

Submission to the Public Utilities Board
December 1, 2021

FEED-IN TARIFFS AND COMMUNITY-BASED RENEWABLES

Good morning: My name is Dudley Thompson. I am an architect and have designed sustainable buildings in Manitoba for over 40 years. These buildings include over 30 LEED Certified buildings including Mountain Equipment Co-op – the first LEED in MB and Manitoba Hydro Place – the first LEED Platinum building in Canada. I was also a member of the Board of Manitoba Hydro for 5 years.

At the conclusion of COP 26 last week, UN Secretary General Antonio Guterres issued the following statement:

“Our fragile planet is hanging by a thread. We are still knocking on the door of climate catastrophe. It is time to go into emergency mode — or our chance of reaching net zero will itself be zero. Science tells us that the absolute priority must be rapid, deep and sustained emissions reductions in this decade. Specifically — a 45% cut by 2030 compared to 2010 levels.”

In order to reach these reductions in carbon emissions and indeed net-zero carbon by 2050, Manitoba, like all jurisdictions, will face massive disruptions. We are comparatively well placed in this province due to our solid foundation of vast, northern, carbon-free hydro-electric resources that have been developed by past visionary leaders.

However, there are two disruptions that will transform our existing hydro-electric system. The first disruption is climate change and the possibility of extended droughts. The second disruption is the massive new power requirements for the electrification of transportation and building heating.

Manitoba Hydro states that the reason for this hearing today is for this first disruption: “to address the financial impacts due to the current drought conditions to ensure the financial health of Manitoba Hydro”. There is no discussion of the second disruption. With these two massive paradigm shifts, can Manitoba Hydro continue to depend solely on run-of-river power and pipeline-delivered natural gas? - I think not.

As Manitoba works towards zero carbon, they will need to dramatically reshape the utility to go well beyond providing electricity from hydro and heating from gas. So, what can Manitoba Hydro do to make the utility more robust, more resilient and more able to quickly provide the increased energy requirements for a zero-carbon future? What have other jurisdictions done?

Let's take Germany for example and see how they transformed their energy system from one based on coal and nuclear in 2000 to one that is 35% renewable today and is aiming at 100% renewable by 2045. In Germany, most of the renewable energy infrastructure is owned by private individuals and co-operatives. This is because the state invested in a Feed-in Tariff (FIT) system whereby renewable energy production was to be supplied by a wide diversity of small-scale local renewable installations of wind, solar, geothermal and biomass. The idea is quite elegant – establish a reasonable feed-in price that the utility will pay for supplied renewable energy and open the market to whoever can supply. The key ingredient in the German energy transition is community participation with ownership of thousands of small Community Energy projects decentralized in many cities and villages across the country. Central to this transformation is a feed-in tariff with a reasonable rate of return.

What is a Feed-in Tariff? The concept started in 1987 when New York State passed the PURPA (Public Utilities Regulatory Policies Act) legislation to force utilities to offer fair prices to private generators. Since then, more than 80 countries including many states in America and provinces in Canada have used a FIT to increase the supply of available renewable energy.

The concept of a feed-in tariff is to provide a vehicle for the delivery of renewable power from a list of renewable sources at a fixed rate over a fixed period of time. The idea is to offer a price for the power that is initially 'the price of generation plus a reasonable return above the wholesale price for electricity' in order to encourage innovation and market response. As the market responds to the offer, the price of the technology decreases and the green energy is fed into the grid, the tariff is reduced. A higher price is offered to smaller suppliers in order to ensure more community based, decentralized and resilient delivery. The beauty of the system is that it triggers a bottom-up mobilization giving widespread citizen participation, local investment, local resiliency and local control.

But, you say, Manitoba Hydro does offer a feed-in tariff in the form of an "excess energy price". This is true. However, this excess energy price is currently 2.40 cents per kWh for renewable power delivered to the Manitoba Hydro grid. Manitoba Hydro currently charges 8.96 cents per kWh for electricity supply to residential customers. In other words, Hydro will purchase the renewable power from your solar roof for 2.4 cents a kWh and then sell it back to you, or your neighbour, for 8.96 cents.

What business person or citizen would invest in renewable energy production in Manitoba? There is no business case here. That is why there is so little third-party energy or renewable energy production in Manitoba. Indeed, it could be said that Manitoba Hydro actively discourages small-scale production as it is messy and interferes with their big-infrastructure monopoly. Manitoba Hydro's current 'excess energy price' provides a negative incentive to reduce carbon.

And this is why I am here today - to urge Hydro to pivot quickly and effectively from its traditional culture and transition to a net-metering market-driven Feed-in Tariff system that can provide immediate supplies of renewable energy – including solar and wind. This is one of the fastest and most direct methods to provide new cost-effective sources of renewable power to augment Hydro's existing green hydro-electric resources.

This is not a new request for diversity. It has been recommended by many stakeholders over many years. Hydro knows all this. They have been watching the world change and not listening. They knew it when I was a member of the Hydro Board of Directors. Yet they continue in old patterns.

Core for Hydro's request today is a rate hike due to 'drought conditions'. Without a comprehensive rethinking of their mandate, without a comprehensive Integrated Resource Plan, Hydro will be coming back for rate increases many times in the next years - and more importantly, Manitoba Hydro will not be able to provide additional supply to the people of Manitoba as we all prepare for this carbon-free and regenerative future.

Many utilities welcome renewable resources added to the grid by initially providing higher than market rates for feed-in tariff prices because this new energy can be supplied quickly and at less than avoided costs for new centralized power generated in the system. It is highly unlikely that any further dams will be added to the Manitoba Hydro system when delivered current power rates for power from Keeyask Generating Station are approximately 12.5 cents per kWh plus transmission costs. Installed, local solar is approximately 3.5 cents per kWh.

Hydro has dabbled in isolated wind farms in southern Manitoba and small solar experiments - but there has never been a full-scale buy-in to alternative power sources by the utility. Instead, Manitoba Hydro continues to act out of an obsolete paradigm where they believe their corporate mandate is to deliver electricity from northern dams and gas from western pipelines. With demand side management recently outsourced to Efficiency Manitoba, the utility is no longer required to plan for the overall energy management for the province.

Ironically, we only have to look to Alberta to see how this transformation is being done. The province has legislated that the energy retailer must buy back produced renewable power at a rate equivalent to the customer's retail rate. If you buy energy for 8 cents per kilowatt hour, you will be credited at 8 cents per kilowatt hour for energy produced. That is why Alberta currently has 19 privately developed wind projects generating 1700 MW and dozens of solar farms - the latest one the Travers Solar Project has 1.3 million solar panels that generate 465MW – enough electricity to power 150,000 homes.

The reason I am here today is because I am frustrated as I work as an architect with a number of inner-city not-for-profit building projects. The core mandate of each group is a commitment to achieve net-zero energy and zero carbon.

One project, the Bannerman Green Housing Co-op Inc., is creating three prototype multi-family residential infill buildings in North Winnipeg and wants to certify net-zero energy and carbon conformance. The projects include the installation of ground source heat pumps, Passive House deep retrofit protocols and the installation of solar photovoltaic panels to offset electrical consumption.

As I started to do the cost-benefit analysis for the solar photo-voltaic system, it became apparent that there was no economic case for a new solar rooftop system. The current Feed-in Tariffs by Manitoba Hydro provide a negative incentive to reduce carbon. We need transformational community-based projects like these to succeed in order to start to show the way forward. We need to change Hydro's approach to renewables not just to meet our carbon targets but to ensure a stable ratepayer cost base, the financial health of Manitoba Hydro and the long-term supply of increased renewable energy.

In conclusion, I am requesting that the Public Utilities Board direct Manitoba Hydro to immediately increase the "excess energy price" or feed-in tariff to a rate that is more in keeping with the avoided price of creating new electrical energy or a rate equivalent to the customer's retail purchase rate. If implemented, many new suppliers will come forward to supply renewable power. The utility will build additional non-carbon capacity to offset droughts as well as to supply the increased demand for electric vehicles and electric heating as we begin the essential "rapid, deep and sustained emissions reductions" in the transition to zero-carbon.

Thank you for the opportunity to speak to you this morning.

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