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**MANAGING HYDRO CAPACITY, TRANSMISSION AND
COMPETITION: LESSONS FROM BRITISH COLUMBIA**

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Restructured electricity markets introduce many new and interesting economic, regulatory and management challenges, both within and between jurisdictions. One issue that has not received enough attention in research and policy analysis is the interaction between restructured and non-restructured jurisdictions. This is a particularly important issue in North America because of the “patchwork” of restructuring and the state and provincial level.

The Pacific Northwest is an interesting area to examine. The British Columbia transmission system, is planned, managed and operated by the British Columbia Transmission Corporation (BCTC), an entity of the British Columbia provincial government. The transmission system itself remains under the ownership of British Columbia Hydro (BC Hydro), the provincially owned utility that dominates generation and distribution in the Province. The operational separation of BCTC and BC Hydro allows Powerex, BC Hydro’s merchant trading arm, to trade power in the Pacific Northwest.

British Columbia’s neighbours have an interest in an open access transmission network. To the East of British Columbia the electricity market in Alberta is restructured and the wholesale market is quite active with over three hundred market participants. To the south of British Columbia the wholesale markets are opening to trading under various FERC orders.

In principle the combination of open access transmission and a variety of generation sources/markets, coupled with a large geographic area and demand heterogeneity, would present large opportunities for trade and create large gains from trade. However, parties in this region have raised concerns regarding BC Hydro’s use of the “network economy” provision to restrict access to the BC transmission grid in order to reduce electricity prices in British Columbia by restricting wealth creating trades in regional wholesale markets.

Network economy is a FERC approved provision that allows the “network customer”, BC Hydro in this case, to pre-empt non-firm service on the BC transmission grid in order to serve its customers- basically the majority of BC load. The problem that many market players in Alberta identify with the use of the network economy provision in British Columbia is that BC Hydro may be able to invoke this provision in order to satisfy purely commercial objectives and thus reduce the “openness” of the transmission grid.

In this paper we analyze the use of the network economy provision in British Columbia. We distinguish between BC Hydro’s ability to manage its hydro capacity and capture hydro rents in a competitive market, something that it should be able to do, and its ability to manipulate the transmission grid for commercial reasons, something that goes against the notion of open access. In doing so we will shed light on the interaction between restructured and fully regulated electricity markets in North America.