

Energy Solutions Centre
Energy, Mines and Resources
Yukon Government
Box 2703, Whitehorse, Yukon Y1A 2C6

Thursday, February 25, 2010

To Whom It May Concern,

Re: Independent Power Production and Net Metering – Developing a Policy for Yukon

Thank you for the opportunity to provide comments on Yukon Government's initial consultations on the development of an Independent Power Producer (IPP) and net metering policy for the Yukon.

Independent Power Producers may play an important role in helping Yukon meet our future electricity needs in ways that do not harm our environment or further contribute to climate change.

During Yukon Government's public consultation process for the *Energy Strategy For Yukon*, the Yukon Conservation Society (YCS) supported the development of an Independent Power Producer policy. This support of Independent Power Producers was and is contingent on adequate safeguards in place to protect the environment, Yukon's communities and the Yukon's public utility – Yukon Energy Corporation.

YCS suggests that in concert with the development of an IPP policy, Yukon Government and Yukon Energy develop certification standards to assess potential independent power projects to ensure electricity purchases are from clean and green sources only, and to ensure that the most sustainable projects receive preferential prices for power produced. Preferential pricing for projects meeting stringent environmental standards will also encourage IPPs to be environmentally benign.

Regardless of the price of fossil fuels at any given time, Yukon Government and/or Yukon Energy should not purchase power from an IPP that burns diesel or any other fossil fuel, including coal and natural gas, to generate electricity. Our focus in the Yukon must be to ambitiously reduce our greenhouse gas emissions and our reliance on fossil fuels, and to replace diesel generators in off-grid communities with sustainable energy.

To that end, YCS recommends that any incentives for IPP projects in the Yukon focus first on powering communities that are currently serviced by diesel generators.

A Yukon IPP policy must be based upon reducing our carbon footprint without negatively impacting our watersheds, fish, wildlife, or cultural traditions. The Yukon's policy must focus on small-scale, clean, and environmentally sustainable IPPs. An IPP policy should not signal to the private sector that

our rivers and streams are for sale, whether for hydro projects or bulk/bottle water exports.

Reducing our demand for electricity through increased conservation and energy efficiency must be of the highest priority in our efforts to reduce emissions and meet future growth needs.

Net Metering

Net metering is defined in a confusing way in the consultation document. It states: “Net metering allows electricity customers to sell surplus electricity produced from small scale, renewable energy sources to the grid. Net metering customers receive a credit for the electricity they generate.”

Does a net meterer *sell* surplus, or merely reduce its electricity bill? If a net meterer consistently produces more power than it generates, does it then get paid, or is the difference just zeroed out? Is it at the point where a net meterer generates more than it consumes that it then becomes an IPP?

The difference between a net meterer and an IPP should be clarified.

YCS feels that any individual or business that wants to generate clean and renewable power for their own consumption and for the grid should be able and encouraged to do so. In terms of climate change mitigation and adaptation, empowering individuals to generate their own clean and renewable energy will encourage efficiency and conservation at an individual level. In terms of additional capacity in the system, society will benefit and efficiency and conservation efforts will be more successful if people are aware of their consumption. This awareness would be inevitable if people played a more active role in energy generation.

If Yukon Energy offers high rates for solar, for example, (in Ontario, consumers pay 12 cents/ kWh for grid power and receive 80 cents/ kWh to export solar power to the grid), we must ensure that the electricity generated at the household is used first for that household *before* surplus energy is exported to the grid. This needs to be a requirement. For its feed-in tariff policy, Ontario missed an important opportunity when it made the feed-in system separate from the household consumption system. If a household is only paying 12 cents/ kWh to power their homes and all their renewable energy is being sold to the grid at 80 cents/kWh, there is no incentive for the household to make whatever investments possible to maximize efficiency in the home. If the household were then paying 80 cents/kWh (because they are using their own energy first, before selling for a profit), presumably that household would do everything possible to maximize that profit margin.

YCS feels that whatever incentives possible should be offered to get households generating their own clean power from rooftop photovoltaics and other small renewable energy generators. If new industrial customers come on line, additional capacity and the reduction of consumption at the household level enhanced by net metering will help meet demand.

Following are our comments on the topics you put forward in the IPP Policy consultation document.

Policy Objectives

- Increase electrical supply to meet future energy needs

- Strengthen energy security and reliability of Yukon's electrical system
- Develop local electricity resources that are cleaner or renewable
- Facilitate economic development

The Yukon Conservation Society supports increasing supply to meet future needs, although we continue to stress that increasing load demand should be first met through efficiency and conservation measures – which means using existing energy wisely and using less of it.

YCS does not subscribe to the growth imperative model of development. However, if we are serious about reducing our consumption of fossil fuels and our production of greenhouse gases, we will need to increase electricity production to power electric transportation systems and heat our indoor spaces.

YCS also supports diversifying and distributing energy sources, close to where the energy is needed.

We support the development of electricity resources that are “clean and renewable” not just “cleaner or renewable.” This distinction in the consultation document is likely to include the possibility of generating electricity by burning natural gas instead of diesel. Although natural gas burns cleaner, YCS does not support this. Natural gas is recognized as a transition fuel, and if we are going to invest in getting off diesel, we ought to bypass all fossil fuels completely and develop clean, green and renewable energy systems for communities currently serviced by diesel and for the grid overall.

Policy Issues

Eligible Energy Sources

YCS strongly recommends the development of a certification process to determine what kinds of energy sources will be eligible for purchase and different rates for different energy sources. YCS does not support the purchase of energy generated from burning fossil fuels. This means that no coal, diesel or natural gas electricity generating facility would be eligible to become an IPP using public money to purchase energy.

The discussion document suggests that natural gas could be considered a clean source if it were replacing diesel. YCS disagrees. The goal is to get off fossil fuels, not create a market for the industrialization of our landscapes and the carbon intensive activity of extracting natural gas from the ground.

YCS recognizes that methane from agriculture, forestry waste or landfills could be captured to provide an IPP electricity source. YCS recommends the IPP policy clearly differentiates between methane from waste and the more traditional fossil fuels such as diesel, coal and natural gas.

YCS also recognizes that biomass could be a fuel source for electricity generation in an IPP project. Biomass projects could produce energy in the winter season, and could also provide opportunities for heat cogeneration. Each biomass project would have to be carefully evaluated to ensure it meets clean

criteria and green certification. For biomass, this would include fuel source from waste only and rigorous emissions standards.

The Energy Strategy For Yukon speaks of hydro electricity as an important source of clean and renewable energy. As part of the development of a certification process to determine eligible power sources for IPP projects, YCS recommends using the criteria developed by the Low Impact Hydropower Institute. This non-profit organization is “dedicated to reducing the impacts of hydropower generation through the certification of hydropower projects that have avoided or reduced their environmental impacts pursuant to the Low Impact Hydropower Institute's criteria.”

In order to be certified by the Institute, a hydropower facility must meet criteria in river flows, water quality, fish passage and protection, watershed protection, threatened and endangered species protection, cultural resource protection, recreation and facilities recommended for removal.

For example, the Alaska Power and Telephone Company-owned Goat Lake hydropower facility powering Skagway, Alaska has met all the criteria and is recognized as a low-impact hydro facility. The financial incentive to meet these criteria in the USA is that certified facilities can sell certified renewable energy credits on the voluntary market for individuals, businesses and institutions who want to represent an action to lower their carbon emissions and who choose to pay more for responsibly produced power.

Hydropower is usually clean and renewable, but is not always green. The IPP policy for Yukon must have built-in safeguards to ensure power is only purchased from hydro projects that do not destroy fish and wildlife habitat or cause irreparable destruction or reduced productivity in our watersheds.

Further in our comments, we will talk about preferential rates for different sources of energy and suggestions for criteria to assess projects by. The more clean and green a source is, the proximity to existing distribution and transmission infrastructure as well as to where the power is needed, and ability to generate power in winter – the higher the rate should be paid out.

Size of Electricity Projects

The megawattage of the project is less important than the ecological footprint and overall impact of the project. The suggested (or exemplified) cap in the discussion document is 500 kW for IPP and 10 kW for net metering. YCS feels that there should be a cap on the size of projects to prevent megaprojects from being developed and owned by multinational corporations, but the cap should also allow for wind projects that might not be possible under 500 kW.

Connecting to the Grid

A criterion for green certification of IPP projects should be how far away it is from existing infrastructure like roads and transmission lines. A green project might not be so green if extensive roads and new distribution and transmission lines need to be constructed through pristine areas to get the power to where it is needed.

If the BC transmission grid is extended up the Stewart Cassiar highway and it becomes more attractive and possibly economic for the Yukon to connect to the southern grid, this would change the IPP

situation significantly.

Energy infrastructure, including IPPs, in the Yukon should be built for our own needs and not for export. A full and comprehensive public discussion would need to happen prior to grid expansion to the Outside and IPP projects were developed to sell power to outside markets.

Financial Arrangements

YCS continues to encourage price signals that inform consumers of the true cost of electricity. Non-subsidized rates give consumers incentives to reduce waste. High rates should be offered to projects that produce power in times of high demand (i.e., winter), as winter electricity is precious. Preferential rates can be offered to encourage IPPs to produce energy during the cold and dark season, as this is when space heating and energy use will be the most intensive.

Preferential rates could also be offered to IPPs that directly displace diesel electricity generation in isolated communities.

YCS would like to see buying criteria and a buying policy that speak to these issues. A buying policy could also encourage responsible IPP development by offering incentives to developers to build IPPs: near roads and existing transmission infrastructure, in non-fishbearing streams and rivers, near off-grid communities, and to IPPs that acquire green certification.

A buying policy would be closely linked with the certification standard, and higher rates could be paid to different IPPs depending on a number of criteria to ensure low environmental impact in terms of greenhouse gas emissions, habitat loss, and other potential negative consequences.

An interesting consideration must be: since we still have a resource-extraction based economy in the Yukon that exists within boom and bust cycles, should we commit to purchasing energy that we might not need in ten years? The IPP policy needs to be clear about how long power purchasing contracts go on for. IPPs need certainty for investment, but our public utility should not be burdened with long-term, overpriced purchase agreements.

Policy Framework

YCS is concerned with how water licenses would be granted in the Yukon for IPP projects. We need to ensure that if and when IPP projects become feasible that all interested businesses including First Nations governments and development corporations are made aware of the opportunities and that there is a fair and transparent process for the allocation or sale of water licenses and land leases.

A big issue around IPPs in BC is that the energy assets – heavily subsidized by public money and the owners contracted to receive long term generous rates for power produced – are privately owned by foreign corporations. The IPP policy needs to promote Yukon-owned projects that have a vested interest in protecting our environment.

Roles and Responsibilities

An independent agency or commission should be set up to establish green criteria and to assess each

proposed project. This would be an additional assessment alongside a mandatory YESAB review for IPP projects of any size, but would also include recommendations for rates according to the criteria. The IPP policy should explicitly state that all IPP projects must be subject to Yukon Environmental and Socioeconomic Assessment Board, Yukon Water Board and Yukon Utilities Board assessments, reviews and approvals.

Additional Comments

In conclusion, YCS realizes that to reduce our greenhouse gas emissions, to reduce our reliance on fossil fuels for heating, transportation and electricity, and to increase our adaptive capacity in the face of climate change, the Yukon must increase, decentralize, diversify and distribute our electrical supply. This will mean encouraging individuals, communities, First Nation Governments and development corporations, entrepreneurs and partnerships to build clean and renewable energy generating projects.

However, a strong, made in the Yukon IPP Policy must ensure that we only allow the construction of, and commit to purchasing power from, sustainable sources and also ensure that the majority of assets remain in local control and ownership.

Learning from BC's experience with IPPs, we need to ensure there is a fair process for the distribution of water licenses and land leases.

Recently, proponents of alternative energy were disappointed that the geexchange district heating system for Phases 1 and 2 of the proposed Whistle Bend subdivision was removed from the application. One reason was confusion over ownership and operating structure. Although district heating is not electricity generation per se, it still has the potential to displace a huge amount of electricity or fossil fuels for space heating.

YCS supports the investigation of how systems like district heating could also be incorporated into an IPP policy.

Thank you for the opportunity to comment.

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