THE CONSULTATION CHALLENGE IN SMALL REMOTE NORTHERN COMMUNITIES

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Abstract

There is a strong necessity for nuclear power project proponents to begin consultation with community leaders at the concept design stage as the first step in a licensing process. The paper discusses the physical and social challenges of reliable and environmentally sound electricity generation in remote northern Aboriginal communities in Canada. There are several hundred remote communities in the boreal region and throughout the Arctic. Electrical energy requirements are usually a few megawatts. Access to some Arctic remote communities is by air and small water craft only, except when winters are cold enough for winter roads to be constructed for a few weeks each year. These communities, as well as new mining operations and their camp communities, provide a market segment for very small reactors. However, there are social acceptance hurdles to be addressed, as well as the legal requirement at all government levels of the duty to consult. Trust-building is a must when working with First Nations, Metis, and Inuit communities, and this requires community presence of the project developers long before proposals for new generation facilities are presented for license approval. Input from communities and other stakeholders is a vital part of the licensing process. Community members need to feel comfortable with the project proponents as well as the project itself. In some cases a project is rejected because the community council or development corporation feels left out of economic benefits that might be obtained through a negotiation process.

1. Introduction

I need to say at the outset that this paper is about my personal perceptions of where the consultation challenge stands in societies and communities of the Canadian North. These perceptions have arisen during my 21 years of living and working in northern communities. During this time, I worked under the direct influence of federal, provincial, territorial, and community governments. I also interacted with many representatives of resource companies, service companies, and research organizations.

During an earlier private conversation Peter Lang of Dunedin Energy Systems Limited commented on “earning the social licence for small reactors in the North.” This is important. We need to earn the trust of northern communities for small reactors, and never take it for granted. The term *social licence* has been defined as: “the existence (for any given project or economic operation) of society’s moral and political approval, sufficiently widespread and stable to allow legal approvals to proceed and to assure ongoing community support.” [1]

Whenever an energy project, or any other industrial project for that matter, is contemplated for a community location, consultation should begin at the very beginning of the design process. Although this advice is becoming more acceptable than was the norm of the near past, it is still

often overlooked or not considered of sufficient importance. A disgruntled community because of lack of face to face consultation can cause the licensing and approval process to be extended for an unacceptable lengthy period or, even worse, can cause project cancellation for alleged environmental impacts that do not actually apply to the project to the extent claimed.

For example, I think everyone remembers the Berger report in the late 1970s concerning the Mackenzie Valley Pipeline Inquiry that caused a fatal delay to the Mackenzie Valley Pipeline. In a personal conversation about 15 years ago, a prominent Aboriginal leader in the NWT told me that the opposition of the indigenous populations to the project back in Berger's day was really because of a lack of their involvement as stakeholders in such a major project crossing their lands. The emphasis on environmental, wildlife, and social impacts were considered necessary therefore to make sure the project did not move forward in its proposed form. Then we fast-forward to 2003 when the Aboriginal Pipeline Group became full participants in a new Mackenzie Gas Pipeline project that has fallen by the wayside due to economic rather than social or environmental causes. In retrospect the Mackenzie Pipeline may have been constructed in the 1980s had an earlier group of Aboriginal partners been recognized as full partners in the consultation process of the day.

I was personally witness to the attitude that used to prevail from time to time after I presented a paper entitled "Socio-Economic Impacts Between the Nuclear Industry and Aboriginal People," at the 1996 CNS Conference [2]. After my presentation and at intermission an engineer came up to me visibly angry and accused me of not being on the side of the mining industry. Of course, that was not the case, I was simply trying to point out how, through community trust-building, projects could be brought forward in a more timely and socially acceptable manner, which in turn would reduce start-up costs for proponents. But that was the perception back then – that companies simply had only to abide by a legal framework and then get to work building and operating their projects, with consultation often simply taking the form of informing the communities concerned once projects were ready for construction at a specific site.

The paper goes on to explore the physical and social challenges of reliable and environmentally sound electricity generation in remote northern Aboriginal communities in Canada, following on from my presentation on "Distributed Generation in Small Remote Northern Communities" at the 2012 Western Focus Seminar - Education of the 2012 CNS Conference [3]. There are several hundred remote communities in the boreal region and throughout the Arctic. Finally, social acceptance and the duty to consult are discussed.

2. Physical and Social Challenges for Distributed Generation

Most of Canada's north country is boreal forest and tundra. Nunavut is primarily characterised by tundra with marginal areas of boreal forest. The boreal region of Canada covers most of the northern regions of the provinces, and parts of Yukon and Northwest Territories NWT), and also follows the Mackenzie River north to the Beaufort Sea. There are more than eight hundred remote communities north of 55 Degrees Latitude in boreal and Arctic regions. These communities are characterized by rugged terrain and few roads, other than roads to mine sites. Access to many northern communities is by air and small water craft only. Heading north, sporadic permafrost in the subarctic gradually leads to continuous permafrost north of the Arctic Circle. Warming permafrost has become a lead cause of foundation instability for infrastructure

and permafrost engineering has become a very important discipline in the North, as industry and communities struggle to build and maintain stable infrastructure. The Canadian Standards Association (CSA) has announced discussion on a new "Standard Addressing Permafrost Degradation on Existing Infrastructure in Canada's Far North" (See: http://www.csagroup.org/de/en/csa-group-news/news-releases/news/permafrost-degradation-in-canada-far-north-available-for-review (accessed Oct 06, 2014)). And CSA announced the publication of *CSA S500 Buildings in Permafrost Supported on Thermosyphon Foundations* in mid September 2014.

The remote northern communities are usually less that 1000 population with total energy requirements of one to a few megawatts. Mining operations usually require tens of megawatts to be generated on site. Energy conservation in housing, and electrical efficiency of equipment and appliances, are becoming of considerable importance. Combined heat and power (CHP), commonly referred to as cogeneration, including heating of buildings adjacent to the power plant, is often practice at mine sites and feasibility studies of CHP are being conducted in many northern jurisdictions to reduce overall costs of electrical and thermal energy in small communities. Any proponent of a small reactor installation in a remote community should seek ways of marketing the "waste" thermal energy produced by the power plant for building heat, greenhouse operation, etc.

In remote locations, the use of solar and wind energy is maximized, in order to promote self sufficiency and get away from fossil fuels that cause CO2 emissions. Community support for renewable energy sources is high in the North, as evidenced by the work of the Arctic Energy Alliance in the NWT. For this reason, small nuclear reactors or nuclear batteries should be introduced in terms of superior socio-economic benefits without encouraging argument as to specific weaknesses of renewable energy sources. As much as possible, we need the support of the broad-based renewable energy community to be successful as an industry.

Yukon produces a considerable amount of its electricity through hydropower (76.7 MW in total) serving Whitehorse, Aishihik, Mayo, and Fish Lake. One 0.8 MW wind turbine facility operates at Whitehorse. This wind turbine unit has also been used for research purposes to study blade icing and other cold weather operating challenges. Fifteen communities are supplied with diesel plant capacities ranging from 0.2 to 25.0 MW.

There is heavy dependence on diesel power generation in northern communities. For example, 100% of electrical generation in Nunavut is through diesel powered generators. The NWT produces a considerable amount of its electricity through hydropower (50MW in total) supplying Yellowknife, Dettah, Behchoko, Hay River, Hay River Reserve, Fort Resolution, Enterprise, and Fort Smith (also including a considerable amount of backup diesel electric capacity). Other thermal capacities for 19 small communities (diesel and natural gas in Inuvik) range from 1.0 to 11.3 MW. Inuvik natural gas and Norman Wells supply from ESSO face an uncertain future. It is not uncommon for diesel to cost in excess of $2.00 per litre at remote sites, and for electrical energy to cost well in excess of $1.00 per kWh. From an economic perspective, these mines and communities represent a prospective market niche for nuclear batteries.

Residents of remote northern communities have learned to survive for generations, although their survival skills have often been eroded by government handouts and politically-motivated

programs that do not encourage self-sufficiency [4]. There is a considerable amount of dependency on outside goods and services for survival [5]. The social realities of survival build a level of distrust for southern influence and technology in the minds of long term residents of the North.

3. Social Acceptance and Duty to Consult

Long term survival of remote Aboriginal communities has depended upon community decision-making through a culture of consultation. Community Councils and Band Councils do not make decisions without broad community consultation and approval. Visitors from outside are tolerated but not usually trusted by community residents, until they spend time in the community to understand its people and their culture. People in the communities have depended upon water and wildlife and habitat quality for many generations. They jealously guard against negative impacts on these resources.

3.1 Social Acceptance Hurdles

Trust-building through a continuous process of community presence and consultation is essential. Although such a process is often viewed as time consuming and costly by project proponents, these same proponents often lose many months of profitable business through delays to licensing and approval processes, solely due to the lack of trust-building and consensus-building. Remember that decision-making in any northern community is usually based on consensus rather than majority decision. If one prominent elder in a community is not on side, the project will likely fail the consensus test and be turned down. Aboriginal leaders can help to identify prominent community members to consult. Above all, proponents need to refine their listening skills!

Proponents need to do their homework before coming to a community to consult. They need to ask themselves what impacts their project will have if any on renewable resources such as wildlife and habitat. They need to think about “plain language” translations and cultural relevance of any handout documents. A brochure that works for a typical community in the Toronto area will unlikely have any impact in any Aboriginal community North of 55. Remember that English is still a second language for many of the present decision-makers in Aboriginal communities in Canada, so that sophisticated English vocabulary must be removed from all information aimed at the community consultation process.

Keep in mind that no project can be developed in an Aboriginal community without regional land claims organization approval in principle. Land claims organizations (e.g., Gwich’in , Inuvialuit, Tlicho in the NWT), not territorial governments, decide what is best for their respective communities. It will be advantageous in the three territories to work through the territorial research organizations, namely Yukon Science Institute (YSI), Aurora Research Institute (ARI) in NWT, and Nunavut Science Institute (NSI). These three organizations are responsible for overseeing research in the communities of their respective territories, and hence have a considerable amount of knowledge and wisdom as to the extent and cultural nuances of the community consultation required.

There is no “one size fits all” approach to community consultation in the North. Throughout the boreal region Aboriginal communities will usually be led by Chief and Council. However, in off-

reserve communities, which include all but two communities in NWT and all communities in Nunavut, decision-making may be made by an economic development committee, or by a community development corporation, or by a renewable resources board, etc. In all cases widespread community support from residents will be sought by that decision-making authority. The first step of any energy project proponent, nuclear or otherwise, should be to consult YSI in the Yukon, ARI in the NWT, and NSI in Nunavut for detailed understanding regarding decision-making in any particular community. Then the proponent must be willing to spend time (weeks, months) in any community of concern. I find it strange why proponents will always seek an optimum project design for any particular site, which may involve many months of design time, and yet will usually not consider taking the time to seek out the optimum conditions of social acceptance of the project, even though those conditions are absolutely indicative of any costs of project delay that might impact overall economic viability.

Northern communities want to be sure that they will have real long-lasting benefits from any project on their lands. These might include operating and staff training to ensure the local availability of employees. Northerners have been disappointed many times in the past with political promises not kept, and with cost of services provided being totally out of their control. Ownership of facilities, or at least partnership with service providers, is often a necessary consideration.

Social acceptance of nuclear energy in Aboriginal communities is about the same as it is in other Canadian societies. Presentations by proponents of nuclear batteries North of 60 have been generally well received by government leaders in Nunavut and the Northwest Territories. And my own personal conversations with residents of northern communities is generally one of acceptance, providing that nuclear batteries can be shown to be cost effective and that any risks are managed by safeguards. Small isolated communities are generally dissatisfied with noisy polluting diesel-powered generation Government leaders and utility managers are generally reluctant to consider being “early adopters” of small reactor technology. They would like to see nuclear batteries in operation in an industrial setting before serious consideration for their communities. They would also like to see considerable community consultation to avoid any political backlash to their considered support of nuclear power. The younger generation tends to be more supportive once they are given the facts about Fukushima and other supposed nuclear disasters.

3.2 Duty to Consult

Community consultation is now a legal requirement to work toward social acceptance, the so-called social licence, for a new energy project. The decisions of the Supreme Court of Canada with regard to Duty to Consult have been widely reported over the past decade. Present language on the Aboriginal Affairs and Northern Development Canada website (https://www.aadnc-aandc.gc.ca/eng/1100100014649/1100100014653, accessed 2014, October 06) reaffirms that: “The Crown has a legal duty to consult and, if appropriate, accommodate Aboriginal groups when it contemplates conduct that might adversely impact potential or established section 35 or Treaty rights of Aboriginal groups” and goes on to refer to several specific court cases. Section 35 is that part of the Constitution Act, 1982 that recognizes and affirms Aboriginal and Treaty rights.

The duty to consult and other recommendations and requirements are discussed in Early Aboriginal Engagement: A Guide for Proponents of Major Resource Projects as contained in the following Major Projects Management Office of the Government of Canada website: http://mpmo.gc.ca/project-description/79, as accessed 2014, October 06.

3.3 Community Sustainability Focus

Consultation at the community level should work toward a win/win situation between the project Proponent and the Aboriginal community. Remote Aboriginal communities have historically been subject to many boom and bust cycles. They really desire more stability, and self determination and self sufficiency. Anything that the proponent can do to encourage community sustainability will go a long way to obtain the social licence to proceed with a project. Any project attribute that removes community dependency on outside sources of goods and services leads to sustainability (See for example: www.eSustainablePlanet.com, accessed 2014, October 06).

4. Conclusion

As noted in the Introduction, we do need to earn the social licence for small reactors in the North. We do that by consulting directly person to person with community leaders at the design idea stage, long before a project proposal becomes a reality. We must seek to develop working partnerships with Aboriginal communities and their leaders so that project economic benefits are shared. We should follow the guidelines and legal licensing requirements put forward by the Government of Canada for industrial projects in Aboriginal communities (See: http://mpmo.gc.ca/project-description/79, accessed 2014 October 06). Last but not least, we should discuss the benefits of nuclear energy at the community level while not arguing against renewable energy systems, such as wind and solar, in the process. Northern communities are usually strong advocates of renewable energy and energy conservation. We need them on our side. We need the broad-based support for mitigating climate change that is jointly promoted by enthusiasts of both nuclear energy and renewable energy. If we turn away our renewable energy friends, we turn away that broad support for small reactors in communities.

5. References

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[2] D. G. Malcolm, “Socio-Economic Impacts Between the Nuclear Industry and Aboriginal People,” Proceedings of the 17th Annual CNS Conference, Fredericton, New Brunswick, Canada, 1996 June 9-12.

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[4] C. Helin, “Dances with dependency: Out of poverty through self-reliance,” Woodland Hills, CA: Ravencrest Publishing 2008.

[5] D. G. Malcolm, "Speaking Plainly about Research, Governance and Policy for Sustainable Living," http://www.pimatisiwin.com/uploads/aug_2010/09Malcolm.pdf, accessed 2014 October 06.