

# Independent Power Production and Net Metering

## Developing Policy for Yukon

### Summary of Comments on Discussion Paper

June 2010



IMPLEMENTING THE ENERGY STRATEGY FOR YUKON

## Background

The Yukon government is developing policies for Independent Power Production (IPP) and net metering (NM).

A discussion paper was developed to stimulate discussion in these two areas. This discussion paper was written to provide information about this policy work, starting with a review of the government's energy policy, Yukon's electrical system and practices in other jurisdictions. The paper also proposed some possible objectives and discusses the policy issues to be addressed.

The consultation period was originally from November 2009 to January 29, 2010 but was extended to February 25, 2010.

The consultation included:

- A news release
- Posting of the discussion paper on the EMR website
- Distribution of the discussion paper via mail and email
- Newspaper advertisements
- An open-house at the Energy Solutions Centre (February 23)
- Meetings with governments, stakeholders, and members of the public

The Government of Yukon would like to thank all the people and organizations who took the time to provide invaluable comments on the discussion paper. Along with cross-jurisdictional and best practices research, the comments received will help us draft policies which will be brought back to the public for further review and comment.

## Consultation Results

At the time this summary was prepared comments were provided by representatives of:

- 3 First Nations
- 1 Municipality
- 13 Individuals
- 2 Utilities
- 5 Non-government organizations
- 2 Research Institutions
- 1 Yukon government department
- 16 Industry
- 1 Political party

## What We Heard

This document summarizes and paraphrases briefly the many views, issues, concerns and observations raised by the commentators. While not all of the comments could be reproduced in this document, we endeavoured to capture the most frequent comments and issues as much as possible.



The following does not necessarily reflect the views of the Government of Yukon as it is a compilation of the repeated comments and themes on IPP/NM raised by the commentators.

## General Comments

1. IPP/NM policies supported
  - There is general support to move forward with the development of these policies that are seen to play a critical role in meeting energy needs, generating local employment, contributing to the local economy and promoting partnerships with other government and agencies.
2. Priority and Timing
  - IPP/NM policies are long overdue and finalization should not be delayed.
3. Reviews
  - Once policies are adopted, a review should take place in 2 to 5 years to adapt to any problems or issues that are encountered.

## Proposed Policy Objectives

The discussion paper outlined 4 possible policy objectives of IPP/NM policies:

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 feedback received on the policy objectives fell under the following themes:

1. Demand Side Management
  - Efficiency, conservation and renewable energy should be emphasized more and should be an objective.
2. Demand for energy
  - These policies will not address the fundamental issues of constrained capacity, security and costs associated with energy in Yukon. There is a continued need to pursue other energy initiatives under the Energy Strategy.
3. Priority for Clean and Renewable Projects
  - Reword objective number 3 to say: "Prioritize local electrical resources that are cleaner and renewable."
  - Displacement of diesel generation should be emphasized.
4. Ownership
  - Concerns that these policies will lead to the privatization of utilities. Energy is seen as an essential service requiring care and public protection.



- Agree with private local investment in electricity infrastructure development.
5. Objectives Proposed
    - Objectives are reasonable but do not necessarily apply to both the IPP and NM. The policies should be separate with their own objectives.
    - Support for diversification of energy sources.
  6. First Nation Final Agreements
    - The discussion paper does not acknowledge commitments made under Chapter 22 of the Yukon First Nation Final Agreements or the impacts on First Nations.
  7. Innovation and Technology
    - Include the expansion of research and technology of new energy production as an objective.

## Policy Issues

### Eligible Energy Sources

The discussion paper noted that most IPP and NM policies and programs in other jurisdictions promote clean, renewable or alternate sources of electricity. It also advised that natural gas could be considered a clean energy source if it is replacing diesel. Combined heat and power (cogeneration) could also be an eligible energy source as it improves efficiency by making use of waste heat.

Themes that emerged regarding eligible energy sources included:

1. Clean Energy Sources
  - Clean energy needs to be defined.
  - Clean and environmentally sustainable sources (namely hydro, wind, biomass, solar, run-of-river, cogeneration, and geothermal) should be considered. Accessibility and feasibility of these sources also needs to be considered.
  - Ideally, sources should be carbon-neutral. Should avoid purchase of electricity from diesel, coal or natural gas IPPs.
  - At the same time, Yukon needs to look at the net environmental footprint. Some non-renewables (e.g.) may be appropriate depending on current technology, which continues to evolve rapidly, around reducing emissions. May need to consider non-renewables if the processes displace existing combustion sources with more efficient ones.
2. Criteria
  - Environmental assessments should be required of projects and the footprint be considered (e.g. distance of transmission lines required).
  - Whatever the source, the energy still needs to be reliable and the proper technology in place.
  - Specific qualification guidelines, including technological standards, need to be established.
  - Certification should be required of developers to ensure electrical purchases are from acceptable sources.



### Size of Electricity Projects

The discussion paper noted that IPP/NM projects are typically small relative to the total generation capacity of the entire system. NM customers have much smaller systems that contribute less electricity to the grid than IPPs.

Themes that emerged from the comments received on the size of electricity projects were as follows:

1. Size limits
  - The suggested restrictions are too limiting. They do not allow for a diversity of operations. Economics will determine the viability of projects.
  - Size should be determined on a case-by-case basis and is dependent on the reliability and continuity of power generation, the technology available and the ecological footprint.
  - Environmental assessments should be required of projects of a certain size.
  - Demand should be established before limits are set.
2. System-wide caps
  - A system-wide limit is an option but needs to consider economies of scale, current/future demand, proximity to load, proximity to grid, projected line losses, single vs. three phase power generation, utility-planned generation projects, installed vs. available capacity from an IPP, and the capacity of existing transmission and distribution infrastructure.
3. Suggested Net-metering limits
  - Common suggested limits for NM ranged from 5kW to 50kW for residential and up to 100kW for commercial, with a system-wide limit proposed at 500kW.
4. IPP
  - IPPs should only move forward if it is the most cost-effective alternative.
  - There are concerns that setting a system-wide limit for IPP will result in only 2 or 3 large projects and will delay the displacement of diesel generation in the communities.
  - Common suggested limits for IPP ranged from 50kW to 5MW.

### Connecting to the Grid

The discussion paper acknowledged the need for the projects to connect to the electrical grid and for some projects to work off-grid. Policies, programs and interconnection agreements and standards can be used to establish a streamlined approval process for IPP/NM.

Themes that emerged from the responses regarding connecting to the grid include:

1. Safety and technological standards
  - Interconnection standards are essential to protect utility workers, electrical infrastructure and households.
2. Export of power



- The issue of power exports is not adequately addressed in the discussion paper.
  - Should consider the possibility of connecting to the southern grid or at least prepare for that possibility.
  - This could be a potential economic activity for Yukon if local needs are met.
3. Costs to connect to the grid
    - Grid connection should be streamlined, standardized and cost-effective.
  4. Net-metering
    - Territory-wide interconnections standards and a universal interconnection agreement should be developed jointly by utilities and approved by the YUB for NM.
    - Will need to look at who will install meters, whether there should be a separate meter for both input and output, and whether the NM customer will need to use the energy before selling to the grid.
  5. IPP
    - Interconnection and operational standards would need to be met and an interconnection agreement would be required.
    - Utility may need to install extension power lines and connection equipment to ensure safety within set timelines.

### **Financial Arrangements**

The Discussion paper noted that the economic feasibility of IPP/NM will determine the number of projects that are developed. The financial arrangements should reflect the costs of producing the electricity and the value of the power.

Themes that emerged from the comments received around financial arrangements included:

1. Differential Rates
  - Should consider a differential rate for different technologies based on various factors including: clean or green energy, the time of year power is produced, emissions, ecological footprint, and First Nation participation.
  - Customers should have the option to pay more for clean/green energy.
2. Government subsidization
  - Do not necessarily need to subsidize NM/IPPs but should look at grants, incentives, and other supportive programs.
  - There should be some assistance for the planning phase of projects.
3. Incentives
  - Incentives should be higher for diesel powered communities and projects using clean energy resources. Some jurisdictions provide incentives to projects whose ownership includes local communities and First Nations.
4. Net-metering
  - The lowest rate for Net-metering power should be the retail rate.



- Government or the utility should pay for the meter. All other costs should be borne by the customer. There should be no financial support for net-metering.

5. IPP

- Rates have to be acceptable to the consumer and attractive to the IPP.
- Should establish long term power purchase agreements (20 to 40 year terms suggested) with minimum purchase.
- Utilities should not have to enter into an agreement with IPP if additional energy is not required.
- Costs associated with meeting the standards should be the responsibility of the IPP.

### Policy Framework

The Discussion paper states that the Yukon's existing legislative and policy framework will shape any IPP and NM policies for the territory. A 'made in Yukon' approach to the policy development will be essential.

IPP and NM could be addressed in a single policy, or in separate ones. The policy options include legislation, regulations, orders-in-council, policies, programs and/or agreements. A wide range is used in other jurisdictions.

Comments received on the policy framework noted:

1. Regulatory burden
  - The process should not be onerous.
  - In other jurisdictions it can take years to obtain the proper permitting. Need to ensure a Yukon process is streamlined and coordinated.
2. Policy tools
  - Policy direction should come from the government to the YUB who then directs the utilities.
  - Should be based on the experience of other jurisdictions. There is no need to reinvent the wheel.
  - There should be a fair and transparent process in place. There should be standard published information packages, applications forms, and agreements. All interested businesses including First Nations and their Development Corporations should be aware of these development opportunities.
3. Separate or joint policy on IPP/NM
  - These are two separate initiatives. The policies should be separate, which will allow government to cancel or amend one program without unforeseen impacts on the other.

### Roles and Responsibilities

The discussion paper highlighted that while the Yukon government is taking a lead role in the development of IPP/NM policies, it does not necessarily have a role in the implementation of the policies. The policies will need to specify who will be responsible for implementing IPP and NM.

Comments received on roles and responsibilities include:



1. Yukon government
  - YG sets the policy direction that allows IPP/Net-metering to exist.
  - YG is responsible for ensuring the process is accountable and transparent.
  - YG needs to keep roles and responsibilities of those involved clear if these policies are to succeed.
  - YG is responsible for ensuring approvals and permitting from different bodies is streamlined.
2. YUB
  - YUB should be the primary regulator for IPPs. It should approve the terms and conditions for customer connection and rates charged.
  - YUB should determine territorial long-term transmission needs.
3. Utilities
  - Utilities should develop technical standards and operational policies.
  - No large utility should be allowed to become an IPP in Yukon.
4. Other governments
  - There is an opportunity for partnerships with First Nations and municipalities on IPPs that will help provide sustainable power.
  - There should be clarification of opportunities for First Nations and their development corporations.
5. Independent agency
  - Should consider independent agency to establish green criteria.





## Next Steps

The Government of Yukon, working with the utilities, will assess thoroughly the comments provided. These comments, along with cross-jurisdictional and best practices research will inform us as we draft the policies. These policies will be brought back to the public for review and comment in the coming months. In the mean time, the government continues to invite stakeholders, experts and members of the public to become involved in the process and provide comments.

Comments may be directed to:

Email

[energystrategy@gov.yk.ca](mailto:energystrategy@gov.yk.ca)

Fax

(867) 667-8601

Phone

(867) 456-6843

Mail

Corporate Policy and Planning (K-6)  
Energy, Mines and Resources  
Government of Yukon  
Box 2703, Whitehorse, Yukon Y1A  
2C6

In Person

Corporate Policy and Planning  
#400 – 211 Main Street (Shoppers  
Plaza), Whitehorse

