From: Eldred Davis >
To: Pineau,Maryse [CEAA]; pcarter@gov.nl.ca <pcarter@gov.nl.ca>
Sent: Wed Feb 27 17:50:35 2008
Subject: *****SPAM***** Fw: Lower Churchill Hydroelectric Generation Project Draft Guidelines

Maryse Pineau
Panel Manager
Canadian Environmental Assessment Agency 160 Elgin Street, 22nd Floor, Place Bell Canada Ottawa, Ont K1A 0H3

Paul Carter
Chairperson
Environmental Assessment Division
Department of Environment and Conservation 4th Floor, West Block, Confederation Complex P O Box 8700, St John's, NL A1B 4J6

I have read through the Draft Environmental Impact Statement Guidelines and found them to be lacking in some areas and wish to add concerns that have become apparent to me.

The Newfoundland and Labrador Hydro publication Lower Churchill Hydroelectric Generation Project ,dated Nov 30, 2006 states on page 4 "Hydro is a Crown Corporation with a mandate to deliver reliable, least cost-energy to residents and industry in Newfoundland and Labrador." Yet the proposed project as described in the Draft Environmental Impact Statement Guidelines Lower Churchill Hydroelectric Generation Project Newfoundland and Labrador Hydro defies that mandate. The proposed project consists of two dams on the Grand River (Newfoundland name "Churchill River") with transmission lines connecting each and also to the facility at Churchill Falls. The obvious intent is to export all potential electricity to Quebec and possibly beyond. This fact, along with the intent to effectively destroy the ecosystem of the entire river and its valley is sufficient reason to deny this proposal.

Section 4 OUTLINE OF THE ENVIRONMENTAL IMPACT STATEMENT

2.2 Need, Purpose and Rationale of the Project

There is no "need" for this project. The need is for transmission lines to coastal Labrador and upgrading of existing lines from Churchill Falls to Labrador City and Happy Valley-Goose Bay where there are growing shortages of electricity. Neither of these items are included in the proposal. The publicly stated purpose is to make money for St. John's, provide employment and reduce greenhouse gasses.The real purpose is to win political support (votes) for the Newfoundland government,establish personal recognition for the Newfoundland premier and create temporary employment for Newfoundlanders, Quebecers and a few token Labradorians. A complication with a make-work project of this size is that a majority of potential workers are already holding jobs in Alberta, Ontario, etc. and would be expected to quit them for a few years and then return to them at the end of construction. People may not accept this disruption to their lives for a temporary job, which could result in a shortage of qualified workers if the proposal is put into action.

2.3 Alternatives

2.3.1 Alternatives to the Project

The time when dams were considered to be a "clean, cheap source of electricity " has passed. There is now recognition that dams and their reservoirs and turbines emit huge amounts of greenhouse gasses as well as causing terrible disruption of the ecosystems of the affected area and far beyond.As wild, largely unspoiled rivers and their valleys become more scarce they become more valuable. Damming this river and flooding the valley creates a disaster that is entirely avoidable by using alternate methods. In this particular area the water that flows through control structures at Gabbro. Lobstick Whitefish and probably other structures as well as the Tailrace have tremendous power that has the potential to be harnessed. This would require structual changes without any increase in flooding.

Wind power as a stand-alone power source has some drawbacks but operated in conjuction with a hydroelectric plant has shown to be a productive, compatible system. Tests have proven that there is an excellent location for a wind farm adjacent to the Churchill Falls hydroelectric plant but for political reasons it has been stymied. It seems that the reasons for proposing this project with outdated technology is also why the proponent refuses to replace the dirty diesel generated electricity of coastal Labrador with modern cleaner systems.

If the proponent still refuses to consider new developments in electricity production now, how will they be prepared for changing conditions in 10. 20 or 30 years brought about by climate change and other unforseen factors.

2.3.2(a)Reservoir Preparation

In the study Churchill River Power Project Reservoir Preparation Plan LHP-98-6 Revised Final Report it is reported that the cost of removal of merchantable volumes of productive and scrub softwood forest areas is well over $100,000,000 for the Gull Island reservoir and over $43,000,000 for the Muskrat Falls reservoir. This excludes scrub hardwoods and non-merchantable wood which would be disposed of by burning or burying. A significant development since that study was done is the change in the forestry industry in the local area which has resulted in a near total loss of demand for timber removed from the proposed reservoir area. This means no chance of recovery of the removal costs through sale of accumulated timber. In addition the proponent has admitted in meetings that any forest areas deemed "unsafe for removal" would be left for the flooding.The intent seems to be to do little clearing and lots of flooding of standing forest. The actions of the proponent during a situation in November 2007 reinforces this conclusion. In that event a tugboat involved with test drilling of the riverbed was inadvertantly grounded on Grizzle Rapids and overturned. After some time the proponent decided to leave the vessel there until spring and attempt to remove whatever is left of it after winter had dealt with it. This appears to be an indicator of the lack of concern the proponent has for the rivers's ecosystems.

3.0 Environment

3.3 Previous Development

The installation of the Churchill Falls hydroelectric generating station caused a series of effects that have done damage to the river. These include slumping riverbanks. extreme erosion and siltation,ice scouring of sections of the riverbanks,lower water temperature in summer, unnaturally high flow rates in winter, destruction of marine habitat, introduction of elevated levels of methylmercury and possibly other toxins, among others. As serious as this damage is, the river downstream of the power plant is still a vibrant, attractive, wild river with a productive ecosystem and must not be totally destroyed by converting it into a series of industrial reservoirs.

3.4 Existing Environment

3.4.2 Aquatic Environment

One dominant feature of the river between the Churchill Falls station and Winokapou Lake is the warning (signage) about eating too much fish due to methylmercury contamination. This toxin is reduced downstream of Lake Winokapou because the deep lake absorbs much of it (Lower Churchiill Project Generation Facilities Environmental Impact Statement Vol 2 p 125). There is no similar waterbody to act like this downstream of the proposed project so the full effect of methylmercury and other deleterious substances would be in evidence in the Goose Bay/Lake Melville ecosystem.
The study Biological Study Of The Goose Bay Estuary (LHP 98-02) found 24 species of fin fish in this area, apparently not including Atlantic Salmon which are present seasonally. Section 6.5 Summary of Effects of Changes in Physical and Chemical Processes on Estuarine Biota does not state a conclusion but quotes from a different report: "The downstream effects of large-scale hydroelectric developments primarily relate to annual changes in the waterflow regime of the river, and can have long-term effects thousands of kilometers from the source (Rosenberg et al.1997)". This is in addition to the usual effects of methylmercury, increased siltation etc. expected from additional dams and reservoirs. This would have serious consequences for the valuable Atlantic Salmon fishery of the Lake Melville area, especially for the Innu of Sheshatshiu, but of course, they are unaware of that.
Part of the study Labrador Hydro Project 1998-1999 Environmental Studies Fish Migration And Habitat Use Of The Churchill River (LHP 98-03) was to determine if fish traversed the sites of the proposed dams. It did prove that fish did indeed swim back and forth through Gull Island Rapids but the Muskrat site had no test results. Section 7.1 Fish Movement in Churchill River, page 86 :" Due to the unavailability of salmon to tag downstream of Muskrat Falls, obstruction at or passage past the falls in an upstream direction could not be investigated." With a target sample size of 50 fish, the study tagged only 1 salmon and that one went into the Traverspine River to overwinter. Though inconclusive, the proponent has assumed that Atlantic Salmon can not get above the falls, possibly because they do not want groups such as the Atlantic Salmonid Federation involved. In fact there have been reports of sea-run Atlantic salmon (undocumented) in recent years upstrean of Muskrat Falls.

3.4.3 Terrestrial Environment

The decision to put a huge dam at Gull Island Rapids appears risky or even careless if the Study Lower Churchill Project Generation Facilities Environmental Impact Statement (Volume 2) is factual. The surveys found little that would appear solid enough to support a dam 99 meters high, holding back 1100 x 10^6 m^3 of water.(Section 3.1.1 Gull Island) . This includes loose material on the river bottom " At the site, the thickness of the unconsolidated materials reaches about 45 m in the river" (page 90), "two narrow shear zones trending northeasterly to easterly were recognized in previous investigations at Gull Rapids," and " the actual site is completely covered by unconsolidated materials." (page 91). Also the following from Diversion Tunnels "The 1974 drill hole GR34A (see figure 4.2-1) had brought up the possibility of the presence of a shear zone intersecting the location of the original diversion tunnels. Indeed, this hole showed a very weak rock quality and poor core recovery." (page 96) and " After a September 1979 visit to the site it was assessed that the sheared zone lies probably in a major lineament trending northeasterly and possibly closing on the north bank near the river. Due to poor rock quality, close fractures and the presence of a major lineament, it was suggested that the present shear zone be avoided, if possible, and therefore that the diversion tunnels (and consequently the dam axis) be located upstream, "(page 97) All this is not very reassuring considering that the proponent is still planning exploratory drilling this summer and the whole area has been shaken by tremours in the not too distant past.

The huge,high sandbanks at the water's edge upstream of the Gull Island site would become major slumps or landslides it they were subjected to abnormally high water levels, Once weakened by water saturation , as in the case of reservoir filling, they would fail, some immediately and some over extended periods.

Global warming would likely complicate the situation.

The proposed project area has recently been proven to be a regularly utilized habitat of the Red Wine woodland caribou herd, according to the Newfoundland Wildlife Department research. This herd is listed as Endangered under the provincial Species At Risk Act. According to the Newfoundland Protected Areas Association, the Lac Joseph woodland caribou herd was reduced to about one fifth of its normal numbers by loss of habitat due to the activities around the construction and operation of the Churchill Falls hydroelectric generating facility. The much smaller (under 100 animals) Red Wine herd could be driven to extinction if this proposed project were allowed to proceed.

The Churchill Falls project also had a serious impact on the numbers of migratory waterfowl. A report by the Canadian Wildlife Service showed that approximately 1,400 square kilometers of waterfowl habitat was flooded. and lost, possibly 10 percent of the original area. This coincided with the notable local reduction of the Black Duck population in subsequent years. This species is one of the most populous in the area. The flooding of the Grand River valley would not have the same effect but another, equally damaging effect. During spring migration to the north, waterfowl that nest in the plateau area of central Labrador often find that their preferred nesting areas are still not thawed enough to use. They gather at places of open water to wait for warmer weather to thaw the nest sites, most often at swift moving water holes at various places along the river. If these areas are turned into reservoir surfaces, the waterfowl would find solid ice at the traditional rafting areas and would probably perish if spring thaw is late arriving.

The valley is considered to be an important winter habitat for moose that retreat from the harsh weather of the plateau. The shoreline willow and other vegetation is what sustains these animals through the most difficult season. If the valley is flooded most of the shoreline would be up the steep valley walls in the coniferous forest where there is little vegetation suitable for moose. Smaller tributary valleys might have some moose browse but not enough for the resident population. A mass starvation would be the likely result.

3.6 Data Gaps

See my comments on 3.4.2 Also please note that a vital part of the EIA component studies; the Caribou Study (LHP 98-04) was not released along with the others, although it may be now.

4.0 Environmental Effects

4.1 General

The studies done by and for the proponent paint a picture of the proposed projects that are nearly benigh in their presentation. The truth is that were these dams to be built, the Grand River would virtually be destroyed. The only section not flooded would be the 30 or so kilometers downstream of Muskrat Falls and even that would be severely compromised. The damage to this river valley, Lake Melville and beyond would take generations , if ever, to recover and reestablish stability. The only benefits of any significance would be to the chosen few politicians and business people who plan to accrue personal advancement and depart the area, leaving behind the disaster for others to deal with. Local culture and the spirit of the permanent residents would be forever degraded. Residents of the present community of Mud Lake would eventually be asked to relocate to avoid the flooding and destruction of the community in the event of an accident at either of 3 generating sites.

5.0 Envuironmental Protection

5.1 Mitigation

The mitigation offered by the proponent is not worth the paper used to explain it. There is no way to mitigate the destruction of an entire river valley even if the promoter were serious about attempting it. As an example, the mitigation proposed to replace 56 square kilometers of excellent salmonid habitat as well as others was found "deficient " in the review of the EIS by the Department of Fisheries and Oceans. In fact that department recommended " that approval for the project be witheld at this time." (From the Department of Fisheries and Oceans Position Statement Lower Churchill Hydroelectric Project Generation Facilities July 1980) The present proposal is practically identical to that earlier version, especially as regards to mitigation or lack thereof.

Some people may choose to accept monetary compensation for "their" loss but that is an insult to those who actually use and respect the river.

7.0 Consultations with Aboriginal Groups and Communities

. Newfoundland and Labrador Hydro has not held public meetings in the Innu communities of Natuashish or Sheshatshiu but instead "have established mechanisms for Innu-led consultations". I am unaware of what has been done in Natuashish, which is far removed from the proposed project site, but it appears that in Sheshastshiu the "consultation" has taken the form of a modified Hydro Quebec technique. This takes the form of hiring a few of the more vocal pro-dam leaders to intimidate the people into silence if they are opposed to the destruction of the river valley or try to find information on the proposed project. Of the non-Innu who went door to door with the "message" , at least one was from Quebec. The residents are still kept uninformed about what is proposed.

It should be noted that the proponent is showing prejudice by holding discussions with leaders of only one of the three aboriginal groups in the area.

8.0 Public Participation

After months of waiting the Draft Guidelines were released Dec. 19,2007, at the height of the holiday season preparations, with a closing date of Jan. 28 for written submissions. Those dates were obviously chosen to frustrate and hamper individuals and organizations who planned to respond with submissions. The fact that the closing date was later changed to Feb. 27, 2008 proves that the initial date of Jan. 28 was unnecessarily imposed. This issue of the timing of submissions can only be regarded as psychological aggression on the part of the CEAA and Newfoundland Dept of Environment and Conservation and exposes their bias favoring the proponent.

The public consultation done by the proponent of this proposed project is inadequate in what has been done to date.There have been no public meetings in Mud Lake, the community that would be most affected/endangered by the proposed project, Rigolet or the communities of Sandwich Bay and south, which would also see harmful effects.

There is yet another reason why the proposed projects should be abandoned. The Newfoundland government would not be expected to cancel a project that would cause immeasurable damage to the Labrador environment if there was a possibility of a profit to be made. This proposal is very similar to the original Churchill Falls Hydroelectric Generating Project, not only in the environmental devestation but in marketing complications. As that project was well under way in the late 1960's, the promoters ran low on finances and ultimately sold electricity at under- value rates in order to continue construction, As contracted, this would have eventually bankrupted the owner, CFL(Co). This deal with the buyer, Hydro Quebec, has a milestone event in the year 2016. That is when all construction costs are paid in full and CFL(Co) can tax the electricity purchased in order to bring the sale price up to contemporary levels. If the buyer, Hydro Quebec, wants the power they will have to pay. The complication comes with the planned completion around that time of the Lower Churchill Hydroelectric Generation Project with an additional 2,800 megawatts for sale. As determined in the Draft Environmental Impact Statement Guidelines, the only transmission facilities planned are to Churchill Falls where the only option is to send on to Quebec. This would change the scene from a

sellers market to that of a buyers market. No doubt Quebec would gladly accept the electricity, mostly for export, but on their terms.
When Hydro officials were asked whether there were any negotiations with Hydro Quebec regarding this, they responded thet they were unaware of any. If built, this project would likely turn into a financial disaster as well as an environmental disaster.

Eldred Davis
Happy Valley-Goose Bay
Labrador