

# Green Scene: Keep Burrard Thermal Open

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Late last year, the provincial government announced BC Hydro's Burrard Thermal Generating station would close by 2016. This hardly seems sensible given that this plant, which generates electricity from natural gas, recently had the capacity (912 MW, i.e., megawatts) to supply almost 10% of BC's electricity needs. With an ideal location in the centre of the lower mainland close to approximately half of the population in BC, it is well situated to provide electricity in the event of emergencies such as ice storms or fires in the BC interior which could cause problems along the lengthy transmission lines. In the winter of 2008, hazardous ice conditions on the Williston Reservoir on the Peace River created an emergency that resulted in the Burrard plant firing up 5 of its 6 generating units to meet our electricity needs. Who knows when the next Arctic outflow could create similar conditions?

**Burrard Thermal provides electricity to the Lower Mainland during peak periods of demand, even though three of its six units are now shut down.  
Photo credit: BC Hydro website.**



Although no longer in full time use due to concerns over smog generation during the summer, Burrard Thermal went through a costly and major upgrade during 1994-2001. This included the installation of selective catalytic reduction units to achieve an impressive 90% reduction in nitrogen oxides emissions which made it the first natural gas generating station in Canada to be so out-fitted. Since then, it's been maintained and kept ready to respond in case of emergencies although 3 of its 6 units have been quietly mothballed in recent years. Every winter for many years, Burrard has provided critical "peaking power" during the coldest and darkest months of the year when electricity consumption reaches its annual maximum. With climate change now causing unpredictable weather conditions, I am glad that Burrard is close by. Burrard also has capacity to generate electricity during low water years. With California now experiencing a record-breaking drought, it's not impossible that BC could face a similar situation sometime in the future.

So why close Burrard? The problems are an arbitrary clause in the government's *Clean Energy Plan* which stipulates 93% of electricity in BC must come from renewable resources (e.g., water) plus government policies which favour private power producers over electricity generated in-house by BC Hydro. Burrard Thermal currently accounts for a small fraction of the 7% of electricity allowed to come from non-renewable resources. Although BC Hydro seems loathe to admit it, the main sources of natural gas-generated electricity in BC are from privately-owned generating plants in BC. The largest of these is the Island Generation natural gas plant in Campbell River on Vancouver Island. With a capacity of 275 MW

and an ability to provide 2300 GWh/yr (i.e., gigawatt hours/year) of electricity, this plant now accounts for most of the natural-gas derived electricity in BC. The other large privately owned plant in BC is the McMahon plant in Taylor with a capacity of 105 MW and an output of 840 GWh/yr. Taylor, located on the Peace River, suffers from the same problem as electricity generated from the Williston Reservoir - it's a long way from the lower mainland with risks of ice storms, fires and other problems along the transmission route. Campbell River isn't so close either. Yet, despite such a disadvantage, BC Hydro has a contract (until 2022) to pay Island Generation \$50 million a year to keep their Campbell River plant on standby. In addition, BC Hydro also covers their costs to purchase natural gas should the Campbell River plant be needed to generate electricity. To my mind, this is an outrageous give-away to a private company. Keeping the larger Burrard Thermal plant on standby in case of emergencies and to meet annual peak power demands would cost only an additional \$14 million per year...this seems like a bargain by contrast.

The decision to shut down Burrard Thermal is yet one more questionable action that has been removed from the purview of the BC Utilities Commission (BCUC). Whenever the province prohibits input from BCUC, I fear another flawed policy decision will be the outcome. During BC Hydro's most recent call for public input on their Integrated Electricity Plan, even the submission from Fortis BC stated, "Burrard Thermal is a valuable and cost-effective existing resource near the load centre that should play an important role in providing a capacity resource over the long term. Its use should be reexamined."

I am also not a big fan of the Site C proposal. But, even if this dam is built and another 83 kilometers of the Peace River are flooded to generate electricity mainly for use elsewhere in BC, BC Hydro still anticipates a possible shortage of electricity to meet peak periods of demand until at least 2024. If we have to buy electricity on the open market, this could cost as much as \$1000/MWh - or more by 2024. Right now we can generate electricity from Burrard for \$100-150/MWh depending on the cost of natural gas. It seems to me that a wiser decision would be to keep the Burrard Thermal plant open and ready to operate to meet future demands and be available to deal with unforeseen emergencies.