

Energy and Telecommunications Interim Committee

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61st Montana Legislature

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December 30, 2009

TO: Energy and Telecommunications Interim Committee members

FROM: ETIC staff

During the Energy and Telecommunications Interim Committee meeting on November 10, Senator Erickson requested that Montana-Dakota Utilities and NorthWestern Energy respond to a series of questions. Company representatives in the room requested additional time to respond to the committee.

The questions were as follows:

- What is your position on a feed-in tariff for regulated utilities in Montana?
- What is your position on allowing net-metered community energy projects in Montana? (For example, allowing multiple account holders to net meter on one system.)
- If a feed in tariff is not developed, what is your position on increasing the current netmetering limit (50 kW)?

In response to the questions, NorthWestern provided the attached memo and graphs, and MDU provided the attached email. The authors of the information will be at the January 14 meeting and can provide additional information, if needed.

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December 16, 2009

Robyn Driscoll, Chairman 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 Chairman Driscoll and Members of the Committee:

On behalf of NorthWestern Energy, I am writing in response to an email inquiry sent by Ms. Nowakowski following ETIC's November meeting. She asked that NorthWestern respond to three questions raised by Senator Erickson regarding "feed-in tariffs" and net metering. However, before I do that, I've prepared a long preface to describe both subjects.

Feed-In Tariffs

A "feed-in tariff" (hereinafter referred to as a "FIT") is the European version of a QF contract. QF contracts trace their lineage back to passage of the federal PURPA statute in 1978. The State of Montana implemented PURPA with a state statute passed in 1981 (MCA 69-3-601, et seq.). QFs have been a part of the Montana Power Company's and, now, NorthWestern Energy's power supply portfolio for about 28 years.

When PURPA was enacted in 1978, its purpose was to:

- 1. Stimulate non-utility resource ownership.
- 2. Stimulate the development of renewable and other, non-traditional forms of electricity generation.

The goals originally envisioned by PURPA in 1978 have already been achieved for NWE. At the same time, a number of unintended consequences have developed, particularly so in Montana where continuation of the PURPA model harms ratepayers with excess power supply costs while hindering the utility's ability to acquire the types of power necessary to meet operational needs on behalf of its customers. (Montana is unique in attempting to reverse the harms of supply

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deregulation and move back relatively more in the direction of vertical integration; however, there will always be a role for competitive power suppliers, including smaller suppliers.)

When PURPA was enacted, there was a belief that utility-owned generation was uncompetitive and harmed ratepayers by increasing electricity prices above what the competitive market would provide. QFs were seen as a way to introduce competition into electricity markets. Montana ultimately experimented with the idea of its dominant utility not owning any of its own generation with electricity completely subject to market forces. That led to a 111% increase in electricity costs (supply only) between the spring of 2002 and today. At present, Companyowned generation resources which serve NorthWestern's load in Montana will meet about 22% of demand in 2011, an amount still too small to fully protect ratepayers from the vicissitudes of the market.

The results of supply deregulation are revealed in the attached graphs, which show the stable, regulated distribution costs for natural gas and electricity (blue area at the bottom) and the volatile supply charge (red area at the top), which until January 2009 were entirely pass through costs to unregulated electricity suppliers.

At present, over 20% of NorthWestern's electricity supply portfolio comes from either QF or renewable resources (not all QFs, which in Montana have included waste coal and petroleum coke, would be considered "renewable" under the Montana renewable definition). The renewable share of the portfolio (now about 8.5%) will continue to grow in the future as the Company moves to comply with the Renewable Portfolio Standard and acquire additional Company-owned generation resources, as well as renewable energy purchases in compliance with State policy as articulated in HB 25, enacted by the 2007 Legislature.

Finally, today, NorthWestern acquires electricity through competitive solicitations. There is no shortage of opportunities to acquire either renewable resources or standard electricity products. Resources owned by others will continue to play an important role in serving the needs of our supply customers.

Purpose of a FIT

The proffered purpose of FITs is to promote the development of electric generating resources by independent (i.e., non-utility) power producers. FITs, like QF contracts, seek to achieve that goal through a three-step process.

First, a set of "preferred" energy resources are designated for development. With FITs, the preferred resources are "renewable" in nature. The current QF law offers more leeway in that regard and resulted in two QFs being developed in Montana during the 1980s which were fueled by waste coal and petroleum coke.

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Second, like the QF law, FITs require the utility or electric distribution company to purchase the power produced by the "preferred" generator.

And third, the price paid for a FIT, again like that of a QF contract, is set by a governmental body of some form. In Montana, that has been the Montana Public Service Commission.

At present, FITs are being promoted in this country by various special interest groups as a way of quickly increasing the development of renewable energy resources.

Problems with FITs

There are a number of problems with FITs, more or less the same problems that exist with QFs.

First, there is the mistaken assumption that if FITs are not introduced, renewable resource development will not take place or take place quickly enough.

That's an inaccurate assumption in Montana. MDU is building a company-owned wind generation facility which will allow it to meet its obligations under the RPS. NorthWestern is ahead of the statutory compliance schedule for the RPS, and the Company has several projects under evaluation which should lead to exceeding the 2015 standard by the end of 2012.

NorthWestern Energy has no shortage of opportunities to sign contracts with parties wishing to sell the utility renewable power. As recently reported to the Committee, an RFI circulated by the Company earlier this year drew 39 proposals from 30 different entities, totaling 1,401 MW of power, most of which was wind power. As a point of comparison, NorthWestern's retail sales, which is the basis for compliance with the RPS, was 682 MW in 2008.

The challenge facing this Company is to acquire a <u>mix</u> of renewables that allow the utility to meet its baseload service obligations to customers, does <u>not</u> threaten the reliability of the power system, and which does not burden ratepayers with excessive costs. NorthWestern Energy expects to have under contract by the end of 2010 an amount of wind energy greater than ten percent of its load, and is working hard to integrate wind and other renewable into its supply mix. This is an engineering challenge to be addressed thoughtfully, not as a political issue.

Second, with FITs as with QFs, price is a major issue. Effectively, a FIT, like a QF contract, is a subsidy for generators paid at the ratepayers' expense. The current energy supply price paid by NorthWestern Energy residential customers is \$54.71/MWH. By comparison, QF power cost \$70.47/MWH during the first nine months of 2009.

Note that NorthWestern Energy has been successfully acquiring renewables through competitive solicitations. Whenever the utility has had the latitude to acquire power supplies for customers, it has obtained a better price. As an example, consider the following: NorthWestern just

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recently signed an agreement for 13 MW of hydropower at an all-in price for power, which includes the renewable energy credit (REC), well below the current \$70.47 average QF price. This power is schedulable, meets the Company's baseload needs, and helps meet the RPS. In contrast, we have a contract demand from a QF developer for 20 MW of wind at \$75.00/MWH without the REC. To date, NorthWestern Energy has never been able to acquire a REC from a QF developer and, as a consequence, those resources do not qualify as renewable under state law.

Third, a utility is a highly sophisticated machine that operates under certain engineering parameters subject to the laws of physics. When a construct such as an FIT is introduced into this equation, it has a destabilizing effect. There are engineering constraints on how much intermittent, non-dispatchable power a utility can integrate into its system without jeopardizing the operational integrity of the grid. NorthWestern is working within its own balancing area and cooperatively within the region to address these constraints – but they are real. In order for the utility to effectively manage this system, it has to be able to control the type and amount of power brought on-system. Neither the FIT nor QF processes recognize that principle. Instead, those critical decisions are partially turned over to independent generators and political officials who are not accountable for the ultimate consequences on the system.

Net Metering

Montana enacted its net metering statute in 1999 (MCA 69-8-301, et seq.). Under the law, a person net metering electricity installs a small-scale generator. The electricity then flows into the grid and, as it does so, it spins the person's electric meter backward. Thus, electricity supplied by the connecting utility or cooperative is offset by the amount of electricity produced by the generator.

As is the case with QFs, net metering has some cost and reliability issues. First, the value of the electricity produced by the "net meterer" is equal to the energy supply cost for that class of customer. Most net meterers are residential customers whose current supply price is \$54.71/MWH. But, when net metering is applied under the current statute, the net meterer nets both the energy supply cost and the transmission/distribution cost. Collectively, that currently amounts to \$93.62/MWH. Thus, the net meterer obtains the full benefit of being connected to the grid while its T&D expense is subsidized by other ratepayers.

Second, the power quality from net metering installations is very poor. That is, net metering generators are predominantly intermittent sources of supply (chiefly wind and/or solar), are not dispatchable, are not scheduled, and cannot be used to meet either baseload or peaking power needs. Like most QF contracts, net metering arrangements constitute an electricity supply cost to ratepayers but don't really constitute a true energy supply resource that the utility can use to reliably meet customer load. Uncertainty in load requires the utility to acquire greater amounts

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of regulation resource at a cost to ratepayers. In fact, net metering arrangements, like most QF contracts, are largely impediments to be worked around.

NorthWestern is gaining experience with net metering and expects net metering and other (probably more beneficial) forms of distributed generation will grow over time. Net metering presents real operational and economic challenges that must be addressed before it becomes more widespread. There are important energy issues that NorthWestern and Montana must address, reversing disastrous mistakes of the past. That important work should be the focus, rather than diverting attention to what are in the near-term, in the context of what needs to be done here, policy distractions.

Answers to Senator Erickson's Questions

Question #1: What is your position on a feed-in tariff for regulated utilities in Montana?

NWE Response: Given the operational problems associated with existing QF contracts and the excessive costs such contracts foist on ratepayers, NorthWestern is opposed to the implementation of FITs. The State will not benefit by repeating the QF mistake a second time under the name of FIT.

If the State of Montana wants to increase the amount of renewable energy used within its territorial boundaries, then it should simply set the overall goal and allow the utilities to establish the means of meeting that objective. The industry has a responsibility under the law to provide "safe and reliable service at just and reasonable rates," and it has done that effectively for most of the last 100 years. The supply focus now should be meeting general policy goals (including renewable) and reversing over time the tragic mistakes of supply deregulation. The State's political infrastructure should not micromanage the utilities' energy supply portfolios.

Question #2: What is your position on allowing net-metered community energy projects in Montana? (For example, allowing multiple account holders to net meter on one system.)

NWE Response: Traditional net metering presupposes a net metering installation with a single meter. Electricity is received from the utility off the grid to run the home, shop, or business. Whenever the on-site generator does not supply enough electricity, the electricity flows through the meter, turning it forward to measure the amount of energy consumed. When the generator is functioning, it pushes electricity back into the grid, through the meter, running it backward to offset measured usage by the amount of power generated.

Given a situation where a single net metering facility was constructed but owned by several parties with each wishing to net meter their personal consumption, it would be

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technically feasible to design such a system, but it is unlikely to operate in the traditional manner as described above. Instead, the electricity would likely be metered at the point of production and each owner's monthly bill adjusted to reflect their share of the total amount of energy produced by the facility.

While it is technically feasible to net meter several customer bills based upon joint ownership in a single generating facility, this is not a program NorthWestern would endorse on a wide scale. As described above, there are problems associated with net metering, and these problems would be exacerbated by an expansion of the program. Additionally, any time a program becomes more complex, the cost of administration increases and, currently, those costs are not paid for by the net meterer. NorthWestern has had high level discussions concerning the design of a specific project, and suggests developing that concept in more detail. It would be a mistake to incorporate such an approach in statute at this time.

Question #3: If a feed-in tariff is not developed, what is your position on increasing the current net metering limit (50 kW)?

NWE Response: NorthWestern Energy has opposed legislation of this type before and likely will do so in the future. However, the Company might be more flexible in that regard if a proposed increase in the size of net metering installations were accompanied by other changes, including:

- 1. Limiting net metering to energy only. The party net metering would be responsible for all T&D charges. This change would apply to new net metering agreements.
- 2. Telemetering devices would be installed on all net metering installations to enable the utility control center to see what systems are online and how much power they are producing. Think of this as a smart grid application. If the utility can see power being produced by the net metering installation, it will have the opportunity to adjust the amount of power being brought onto the system elsewhere. The cost of this system would be jointly shared by the utility and the net meterer and would apply to existing and new net metering installations.
- 3. Net metering should be subject to the same policies, practices, and regulations applicable to commercial generators. In a nutshell, this can be expressed in the principle of "cost causer pays the cost." The explicit and implicit subsidies paid by ratepayers to support the net metering program need to be abolished.

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4. Finally, serious consideration must be given to collectively capping the amount of intermittent, non-dispatchable power the utility is required to take under the QF statute, net metering, and the RPS.

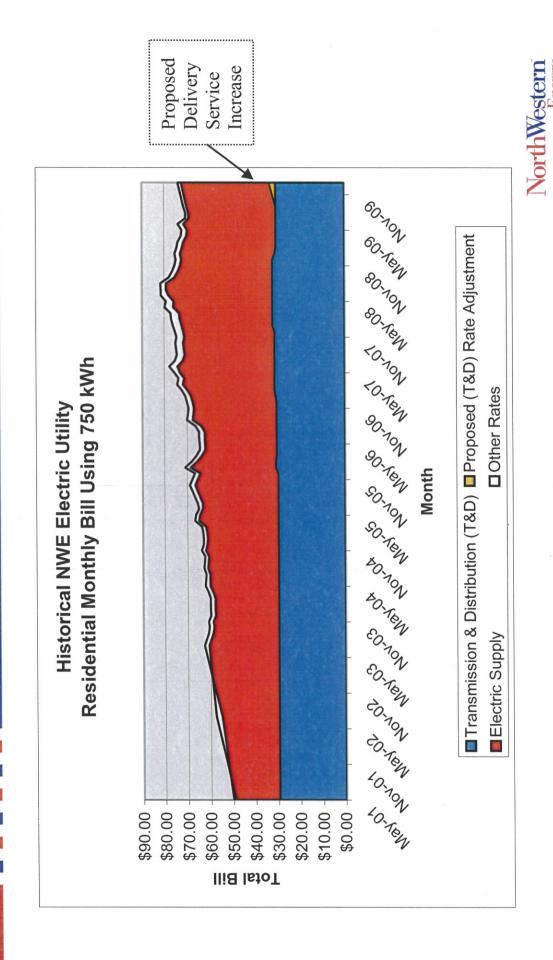
Very truly yours,

John S. Fitzpatrick

Executive Director

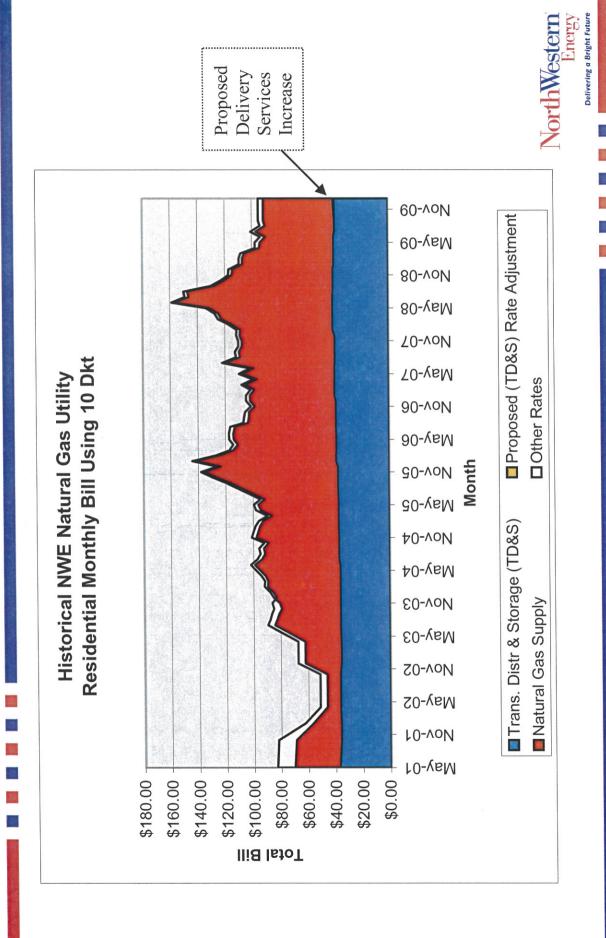
Governmental Affairs

Residential electric bill components



Delivering a Bright Future

Residential natural gas bill components



Nowakowski, Sonja

From: John Alke [jalke@hksalaw.com]

Sent: Wednesday, December 16, 2009 11:31 AM

To: Nowakowski, Sonja; Fitzpatrick, John

Cc: Forrester, Gary

Subject: RE: Senator Erickson's questions

Sonja, I just got done reading what NorthWestern submitted, and am not sure that I can add anything that hasn't already been covered. Montana-Dakota does not have the adverse QF history that colors the NorthWestern experience. However, that is only because its other jurisdictions (North Dakota and South Dakota) would not allow Montana-Dakota to enter into large QF contracts at the very high avoided cost rates established by the Montana Public Service Commission in the early 1980's. North Dakota and South Dakota saved Montana from itself. What happened was that a large QF developer in Montana demanded a large scale QF contract from Montana-Dakota at the high Montana avoided cost rates. To its credit, the large scale QF developer recognized that the Montana-Dakota load was too small in Montana to isolate the impact of the project to Montana, and the project would have had significant impact on rates in both North Dakota and South Dakota. The developer agreed that its proposed QF contract needed to be submitted for approval to the North Dakota and South Dakota Public Service Commissions. I believe both Commissions rejected the proposed contract on the grounds the avoided cost rates established by the Montana Commission were unrealistically high.

As NorthWestern points out in its submission, a net metering tariff or feed in tariff is specifically designed to subsidize the favored small generation resource at ratepayer expense. The fundamental policy question should be why? The subsidy is not needed to bring renewable resources on line. It is, simply put, just a subsidy. Given the other issues that are looming in the industry, and the likely compliance costs associated with those issues, this seems a particularly bad time to suggest increasing electric rates to subsidize a particular interest group.

Please let me know if you would like any further response on behalf of Montana-Dakota.

From: Nowakowski, Sonja [mailto:snowakowski@mt.gov]

Sent: Thursday, December 10, 2009 12:22 PM

To: 'Fitzpatrick, John'; John Alke Subject: Senator Erickson's questions

Hi there,

I just wanted to check in with you on your responses to Senator Erickson's three questions from the November ETIC meeting. I plan to mail the ETIC members their meeting packets on Monday, December 28. Do you think you will have your responses then? I would like to include them in the mailing, if possible.

Thanks, Sonja