount of energy these systems contribute to Montana's total electricity consumption – an estimated 0.009%.¹

All three policy concepts raised by Senator Erickson (establishing a feed-in tariff, community net-metering, and raising the net-metering limit) are mechanisms intended to stimulate wealth creation and small business growth and promote energy self-reliance and independence. These instruments would bolster the development of clean, cost-competitive renewable energy supplies free from the inevitable price increases and volatility of finite and polluting fossil fuels.

We begin by addressing generally NWE's response because it, in our opinion, contains a number of misstatements that operate to prevent the ETIC from understanding the issues involved. We also discuss Senator Erickson's questions and NWE's responses.

The Relationship Between PURPA and Production Based Incentives (Feed-in Tariffs) and Net-Metering

NWE begins its discussion by mischaracterizing PURPA. Having done this, NWE then makes an inappropriate analogy between PURPA and production based incentives and net-metering. NWE then claims that PURPA's "objectives" have been met.

PURPA was enacted principally because utilities were using their position to prevent other sources of supply to serve their customers.² In addition, PURPA sought to encourage a specific

¹ This estimate is based on a typical photovoltaic system (2kW) producing 3,300 kWh annually. Total Montana electricity sales in 2008 are reported at 17,187 million kWh (Montana DEQ, 2010, "Understanding Energy in Montana: A Guide to Electricity, Natural Gas, Coal and Petroleum Produced and Consumed in Montana.")

² The Federal Energy Regulatory Commission stated:

Prior to the enactment of PURPA, a cogenerator or small power producer seeking to establish interconnected operation with a utility faced three major obstacles. First, utilities were not generally willing to purchase this electric output or were not willing to pay an appropriate rate for that output. Second, utilities generally charged discriminatorily high rates for back-up service to cogenerators and small power producers. Third, a cogenerator or small power producer which provided electricity to a utility's grid ran the risk of being considered a public utility and thus being subjected to extensive state and federal regulation.

type of generation, namely cogeneration and small, typically renewable,³ power production. *See* 16 U.S.C. 824a-3(a). In order to address this situation, PURPA requires utilities to purchase the output of so-called “qualifying facilities” at the same price it would pay for power from another source available to it.⁴

Accordingly, and despite the effort by NWE to lump these together, the policies reflected in PURPA are not the same as the policies behind performance based incentives and net-metering.

In any event, no one could seriously contend that Montana or NWE has realized the potential benefits from the widespread deployment of distributed generation. As discussed above, very little distributed generation exists in the state or on NWE’s system. It is therefore not surprising that Montana received an “F” grade in a recent national ranking of states for distributed generation development.⁵

NWE seeks to bolster its argument by trying to link the specter of deregulation with performance based incentives and net-metering, however deregulation is irrelevant to this discussion. Again, the policy animating deregulation, which was a belief that customers would benefit from competition in electricity markets and suppliers, and the policies behind performance based incentives and net-metering are very different.

NWE further confuses the discussion by bringing up its purchases of renewable energy and Montana’s renewable energy standard. We are glad that NWE has acquired the output of Judith Gap. NWE states that by the end of 2012 15% of its total load will be from renewable energy. We applaud NWE for its commitment to meet the 2015 standard early. But, utility purchases

Notice of Proposed Rulemaking, Docket No. RM06-10-000, January 19, 2006.

³ Notably, however, PURPA is not limited to renewable energy production. The statute also includes power from “waste,” which has been interpreted to cover waste coal and waste products from petroleum refining. The largest QF projects in Montana and the projects that constitute virtually all of the state’s QF generation and the projects that have occasioned the most controversy and are most objectionable to NWE are two projects that use these fuels for generation.

⁴ Currently, this “avoided cost rate” for NWE is set at \$49.90. In an ongoing proceeding at the Public Service Commission, NWE has proposed a set of variable avoided cost rates, based on time of production and whether the project is a wind project or not for four 5-year periods into the future. These proposed rates average, for the entire time frame, \$69.00 per MWh for non-wind projects and about \$60.00 per MWh for wind projects (not including an additional wind integration cost of \$2.35 kw/month, which would be imposed on the QF), NWE’s rates and methodology are being contested by an association of qualifying facilities who contend that NWE’s methodology is flawed and its rates too low. A decision by the PSC is expected later this winter.

⁵ See <http://www.newenergychoices.org/uploads/FreeingTheGrid2009.pdf>

under Montana's RES law have little to do with performance based incentives and net-metering of distributed generation projects.

Production Based Incentives or Feed-in Tariffs

Feed-in tariffs are policy mechanisms designed to accelerate deployment of specified types of renewable energy production, bolster business development in this sector, and to reduce greenhouse gas emissions. They require utilities to interconnect qualifying renewable energy resources and to pay a price for every kilowatt-hour (kWh) produced by the qualifying renewable energy resource based on the value to the public of these preferred resources.

A feed-in tariff can be structured to incentivize widely distributed small-scale projects, owned and operated by Montana residents and business owners, rather than the typically absentee-owned projects being developed in Montana at present. In addition, home power systems in Montana are usually installed by Montana-based small businesses, a significant area for new economic growth.

There are good examples in various jurisdictions to look to:

- Germany's feed-in tariff is credited with making that country the world leader in renewable energy development. In 2006 the policy generated \$10 billion of investment—10% of global renewable energy investments.
- Ontario's feed-in tariff incentivizes development of both large and small scale renewable energy projects and offers special incentives for “aboriginal,” or tribal, projects. Solar, wind, hydro, biomass, and landfill gas projects are all eligible under the program. The 2009 policy is expected to generate 50,000 new jobs in the renewable energy development sector⁶.
- In 2009 Oregon passed a bill establishing a volumetric incentive rate, similar to a feed-in tariff. The program is a pilot project limited to solar photovoltaic systems no larger than 500kW with a program cap of 25MW of capacity⁷. The rule-making process that will determine price guidelines is underway.

NWE argues that there is no need for such a policy mechanism since renewable energy development is happening in Montana anyway. But, as discussed above this confuses large-scale renewable energy development of the sort incentivized by Montana's renewable energy standard (RES) with distributed generation that is the principal focus of a feed-in-tariff. And, the two policies are not mutually exclusive. As the National Renewable Energy Laboratory points out,

⁶ Ontario Power Authority, 2009, “Ontario's Feed-in Tariff Program Backgrounder.” <http://fit.powerauthority.on.ca/Page.asp?PageID=924&ContentID=10616>

⁷ Oregon HB 3039, 2009: <http://www.leg.state.or.us/09reg/measures/hb3000.dir/hb3039.en.html>

“for states that want to provide assurance to investors, drive more capital to the market, and get more projects built, a FIT can be a useful, complementary policy to an [RES].”⁸

NWE goes on to criticize feed-in tariffs based on their cost, saying they are a “subsidy” and again drawing a comparison to QF contracts. First, we must clarify that there is nothing in PURPA that suggests that QF power should be more expensive than other sources of power. Indeed, as noted, the price of power for a QF is set as the same price of alternative power, with the point being to make the utility or customer indifferent to its purchase. NWE’s figures (on page 3), which we have not verified for accuracy, reflect the fact that several years ago NWE entered into long-term contracts with the two QFs discussed in footnote 3 at a higher avoided cost rate than what the market actually turned out to be.

Second, similar to the claims made in the recent past that the cost of utility-scale renewable generation is higher than other forms of generation that have proven incorrect, it is not necessarily the case that feed-in tariffs result in power that is more expensive than current power procurement practices. Part of what is in play here is the fact that, as NWE’s response to Senator Erickson’s questions demonstrates very well, there are market barriers to entry. Remove those barriers and the price of this energy will fall. In addition, NWE doesn’t acknowledge recent analysis of power pricing in Europe, which shows that the assurance provided to developers by a feed-in tariff actually lowered the risk for investors and therefore lowered the capital cost of the development, increasing the cost effectiveness of renewable energy supplies over competitive market rates.^{9,10}

Not infrequently, fossil fuel industry proponents and defenders of the status quo trot out the myth that renewable energy is unfairly subsidized. The facts demonstrate otherwise. Between 2002 and 2008, the fossil fuel industry received \$70.2 billion in federal subsidies whereas traditional renewables received \$12.2 billion.¹¹

⁸ National Renewable Energy Laboratory, 2009, “Feed-in Tariff Policy: Design, Implementation and RPS Policy Interactions.” <http://www.nrel.gov/docs/fy09osti/45549.pdf>

⁹ National Renewable Energy Laboratory, 2009, “Feed-in Tariff Policy: Design, Implementation and RPS Policy Interactions.” <http://www.nrel.gov/docs/fy09osti/45549.pdf>

¹⁰ International Energy Agency—Renewable Energy Technology Deployment, 2008, “Policy instrument design to reduce financing costs in renewable energy technology projects.” http://www.iea-retd.org/files/RETD_PID0810_Main.pdf

¹¹ http://www.eli.org/Program_Areas/innovation_governance_energy.cfm

Finally, NWE contends that “intermittent, non-dispatchable power” represents a threat to its system. This is a scare tactic pure and simple. Of course power coming on to NWE’s system has to be balanced with the power leaving the system. That is why every utility in the country maintains or has access to flexible resources that can track load. It is why NWE procures so-called balancing services from third parties to address the variability associated with the production from the Judith Gap wind project and the situation associated with scheduling that generation. It is why NWE is building the Mill Creek Generating Station – to self-supply its balancing needs. But, all this says and means virtually nothing in the context of feed-in tariffs and distributed generation. As discussed above, the amount of distributed generation on NWE’s system at present does not even constitute a flicker in current when measured against the total system. It would be many years and hundreds maybe even thousands more projects before this issue would even be worth discussing.

In addition, NWE fails to acknowledge that such a mechanism is a way of explicitly *promoting* a more balanced electrical grid. By establishing a pricing mechanism for small-scale projects that is more attractive to residents, business owners and developers, a feed-in tariff has the real potential to incentivize development of small renewable energy projects widely distributed around a utility’s supply area. The utility’s recommendation that telemetering, “smart grid” devices be installed on net-metering facilities could certainly be applied to feed-in tariff projects to aid in power production forecasting.

The design of a feed-in tariff should include the following provisions to maximize its effectiveness:¹²

- a)** Prices set higher than those paid to non-qualifying resources, to reflect the value to the public of stimulating development of preferred resources.
- b)** Contract terms for qualifying renewable energy resources should be available for the expected life of the resources.
- c)** A consideration of packaging with additional policies to facilitate more effective deployment of renewable energy technologies, such as addressing permitting and other development barriers.

¹² These guidelines were developed by the NW Energy Coalition, an alliance of more than 100 environmental, civic, and human service organizations, progressive utilities, and businesses in Oregon, Washington, Idaho, Montana, Alaska and British Columbia. <http://www.nwenergy.org>

- d) Technology and size-specific price levels and mechanisms that are developed by a transparent political process with input from industry, consumer advocates, producers and users.
- e) Periodic review of pricing as a specified technology matures and market penetration increases with a focus on mitigating rate impacts by adjusting the premium price paid.
- f) A determination of how the premium price paid is allocated among billpayers, with an evaluation of potential bill impacts and program benefits.
- g) Strategies to protect low and fixed income consumers from any bill impacts. Strategies could include rate discounts, bill payment and weatherization programs.
- h) Elements to address interconnection upgrade costs, with consideration of a cap on interconnection costs covered by the premium price paid.
- i) Guidance to the price-setting body to consider various methods of funding the premium price paid, in order to achieve the goal of short run stimulus of development while ensuring long-term benefits to the public.
- j) Links to energy efficiency programs so producers participating in the tariff program are as efficient and cost-effective as possible.
- k) Guidance to the price-setting body to consider existing programs and policies and make sure the policies work efficiently and effectively together.

Net-metering

NWE accurately describes the basic mechanics of a net-metering arrangement, except that it fails to mention that customer-generators are not paid by the utility for net-excess generation. In other words, if the customer at the end of the year generates more than it consumes, the utility receives that excess generation for free.

Like the discussion of performance based incentives, NWE’s analysis of the costs and reliability of net-metered energy systems is misleading and fails to recognize the value to ratepayers and society of this clean energy source.

NWE argues that net-metering arrangements are a form of unjustified subsidy for owners of grid-tied renewable energy systems because other ratepayers bear the cost of providing transmission and distribution to that customer. The utility goes on to argue that a pure “cost causer pays cost” principle should be applied in place of current net-metering arrangements. But pursuing that

principle as a policy framework for electricity rates would be absurd: customers five miles from a substation would have to pay more per kilowatt hour than those living right next to a substation. In other words, those customers that live closer to a substation than other customers are, because they pay the same rates, are subsidizing those other customers. Would a differential rate structure be possible? Maybe? Would it be worth the utility's efforts to create such a rate structure? Probably not. This is because not only are subsidies pervasive but they cut in all different directions and are, over hundreds of thousands of customers, minuscule in size.

NWE also argues that the electricity of net-metered power is "very poor" and can't be reliably or effectively used by the utility. NWE seems to forget that the real purpose and value of distributed, net-metered systems is to produce power for the customer-generator that can be used on site. It is not to produce power for the utility. Now, it is true that, as NWE describes, the meter is spinning backwards at times and power is being sent onto the system. But, again, and this is the more important point, only 0.009% of the total energy on NWE's system is produced by distributed generation. This is a minuscule amount that has little significance on NWE's system.¹³

In sum net-metered systems can play an important role in providing energy for utility customers, with benefits that accrue to the system as a whole. Other states are way ahead of Montana in this regard. Other utilities are much less resistant than are NWE and MDU to net-metering. It is time for Montana to join the parade lest we be left behind again.

Sincerely,

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¹³ In fact, the true number is even smaller than this because this number is based on an estimate of the total amount of distributed generation rather than being based on the amount of power that actually flows back across the meter onto NWE's system.