

NSURB NSPI - P871
EXHIBIT# P-13

Before the
Nova Scotia Utility and Review Board

Re: Application for Approval of Load Retention Rate – P-871

NOVA SCOTIA POWER INC.

Direct Testimony of
Dr. Alan Rosenberg

On Behalf of
Stora Enso Port Hawksbury Ltd.

December 1999
Project 7285

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BRUBAKER & ASSOCIATES, INC.

NOVA SCOTIA POWER INC.

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Re: Application for Approval of Load Retention Rate – P-871

Direct Testimony of Dr. Alan Rosenberg

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A My name is Alan Rosenberg and my business address is 1215 Fern Ridge Parkway,
3 Suite 208, St. Louis, Missouri 63141-2000.

4 **Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?**

5 A I am a consultant in the field of public utility regulation and a principal in the firm of
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A This is summarized in Appendix A to this testimony.

9 **Q ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

10 A I am testifying on behalf of Stora Enso Port Hawksbury Ltd. (Stora Enso). Stora Enso
11 is a large customer of Nova Scotia Power Inc. (NSPI) and a potential customer for the
12 proposed Load Retention Rate.

13

1 **Q WHAT IS THE PURPOSE OF YOUR TESTIMONY**

2 A I have been retained by Stora Enso to review and comment upon the proposed Load
3 Retention Rate of NSPI supported by the evidence of Mr. Christopher Huskilson and
4 Mr. Melvin Whalen.
5

6 **Q HAVE YOU PREVIOUSLY APPEARED BEFORE THIS BOARD?**

7 A Yes. I appeared before the NSUARB in 1996, in connection with NSPI's rate
8 application. Over the past 18 years, I have also presented expert testimony on
9 numerous occasions in three other Canadian provinces, as well as 16 States, and
10 before the Federal Energy Regulatory Commission.
11

12 **Q DO YOU AGREE WITH NSPI ON THE NEED FOR A COGENERATION DEFERRAL**
13 **RATE?**

14 A Yes. A cogeneration deferral rate—or more generic special rates that are offered
15 when the customer has a viable competitive alternative to the incumbent utility—have
16 been operating successfully in a number of other jurisdictions, as is evidenced by Mr.
17 Whalen's Table A appended to his evidence. Moreover, Table A is by no means an
18 exhaustive list of such rates. For example, in my own experience, I know that
19 Niagara Mohawk in New York State, another high cost utility, has been serving many
20 of its industrial customers on a competitive alternative rate (CAR) for many years
21 now.
22
23

1 **Q ARE CARs A NEW CONCEPT?**

2 A Not at all. As the ability to cogenerate became more commonplace in the late 1970's
3 or early 1980's, utilities began to respond to what they viewed as a competitive
4 alternative on the part of their customers. Of course, the readiness of the utility to
5 respond varied from location to location depending upon the price structure of the
6 utility, and the availability of natural gas or other fuel for cogeneration. Nor were
7 CARs restricted just to electric utilities. Many natural gas distribution companies have
8 long had what are often referred to as "anti-bypass" rates to address customers with
9 viable alternatives.

10

11 **Q CAN WE INFER FROM YOUR LAST ANSWER THAT YOU BELIEVE CARs WILL**
12 **REMAIN A PERMANENT FIXTURE IN RATE SCHEDULES?**

13 A As a matter of fact, I do not. In my view the electric industry is slowly, but surely,
14 restructuring towards free and open competition for the supply (i.e., production or
15 generation) of energy and capacity. As that happens, the need for CARs will
16 evaporate because they will be redundant. Until that time, however, they remain a
17 necessity for many utilities.

18

19 **Q IN A PREVIOUS RESPONSE YOU USED THE TERM "SUCCESSFULLY" WITH**
20 **RESPECT TO A CAR. WHAT DID YOU MEAN BY THAT?**

21 A By successful I mean a rate that benefits all stakeholders. The customer taking
22 service on the CAR achieves its goal of reducing its energy costs so that it can
23 remain competitive in a global economy. The utility offering the rate is better off
24 because it retains a customer—and some profits from that customer—that it might have
25 lost. Moreover, these profits would have been lost irretrievably, at least until the next

1 rate case. Even after a subsequent rate case, there is no guarantee that the lost
2 profits could be recouped completely from the remaining customers. Consequently,
3 the utility's profits are higher than they otherwise would have been without the
4 flexibility of a CAR.

5 And, of course, the other customers benefit in two tangible ways. First, the
6 retained load is contributing to the utility's fixed costs. The result is that the fixed
7 costs are spread over a larger number of units than they would have been absent the
8 CAR. This lower unit cost should ultimately be reflected in lower rates for all other
9 customers vis-a-vis the situation with no CAR available. Second, the CAR can be a
10 means of attracting new load or retaining existing load in the region. Thus, the CAR
11 enhances the economic climate of the region to the benefit of all residents.

12
13 **Q HAS THIS LAST BENEFIT BEEN RECOGNIZED BY REGULATORS AS A**
14 **RATIONALE FOR A CAR?**

15 **A** Not as frequently as the other benefits. However, based on my firm's involvement
16 with industrial clients over the past 30 years, I can testify that the existence of a CAR
17 is certainly a consideration. Moreover, in reviewing NSPI's response to the Board's
18 IR-19, I did observe that the Michigan Public Service Commission took explicit notice
19 of the salubrious effects of a CAR:

20 (2)...the agreement [between Consumers Power
21 Company and Upjohn] may help to attract new load and
22 promote economic development.

23 * * * * *

24 There are benefits to the general public, including the
25 economic effects of retaining and potentially expanding
26 employment in the state.

27 (Case No. U-11001, pages 2 and 4)
28

1 The Load Retention and Expansion Price (LREP) option of Ontario Hydro also
2 acknowledges the economic benefit of this type of rate:

3 . . . a LREP could ensure that their electricity prices are
4 highly competitive. This is naturally good for the provincial
5 economy as a whole, as well as for the utilities that will
6 retain or acquire these customers.

7 (Page 1, emphasis added)

8
9 In fact, many states in the U.S. allow for economic development rates even
10 when there is no demonstrated competitive alternative. (I should note, however, that
11 economic development rates are distinct from CAR's.)
12

13 **Q MR. HUSKILSON STATES THAT ONE RESPONSE TO COMPETITIVE**
14 **ALTERNATIVES WOULD BE TO DISCOURAGE ALTERNATE USE OF EXIT FEES**
15 **AND/OR HIGH CHARGES FOR ANCILLARY SERVICES, SUCH AS STANDBY**
16 **SERVICE. IS THAT AN APPROPRIATE RESPONSE?**

17 **A No.** NSPI is absolutely correct to reject that type of knee-jerk reaction, and not only
18 for the reason Mr. Huskilson notes, i.e., because it would sour customer relations.
19

20 **Q WHY WOULD EXIT CHARGES AND/OR EXORBITANT CHARGES FOR**
21 **ANCILLARY SERVICES BE A POOR REACTION TO THE APPEARANCE OF A**
22 **COMPETITIVE THREAT?**

23 **A**There are many compelling grounds for rejecting the punitive route. First, it is not
24 likely to garner regulatory approval. My experience has been that, in general,
25 regulators frown on exit fees and non-cost based rates for standby service, and for
26 good reason. Such an approach is anathema to sound regulation. The *raison d'etre*

1 for regulation is to protect customers from monopolistic practice. Good regulation is
2 pro-competitive, not anti-competitive. Regulation itself is intended as a surrogate for
3 competition. It stands to reason that when regulators can encourage authentic
4 competition, that—almost by definition—is regulation carried to its ideal.

5 Second, the punitive response could send a chilling signal to current and
6 potential industrial customers that Nova Scotia does not welcome competition. This
7 would not augur well for all residents of the province.

8 Third, the potential of competitive sources gives the regulators useful
9 information that could serve as a benchmark for the incumbent utility. This
10 information would be lost if competition were artificially repressed.

11 Fourth, exit fees cannot easily be enforced if the customer shifts production to
12 another plant or isolates itself electrically from the transmission grid.

13 Fifth, such exit fees are blatantly discriminatory. Would anyone seriously
14 consider imposing an exit fee on a residential customer who lowered its electrical
15 consumption by installing DSM (Demand Side Management or conservation)? I think
16 not.

17 Sixth, the anti-competitive response could be counter-productive. For
18 example, artificially high standby charges could induce the cogenerator to install
19 redundant generation. Not only would this be an inefficient use of resources, it would
20 also deprive the utility of any fixed cost contribution from that customer.

21 Finally, even if the repressive measures were successful in retaining the load,
22 the applicant for the CAR would not gain the competitive edge that it needs to be
23 successful.

24

1 Q UNDER WHAT RATE DO UTILITIES NORMALLY SUPPLY STANDBY OR
2 MAINTENANCE POWER?

3 A Typically utilities will have a specific rate for cogenerators because the normal rate for
4 a full requirements service would overcharge standby service and maintenance
5 service. Very briefly, the reason is that full requirements service is predicated on a
6 high coincidence factor, while standby customers normally have a very low
7 coincidence factor—usually between 5% and 10%, sometimes less. Also,
8 maintenance service is less costly because it is scheduled at times of low loads.

9

10 Q ARE CARS DISCOUNT RATES?

11 A They can be viewed as such in the sense that they are always less than the normally
12 applicable tariff. In that sense, they are a special rate. On the other hand they are
13 compensatory in the sense that they, at a minimum, recover the incremental cost of
14 providing the service. The CAR may even be greater than the customer's fully
15 allocated cost of service when the regular tariff is above the actual cost of providing
16 service.

17

18 Q HOW IS IT POSSIBLE FOR THE REGULAR TARIFF TO EXCEED THE ACTUAL
19 FULLY ALLOCATED OR EMBEDDED COST OF PROVIDING SERVICE?

20 A There are several ways this could occur.

21 1. Tariff rates are generally designed to recover rates from a broad group of
22 customers. Thus, while on average, the tariff recovers the embedded cost of
23 service from the class, individual members of the class might be paying more
24 or less than the actual cost of serving them. Sometimes this problem can be
25 alleviated or mitigated by further refining the class or the cost of service study,
26 perhaps by performing direct assignments.

2. Some commissions approve, either implicitly or explicitly, cost of service allocation methodologies that are not reflective of the actual economic principles of cost causation. These aberrations are not readily exposed until a competitive alternative surfaces.

3. It is not unknown for some Commissions to intentionally subsidize certain groups of customers, usually residential customers, for broad political or social reasons.

Of course, the above reasons are not mutually exclusive.

Q DOES THE EXISTENCE OF A CAR NEGATE THE NEED FOR REGULAR TARIFFS THAT ACCURATELY REFLECT COSTS?

A Absolutely not. Cost based rates should always remain a goal of the regulator and the utility.

Q YOU STATED THAT A CAR IS ALWAYS LESS THAN THE REGULAR RATE THAT IS OTHERWISE APPLICABLE. DOES THIS IMPLY THAT A CAR IS DISCRIMINATORY?

A That depends upon what you mean by the term "discriminatory." Rates are always discriminatory in some sense. Customers with high load factors normally pay different rates than ones with a low load factor. Customers served at high voltages usually pay lower rates than ones served at secondary voltages.

The pertinent question is whether CARs are unduly discriminatory. In my view, they are not. All public service commissions and utility boards of which I am aware, operate under a proscription against rates that are unduly discriminatory or rates that are not just and reasonable. Considering the prevalence of these anti-

bypass rates, all of which allow for a special rate that is less than the regularly applicable tariff, it appears that most regulators would agree with my favorable view of a CAR.

Q ARE THERE ANY FEATURES THAT ARE COMMON TO ALL CARS?

A Yes, there is one feature that, to the best of my knowledge, is universal. Regulators require that other customers be better off as a consequence of the CAR than they would have been absent the special rate. Sometimes this is stated explicitly. Other times it is expressed as a condition that the rate be greater than the incremental cost of providing the service. Occasionally, the regulators will stipulate a minimum amount by which the rate must exceed that incremental (or marginal) cost. Sometimes the rate requires that the customer make a positive contribution to the utility's fixed costs. These are all different ways of saying the same thing.

Also, more often than not, the rate gives the utility the ability to negotiate an individual rate, including broadly flexible price and terms arrived at on a case-by-case basis, rather than impose a one-size-fits-all formula.

Q IS THERE ANY OTHER CHARACTERISTIC OF A CAR THAT IS FREQUENTLY FOUND?

A Yes. Many CARs allow the price and other terms of the contract to remain confidential. (Of course, this confidentiality extends to the cost of the customer's potential alternative.) This is an advantage to both the utility and the customer. It is an advantage to the utility because it does not want other applicants to use the price extended to one customer as a bargaining point for its negotiations. Also, many

1 customers would refuse to negotiate an anti-bypass rate if they knew that their data
2 could become public. Instead they would simply proceed to install their own supply.
3 The corresponding benefit of confidentiality to the customer is, of course, the
4 maintenance of its competitive position.

5
6 **Q DO MOST CARs REQUIRE THE APPROVAL OF THE REGULATOR FOR EACH**
7 **INDIVIDUAL CONTRACT?**

8 A I am not sure. I know that some do and some do not. I think that there are pros and
9 cons to each approach. For example, not requiring Board approval would avoid
10 some time, effort and costs. It would also facilitate keeping the terms confidential.
11 On the other hand, Board scrutiny would help ensure that the remaining customers
12 are not made worse off by the particular rate. I believe most regulators do, however,
13 require that the contract be submitted for informational purposes.

14
15 **Q IS THERE ANY FEATURE OF THE PROPOSED RATE THAT YOU WOULD NOT**
16 **RECOMMEND?**

17 A Yes. On page 3 of Mr. Huskison's testimony, lines 12-13, he states that NSPI
18 proposes that the price being offered to retain the customer on the CAR is not less
19 than necessary to make the customer indifferent with respect to the options available.
20 This condition is stated as the third "bullet" in (1) of the AVAILABILITY section of the
21 tariff. I disagree with this prerequisite.

1 **Q WHY DO YOU DISAGREE?**

2 A Mr. Huskilson seems to imply that the customer's rate on the CAR tariff will be set
3 precisely equal to the cost of the potential alternative. I do not think it advisable to
4 impose this clause, for several reasons.

5 First, this is not the outcome that would be likely to occur in a competitive
6 situation. In a competitive situation the parties would likely negotiate and arrive at a
7 price that was somewhere between the incremental cost of NSPI and the total cost of
8 the customer's most economical option. In fact, in places where there is not a
9 transparent hourly market price, utilities typically make economy transactions
10 between themselves at what is usually termed "split-the-savings" terms, i.e., a price
11 halfway between the incremental cost of the selling utility and the purchasing utility.
12 While this is perhaps not a perfect analogue (because in that case the purchaser
13 already has a source of electricity), I think it is indicative of the outcome of a
14 negotiated price between a purchaser with options and seller facing competition.

15 Second, this condition that Mr. Huskilson would commend is not conforming to
16 competition. Economic theory states that in the presence of competition, and no
17 market power, prices will converge with incremental cost at equilibrium.

18 Third, the purpose of a CAR is not to make the customer indifferent between
19 remaining with the utility and exercising its competitive option. The purpose of the
20 CAR is to make the customer decidedly favor remaining with the utility, in this case
21 NSPI.

22 Finally, it may be burdensome to administer. There are so many variables
23 involved in calculating the cost to a customer of a cogeneration project, that it is
24 doubtful that NSPI could calculate the exact price of the customer's alternative. It is

1 perhaps even more complex when the alternative is shifting production to another
2 location.

3
4 **Q BUT WOULD YOU NEVERTHELESS AGREE THAT THE PRICE OFFERED BY**
5 **THE CAR SHOULD NOT BE LESS THAN IS NECESSARY TO RETAIN THE**
6 **CUSTOMER?**

7 A Yes, I would agree. However, it is unnecessary to state that in the tariff or in the
8 attachments. This would be the natural outcome of vigorous and effective
9 negotiations on the part of NSPI and the customer. NSPI would not want to negotiate
10 a rate that is less than absolutely necessary, if only because it would be unsure that
11 its shareholders would not be held at least partly responsible for the difference
12 between the regular tariff and the anti-bypass rate. Moreover, if the contract is
13 subject to Board approval, the Board could satisfy itself that NSPI acted in good faith
14 to maximize the contribution to fixed costs.

15
16 **Q IS IT COMMON TO IMPOSE THIS "INDIFFERENT" CONDITION IN A**
17 **COMPETITIVE ALTERNATIVE RATE?**

18 A It is not unheard of, but it is my definite impression that most CARs just allow the
19 parties to negotiate a rate based on the specific circumstances of the situation,
20 subject only to the conditions that I previously indicated were ordinary for a rate of
21 this sort. I believe the usual approach is typified by the Central Illinois Public Service
22 Company tariff (Rider 16, included in the response to the Board's IR-19). The section
23 of that tariff to which I refer was obliterated in the copy that NSPI included in its
24 responses. The obliterated portion of the tariff reads, in part, as follows:

1 Revenues from service to the Customer under such
2 contract shall be greater than the applicable incremental
3 customer, facility, energy and capacity costs to serve such
4 Customer, ensuring a positive contribution to fixed costs.

5
6 I would commend this language be used in lieu of the third bullet in (1) of the
7 AVAILABILITY section of NSPI's Load Retention Rate.

8
9 **Q DOES THIS CONCLUDE YOUR TESTIMONY IN THIS CASE?**

10 **A Yes.**

Qualifications of Alan Rosenberg

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Alan Rosenberg. My business mailing address is P. O. Box 412000, 1215 Fern
3 Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.

4 **Q WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation and am a principal in the firm of
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A I was awarded a Bachelor of Science Degree from the City College of New York in
9 1964 and a Doctorate of Philosophy in Mathematics from Brown University in 1969.
10 Subsequently, I held an Assistant Professorship of Mathematics at Wesleyan
11 University in Connecticut. In the summer of 1975, I was a Visiting Fellow at Yale
12 University. From July, 1975 through January, 1981, I was Assistant Controller for a
13 division of National Steel Products Company. My responsibilities there included
14 supervision of management accounting, cost accounting and data processing
15 functions. I was also responsible for internal control, working capital levels, budget
16 preparation, cash flow forecasts and capital expenditure analysis. From February,
17 1981, through December, 1981, I was Project Manager of the Steel Fabricating and
18 Products Group, National Steel Corporation, responsible for implementing an
19 integrated general ledger system. I have published in major academic journals and
20 am a member of the International Association for Energy Economics.

1 In January, 1982, I joined the firm of Drazen-Brubaker & Associates, Inc., the
2 predecessor of Brubaker & Associates. Since that time, I have presented expert
3 testimony on the subjects of industry restructuring, open access transmission,
4 marginal and embedded class cost of service studies, prudence and used and useful
5 issues, electric and gas rate design, revenue requirements, natural gas transportation
6 issues, demand-side management, and forecasting.

7 I have previously testified before the Federal Energy Regulatory Commission
8 as well as the public service commissions of Arizona, Connecticut, Delaware, Florida,
9 Illinois, Iowa, Massachusetts, Michigan, Montana, New Jersey, New Mexico, New
10 York, Ohio, Rhode Island, Vermont, Virginia and the Provinces of Alberta, British
11 Columbia, Nova Scotia, and Saskatchewan in Canada. I was an invited speaker at
12 the NARUC Introductory Regulatory Training Program and a panelist at a conference
13 on LDC and Pipeline Ratemaking sponsored by the Institute of Gas Technology. I
14 have presented a paper on stranded costs at the 21st Annual International
15 Conference of the International Association for Energy Economics. I have also
16 spoken at several conferences on the topic of competitive sourcing of electricity for
17 industrial users.

18 In addition to our main office in St. Louis, the firm also has branch offices in
19 Kerrville, Texas; Plano, Texas; Denver, Colorado; Chicago, Illinois; and Washington,
20 DC.