

Hydro sets plans in an uncertain energy future

One goal is to make province energy self-sufficient by 2016

by Scott Simpson, CanWest News Service January 27, 2010

B.C. Hydro is in the midst of a fundamental and somewhat uncertain transformation into a 21st century utility, and customers can expect to get swept up in it.

Hydro went on "hiatus" from development and modernization after its last major electric generating facility was completed in 1984, Hydro energy planning director Cam Matheson said yesterday at a conference in Vancouver.

It awoke from that slumber in 2004 when Hydro customers finally caught up to the supply surplus legacy from the Revelstoke facility -- but it's no longer practical or feasible to address new demand with a single solution, Matheson said.

The aging Hydro system needs major upgrades, continental electricity trading markets are beckoning, climate change is creating uncertainty about future hydro-power supply reliability, First Nations are seeking partnership arrangements in new power developments, and conservation has emerged as a bigger objective than development of new supply.

The province has directed Hydro to make British Columbia electricity self-sufficient by 2016,

and to make B.C. a net exporter by 2026.

B.C. Hydro will need help from its customers, from the provincial government, and from independent power producers to meet those challenges, and in some cases the remedies are uncertain, Matheson said.

"We are in rough net-load resource balance and every year we are creeping further into deficit. We need to get on with making these choices and building the new supply and doing the demand [side conservation] work we need to do, so that we can put ourselves toward energy self-sufficiency," Matheson told delegates to a Canadian Institute energy conference.

The province has directed B.C. Hydro to meet aggressive electricity conservation targets -- 50 per cent of new electricity demand must be met by 2020 through demand-side management measures that encourage conservation, rather than just build its way out of the situation.

That approach is "turning the traditional supply side management approach on its head," said Matheson.

"In fact, the last [Hydro] long-term plan to be filed called for

some 75 per cent of new need to be met through demand side management. They have zero environmental impacts and we obviously need to balance those with the need for new supply."

Conservation targets will be challenged by the province's greenhouse-gas reduction targets, which will shift more energy demand from fossil fuels to electricity for essentials such as home heating and transportation.

Hydro has begun preparing for increased power demand in the eventuality that electric-powered vehicles "saturate" the North American market. But Matheson said Hydro must also find the "middle ground" between meeting future demand and overbuilding new supply.

Matheson said he believes so-called smart grid technology, which allows customers to make incremental, moment-to-moment adjustments to their power consumption in order to manage their costs, is "inevitable."

"It changes the nature of the paradigm between B.C. Hydro and its customers.

"I think it's the right thing to do from my standpoint but there's no question all of this will eventually cost money."