Independent Power Production Policy

What we heard during the public review process on the draft policy

October 2015



Yukon Government

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Table of Contents

Executive Summary 4

Introduction 5

Background 5

Engagement Process 5

Feedback Profile 5

What We Heard 6

General Comments 6

Engagement Process 6

Eligible Energy Sources 7

Renewables *7*

Liquefied Natural Gas (LNG) *7*

Other Eligible Energy Sources *7*

Reliability and Storage *8*

Rates 8

Size of Electricity Projects 9

Implementation 10

Tier 1 Concerns 10

Tier 2 Concerns 10

Role of the Utilities 11

Contract and Financing Concerns 11

Assessment, Licensing and Regulation 12

First Nation Involvement 13

Other Comments and Concerns 13

Next Steps 14

Appendix I: Organizations Contacted During the Public Review 15

Appendix 2: Question Form Distributed as Part of Engagement. 16

Executive Summary

The Government of Yukon (YG)'s Independent Power Production policy seeks to provide a comprehensive, thoughtful and innovative approach to managing independent power production for Yukon. The draft policy includes goals and objectives of independent power production and proposes system-wide capacity limits, eligible energy sources, rates, guiding principles and roles and responsibilities for YG, the utilities, the Yukon Utilities Board and independent producers.

This summary of themes from more than 50 responses to the public engagement process includes several ideas with respect to eligible energy sources including a preference for renewable sources, disapproval of liquefied natural gas, and the need for reliability. There were suggestions for ways to adjust and set rates and varying opinions about the proposed rates. Some suggested that proposed project limits were too small and had ideas for ways to set higher limits. Many expressed concerns about the assessment of Tier 2 projects and expressed ideas about the role of the utilities in the proposed project evaluation process. There were numerous other ideas about assessment (and permitting), as well as concerns about potential contract specifications. Several aspects of the role of First Nations in project development arose. Notions were also expressed about aspects of power production that clearly fall outside the scope of the policy.

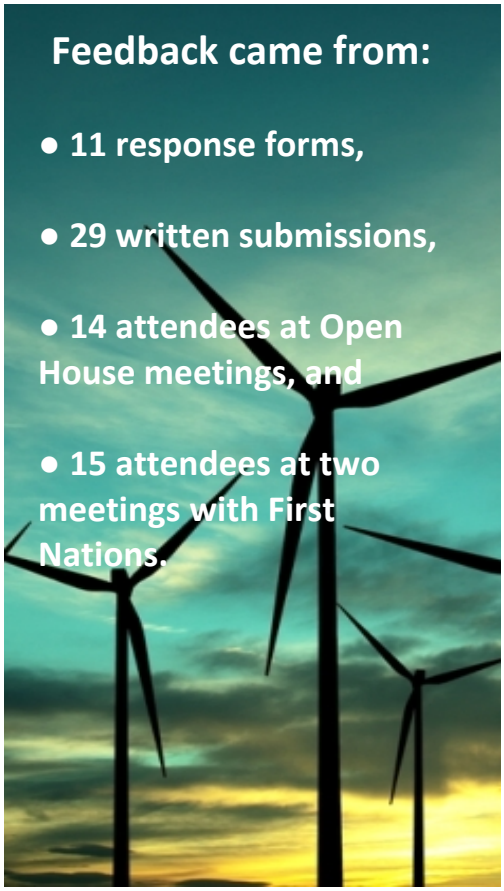
This document describes these themed responses and will inform the final iteration of the Independent Power Production Policy for Yukon.

Introduction

Background

The Government of Yukon (YG) is producing an Independent Power Production policy to meet a commitment in the 2009 *Energy Strategy for Yukon*. The goal was to achieve a comprehensive, thoughtful and innovative approach to managing independent power production that would make sense for Yukon.

The draft policy describes the government's scope, goals and objectives, as it works to enable independent power production in Yukon. The draft policy proposes system-wide capacity limits, eligible energy sources, rates, and roles and responsibilities for YG, the utilities, the Yukon Utilities Board and independent producers.



Engagement Process

On May 22nd, 2014, YG announced the release of the Draft *Independent Power Production Policy (IPP)* for public review. The public review period of 60 days ended on July 25th, 2014. Upon request, the review period was extended and all comments and meetings were accepted until the end of August 2014. This resulted in a 100-day-review period.

Feedback was solicited through a news release, direct communication with key stakeholders, targeted mail-outs (see Appendix 1), and advertisements in local newspapers and on the Energy, Mines and Resources (EMR) website. A series of questions with respect to prospective policy issues was distributed (see Appendix 2) with targeted mail outs and was posted on the EMR website.

This document describes the engagement process and summarizes all the feedback received during the public review of the Draft *Independent Power Production Policy*. The feedback is organized according to themes that emerged during the engagement process.

Feedback Profile

A total of 56 submissions were received via e-mail, mail and in person. Responses were received from several prospective independent power producers, members of the Yukon Legislative Assembly, the City of Whitehorse and other municipalities, non-government environmental organizations, the research community, consultants, industrial users and individuals.

The question form (Appendix 2) was completed by 11 respondents. The remainder of written feedback was received in letter format, informal notes or e-mails.

EMR staff had a chance to meet and talk with 14 people who attended a public open house on June 25, 2014. That Whitehorse event was upbeat and attendees were engaged and positive. Energy and policy branch staff members met separately with First Nation representatives in July 2014. The policy was presented and YG staff fielded questions on key issues and priorities.

What We Heard

General Comments

Several survey respondents remarked on the policy being timely and progressive, facilitating more effective use of the grid and strengthening it by providing back-up (with distributed) power sources. Some other comments regarding policy scope and objectives included:

- The draft policy is too narrowly scoped and too vague. It should be based on existing, more broadly scoped and deeply detailed policies from other jurisdictions, such as B.C.
- The policy's narrow scope will prevent a true cost-benefit analysis of renewable energy versus fossil fuel based projects.

> ***"This provides a great opportunity for YG to affect the economic future of Yukon for decades to come, by encouraging renewable energy solutions."***

- The policy places undue emphasis on managing risks rather than creating incentives and opportunities. "Increasing capacity" should be an objective.

We also heard:

- To ensure effective and timely results from an IPP Policy, a comprehensive implementation action plan needs to form an integral part of the initiative.

Engagement Process

The majority of the written feedback was in direct response to the content of the draft policy, but there were a few comments submitted with respect to the engagement process itself:

- The engagement should not have been held in the summer.
- The (initial engagement) period was too short.
- Ongoing dialogue with Yukon First Nations on this policy is appropriate.

Eligible Energy Sources

Renewables

In terms of numbers, there was a very strong (59 comments) preference for renewable sources to be the only eligible energy sources. Specific comments included:

- Renewable energy sources reduce the harmful environmental effects of power generation.
- Renewables provide more jobs (than non-renewable energy sources).
- The policy should emphasis conservation (i.e. Demand Side Management).
- The policy should recognize the importance of using local resources.
- It is especially important to develop projects (with renewables) in communities that rely on diesel for electricity.
- If non-renewable energy sources were eligible, then YG would need to account for the social and environmental costs of the resulting greenhouse gases.

> ***"(Any) hydropower should only be purchased from projects that do not compromise fish and wildlife habitat or cause irreparable destruction or reduced productivity in Yukon watersheds."***

Liquefied Natural Gas (LNG)

Many comments were submitted specifically with respect to LNG being an eligible energy source for Tier 2 projects. A significant number of responses (38) expressed a strong caution or disapproval with the idea. Comments included:

- No petroleum (or coal based) fuels should be allowed, unless the project proponent is using all of the waste heat for heating or processing.
- If allowed, LNG projects should be limited in scope, size and timeline.
- If LNG is going be included, then it should only be allowed in co-heat and power projects and only local natural gas should be used.
- If LNG is allowed, then it should not be worth as much as renewable options.
- LNG can be eligible as long as it is part of a broader, mixed portfolio which includes conservation and renewable energy sources.

Other Eligible Energy Sources

Comments included:

- Landfill gases and new technologies and innovations should be considered as eligible energy sources.

- The policy should include independent producers of thermal energy and efficiency services; these offset the need for electricity, especially in the communities.

Reliability and Storage

Several submissions included the concern that the draft policy does not address the issue of reliability (of the eligible sources). Comments included:

- What is the definition of "reliable"?
- "Reliability" should be added to the list of policy priorities.

Comments with respect to the issue of storage included:

- Energy storage should be addressed in the policy to facilitate use of intermittent energy sources.
- The policy should provide an incentive for a reliability mechanism, such as independent power storage (which could be provided by a private agency).

> ***"This is an excellent opportunity for government to 'lead from behind' in nudging the private sector in some innovative directions- that would be true economic, energy-security and climate change policy leadership."***

Rates

There were several general comments about the proposed rates. They included:

- The rates seem fair.
- There should be no negative impact on Yukon electricity prices, no matter what the cost to the utilities.
- IPP rates should reflect the seasonality and/or timing of the electrical load.
- Provide incentives for meeting load demand (in terms of timing) or simply have variable rates.
- Suggestions for ways to adjust the rates over time to reflect changing markets and inflation included:
    - escalating the rates annually,
    - revisiting the rates every two to three years,
    - indexing the rates to Yukon CPI,
    - providing pre-payment for annual production,
    - increasing payments in the projects' initial years of production and reducing them later on,
    - providing low interest loans, or
    - providing an allowance for network upgrades and interconnection if the rates are fixed.
- Time constraints for reviewing rates are not needed since, for Tier 2, producers would apply for rates and increases or decreases to those rates.
- There should be special pricing for off-grid scenarios and the inclusion of requirements for technological maturity and cold climate operation experience. Contract duration would also correspond to the type certification of a given technology.

- For non-renewable projects there should be a provision for an increase to rates based on the higher cost of the source fuel.
- There could be a "green energy" price available for consumers who choose renewable energy sources.
- Rates should be based not on the avoided cost of new supply, but rather derived from a competitive bidding process.

Some felt that rates were too low. Comments included:

- The proposed low rates were influenced by the utilities and the calculation for avoided cost of new supply was not transparent.
- The cost of LNG was used as part of the calculation for the avoided cost of new supply and therefore lowered the IPP rate.
- Energy costs are highly subsidized. This obscures the real value of energy and the real cost calculation should include environmental as well as financial components.

Others thought rates were too high. Comments included:

- Lower the proposed Tier 1 rates; Tier 1 power should be priced high enough to encourage some small scale alternative energy production, but low enough to avoid the problems that have arisen in other jurisdictions, where established producers are expected to provide base and peak load power, when the small scale producers are off-line.

Size of Electricity Projects

Several people suggested that the project size limits were low. Comments included:

- The proposed policy incorporates an unreasonable and irrational limit on potential IPP project size.
- The system wide limits for Tier 1 projects are too small because:
    - the electrical load growth projected by Yukon Energy will use up the entire proposed limit every one to two years, so it may make sense to set the initial limits higher in the first place
    - we need to improve the economics for development of alternative energy sources
    - the limit could be met with a single installation
    - we should make it easier for IPPs to get more distributed renewable energy on the grid (to displace fossil fuels)
    - the limit would preclude geothermal projects.
- Suggested ways to increase the Tier 1 limit included:
    - setting limits based on source (for example, wind or solar facilities without storage to enable constant output, should be more limited than other sources)
    - Tier 1 limits should be doubled, while intermittent sources should be limited to one third of the total

- setting the limit at 4 or 6 MW (on the integrated grid)
- setting the limit at 10 MW
- using an RFP process to evaluate the best projects based on present and anticipated electrical loads and remove limits until demand is met
- creating a provision in the policy to review limits every three years to allow for unforeseen increases in demand and development of new generation or distribution technologies

Implementation

Comments and questions included:

- There is a need for clarification on the capacity of total MW planned for procurement through a Power Purchase Agreement under Tier 2.
- Is the 2 MW limit for the standing offer program?
- Is the program over once that volume is met?
- Are the limits spread out over time?
- What factors would determine whether the system-wide limits may be reconsidered in the future?

> ***"The utilities should set out the need for new and replacement generation in what is commonly known as an integrated resource plan that would be approved, on a regular basis by the YUB."***

Tier 1 Concerns

Comments included:

- IPP projects should not be excluded in small diesel generation communities.
- There should be a separate policy for the diesel communities.
- There could be a three-tiered policy: one for small non-LNG based projects, one for communities that did not incorporate LNG and one for large projects that could include LNG.
- The communities (Old Crow, Beaver Creek, Destruction Bay/Burwash and Swift River) should be included in Tier 1. The case-by-case approach is *ad hoc,* and the standing offer program should be scaled to support development of local renewable energies in these communities.
- Watson Lake should not be included in Tier 1 because the electrical demand for that community is too small, and the cost of establishing and maintaining the program would be too high, relative to the amount of power that would be supplied. An alternative would be a feed-in tariff, to encourage small scale generation (i.e. home solar panels).

Tier 2 Concerns

Comments and questions included:

- Case-by-case evaluation is covert, as it would not be transparent and accountable.
- The case-by-case evaluation would be best if LNG was not included as an eligible resource.
- What is meant by "designated Tier 2 projects to be regulated under the PUA, where appropriate"?
- An RFP process would make a good alternative to the case-by-case approach as it would allow the private sector and Yukon First Nations to be more competitive.
- Two Yukon First Nations commented that since utilities often submit electricity purchase agreements from unsolicited proposals to regulators on a confidential basis, FNs have no way of determining whether their generating project would have been a better alternative. Instead, if there is a need for new or replacement supplies of electricity there should be a competitive call with electricity purchase and interconnection agreements that have also received advance approval by the YUB. First Nation generating projects should be given a preference in this competitive call.

Role of the Utilities

Many respondents (17) expressed a lack of trust in the utilities, suggesting that project evaluations were likely to be biased in favour of the utilities' best interests, rather than protection of consumers and encouragement of independent producers. Comments included:

- There could be an independent multi-stakeholder (agency, board, or commission) to evaluate and permit IPP applications.
- The utilities should make best efforts to negotiate and collaborate in good faith with IPP proponents.
- For Tier 2 projects, the utilities should be prepared to make substantial investments in infrastructure where costs and risks of the new generation are largely assumed by the IPP.
- Costs of infrastructure upgrades should be shared between utilities and IPP's to facilitate IPP development.
- The policy should require the utilities to provide current data on energy supply requirements and forecasts.
- YDC should be required to share any information they may have on power project development.

Contract and Financing Concerns

Comments included:

- The proposed contract term is ambiguous.
- Three years is too short. Contract terms should be a minimum of twenty years to enable debt amortization and reasonable financing.

- Longer-term contracts (i.e. 1 to 10, 1 to 20 or 1 to 40 years) should be offered depending on investment size. The policy should not infer unspecified conditions regarding the "Interconnection Agreement and Agreement to Purchase Power Principles".
- If an IPP using LNG gets a contract, the length of the contract should be tied to the project's rationale.
- The life expectancy and reliability of a project should be considered when determining the length of the contract.
- Financing renewable energy projects is different than financing fossil fuel based projects.
- There should be a requirement for long-term contracts associated with the IPP policy.
- The terms and conditions of interconnection and power purchase agreements should be acceptable to financial institutions.
- With respect to proponents' abilities to secure financing for their projects, the policy needs more detail about:
  - the RFP process,
  - the unsolicited proposal process,
  - the timing of the Power Purchase Agreement,
  - the provision related to suspending Power Purchase Agreements,
  - the timing and availability of forecasts of capacity and energy requirements, and
  - the availability of funding for capital versus operating costs.
- The policy should be clear on the financing of regulatory hearings associated with IPP projects.

Assessment, Licensing and Regulation

Comments included:

- Yukon's assessment, licensing and regulation agencies are unprepared for IPP projects, and would be unable to properly consider the potential cumulative effects.
- How will IPP projects be effectively managed to protect land and water in traditional territories?
- Language should be included that speaks to First Nation government regulatory requirements for IPP projects.
- A case-by-case assessment/approval basis for Tier 2 projects will not include an assessment of cumulative social and environmental impacts of projects and therefore would not embrace the overall goals of the Energy Strategy.

> ***"Our biggest concern relates to assessment, licensing and regulation of IPPs, especially run-of river (ROR) hydro projects. Poorly designed ROR projects kill fish and damage or destroy fish habitat, including salmon spawning grounds. This makes stakes incredibly high for Yukon First Nations."***

- YESAB and the Water Board have the expertise to determine whether a site is appropriate, and whether adverse impacts can be effectively mitigated. How will they address the cumulative effects of multiple projects within a single watershed? Adding run-of river IPPs to the mix would increase overall environmental risks and further complicate YESAB's efforts to assess cumulative effects.

- The Minister's role should be clear in issuing (project and operating) certificates for energy projects.

First Nation Involvement

There were suggestions that First Nations should have been consulted separately in this engagement process. Another theme that arose during this review process had to do with preserving and interpreting treaty rights, specifically the clause of Chapter 22 (i.e. Umbrella Final Agreement) allocating 25% First Nation ownership of government energy projects.

The following are specific comments about First Nation involvement in power production:

- The policy should ensure that IPP project benefits accrue to First Nations whenever projects occur in the Traditional Territories.

- There should be an obligation for independent producers to consult with First Nations and encourage their participation in power projects. (The policy needs to define *encouragement*.)

- There should be a requirement for appropriate consultation with First Nations on any proposed IPP project.

- Language should be included in the policy that identifies Final Agreement obligations to potential IPPs.

- All IPP proposals submitted to the Standing Offer Program or the utilities through any other process must include Yukon First Nation participation and provide information sufficient to verify this or provide proof demonstrating consultation efforts and why a First Nation in the application Settlement Land declined to exercise investment, business or other employment opportunities.

- Projects that include Yukon First Nation participation should be favoured.

- Yukon First Nations have considerable potential to contribute to Yukon's renewable energy supply goals.

Other Comments and Concerns

A number of submitted comments do not fit within the policy's current structure but may be considered in developing the final policy. These include:

Connection to other grids

- The Yukon Integrated System should be connected to either the North American grid or to Skagway's power.

Industrial Facilities

- The policy should support the purchase of excess power from industrial facilities (a portion of total generating capacity), as well as incremental expansion of industrial cogeneration facilities. If this were done, the rate and conditions would have to look different than for other independent power production projects.
- The policy should support projects designed to sell electricity (directly or via the utilities) to commercial or industrial customers who are not connected to the grid.

Next Steps

The ideas, questions and suggestions received during the engagement process have been summarized within this report and were used to inform the final version of the policy.

Appendix I: Organizations Contacted During the Public Review

Municipalities

Association of Yukon Communities
City of Whitehorse
City of Dawson
The Hamlet of Mount Lorne
The Village of Carmacks
The Village of Haines Junction
The Village of Mayo
The Village of Teslin
Town of Faro
Town of Watson Lake

Yukon First Nations

Council of Yukon First Nations
Carcross/Tagish First Nation
Champagne and Aishihik First Nations
Kluane First Nation
Kwanlin Dün First Nation
Liard First Nation
Little Salmon/Carmacks First Nation
First Nation of Na-Cho Nyäk Dun
Ross River Dena Council
Selkirk First Nation
Ta'an Kwäch'än Council
Teslin Tlingit Council
Tr'ondëk Hwëch'in
Vuntut Gwitchin First Nation
White River First Nation

Others

JP Pinard Consulting
Leading Edge Projects Inc.
Marsh Lake Local Advisory Council
New Era Engineering
Sea Breeze Power Corp.
South Klondike Local Advisory Council
Tagish Local Advisory Council
The Hamlet of Ibex Valley
Utilities Consumers' Group
Whitehorse Chamber of Commerce
Yukon Chamber of Commerce
Yukon Chamber of Mines
Yukon Conservation Society
Yukon Electrical Company Limited
Yukon Energy Corporation (YEC)
Yukon Utilities Board (YUB)

Appendix 2: Question Form Distributed as Part of Engagement.

1. For Tier 1 level projects, only renewable energy projects are allowed. Tier 2 projects allow for renewable and technologies than can offset diesel generation with lower air emissions, as discussed in the 2009 *Energy Strategy for Yukon*. These include renewable resources (wind, hydroelectric, biomass, solar) and non-renewable resources (natural gas).

Do you agree with the energy sources proposed through the draft Independent Power Production Policy?

_____
_____
_____
_____

Do you think that there are other energy sources that should be allowed through this policy?

_____
_____
_____
_____

2. The draft policy foresees independent power producers contributing a relatively small portion of energy to Yukon's energy system. There are proposed size limits (see page 5). These limits have been created so that small independent power producers can integrate readily with existing power systems without compromising the territory's electrical grid.

If you do not agree with our rationale for setting power contribution limits or with the limits that have been set, please explain why.

_____
_____
_____
_____

Do you have suggestions for other ways to structure these size limits?

_____
_____
_____

If you do not agree with the proposed limits, can you suggest alternative limits and provide a rationale for them?

_____
_____
_____
_____

3. We have set the rates for proposed standing offers according to the current avoided cost of electrical generation. In other words, producers will be compensated according to the estimated cost of producing power from new utility-developed generation projects. What are your thoughts on the rates proposed in the draft policy?

_____
_____
_____
_____

If you do not agree with the rates proposed here, can you provide an alternative and a rationale for it?

_____
_____
_____
_____

What other factors or criteria should be considered when setting the rates for standing offers?

_____
_____
_____

4. The suggested length of the independent power producer's contract is set based on its financial stability, reliability and life expectancy of the power source and associated risks. Are there other factors that should be considered when setting the length of a contract?

_____
_____
_____

5. As you can see in the discussion documents, Tier 2 projects are either: a) projects that are bigger than those with the Tier 1 limits or b) any systems installed in the four smaller isolated communities (Old Crow, Beaver Creek, Destruction Bay/Burwash Landing and Swift River). Tier 2 projects will be assessed on a case-by-case basis by the utilities (Yukon Energy Corporation and Yukon Electrical Company Limited) and an Agreement to Purchase Power will require approval by the Yukon Utilities Board.
Do you have any specific concerns with the case-by-case evaluation and review of the Tier 2 IPP projects?

_____
_____
_____
_____

6. Yukon has a relatively small electrical grid that is not connected to the continental (North American) grid so the option of importing electricity when we need it is not available. We will soon need more electricity to support economic and population growth and our public utilities will need to meet a demand for reliable, affordable and clean electrical energy.

The *Energy Strategy for Yukon* (2009) proposed several solutions which this government is now implementing. One solution is the Micro-generation Policy which gives Yukon residents a chance to offset their electrical consumption by connecting renewable energy technologies to their homes or businesses while remaining connected to Yukon's electrical distribution system. Any excess energy produced by their renewable energy systems can be exported to the grid for compensation. Other than this Micro-generation Policy and the proposed IPP Policy, can you suggest other solutions to meet the challenge to increase available energy in Yukon?

_____
_____
_____
_____

Please use this space for any other comments or concerns on the draft Independent Power Production Policy.

_____
_____
_____
_____
_____

Next Steps *By participating in this public consultation process, you agree that YG may publish your comments and disclose any personal information these comments contain.*

The purpose for collecting your comments is to improve the draft Independent Power Production Policy and to create and publish a "What We Heard" summary document.

Please submit your contact information here:
Name _____
Address _____
Phone _____
If you have any questions about why were are collecting this information, please call 867-393-7148 or 1-800-661-0408, ext. 7148