

1 **Q. C. Douglas Bowman Report, page 3, lines 11-14. Please list all proceedings in Nova**
2 **Scotia and other Canadian jurisdictions, excluding Newfoundland and Labrador, in**
3 **which Mr. Bowman has presented evidence on utility cost of service and rate design**
4 **issues and include the dates such evidence was filed.**

5
6 **A.** Mr. Bowman has filed evidence on cost of service and rate design in the Canadian
7 provinces of Newfoundland and Labrador, Nova Scotia and Ontario. Evidence filed is
8 documented in Exhibit CDB-1 of Mr. Bowman's Pre-filed Evidence and is repeated
9 below. Not included in Exhibit CDB-1 are rate designs that Mr. Bowman developed for
10 industrial customers while at Ontario Hydro including an interruptible rate, a real-time
11 pricing rate and a surplus power rate. These rates all received regulatory approval and
12 were in use up until the time Ontario deregulated its electricity market and introduced
13 competition at the wholesale and retail levels.

14
15 For Nova Scotia, Mr. Bowman no longer has copies of this evidence and has been unable
16 to locate it on the Nova Scotia Utility and Review Board website. However, the evidence
17 was filed during the years 1994 through 1996. For Ontario, two reports were filed as part
18 of Ontario Hydro Networks Company (OHNC) evidence filed with the Ontario Energy
19 Board (OEB) in support of its *Transmission 2000 Cost Allocation and Rate Design*
20 application (filed October 1, 1999). The report on the International Survey of
21 Transmission Rates and Services is dated May 2000. Mr. Bowman is unable to locate the
22 report on Development of Terms and Conditions for Transmission Tariff but notes that it
23 was also filed in support of the Ontario Hydro Networks Company (OHNC) *Transmission*
24 *2000 Cost Allocation and Rate Design* application. The interruptible, real-time pricing
25 and surplus power rate designs developed for industrial customers in Ontario received
26 regulatory approval from the Ontario Energy Board in the early 1990s. Mr. Bowman no
27 longer has documentation related to these rate designs.

28
29 In Nova Scotia,

30
31 **Expert Testimony at Nova Scotia Power's Rates Submission**

32 Provided expert oral and written testimony related to cost of service and rate design
33 issues. Recommended and designed time-of-day rates for all customer classes and
34 designed an alternative interruptible rate design for large industrial customers.

35
36 **Expert Testimony at Nova Scotia Power's Rates Submission**

37 Provided expert oral and written testimony regarding an Industrial Expansion rate design.
38 Recommended approval of rate with modifications and submitted two alternative rate
39 designs for approval including a real-time surplus power rate and a time-of-day expansion
40 rate.

41

1 **Cost of Service and Cost Reducing Rate Design Study**

2 On behalf of the Nova Scotia Utility and Review Board, reviewed Nova Scotia's cost of
3 service study and developed rate designs consistent with Nova Scotia Power's integrated
4 resource plan for all customer classes. Report was filed with the Board, and reviewed as
5 part of hearing on utility's subsequent rate submission.
6

7 In Ontario,
8

9 **Development of Terms and Conditions for Transmission Rate**

10 Assisted Ontario Hydro Services Company with development of terms and conditions for
11 its new transmission rate. The terms and conditions were filed with the regulatory
12 authority as part of the utility's application for approval of the new rate. Also assisted with
13 preparation of responses to various discovery questions related to the rate.
14

15 **International Survey of Transmission Rates and Services**

16 Conducted a survey of transmission rates and services provided in various domestic and
17 international jurisdictions. Survey conducted in support of submission by Ontario Hydro
18 Networks Company to Ontario Energy Board on its new transmission tariff. Survey topics
19 included: services offered such as network, point-to-point, connection, import and export
20 service; cost recovery such as postage stamp, zonal and nodal pricing; treatment of
21 generation; and transmission planning.
22

23 **Development and Implementation of Interruptible Rate for Industrial Customers**

24 Designed interruptible power rate for industrial customers with three options relating to
25 the discount, number and length of interruptions. The rate was offered on a voluntary
26 basis and received regulatory approval from the Ontario Energy Board. When first
27 implemented, the rate had 44 subscribers. Interruptible discounts were based on the
28 marginal value of capacity and took into consideration the diversity or load available for
29 interruption. The rate replaced a previous interruptible rate that was based on information
30 that had become outdated.
31

32 **Development and Implementation of Real-time Pricing Rate for Industrial
33 Customers**

34 Designed real-time pricing rate for industrial customers. The rate was based on a day-
35 ahead forecast of Ontario Hydro's marginal cost of energy. Each day, the energy rate was
36 faxed to subscribers for application the following day. The capacity component collected
37 the remainder of the revenue requirement and was established a year-ahead. It was billed
38 hourly (as was the energy component). The capacity component was designed to recover
39 50% of the remaining revenue requirement (the part not recovered in the energy
40 component) in the three winter months, 25% in the three summer months and 12.5% in

1 each of the three spring and fall months. The rate received regulatory approval from the
2 Ontario Energy Board and when first implemented had 22 subscribers.
3

4 **Development and Implementation of Surplus Power Rate for Industrial Customers**

5 Designed a surplus power rate that had no capacity charge. The energy charge was based
6 on the day-ahead forecast of Ontario Hydro's marginal cost plus an adder of 0.5
7 cents/kWh. The intent was to encourage consumption above baseline historical levels. In
8 effect, the administrator of the rate (Mr. Bowman) bid to purchase energy from the market
9 on behalf of surplus power customers. If another purchaser such as a Michigan or New
10 York utility bid a higher amount, the power was sold to the alternative purchaser and
11 supply to the surplus power customers was interrupted. Energy prices were faxed to
12 customers a day in advance and customers were billed hourly. The surplus power rate was
13 offered on a voluntary basis. The rate received regulatory approval from the Ontario
14 Energy Board and when first implemented had 6 subscribers. After the first month, one
15 of the subscribers opted out of the rate because it could not withstand the high number of
16 interruptions. However, five customers remained on the rate in spite of the interruptions
17 so in this sense, the power was truly surplus to their needs.