

Nova Scotia Utility and Review Board

IN THE MATTER OF The *Public Utilities Act*, R.S.N.S., 1989, c. 380, as amended

- and -

IN THE MATTER OF an Application by Nova Scotia Power Incorporated for approval of a Load Retention Rate

DATED: December 6, 1999

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TO: The Nova Scotia Utility & Review Board:

1. Nova Scotia Power Inc. (the "Company") requests approval of a load retention rate as filed with this application. This application is made pursuant to Section 64 of the *Public Utilities Act*.
2. The Company is a public utility, conducts business in Nova Scotia and is engaged in the production and supply of electrical energy.
3. The Company's system is province-wide and was serving approximately 434,000 customers at December 31, 1998. In addition, the Company services 6 municipal electrical utilities which purchase their power and energy requirements from the Company.
4. Filed with this application is the following:
 - (a) The proposed terms and conditions of the rate;
 - (b) Evidence of Christopher Huskilson;
 - (c) Evidence of Melvin Whalen.

The reasons for the application are set forth in the evidence filed.

5. The Company believes that the proposed rate is an appropriate approach to retaining existing customers who, in the absence of this rate, would reduce their purchases from the Company, to the detriment of all other customers.
6. The Company hereby requests an order approving the proposed load retention rate.

DATED at Halifax Regional Municipality, this 6th day of December, 1999.

NOVA SCOTIA POWER INCORPORATED

for 

Christopher Huskilson
Executive Vice-President

The names and addresses for service are
the following:

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PROPOSED LOAD RETENTION RATE

DEMAND CHARGE

To be determined as specified in Special Condition (1).

ENERGY CHARGE

To be determined as specified in Special Condition (1).

AVAILABILITY

- (1) This rate shall be granted only in circumstances where it can be shown that:
 - The customer's option to use a supply of power and energy (alternate supply) other than NSPI's is both technically and economically feasible.
 - Retaining the customer's load, at the price offered by this rate, is better for other electric customers than losing the customer load in question.
 - The price offered by this rate is not less than that necessary to make the customer in question indifferent with respect to alternate supply versus continuing to purchase the electric power and energy from NSPI.

The procedure for establishing that this test is satisfied is outlined in Attachment A.

- (2) This rate shall be available only to customers who are considering an alternate supply of at least 2000 KVA or 1800 KW.
- (3) The customer shall apply in writing to take service under this rate.
- (4) This rate shall be available only to customers whose electricity needs, at the date of application, are being supplied by NSPI. It is not available for new load.

SPECIAL CONDITIONS

- (1) The price, terms and conditions (including any modification in special conditions associated with the rate(s) under which the customer purchased power and energy prior to taking service under this rate) shall be established jointly by NSPI and the customer, following the procedure outlined in Attachment A.
- (2) The price, terms and conditions offered under this rate shall be determined on a customer by customer basis.
- (3) The price, terms and conditions offered under this rate shall be submitted by NSPI to the UARB for approval.

ATTACHMENT A

This attachment outlines procedures by which the requirements of Availability Clause (1) and Special Condition (1) are to be satisfied.

- (1) The customer shall apply in writing to take service under this rate, outlining the available alternate supply option and the rationale for seeking service under the load retention rate.
- (2) Upon written application by a customer to take service under this rate, NSPI shall conduct an initial screening to determine whether the implementation of these procedures is warranted.
- (3) Subject to (2), NSPI and the customer shall proceed to implement these procedures and establish a load retention price, with appropriate terms and conditions.
- (4) Should there be disagreement between NSPI and the customer with respect to the decision to proceed, the customer may ask the UARB to adjudicate.
- (5) These procedures shall be applied on a customer by customer basis.
- (6) To protect confidential NSPI and customer data, none of the data or analysis used in the implementation of these procedures, nor any results thereof, including the recommended price, terms and conditions, shall be required to be publicly disclosed.
- (7) The economic feasibility of the customer's option to supply some or all of its own load shall be established where it can be shown that under reasonable assumptions the cost of electricity to the customer from that option is expected to be lower than the cost to the customer of continuing to purchase electricity from NSPI.
- (8) The cost to the customer of the alternate supply shall reflect all appropriate factors, including but not limited to:
 - Capital costs
 - Fixed and Variable Operating costs
 - Fuel costs (short and long term, contracts, etc.)
 - Ancillary Services costs (electric)
 - Steam production and steam backup costs (where appropriate)
 - Contributions-in-aid of construction (where NSPI's system must be modified to accommodate the customer's generator)
 - Expected Service Life
 - Salvage Value
 - Electric sales/purchases (where the customer's generator output does not match customer requirements)
 - Depreciation and/or Capital Cost Allowance
 - Taxes
 - Appropriate return

- (9) The technical feasibility of the customer's alternate supply shall reflect all appropriate factors, including but not limited to :
- Technology maturity and proven performance level
 - Site specific considerations (space requirements, availability of cooling water, fuel handling, etc.)
 - Environmental acceptability (air emissions, solid waste management, etc.)
 - Modifications to NSPI's transmission and/or distribution system to accommodate the new generation and/or to supply ancillary services.
 - Metering systems
 - Where cogen is involved, compatibility of steam versus electric requirements.
- (10) The impact on NSPI's other customers of losing the customer load in question, shall be determined using NSPI's forecasting and planning models (as appropriate) to compare scenarios that include the customer's move to an alternate supply with scenarios that assume the customer continues to be supplied by NSPI.
- (11) Where the impact on NSPI's other customers can be mitigated by offering the customer in question a load retention rate, NSPI and the customer shall determine an appropriate rate for the customer. This shall include the price (which may be formula-driven), and any other terms and conditions, including (where relevant) a suggested term and any appropriate renewal guidelines.

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DIRECT EVIDENCE OF CHRISTOPHER HUSKILSON

1 My name is Christopher Huskilson. I am a resident of Nova Scotia and a Registered Professional
2 Engineer in the Province. I graduated from the University of New Brunswick with a Bachelor of
3 Science in Engineering Degree in 1979, and a Master of Sciences in Engineering Degree in 1982.
4 I joined Nova Scotia Power in 1980, and have been employed since then in the electric utility
5 industry in Nova Scotia. I am currently Executive Vice President of Nova Scotia Power Incorporated
6 (NSPI), a wholly owned subsidiary of NS Power Holdings Incorporated.

7 The purpose of my testimony is to present an overview of the need for a load retention rate and to
8 outline the process that we are proposing to facilitate its implementation.

9 Like all other players in the marketplace, NSPI and its customers are experiencing the continuous
10 change that the technology revolution is forcing on all aspects of our society. Where once we
11 operated in markets that were confined to geographic areas because of economics, we are now
12 influenced by markets that are becoming increasingly globalized. Freer trade, combined with
13 improvements in communication systems, information technology and transportation are providing

1 easy access to markets around the world, and creating new challenges and opportunities for all. The
2 primary challenge, of course, is to remain competitive and businesses are addressing this through
3 strategies that range from in-house cost control to the pursuit of efficiencies through mergers and
4 acquisitions. One part of in-house cost is energy, and many of our customers are evaluating how
5 these costs can be controlled.

6 In the Maritimes, natural gas is just becoming an available energy source and many of NSPI's
7 customers are considering how they can best use natural gas to lower their energy cost and improve
8 their competitiveness in the global market. This is particularly true where energy is a significant
9 portion of the customer's total cost, and some customers have taken active steps to ensure that gas
10 will be an option for them.

11 One of the opportunities that natural gas has sparked an interest in is the potential for some
12 customers to essentially leave NSPI's system and procure an alternate supply. For some of our
13 customers, preliminary studies indicate that such a strategy may be economically attractive, and
14 while that is a good thing for the customer in question, other NSPI customers could be negatively
15 impacted by the resulting loss of load.

16 NSPI has considered what its strategy should be in light of these developments, and in light of our
17 objective of keeping rates stable for our customers. One option would be to discourage alternate
18 supply through the use of exit fees and/or high charges for ancillary services, such as backup supply.
19 This strategy, however, does not foster the kind of relationship that NSPI has been working hard to
20 develop with its customers, and in the long run, is unlikely to be sustainable, given emerging
21 marketplace realities. If our customers are unable to effectively compete, they will see reduced

1 production levels and quite possibly, plant closures. Our preferred solution, therefore, is to establish
2 a load retention rate, as we believe that retaining the customer in the long run is the better strategy.
3 It will contribute to a more vibrant Nova Scotia economy, and allow NSPI to provide more stable
4 rates to other customers.

5 To ensure that load retention rates are offered only in circumstances where they are justified, NSPI
6 proposes that such rates be based on the fundamental principle that they be offered only in
7 circumstances where it can be shown that:

- 8 • The customer's option to withdraw load from NSPI's system is both technically and
9 economically feasible for the customer.
- 10 • Retaining the customer's load through a load retention rate is better for other NSPI
11 customers than losing the customer in question.
- 12 • The price being offered to retain this customer is not less than necessary to make the
13 customer indifferent with respect to the options available.

14 Preliminary discussion that we have had with some customers considering alternate supply indicates
15 that a load retention rate offered on the basis of this fundamental principle would be accepted as fair
16 and reasonable. The big concern that customers have, however, relates to the implementation of this
17 principle, particularly with respect to confidentiality of data. Establishing that the fundamental
18 principle is satisfied requires the customer to share sensitive market information and most customers
19 have indicated a refusal to participate in any public process requiring public disclosure, preferring
20 instead to simply go the alternate supply route. The challenge for all players, therefore, is to ensure
21 that the load retention option is not automatically dismissed, by developing a process that satisfies

1 the UARB's responsibility to approve new rates, meets the customers' need for confidentiality, and
2 results in the best solution for all customers.

3 To meet this challenge, NSPI proposes a two-stage process. In Stage 1, which is the subject of this
4 Hearing, NSPI is seeking UARB approval of a generic load retention rate. Assuming Board approval
5 of Stage 1, NSPI proposes Stage 2, during which prices to be charged under that rate would be
6 established on a case by case basis where participation would be limited to NSPI and the customer,
7 both of whom would operate within the confines of a confidentiality agreement. The resulting price,
8 terms and conditions would then be submitted to the UARB for approval.

9 The rate that NSPI proposes under Stage 1 sets out the fundamental principle on which the rate will
10 be offered and specifies the generic process by which prices will be established on a case by case
11 basis. This process is not unlike the Industrial Expansion Interruptible rate, which specifies certain
12 tests that must be met before the rate can be made available, but leaves the setting of the actual price
13 to separate determination. This design preserves the Board's role in approving the rate. Approval
14 of the rate comes in Stage 1, and is through the public hearing process traditionally followed by the
15 Board. Stage 2 is simply the application of the rate design to a particular customer. However, final
16 approval in Stage 2 remains with the UARB.

17 Of particular interest is the process by which the UARB would approve the price, terms and
18 conditions negotiated by NSPI and the customer. To address the customer concerns with respect to
19 confidentiality, it is proposed that this be a closed process, involving only NSPI, the customer and
20 the UARB, and that all data, analysis and results remain confidential.

1 The process we are proposing is consistent with that used in other jurisdictions, as Mr. Whalen
2 outlines in his evidence in Table A. It is also consistent with the suggestion of UARB witness John
3 Chamberlain in the 1996 rate case, where, in a discussion of competition and flexible rates, he stated
4 in his direct evidence,

5 “One way to help NSPI compete would be for the Board to develop protocols for
6 Flexible Pricing. Under Flexible Pricing arrangements, regulatory commissions grant
7 utilities generic approval to negotiate rates with customers that have certain
8 minimum demands and can demonstrate access to competitively priced alternative
9 sources of power. The utility must follow regulatory guidelines concerning
10 eligibility, price floors, and, in some cases, contract terms.”

11 Because this proposal includes UARB approval of the generic rate and provides the Board with
12 details of how prices are set for each individual case, NSPI believes it satisfies the UARB’s
13 obligation under the Public Utilities Act to regulate NSPI’s tolls and charges. Because the proposal
14 provides for limited, controlled access to detailed information, NSPI believes that it will meet the
15 customers’ need for confidentiality. Because the proposal is a mechanism under which justifiable
16 load retention prices can be offered, NSPI believes it is good for all of NSPI’s customers.

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DIRECT EVIDENCE OF M. E. WHALEN

1 Q. Mr. Whalen, I show you a document entitled "Direct Evidence of M. E. Whalen" and ask if
2 it was prepared by you or under your direction?

3 A. Yes, it was.

4 Q. Is this document correct to the best of your knowledge and belief?

5 A. Yes, it is.

6 Q. Mr. Whalen, would you please introduce yourself to this Board and provide them with an
7 outline of your professional qualifications and experience?

8 A. My name is Melvin E. Whalen and I am a Professional Engineer. I have a Bachelor of
9 Electrical Engineering Degree from DalTech (formerly Technical University of Nova Scotia)
10 and a Masters Degree in Power Systems from University of New Brunswick. I have been

1 employed by Nova Scotia Power Incorporated ("Company" or "NSPI") and its predecessors
2 for approximately 20 years. During this time, I have held various positions in Planning and
3 Customer Service and Marketing. I am currently Director of Regulatory Affairs, Rates and
4 Forecasting.

5 Three departments report to me. They are: Regulatory Affairs, Load Research and Rates and
6 Forecasting. Within the third group, my responsibilities include the establishment of
7 customer cost responsibility, design of rates and regulations, determination of detailed sales
8 and revenue budgets, ongoing sales and revenue forecasting and analysis, and the
9 preparation of rate applications.

10 Q. Have you previously testified before this Board?

11 A. Yes I have. I provided testimony during the Board's hearing dealing with the sale of
12 Kentville Electric Commission to NSPI in 1998. I have also been heavily involved in most
13 NSPI hearings before the Board since 1992.

14 Q. What is the purpose of your evidence?

15 A. The purpose of my evidence is to address two areas:

16 (1) Present illustrative numbers to indicate the benefits of load retention rates for
17 remaining customers.

18 (2) Review the use of load retention rates in other jurisdictions.

1 Q. Would you please illustrate the benefit to NSPI's customers of a load retention rate.

2 A. NSPI's sales to large industrial (including interruptible and industrial expansion) and large
3 commercial customers are estimated, in 2000, to be approximately 3500 Gwh, with
4 associated revenues of some \$169 million. Average revenue from this class is therefore in
5 the order of 4.83 cents per Kwh. Assuming an average variable (fuel + variable O & M) cost
6 of 2.9 cents per Kwh, customers in these classes contribute 1.93 cents per Kwh or \$67.6
7 million toward fixed costs.

8 Assume now that 20% of this load were to be supplied by customers using an alternate
9 supply. NSPI would have a revenue reduction of \$33.8 million, and a variable cost saving
10 of \$20.3 million. The net impact on NSPI's bottom line (ignoring any revenues from
11 ancillary services such as backup generation) would therefore be \$13.5 million; i.e. whereas
12 these customers currently contribute \$67.6 million toward fixed costs, this contribution
13 would decrease to \$54.1 million when 20% of the customers switch to an alternate supply.
14 All else being equal, this difference (\$13.5 million) would have to be absorbed by other
15 customers.

16 Assume now that a price reduction of 10% were to be offered to those customers who have
17 an alternate supply option and such a reduction resulted in customers choosing to remain
18 with NSPI. In this case, the revenue would drop by \$3.4 million, the variable costs would
19 not change, and the bottom line impact would be \$3.4 million. This is \$10.1 million less
20 than the case where 20% of customers switch to an alternate supply; i.e. all else being equal,
21 the other customers are \$10.1 million better off with the load retention rate than without the

1 rate.

2 Q. Turning to the second purpose of your evidence, could you please summarize the use of load
3 retention rates in other jurisdictions?

4 A. Table A presents a list of other utilities that offer load retention rates, as compiled by NSPI
5 in a recent survey. Approximately one hundred (100) utilities were contacted and
6 approximately thirty five (35) had responded at the time of filing. Of these, fifteen (15) offer
7 load retention rates to prevent the loss of load to other sources of supply (either self-
8 generation or competing suppliers). Others offer rates that are referred to as load retention
9 rates, but are designed to have customers back down their own existing generation and
10 purchase energy from the utility whenever there is an economic reason to do so. In reality,
11 these are simply designed to include the customers generation in the economic dispatch.
12 These have not been included in Table A.

13 The utilities referenced in Table A were compared with utilities listed in the 1991 Electric
14 Power Research Institute (EPRI) Survey of Innovative Rates. That study surveyed 135
15 utilities who offered innovative rates and grouped the rates into four categories. Load
16 retention rates were listed under the "Special Needs" category, and some details of the rates,
17 and the utilities offering them, were included. Most of the utilities shown in that study as
18 using load retention rates to prevent loss of load to an alternate supply, have been included
19 in Table A.

20 Table A indicates that load retention rates are used in other jurisdictions and that in many

1 cases, they are in the form of a contract between the customer and the utility, with subsequent
2 regulatory approval. This approval, in some circumstances is minimal, and may be only a
3 letter to the regulator confirming compliance with the generic rate. In most cases, the details
4 of the final contract are not publicly disclosed.

5 Q. Does this conclude your testimony?

6 A. Yes it does.

TABLE A**SAMPLE OF LOAD RETENTION RATES IN OTHER JURISDICTIONS**

Utility	Principle Reason for LR Rate	Form of Load Retention Rate	Approved By Regulator ?	Public Disclosure of Contract Terms ?	Comments
Allegheny Power	Alternate Supply	Contract	Yes	No	
Alliant	Alternate Supply	Contract	Yes	No	
AmerenCips	Alternate Supply	Contract	Yes (until 11/99 only)	No	Customer signs affidavit of intent to bypass
Baltimore Gas & Electric Co.	Alternate Supply	Generic Rate/ Customer Contract	Yes	No	Experimental expires Dec/99
Central Maine Power	Alternate Supply	Contract	?	?	
Commonwealth Edison	Alternate Supply	Generic Rate/ Customer Contract	Yes	No	Customer signs affidavit of intent to bypass
Consumers Energy	Alternate Supply	Contract	Yes	Yes	
El Paso Electric Company	Alternate Supply	Contract	Yes	No	In most cases, regulator is City Council
Entergy Services	Alternate Supply	Contract	Yes	No	
Hydro Quebec	Economic Hardship	Generic Rate/ Customer Contract	?	No	Rate probably in place before HQ was regulated
Northern Indiana Public Service	Alternate Supply	Generic Rate/ Customer Contract	Yes	No	
Ontario Hydro	Alternate Supply	Contract	No	No	May also be applied to attract new load.
Pennsylvania Power & Light	Alternate Supply	Generic Rate/ Customer Contract	Yes	No	
Pennsylvania Electric (PECO)	Alternate Supply	Contract	?	?	

TABLE A

SAMPLE OF LOAD RETENTION RATES IN OTHER JURISDICTIONS

Utility	Principle Reason for LR Rate	Form of Load Retention Rate	Approved By Regulator ?	Public Disclosure of Contract Terms ?	Comments
Southern California Edison	Prevent customers from moving operations to another territory.	Generic Rate/ Customer Contract	Yes	No	Discounts specified in rate may be modified by contract
NS Power (Proposed)	Alternate Supply	Contract	Yes	No	

NOTE: NSPI will update this table, if more evidence becomes available prior to the hearing.