





Bute Project Sparks Conflict

A debate is raging on the BC coast about the future of Bute Inlet. It's about private power versus public power. It's about the potential NAFTA threat of foreign involvement on our rivers. It is about responses to climate change.

Environmentalists are alarmed at the impact of industrial developments on remote coastal rivers, inlets, and mountains previously the terrain of First Nations, logging, and eco-tourism companies. Some prominent eco-organizations have taken the gloves off in their support of any non-fossil fuel source of energy in the hope of averting the looming climate catastrophe. First Nations indignantly defend their first real hope for economic development.

The Bute hydroelectric project, a joint venture between Plutonic Power and General Electric, will consist of 17 river diversions, 445 km of transmission lines, 314 km of roads and 104 bridges. The transmission lines will create around 1780 hectares of clearcut, kept permanent through the use of herbicides, while bridges and structures will likely be treated with copper chromium arsenate (CCA). Copper leaches and permanently damages the olfactory ability of fish to avoid predators, reproduce, and identify their spawning river.

The Bute project, termed by one local newspaper a "green monster," will expand upon a similar, but smaller Plutonic run-of-river project in Toba Inlet, one fiord to

Can a mega project solve a mega problem? ?

That seminal question underlies the raucous debate about Plutonic Power's sprawling hydro project in Bute Inlet.

*Compiled by Delores Broten,
with thanks to Bill W. Andrews and Arthur Caldicott*

the south. The project will cost \$3.5 billion and employ approximately 900 construction workers for several years. The nameplate capacity (1027 MW) rivals that of major hydroelectric dams, like BC Hydro's proposed Site C on the Peace River. However, this capacity will only be realized in the spring and early summer when snow and glacier melt is maximum. Energy output will be considerably reduced at other times of the year, especially during the coldest days when provincial electrical demand is greatest.

The Homathko, Southgate and Orford river valleys which flow into the upper part of Bute Inlet contain the majority of tributaries being harnessed. Plutonic claims the riv-

Continued on Page 18 ⇨

← *Plutonic continued*

ers are too steep to support fish although a few do support marginal fish habitat and the lower rivers have a rich history of salmon runs, now somewhat diminished. Individual generating stations will be linked by transmission lines that run up each valley, circle the head of the inlet and run half way down the east shore. A longer higher voltage transmission line will carry power south over the height of land to Toba Inlet where it will share a common transmission right-of-way with the Toba/Montrose run-of-river projects. The valleys have been logged continuously since the 1950s.

The project promises short and long term benefits to four First Nations who have endorsed this use of their traditional territory: Sliammon First Nation from Powell River, Klahoose First Nation from Cortes Island, Sechelt First Nation, and Xwemalkwu First Nation (formerly known as Homalco) of Campbell River and Bute Inlet.

Next Steps on the Plutonic Bute Project

The public comments have now been submitted to the BC Environmental Assessment Office (EAO) and CEAA (Canadian Environmental Assessment Agency). Bureaucrats in both agencies will determine the final Terms of Reference for the application and the environmental impact statement Plutonic must prepare.

This may take Plutonic until September, or even January 2010. When it comes back, the EAO has 30 days to identify omissions in the application and consultation record, and punt the application back to Plutonic. The EAO has a brochure and other information on its website: www.eao.gov.bc.ca/guide/

If Plutonic is not successful in obtaining an Electricity Purchase Agreement (EPA) from BC Hydro, it may take its time with the application, and let things cool off. BC Hydro expects to make its decisions in the Clean Power Call between April and June this year.

Federally, the review panel decision is likely to be made in April, and the review panel will be given its marching orders at that time. The federal review may or may not synchronize with the provincial process.

There is no local review process because the provincial government stripped local governments of zoning jurisdiction for power projects in the infamous Bill 30 in 2006. Local government cannot say “no” to a private power project on a river in BC. Some local governments are now calling



Orford River emptying into Bute Inlet

Damien Gillis, Save Our Rivers Society

for a moratorium on river developments until an energy planning process is carried out.

Klahoose: Choices in Toba Lead to Bute

In 1990 Sun Belt Water proposed to sell water to its home city of Santa Barbara and neighbouring

Goleta County. The water would be shipped in tankers to California from Toba Inlet, under a bulk export license held by Sun Belt's Canadian partner, Snowcap Water. The Klahoose First Nation were aghast, and took the position that not a drop of water would be exported until its treaty negotiations were settled. Chief Kathy Francis enlisted the support of other coastal First Nations and the First Nations Summit. She persuaded the California customers for the water and the BC government that disruptions would be the result without a settlement with the Klahoose. The issue turned into a growing political liability and in 1991 the BC government imposed a moratorium on bulk water exports. Sun Belt is still suing for compensation under NAFTA.

Nineteen years later, the Klahoose Nation still has no treaty, and its people still have few opportunities. When Plutonic Power knocked on the First Nation's door in 2006, it was looking to build two hydroelectric projects in the Toba Inlet watershed. It offered money, cash up front and one or two percent of revenues, training, jobs, and business development. The Klahoose Chief and Council accepted the offer – and granted the company access to its traditional territory. The project is under construction now. From reports it is running an impressively well-organized work camp and repairing fish habitat damaged by previous logging as it goes. Electricity generation is scheduled to start in 2010. Chief Ken Brown is now an outspoken champion of Plutonic, and an even more vociferous critic of those concerned about the industrialization of these coastal watersheds.



Resources

For a map of water license applications for power generation in BC, see www.ippwatch.info/w/
 BC Citizens for Public Power, www.citizensforpublicpower.ca
 BC Creek Protection Society, www.bc-creeks.org
 BC Sustainable Energy Association, www.bcsea.org
 Friends of Bute Inlet, www.buteinlet.net
 Plutonic Power Corporation, www.plutonic.ca
 Save Our Rivers, www.saveourrivers.ca

Private Power Producer Friendly Water Pricing

by Arthur Caldicott

When the BC Liberals took over government in 2001, water pricing for the Power-General license – that’s the water license a company needs to generate electricity for sale – had two parts: a capacity charge calculated on the generating capacity of a facility, and an energy charge, based on how much electricity was generated each year.

The energy charge was applied in two tiers. The first tier, for the first 250,000 megawatt hours (MWh) generated by a licensee, was levied a much lower rate than the second tier, which applied to everything else.

By 2008, the lowest tier had been reduced to 160,000 MWh, and a new middle tier was introduced, up to 3 million MWh.

What is not immediately apparent is how the tiers and the prices align with actual projects being proposed in British Columbia. There are two intriguing aspects to these alignments.

49 MW and 160,000 MWh

The Ashlu Creek Hydro Project has a nominal capacity of 49 MW. Mkw’Alts Creek: 45 MW; Kwoiek and Rutherford Creeks: each 49.9 MW. This is no coincidence, and it’s not a function of stream capacity or optimized generation. 50 MW is the threshold at which a generation project must have an Environmental Assessment (EA) in BC. Independent power producers (IPPs) are all just ducking the EA threshold.

Now the intriguing part!

A 49 MW plant on BC’s south coast is able to generate up to about 160,000 MWh per year. So the lowest tier was changed to give the cheapest water rate to the disproportionate number of projects that are being engineered to duck an EA. Not gift enough, the rental rate for this first tier was reduced from an already cheap \$2.417 per MWh to \$1.107 – handing these 49 MW projects a bonus of about \$200,000 per year.

1027 MW and 3,000,000 MWh

The new second tier maxes out at 3 million MWh. On the south coast, stream flow characteristics dictate that a cluster of small hydro plants would need a nominal capacity of 1027 MW to generate that 3 million MWh per year.

Plutonic Power Corp.’s Bute Inlet cluster project is designed with generating capacity of ... wait for it! ... 1027 MW and annual production of 2906 GWh – just short of the 3 million MWh cutoff for the second tier pricing.

More than a coincidence? Which came first – the water pricing or the project? Or were the two designed together?

Follow the Money *by Arthur Caldicott*

In 2003, a mining promoter and an engineer had lunch in Vancouver. The engineer had rights on a number of streams on the southern coast of BC. The mining man had a listed company – the perfect vehicle to raise money and to turn these streams into lucrative hydroelectric projects.

The engineer pointed at two streams up Toba Inlet.

His napkin notes suggested that 196 megawatts of generating capacity could be installed and 745,000 megawatt hours (MWh) of energy could be produced each year. Sold to BC Hydro for \$90 per MWh, annual revenues would total \$67 million. After expenses, net profit would be \$19 million.

Fast forward to 2009. Plutonic’s East Toba River and Montrose Creek Hydroelectric Project is under construction. General Electric has joined as an equity partner, a lender, and a supplier of turbines.

The miner and the engineer are staking claims on other streams, pursuing more and bigger prospects. These include an infill project in Toba Inlet, the huge Bute Inlet project with four times the energy output as Toba/Montrose, and a 6 stream development in Knight Inlet.

Calculations for land areas, land values, taxes and applicable rates are complex and obscure – it takes an accountant and a lot of inside information to pin down the expenses. Agreements with First Nations are secret.

Plutonic confirms the \$19 million profit forecast – just as it appears on the napkin.

Project construction entails big money and employs a lot of people – for a year or two. But it is the operating years which matter from a business perspective. Almost no jobs, and no other local benefits, but lucrative indeed!

East Toba River & Montrose Creek	
Capacity	196 MW
Annual energy	745,000 MWh
Unit price of energy	\$90/MWh
Revenue	
Annual revenue from power sales	\$67,000,000
Expenses	
Operations & maintenance	\$5,700,000
Land rental	\$622,202
Water rental	\$3,912,425
Property taxes	\$2,436,000
First Nations (say 2% revenue)	\$1,340,000
Amortization (depreciation, interest)	\$26,520,000
Income tax	\$7,375,424
Total expenses and deductions	\$47,906,052
Annual net earnings	\$19,093,948

Upnit Power: Run of River on China Creek

By Judith Sayers, President, Upnit Power and Chief of Hupacasath First Nation

When the Hupacasath First Nation decided to get involved in alternative/green energy, we researched the kinds of alternatives and what resources we had. Because we have 28 main watersheds in our territory, run of the river was our best option.

We hired engineers and consultants to review our territory and we narrowed it down to the best 10 systems that we had. We ruled out any portions of a stream that had anadromous fish (we will not touch a system that will affect our precious fisheries resource and right to fish), any stream that had spiritual/sacred values attached, and any systems that had any other unique environmental value that we wanted to protect. We also looked at water systems that were closest to the grid, as building transmission lines is costly and can make the project not feasible economically.

We decided to make our first project on China Creek as it had the least environmental impact. China Creek on the Alberni Inlet has a set of impassable falls which means there are no anadromous fish in the system. We spent a lot of money doing research on fisheries values in the creek as it does have a resident population

of trout and dolly varden. The City of Port Alberni has their water facility on China Creek and has roads into the area. Also, Island Timberlands and Timber West have their private managed forests in the area and have many roads so we only had to build one road down to our intake site. We did have to build temporary roads down to the area where we put in the penstock but these were decommissioned, leaving two for access.

There was a BC Hydro connection right at our powerhouse site, which is at the edge of a gravel pit so there was little disturbance. The penstock right of way is 4.5 km and we did have to clear the right of way in order to put the penstock in the ground. You bury the penstock so you do not inhibit wildlife from accessing the creek, and for safety reasons. The intake site was a very tedious process as you had to get instream and place some structure in the stream. We diverted the creek during a fisheries window and every rock that was used in the diversion was power blasted to be clean. At all times, there were environmental monitors on site ensuring that there were no impacts. The footprint on the land is the intake site, and the powerhouse.

All the water is put back into the creek after the

turbine. The temperature of the water is not altered and flow is only reduced for 4.5 km. The water license sets out how much water must remain in the stream for the fish.

Our intake system is above the city's intake for its drinking water, and we do not affect the quality of drinking water that the City takes out further downstream. This illustrates how clean and green this project is.

Upnit produces 6.5 megawatts of power at full generation. This varies with the amount of water in the creek. The Hupacasath First Nation owns 72.5% of this project and are very proud of the high environmental standards set for this project.

Licensing for these projects is becoming very onerous and costly, with new policies and procedures since we built our first project. As we are working on our second project, we know how much more work is being required to get the water license.

It is important to note that as a First Nation, we are able to use the resources in our territory and set the high environmental standards we want. These projects are non-consumptive of water and therefore can be very green, but every project has to be decided on its own merits.

BC needs to be independent in producing power and we all have to take responsibility to reduce our own consumption, but also to promote sustainable sources of energy. Run of the river can be one of those sources when done properly on the right systems.



Upnit intake, and powerhouse putting water back into China Creek



Wild Times



Powerful Bute Inlet

by Joe Foy

Looked at the posters on the wall in disbelief. “There has to be more than this,” I muttered to myself. But the few glossy posters taped to the walls and a couple of company handouts was all there was. There certainly was a lack of information at this so-called public information meeting.

I was in the Sunshine Coast town of Powell River attending the first Environmental Assessment meeting of the proposed Bute Inlet private hydropower project. If approved by the federal and provincial governments it would be the largest private hydropower project in Canada, yet only three public meetings had been scheduled in the towns of Powell River, Sechelt and Campbell River.

The Bute Inlet \$3.5-to-\$4 billion project includes 17 diversion dams and many kilometres of pipes to hold the river water as well as 314 kilometres of roads, 443 kilometres of transmission lines, airstrips and construction staging areas. All of it would be located in the heart of BC’s south coast salmon, mountain goat and grizzly bear ecosystem.

But when question and answer time came at the Powell River meeting it became apparent that the Plutonic Power representative was not prepared to answer many of the pointed questions about the environmental impact of such a massive industrial project. And when members of the public demanded answers, and further public meetings throughout the province, their concerns were quickly brushed off.

Which got me thinking, how the heck did this get so messed up in the first place?

The BC government says that we are running out of power, but according to BC Stats the province has been a net electricity exporter for seven out of the last eleven years

There are now over 700 rivers and streams staked by private developers. How did we get to the point of handing over our salmon and grizzly bear rivers to the likes of General Electric and Plutonic?

The short answer is that we are suffering the consequences of the BC government’s 2002 energy plan. The energy plan forbids BC Hydro from building any of these new energy projects – and orders Hydro to buy power from the private companies at very high rates in blocks of time from two to four decades long – regardless of need.

This has sparked a gold rush of private developers staking our rivers – with the latest and biggest being the Bute Inlet mega-project.

The BC government says that the BC energy plan is all about fighting climate change – but that proposition simply doesn’t hold water. Why at this time of climate crisis would we suddenly abandon our publicly owned power system in favour of a corporately owned one?

After all, BC’s publicly owned power production system already has one of the lowest carbon footprints on the planet, being based mostly on hydropower. BC’s transportation, housing and industrial sectors have the biggest carbon impacts, not our electricity production.

The BC government says that we are running out of power, but according to BC Stats the province has been a net electricity exporter for seven out of the last eleven

years. And, as we move to further electrify our housing, transportation, and industrial sectors to reduce carbon emissions, there are much better places to look than private river power.

We could start by bringing back our downstream Columbia River benefits in hydropower electricity instead of money. We can retrofit our existing BC Hydro dams to produce more power and we could ban the export of hydropower by some of BC’s large industrial producers.

Can you imagine a province where the Port Mann freeway and bridge expansion is cancelled in favour of an electrified public transportation system? Where the proposed Gateway oil pipeline to transport tar sands oil to the Pacific is dropped in favour of a power line to bring back Columbia River hydro power to BC homes and businesses? A province where the wild rivers of the Bute Inlet and all around BC remain wild and full of life. I sure can.

We just have to get rid of that damn energy plan.



Joe Foy is Campaign Director for the Wilderness Committee, Canada’s largest citizen-funded membership-based wilderness preservation organization.

Photo by Isabelle Groc: Grizzly taken near where a large industrial road is proposed to service the power project.

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