

# Yukon Energy

## 2016 Resource Plan

### Technical Advisory Committee

## Meeting 1

### 11 September, 2015

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Yukon Energy's Resource Planning Technical Advisory Committee is a group of Yukoners that was formed to give input to Yukon Energy during the development of their 2016 Integrated Resource Plan. This was the first meeting of the Technical Advisory committee, with the discussion focused on the forecasting economic activity that would affect growth of electrical consumption. Questions and topics that were raised during the meeting, but will be addressed in following committee meetings are noted.

#### Discussion Points

- Introductions and review of Chatham House Rules, Non-disclosure Agreement and Terms of Reference.
- Question regarding Technical Advisory Committee meeting notes being posted in website. The notes will be very high-level and reviewed by the members of the TAC before being posted in the site.
- Review of the role of the utilities board and how the regulatory process of the IRP is envisioned. Difference between an IRP and a GRA.
- Question regarding how varied inflows to our hydro system will be taken into account – we plan for average inflows
- Question regarding how YEC will define affordable and reliable – to be addressed in a following meeting
- Explanation of the N-1 system requirements and Loss of Load Expectations (LoLE)
- Comment regarding soliciting public's values as opposed to specific technology – there is no one single public and there will be a wide range of values.
- Distinction between a run of river hydro as compared to hydro with storage
- Importance of government policy in bringing forward a plan that is the best for the Yukon, not necessarily the cheapest possible option. How an Order in Council would work.
- Question regarding how much this group can stretch beyond simply finding the cheapest energy option for the Yukon? Group should be optimistic and bring forward leading ideas that they think are the best options for the Yukon.
- Introduction of the concept of the social cost of carbon – to be addressed in a following meeting

- Book recommendation: Aboriginal Power. Re: First Nations partnerships, consultation and engagement
- Partnership opportunity: Water Forum (Feb 2016) and Resource Council Forums
- Ensuring that the public engagement survey regarding energy related values does not frame the conversation in a way that would bias the survey results but allows themes to be drawn out. Example: questions that reinforce the assumption that renewable energy is the most costly. Surveys should be accompanied by information and education needed to properly complete the survey– to be addressed in a following meeting.
- Question regarding how much the load forecast and plan is trying to predict future government policy – only those policies that have been announced for the near term, such as the Independent Power Producers Policy will be addressed.
- Questions regarding how we are looking at fuel switching in the load forecast – it will be addressed by the Statistically Adjusted End Use Model.
- The number of jobs associated with a certain amount of economic activity for specific industries can differ hugely – for example, oil and gas is not very labour intensive in comparison to forestry.
- Introduction of the concept of a generic mining load in the forecast to represent the mining potential in the territory as is done in BC. Concern regarding the mining activity dropping off at the end of the forecast period and the effects that would have in the portfolio analysis.
- Considering a boom and bust cycle in mining activity as part of the load scenarios
- Overall global outlook that mining activity and commodity prices will grow more slowly in the future.
- Check in on the current list of major economic drivers and if it was complete. Currently included government spending/federal transfer payments, global commodity prices/mining activity, transition of the college to a university and industries such as tourism, forestry and agriculture.
- Transition from college to university is not expected to result in a large population growth in the next 20 years.
- The shift in demographics should be considered with respect to older population staying in the territory, requiring more health care and moving into different housing stock.
- Government programs and grants outside existing transfer payments including northern sovereignty projects such as military base, deep sea port, twinning of fiber optic connection, research projects from NSERC or NRCan. Minimal capital influx expected in the near term
- Other projects in the private sector such as a pellet factory, increased agricultural production, oil and gas development
- Electrification of agriculture and forestry as they grow and rate structure/ government policies that would drive electrification.
- Potential change in growth of federal transfer payments. Group felt that the transfer payments would grow with inflation, i.e. no growth in real terms is expected.
- First Nation government investment potential
- Consideration of people moving here as a lifestyle choice and refugees
- Capacity of existing infrastructure and services to handle a large mining boom
- Group surveyed and chose the medium mining scenario as the best to use for base case

- Clarification that the econometric model being discussed looks at the load resulting from economic activity, not the actual connection and direct electrical service to mines.
- Importance of being able to service mining loads with renewably produced electricity to reduce GHG emissions
- Discussion of how the load forecasting exercise would or would not affect the portfolio analysis in resulting in a thermal generation heavy action plan and the stage at which the TAC would be able to discuss issue– to be addressed in a following meeting.