

## FACT SHEET: DEMAND SIDE MANAGEMENT

*What would it take to get you to remember to turn off the lights when you leave the room? To pause a moment and unplug the cellphone charger? To choose the more expensive “green” light bulb? BC Hydro has put the price of imprinting that message over the next three years at \$418 million. And so far, the Crown Corporation’s long-running Power Smart campaign hasn’t moved the meter. Since 2003, the corporation has poured nearly half a billion into the program, and B.C. homes are burning up just as much power. – Globe and Mail, October 22, 2010.*

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To be considered in this scenario is the potential impact on supplies of electricity if the ambitious conservation goals recorded in BC Hydro’s Demand Side Management forecasts are not met. How would that supply gap be filled – at what cost – and at what impact on customer rates? And what would be the impact on B.C.’s mandated goal of self-sufficiency in electricity by 2016?

Another question is how much more power would have been needed if there had *not* been any Power Smart program . . . and whether the nearly \$1 billion in program costs would have been better allocated to developing new sources of clean power that result in lower greenhouse gas emissions than could be achieved through DSM. Note that amount does not include the *consumers’* contributions through increased rates and the investments they make to achieve energy efficiency in their homes.

Dr. Mark Jaccard, a Simon Fraser University professor and former Chair of the B.C. Utilities Commission, has prepared a yet-to-be published report on the effectiveness of spending on demand side management by certain Canadian utilities. The Globe and Mail article reported his comments as follows:

*His research concluded that major subsidy programs “are not nearly as effective as we thought they were.” And that promised conservation targets are rarely met. Nagging consumers to be Power Smart just isn’t enough. “I would be surprised if we are going to get good value from that amount of money,” he said.*

Because of the number of variables that have to be measured, the interrelationships among them and the constant changes to Power Smart programs, there are no simple answers to these questions. For example, BC Hydro to date has ‘bundled’ together the cost savings

resulting from DSM, the imposition of new building codes and standards, and the impact of rate increases. It has not been possible to identify the cost-effectiveness of individual DSM programs.

‘Price elasticity’ is another factor. This refers to the tendency of consumers to reduce their demand for any product as the price increases relative to the general level of prices. While BC Hydro’s long term price forecast indicates a 60% increase in the real price of electricity, it estimates a resulting reduction in demand of only 2.5-3%. Also at play is the ‘rebound effect’ which refers to a consumer’s tendency to improve energy efficiency, but then find more applications for the product.

But it must be noted that as conservation targets are embedded into BC Hydro’s resource plans – along with such variables as the level of economic activity, natural gas supply and prices, electrification of the transportation and oil/gas sectors, transmission constraints, weather constraints and carbon pricing – there is an increased risk the utility will have to rely on unpredictable electricity spot markets to fill any gaps in supply.

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Clean Energy BC  
604.568.4778  
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