

2 PRINCIPLES FOR BC HYDRO STEPPED RATE DESIGN

To assist in the development of the proposal for stepped rates, BC Hydro retained the services of Energy and Environmental Economics, Inc. (E3). The report prepared by E3 is discussed in more detail below and reproduced in its entirety at Tab A of this volume. Early in discussions with E3, it became apparent that a stepped rate proposal should adhere to some basic principles. Failure to adhere to these principles will, in BC Hydro's view, cause undesirable and potentially substantial cost shifting between customers. The principles are:

- (1) The stepped rate should be a mandatory tariff. The principle is that new growth above a customer's historic consumption would be supplied at the "cost of new supply," rather than at existing embedded cost-based rates or a blend of old and new costs. At the same time, BC Hydro needs to carefully balance the objectives of providing the proper price signals with offering comparable terms to both new and existing customers who increase their consumption.

If Schedule 1821 is preserved as the default tariff, customers contemplating growth would elect to be served at a rate based on the rolled-in cost of BC Hydro's generation resources, rather than at rates consistent with "the utility's cost of new supply" as described in Policy Actions #14 and #21.

Preserving the option of serving load at 1821 rates would also limit the extent of "retail competition for large BC Hydro customers" (Policy Action #14) because new supplies are unlikely to be cost-competitive when compared to BC Hydro's existing hydro generation. Finally, it might give industrial customers who are working with wholesale marketers the ability to purchase power at a low embedded cost-based price and resell it at higher market-based prices. This would increase rates to all non-participating customers of BC Hydro.

- (2) The stepped rate should be "revenue or bill neutral" at historical consumption levels. If the stepped rate customer does not change its usage relative to its past consumption, the customer's bill should remain unchanged after the

implementation of the stepped rate. This assures that even though the stepped rate is a mandatory tariff, the benefits of low-cost power will continue for all customers.

- (3) The stepped rate should be “margin neutral” at all consumption levels. The stepped rate should provide incentives for changes in consumption that do not result in costs or risks being shifted to other customers. In other words, the stepped rate should also be “margin neutral” for BC Hydro, where margin is revenue less cost, adjusted for risk. This is ensured by “incremental” cost pricing. Under incremental pricing, bill credits granted to customers for their energy savings do not exceed BC Hydro’s risk-adjusted value of the saved energy, and bills sent for additional growth cover BC Hydro’s incremental costs and risks of acquiring new supply. This is also a change from the historical practice of “rolled in” pricing to “incremental” pricing for consumption changes above or below historic consumption levels.

In addition, there are aspects of the Heritage Contract provisions of the Energy Plan and Terms of Reference that BC Hydro believes constrain the proposal that can reasonably be put forward in this volume. In particular, BC Hydro believes that the Heritage Contract – not the stepped rate design – is the mechanism by which the value of the low-cost and flexible heritage assets is delivered to ratepayers.

Within its Heritage Contract proposal (see Volume 1), BC Hydro has described a compact that allocates the value of heritage assets (those plants and obligations listed in Schedule A of the Terms of Reference) to Heritage Beneficiaries (the *classes* of customers listed in Schedule B of the Terms of Reference). The Energy Plan and the Terms of Reference require this approach, as discussed in detail in Volume 1.

Structuring the Heritage Contract this way leaves the Commission with the discretion to allocate the costs of the electricity in the Heritage Contract among the classes of customers listed in Schedule B of the Terms of Reference. BC Hydro expects that the Commission will do this on a pro-rata basis, by customer class, as part of BC Hydro’s upcoming revenue requirements process. BC Hydro also expects that the Commission

may consider alternative inter-class allocations as part of an eventual rate design hearing.

However, BC Hydro does not believe that the Energy Plan intended for Heritage Beneficiaries to be identified individually on a customer-specific basis, nor did it intend for rate designs to have the effect of assigning heritage value directly to individual customers. As such, the proposals contained in this volume reject any such direct assignment.

Distinguishing between the assignment of heritage benefit by class and by customer is critical. If heritage value is assigned directly to a customer (based on historical usage, for example), it suggests a right of ownership. This can provide customers with the incentive to sell their "slice" of the system, while cutting back on production or quitting business altogether. In this way, these customers can effectively capture the heritage value for themselves and leave it unavailable to drive benefits for all British Columbians.

Stepped rate designs that adhere to the above guiding principles promote changes in consumption or investments that are cost-effective from the perspective of all BC Hydro's customers. The designs ensure that no individual customers are made worse off by the action of another existing customer.

As long as the designs do not shift historical costs among customers and rely on incremental costing to bring about incremental changes in consumption, there is no need to focus the outcome of this inquiry on a single "best" design. BC Hydro could offer different tariffs for customers who wanted a longer term, fixed price design and those who wanted to take advantage of more frequently updated market price signals.

Some designs are more flexible than others and would allow BC Hydro to offer both a single long-term multi-year rate and a rate that varies by time of use period and month. There are other designs that are more simple and more certain, but they provide less flexibility for customers and require complicated access rules to ensure that non-participants (industrial customers whose consumption does not change and customers in other rate classes) are not harmed.

BC Hydro believes it is premature to design the rate now without further consultations because many aspects of the design, and the options it should include, will depend upon customer preferences that are not yet fully understood.

BC Hydro acknowledges that some interested parties appear ready to identify the basic characteristics of the stepped rate design now. In particular, BC Hydro received a letter dated March 11, 2003 from the Joint Industry Electricity Steering Committee (JIESC). In their letter, the JIESC commented on the information presented at the BC Hydro Rate Design Workshop, discussed below, and presented a stepped rate design. The JIESC letter is found at Tab D(ii) of this volume.

Ultimately, a form of phased-in implementation, starting with a relatively simple design and adding more complex options as customer needs and experience develop, may be the most prudent way to implement a new structure in British Columbia. A design could be initially implemented that establishes a basic framework, and subsequently allows for additional refinements to be added based on customer demand. While BC Hydro believes that design requires significant stakeholder input before being finalized, certain conclusions can be reached now based on the work of E3. Before identifying those conclusions, a brief discussion of E3's report is necessary.