

A Review of the Role of Government in Adding Large Electricity Loads

Introduction

Public interest associated with especially large new loads may raise the policy attention of Government. Large industrial loads can be associated with significant government revenue, jobs and other economic benefits, and environmental impacts. Government's policy attention could include revisiting the terms and conditions under which the new load was supplied electricity by BC Hydro.

Since Government may, at least, turn its attention to the terms and conditions of electricity supply to very large new industrial loads, it is worth considering the policy basis that might underpin such involvement.

The Mechanics

Government plays two distinct roles in the British Columbia. First, Government is the sole shareholder of BC Hydro. Second, Government has its traditional policy-making and regulatory roles, including powers that allow Government to impose broad direction on the British Columbia Utilities Commission.

The combination of these responsibilities and its legislative powers allows Government broad tools to direct to effectively allocate costs between: (a) ratepayers; (b) taxpayers; and (c) the new load.

Government can direct BC Hydro to act in ways that a private utility (with normal commercial interests) may not otherwise act. For example, it can compel BC Hydro make certain expenses or undertake certain initiatives in favour of the new loads, and to charge unique rates to certain customers (subject to the discrimination provisions of the *Utilities Commission Act*, unless government chose to exempt those rates). Government can then ensure that the rates of the utility are adequate to recover costs related to any specific actions taken by BC Hydro in favour of a specific load or class of loads (thereby imposing the costs on ratepayers). Alternatively, Government could set rates such that BC Hydro under-collects on its costs, potentially foregoing dividends to Government (imposing the costs on taxpayers).

The Policy Rationale

Since Government has the tools to quite easily (i.e., without having to act through the Legislature) effect specific cost allocation outcomes for new loads, it is reasonable to consider the circumstances in which it may wish to do so.

Government could wish to depart from a model where new large loads pay their full costs, or certain existing loads paid full embedded costs, if doing so served broader economic policy objectives. If benefits from a new customer or the retention of an existing customer were large

enough, they might be seen to warrant a rate that is below its cost of service, which imposes costs on other customers or on taxpayers. Alternatively, if a project was likely to create some external harm to ratepayer or taxpayer interests, government could theoretically determine that a higher payment is required to protect the interests of existing customers or taxpayers. The same approach could be taken in response to environmental or social policy aims.

Establishing whether a given project generates a net economic benefit or cost under the base tariff, and comparing that to costs or benefits under a revised allocation model is always going to be complex, and the results will always be vulnerable to assumptions and subject to debate.

Practicality

Should Government decide that it is comfortable with some form of action in respect of a specific load interconnection, a further consideration is to assess the level and cost of policy action necessary to accomplish the intended result.

Government is subject to conflicting policy and economic constraints. Even if government is willing to intervene in rates for a particular customer or class of customers, it faces a trade-off between attractiveness to industry and costs for the broader group of ratepayers and taxpayers. If it makes rates too high, customers may simply self supply or move to another jurisdiction. On the other hand, if Government makes the rate too low, it might secure a new customer at an enormous cost to either ratepayers or taxpayers.

The question of practicality also leads to the question of different treatments of industrial loads depending on their size. Government cannot practically make one-off policy choices for every new industrial load. On the other hand, rate-making rules cannot effectively reflect the full range of policy implications of the very largest loads. These loads may require some form of specific policy assessment, and the 150 MVA threshold in the current industrial tariff may be a reasonable guideline to where government attention should focus.

Use of Load Attraction and Retention Subsidies

Years ago, load attraction subsidies were fairly common. In BC, Alcan was offered benefits in the form of rights to develop and use (free of regulation) its Kemano facilities. Other industry has benefitted from rates such as those offered under the *Power for Jobs Development Act* (1997), or special irrigation pricing, for example.

Over time, as trade rules and political views toward subsidizing industry have made transparent programs less attractive, more nuanced mechanisms to convey an advantage to some or all industry have emerged. These range from simple approaches like cost allocation (industrial rates may fall short of recovering their full cost of service) to complex market or rate designs that support industrial strategies to avoid paying market price spikes or other forms of peak pricing (in Alberta, for example, industries that can simply “go off line” during price spikes, and otherwise enjoy relatively low market prices).

Some jurisdictions still use load attraction programs. For example, Ontario's Industrial Electricity Incentive Program, offered through the Ontario Power Authority, is intended to recover load lost through the 2008 economic downturn by using "electricity-based price adjustments for eligible electricity consumption". This means price relief for new or existing industrial customers willing to expand an industrial facility, add a new industrial facility, or undertake large capital investment in innovating technologies, products, or processes. Up to five terawatt-hours of electricity per year is available under the program.

Ontario's program makes its objectives clear: use surplus created by a slumping economy to stimulate investment. Since the electricity being discounted is from existing capacity (freed by a weak economy), there should be a short-term marginal benefit, rather than a short-term marginal cost, to utility customers. Longer-term, the program could advance in time the need for new generation, so those costs would have to be considered. And all of the costs and benefits are, presumably, judged against the general economic benefit of recovering economic activity lost during the past recession.

The Government of Quebec apparently determines the price of power for new loads larger than 50 MW, although it's not clear how this is determined. Hydro Quebec is not obligated to serve loads beyond this threshold, and the government determines which customers in excess of 50 MW bring sufficient benefits to be eligible for heritage electricity rates. If full costs are not recovered from the customer, the ratepayer is not necessarily affected – Hydro Quebec is apparently reimbursed for revenue shortfalls.

Clearly, however, the same program in a jurisdiction without a surplus could be very expensive on a cash basis, and that tangible cost would have to be weighed against perceived benefits.

Questions for British Columbia

1. Should new large industrial projects be dealt with under the same tariff as existing customers, or should government consider additional factors?
2. How should the costs or revenues of any departure from the standard industrial tariff be divided between ratepayers and taxpayers?
3. Should there be a distinction between retaining large customers and attracting new ones?
4. Does government have additional tools that it should consider using?