

Watt's Happening? #114

by Don Pettit

for Peace Energy Renewable Energy Cooperative

www.peaceenergy.ca ph 250-782-3882



Site C Under Review

Peace Energy Co-op's submission to the BCUC



Our province is rich in high quality wind and solar energy resources. Integrating these into our existing hydro power would eliminate the need for Site C and reduce cost to taxpayers. Left: Bear Mountain Wind Park powers 35,000 Peace Country homes. Right: the Hudson's Hope solar powered arena.

As a loyal *Watt's Happening* reader you are no doubt well aware that the Site C dam project on the Peace River is under review by the BC Utilities Commission. Public submissions to the Commission were welcomed until September 30th. (An initial report is to be published on Sept. 20 followed by a further submission opportunity and a final report on Nov. 1/17).

Following is an edited version of the Peace Energy Cooperative submission to the BCUC. Specifically it addresses their term of reference part D: "What portfolio of generating

projects and demand-side management initiatives could provide similar benefits (to Site C)?"

WIND AND WATER

A total of approximately 600 megawatts (MW) of wind power are presently operational in this region, with another 2000 MW waiting to be developed by Independent Power Producers (IPPs). Estimates suggest the Peace Region has some 10,000 MW of readily developable wind energy.

This wind resource is

some of the best in the world, featuring a power capacity factor (PCF) of 40%-plus. (PCF is a way of comparing different energy sources. It is a measure of how much power a given facility actually produces allowing for repairs, downtime and overall system efficiency. BC Hydro states that the Site C dam PCF will be approximately 60%.)

Distributing and expanding wind facilities across the region will improve this remarkable PCF for wind energy until it approaches the base-load reliability of hydro (some 15 years of wind monitoring across the region confirm this

conclusion).

The Canadian Wind Energy Association (CanWEA) has submitted a study to BC Hydro explaining how up to 3000 MW of wind power could be successfully integrated into existing hydropower, improving the efficiency and reliability of both, while conserving our precious water/energy resource.

This proposal was ignored by the previous government, which at the same time reduced and then eliminated their calls for clean power from IPPs. As a result, the rapidly expanding BC wind industry ground to a virtual halt, and CanWEA summarily left the province.

If and when the province needs more energy, allowing the wind industry to expand while integrating it with the existing hydropower would supply us well into the future with excellent base-load reliability plus a new and expanding wind industry and related long-term jobs.

SOLAR

Peace Energy Co-op has been engaging the public by conducting solar public information sessions and providing open house solar tours while installing dozens of rooftop grid-tied solar arrays for homeowners, small businesses and municipalities in the BC Peace.

We are astounded by the response we have been receiving. Interest in solar is growing exponentially in this province, following a world-wide trend that has placed solar in the lead as the fastest growing energy source on the planet, driven by the unprecedented economic benefits provided by this technology and fueled by its rapidly decreasing costs.

Although BC Hydro is to be congratulated on the simplicity and efficiency of their grid-tie, net metering system for small energy producers, beyond that, solar energy has been largely ignored. Since self-produced power is power that BC Hydro does not have to create, this seems a strange oversight.

Next to conservation and efficiency, solar self-generation is the least expensive, greenest and most efficient source of power that anyone can make. Like wind, solar can also be integrated with existing hydro, storing unneeded energy behind the dams and releasing it when needed.

IN CONCLUSION

Integrating our rich wind and solar resources into our existing hydro capacity will more than meet future energy needs by enhancing our existing hydro electric infrastructure while eliminating the need for future dams like Site C.

Rather than one huge, costly mega project, allowing wind and solar to naturally expand rather than holding them back will provide long-term growth and permanent jobs rather than the boom and bust cycles of mega projects.

Working in the renewable energy field for the last 14 years in this province has been like getting stuck in the 20th century while the 21st century leaves us behind.

Yet the people of BC are ready for change. It's time for BC to catch up. It's time for this province to enter the 21st century.

Yours truly,

Don Pettit

Vice-president, Peace Energy Renewable Energy Cooperative

(To read our full submission and all the other public submissions to the BCUC, go to <http://www.siteinquiry.com/submissions/>)

Since self-produced power is power that BC Hydro does not have to create, this seems a strange oversight.