

THE FEED-IN TARIFF – BC’S PARADOX¹

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British Columbia is going to have a Feed-in Tariff for electricity, and the public has been invited to comment on the proposal by September 30th. So what does BC’s proposal look like, and is it good enough? Around the world, the Feed-in Tariff (FIT) has become accepted as the “go-to” policy if you want to accelerate the generation of sustainable electricity from wind, solar, and other means in a rapid, sustained, widespread way. Denmark pioneered it, Germany made it the heart of their renewable energy policy, and it has now been adopted in 34 other nations from China to Ukraine, creating hundreds of thousands of new jobs. Ontario embraced the FIT in its Green Energy Act, and the US National Renewable Energy Laboratory has just issued a major report praising and recommending its use.

What is a Feed-in Tariff?

A Feed-in Tariff is a simple payment per kilowatt-hour for electricity generated from a renewable source, linked to a 12 to 25-year contract. The price paid is based on the cost of the electricity produced, plus a reasonable profit for the producer. In Ontario’s legislation, an onshore wind producer is offered 13.5 cents kWh, while an offshore wind producer is offered 19 cents. Solar producers are paid more because solar PV is more expensive. In Ontario, a small rooftop system under 10 kW earns 80 cents/kWh, while a ground-mounted system up to 10 MW earns 44 cents. FITs are also used to pay for small hydro, biogas, biomass, energy from waste, sewage gas, geothermal, district heat, and (as proposed in BC) ocean energy.

To quote Paul Gipe, the world expert in FITs, “Feed-in tariffs work because they are more equitable than other policies. They enable everyone—including homeowners, farmers, cooperatives, and businesses large and small—to profit from renewable energy.” In Denmark, in the early days, 50% of the power from renewable energy was being financed by farmers’ and other cooperatives. This is much less so today, due to the financial complexity of the deals that need to be worked out.

To put these prices in perspective, you can buy electricity from existing coal or gas-fired power on the North American market for around 5-6 cents. Electricity from a new gas-fired plant costs 7-13 cents; from a new coal-plant 10-11 cents. Nuclear costs 10 - 21 cents. The increased cost of paying for FIT energy at above-market prices is covered by a small monthly charge on the utility bill. In Germany, it is around \$3.

Is a Feed-in Tariff needed in BC?

Compared to all other FIT jurisdictions, BC is in a unique situation because 95% of our electricity is already zero-carbon thanks to our big hydroelectric dams. The response to BC Hydro’s latest Clean Power Call shows that in the short term, we have plenty of available green electricity costing 12 cents/kWh or less (\$120/MWh), including enough to power the first wave of electric vehicles. So on the one hand, you could argue that we do not need more green power. On the other hand, renewable technologies using solar, small wind, biogas, biomass, wastes, geothermal and ocean energy are being shut out of the market and deprived of the opportunity

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to develop because they cost more. This prevents them from gaining traction, leading to future reduced costs. Meanwhile, BC has remote and off-grid areas where power is being generated by burning diesel. On Haida Gwaii, it costs 26 cents/kWh; on some remote First Nations reserves, where the diesel has to be helicoptered in, it costs as much as \$1/kWh.

So here's the paradox for BC: if we adopt a full FIT, like Ontario or Germany, the surge in electricity production would create a surplus of power that would end up being exported for less than we were paying for it. On the other hand, we need to find a way to help BC's emerging forms of renewable energy to get out of the box. The government's FIT Consultation Paper addresses the paradox by creating a number of limits to BC's proposed FIT:

- \$25 million limit to annual expenditure above the cost of acquiring the power through BC's Standing Offer Program.
- 5 MW limit on size.
- 5 year contract limit.
- No solar or wind energy.
- Not intended as a general power procurement tool.

Within the limits, proposals are invited for renewable electricity production from biomass, biogas, geothermal, in-stream hydrokinetic, and ocean energy. In off-grid areas, solar, wind and hydroelectric are also possible. The purposes of BC's FIT are to foster the development of innovative technologies, reduce GHG emissions, encourage job creation, help First Nations and rural communities get off diesel, and reduce waste by the use of waste heat, biomass and biogas.

The BCSEA's Policy Committee will be pondering the Consultation Paper, and we will be submitting our response by September 30th. At first blush, we think the opportunities will be very restricted by the 5-year contract limit - the norm around the world is 20 years, which gives time for developers to make a return on their investment. We also worry that the 5 MW limit may rule out geothermal developments.