ORDER **NSUARB-E-BER-R-10**
2010 NSUARB 226

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF THE PUBLIC UTILITIES ACT

- and -

IN THE MATTER OF THE APPLICATION by the **TOWN OF BERWICK**, on behalf of its **ELECTRIC COMMISSION,** for approval of an amendment to its Schedule of Rates for Electric Supply and Services

BEFORE: KSD Kulvinder S. Dhillon, P.Eng., Member

ORDER

WHEREAS the Town of Berwick (the "Town"), on behalf of its Electric Commission (the "Utility"), made an Application on November 3, 2010, to the Nova Scotia Utility and Review Board (the "Board") for approval of an amendment to its Schedule of Rates for Electric Supply and Services, to allow the Utility to offer to its Commercial customers optional General Demand Time of Use and General Demand Peak Co-incidence Rates;

AND WHEREAS the Board issued Information Requests ("IRs") to the Town and responses to the IRs were received on November 22, 2010;

AND WHEREAS the Board has reviewed the Application and responses to IRs and is satisfied that there appears to be no increase to the current rates or charges of the Utility;

AND WHEREAS the proposed rates are not currently approved by the Board;

IT IS HEREBY ORDERED that the Town's Application be approved as an *ex parte* under s. 69 of the *Public Utilities Act,* which reads as follows:

Interim approval of schedule

69 **(1)** When a public utility has submitted for the approval of the Board a schedule of rates, tolls and charges, or a proposed change in any existing schedule of rates, tolls and charges, which, in the opinion of the Board, either constitutes a reduction in the existing schedule of rates, tolls and charges at the time being paid by the majority of the customers of such public utility affected by such change in the class of service to which such proposed change applies or which applies only in respect of a service for which no rates, tolls or charges have been previously approved, the Board may at any time before finally approving or disapproving of such schedule or change, grant an interim approval thereof, with or without modification, and thereafter the existing schedule of rates, tolls and charges of such public utility as amended by such schedule of charges, interim approval of which with or without modification, as the case may be, has been so granted by the Board, shall be the only lawful rates, tolls and charges of such public utility until the Board shall express its final approval or disapproval thereof, with or without modification or amendment.

(2) Thereafter the existing schedule of rates, tolls and charges of such public utility as amended by such schedules of rates, tolls and charges or change so finally approved by the Board, with or without modification or amendment, shall be filed with the Board and shall be the only lawful rates, tolls and charges of such public utility until altered, modified or reduced as provided in this Act.

(3) Notwithstanding any other provisions of this Act, the interim approval referred to in this Section may be given *ex parte* and without public hearing or notice. R.S., c. 380, s. 69.

IT IS FURTHER ORDERED that the Schedule of Rates for the Utility be approved as amended by adding an optional General Demand Time of Use Rate and an optional General Demand Peak Co-incidence Rate for Electric Supply and Services, attached hereto as Schedule "A", effective December 1, 2010;

IT IS FURTHER ORDERED that, as part of the next rate application, the Utility is directed to:

- Perform a cost benefit analysis of the new rates using actual data;
- Analyze the implementation of new rates and explore the methods to improve them; and
- Maintain the comments from its customers regarding the new rates.

DATED at Halifax, Nova Scotia, this 26th day of November, 2010.

Clerk of the Board

SCHEDULE A

BERWICK ELECTRIC COMMISSION

SCHEDULE OF RATES FOR ELECTRIC SUPPLY & SERVICES

(Effective for services rendered on and after December 1, 2010)

RATES

The rates set out below are the rates for electric supply and service when payment is made within 30 days from the date rendered as shown on the bill.

Bills which are not paid within 30 days will be subject to an interest rate of 1.5% per month or part thereof to a maximum of 19.56% per year.

Each bill shall show the amount payable by the due date as shown on the bill and the interest rate of 1.5% per month or part thereof which is charged on amounts unpaid after the due date.

"Nova Scotia Power Inc. (NSPI) Municipal Rate Class Increases"

In order to recover increased costs due to NSPI increases and upon notice by the Berwick Electric Commission to the Nova Scotia Utility and Review Board, (the Board), the Board may amend the Rates for Domestic service, Small General, General, Domestic Service Time-of-Day (Optional), Industrial, and Street and Yard Lighting based on the following formula, without the necessity of a public hearing.

1) $A \times B = C$
   $C \div D = F\%$

2) $G \times H = I$
   $I \div J = K\%$

3) $\frac{F\% + K\%}{2} = L\%$

A	=	2nd previous years' power purchase cost from NSPI;
B	=	NSPI approved increase %;
D	=	2nd previous total sales for the above classes;
G	=	Previous years power purchase costs from NSPI;
H	=	NSPI approved increase %;
J	=	Previous years total sales for the above classes;
L	=	Average % change required to the Berwick Electric Commission rates to recover increased power purchase costs.

Where the Nova Scotia Demand Side Management Rider, as approved by the UARB, is charged on energy purchased by the Berwick Electric Commission ("BEC") for distribution to its customers, the Commission shall recover the total billed under that Rider by the following formula:

Using the BEC's most recent projection of sales, losses, production and purchases in the spreadsheet <u>SALES ~ HYDRO ~ yy ~ yy Budget</u>, produced annually during BEC's budgeting process:

(1) A x B = C where

A = the DSM Rider approved for the year, in dollars

B = the total kWh projected to be billed to BEC with the DSM Rider attached;

C = the total DSM cost to BEC for the year, in dollars.

Then

(2) C/D = E where

D is the total projected sales in kWh to all BEC customers, including street and yard lighting and various small unmetered services

And

E is a Rider in dollars to be applied to all energy sales including street and yard lighting and small unmetered services.

Where the kWh (energy) portion of street and yard lighting or small unmetered charges is incorporated into a monthly charge then the charge for the energy portion shall be adjusted by the Rider and the result incorporated into the monthly charge. For street and yard lighting the energy portion of such charges shall be as represented in NSPI's current Rates and Regulations, and where no monthly kWh value is available, upon the calculated monthly energy.

Where the Nova Scotia Power Incorporated (NSPI) Fuel Adjustment Mechanism (FAM) is applied to energy purchased by the BEC for distribution to its customers, the net result of the FAM applied to such purchases shall be rebated to or recovered from all BEC customers by an adjustment to the kilowatt-hour rates charged in all rate classes, and in the street and yard lighting and small unmetered, the adjustment will be to the energy portion incorporated into the monthly charges only. For street and yard lighting the energy portion of such charges shall be as represented in NSPI's current Rates and Regulations, and where no monthly kWh value is available, upon the calculated monthly energy. The formula for calculating the adjustment shall be as follows:

Using the BEC's most recent projection of sales, losses, production and purchases in the spreadsheet <u>SALES ~ HYDRO ~ yy ~ yy Budget</u>, produced annually during BEC's budgeting process:

A x B = C where A = the FAM adjustment charged to BEC and
B = the total energy in kWh projected to be purchased from NSPI to which the FAM applies and
C = the total FAM effect on BEC for the subject year.

And

C/D = E where D is the total projected sales in kWh to all BEC customers, including street and yard lighting and various small unmetered services and
E is the FAM adjustment to be applied to all energy distributed to BEC customers

The rates shown in this Schedule shall be those adjusted by the FAM and the amount of the FAM adjustment E shall be shown in all rates.

For street lighting, yard lighting, other lighting and miscellaneous small loads, the rates shown in this Schedule shall be those adjusted by the FAM and the DSM Rider.

DOMESTIC SERVICE

Service Charge:	$15.40 per month.
Energy Rate:	$0.1007 per kilowatt-hour for all consumption.
DSM Rider:	$0.00242 per kilowatt-hour for all consumption.
2010 FAM adjustment:	-$0.00181 per kilowatt-hour for all consumption.
Minimum Bill:	$15.40 per month.

SMALL GENERAL

Service Charge:	$13.32 per month.
Energy Rates:	$0.1453 per kilowatt-hour for the first 200 kilowatt-hours per month.
	$0.1004 per kilowatt-hour for all additional consumption.
DSM Rider:	$0.00242 per kilowatt-hour for all consumption.
2010 FAM adjustment:	-$0.00181 per kilowatt-hour for all consumption.
Minimum Bill:	$13.32 per month.

GENERAL SERVICE

Demand Charge:	$13.63 per month per kilowatt of maximum demand.
Energy Rates:	$0.0729 per kilowatt hour for all consumption.
DSM Rider:	$0.00242 per kilowatt-hour for all consumption.
2010 FAM adjustment:	-$0.00181 per kilowatt-hour for all consumption.
Minimum Bill:	$15.19 per month.

DOMESTIC SERVICE TIME-OF-DAY RATE (OPTIONAL)

BASE CHARGE: $22.29 per month.

ENERGY CHARGE:

December, January and February

7:00 am to 1:00 pm	$0.2182 per kilowatt hour
1:00 pm to 4:00 pm	$0.1007 per kilowatt hour
4:00 pm to 10:00 pm	$0.2182 per kilowatt hour
10:00 pm to 7:00 am	$0.0595 per kilowatt hour

The above rates apply weekdays (Monday to Friday inclusive), excluding statutory holidays. For Saturdays, Sundays and statutory holidays, all consumption will be billed at the rate of $0.0595 per kilowatt hour.

March to November

7:00 am to 10:00 pm	$0.1007 per kilowatt hour
10:00 pm to 7:00 am	$0.0595 per kilowatt hour

The above rates apply weekdays (Monday through Friday inclusive), excluding statutory holidays. For Saturdays, Sundays and statutory holidays, all consumption will be billed at the rate of $0.0595 per kilowatt hour.

DSM Rider: $0.00242 per kilowatt-hour for all consumption.

2010 FAM adjustment: -$0.00181 per kilowatt-hour for all consumption.

MINIMUM MONTHLY CHARGE:

The minimum monthly charge shall be $22.29.

AVAILABILITY:

This rate is only available to customers employing Electric Thermal Storage (ETS) equipment and electric in-floor radiant (i.e. hydronic) heating systems utilizing time shifting technology approved by the Utility.

GENERAL DEMAND TIME-OF-USE RATE (OPTIONAL)

The rate is available to customers meeting the availability criteria of the General Demand rate class who install heat storage systems and controls to enable time shifting of heating and other loads.

Customers choosing to take this rate are required to remain on this rate for one year following the date of inception. One month's notice is required prior to the anniversary date to revert to the General Demand rate. If such notice is not given, it is understood the customer is committing to another 12 month period on the rate. Date of initial service under this rate must be after March 1 and prior to December 1.

Customers taking service under this rate will be billed for energy and demand at the same rates as under the General Demand rate. However, demand charges for demand peaks set outside of the winter peak period and exceeding the winter peak demand period will be discounted. The winter peak demand shall be the maximum demand recorded during winter peak hours; that is non-holiday week days between the hours of 7:00 AM and 11:00 PM during the months of
December, January and February. The customer's winter peak demand will be as determined using the highest 15 minute interval data recorded by BEC metering times 4. This winter peak demand will be ratcheted for the succeeding eleven months. Outside of winter peak hours, demand in excess of the ratcheted winter peak demand will be billed at the difference between the demand rate paid by the Berwick Electric Commission to Nova Scotia Power Incorporated and the BEC General Demand Rate to account for Berwick's non NSPI billing demand costs, plus 15% to account for power factor, demand losses, and administration.

BEC staff shall be given the opportunity to inspect the storage and control systems to ensure Canadian Electrical Code compliance and to be satisfied the systems will perform as intended. If BEC staff are not confident the systems will perform as intended they may decline to offer the rate.

GENERAL DEMAND PEAK CO-INCIDENCE RATE (OPTIONAL)

The rate is available to customers meeting the availability criteria of the General Demand rate class who install heat storage systems and/or controls to enable load shedding upon receipt of a signal sent by electronic means by BEC'S peak shaving software. Customers choosing to take this rate are required to remain on this rate for one year following the date of inception. One month's notice is required prior to the anniversary date to revert to the General Demand rate. If
such notice is not given, it is understood the customer is committing to another 12 month period on the rate. Date of initial service under this rate must be after March 1 and prior to December 1.

Customers taking service under this rate will be billed for energy and demand at the same rates as under the General Demand rate.

Customers choosing to take this rate will be sent a Demand Control signal when the Berwick Electric Commission system is approaching a peak demand defense point during the winter peak period. The winter peak period is all hours between 7:00 AM to 11:00 PM on non-holiday weekdays during December, January, and February. The customer will then be expected to reduce load, until another signal to restore load is sent by BEC. The number and duration of demand control intervals will be limited as set out below.

Customers will receive a demand control credit equal to the customer's demand reduction measured in kilowatts, co-incident with the BEC's winter peak, times 85% of the demand charge billed to BEC by Nova Scotia Power Incorporated. For clarity the formula is:

Demand reduction in kW x (NSPI demand charge x .85) x 12

The customer's demand reduction shall be as reflected in interval data recorded by BEC metering and the BEC winter peak shall be the highest demand recorded by NSPI metering at the 69 kV interface.

Each November BEC establishes a peak demand defense point, based on the experience of the previous winter and known and predicted changes to the system. Factorydale hydro is dispatched to defend this demand defense point and the point may be adjusted over the winter peak period if the demand defense point is exceeded. BEC shall set the initial demand defense point at a reasonable level using best judgment and forecasting, and shall dispatch all of its own resources prior to issuing demand control signals; the demand defense point shall not be lower than 90% of the ruling peak recorded by NSPI metering at the 69 kV interface.

BEC staff shall be given the opportunity to inspect the storage and control systems to ensure Canadian Electrical Code compliance and to be satisfied the systems will perform as intended. If BEC staff are not confident the systems will perform as intended they may decline to offer the rate.

Demand control intervals shall not exceed 8 hours in duration and 12 hours in any calendar day, and the number of demand control intervals shall not exceed 8 intervals in each of December, January, and February.

INDUSTRIAL

Demand Charge: $11.60 per month per kilovolt ampere of maximum demand.

Energy Charge: $0.0653 per kilowatt-hour for all consumption.

DSM Rider: $0.00242 per kilowatt-hour for all consumption.

2010 FAM adjustment: -$0.00181 per kilowatt-hour for all consumption.

Demand Reduction Rider:

Where it can be shown, that a customer, with 6 out of 12 monthly billing demands in the calendar year in excess of 1000 kVA, has contributed, through a concentrated effort at reducing his winter peak demands at a time co-incident with the Utility's peak demand requirement, to a reduction in the Utility's billing peak established with NSP, any resultant savings to the Utility shall be shared on a 50/50 basis with said customer. To qualify, the average of the customer's monthly billing demands in the months of December, January, February must amount to no more than 80% of the average in the following July/August/September (1600 kVA versus 2000 MVA for example). The Utility will work closely with the customer to coordinate the time co-incident requirement of this rider. The savings will be applied to the customer bills for the months of October and November and shown as equal credits on the bills. The savings will be calculated based on rates in effect at the time the demand reduction took place and reflected as "Demand Reduction Credit".

STREET LIGHTING

DSM Rider: $0.00242 per kilowatt-hour for all consumption.

2010 FAM adjustment: -$0.00181 per kilowatt-hour for all consumption.

(Lamps burning 4,000 hours per year, lighting system supplied and maintained by the Commission, consisting of luminaries bracket-mounted on existing wood poles and energized from existing secondary circuits.)

125 watt mercury vapour	$ 9.50 per lamp per month
175 watt mercury vapour	$12.79 per lamp per month
250 watt mercury vapour	$15.83 per lamp per month
400 watt mercury vapour	$22.54 per lamp per month
70 watt high-pressure sodium lamp	$11.11 per lamp per month
100 watt high-pressure sodium lamp	$13.00 per lamp per month
150 watt high-pressure sodium lamp	$15.43 per lamp per month
250 watt high pressure sodium lamp	$19.75 per lamp per month

(Crosswalk lighting: fixtures supplied by the Town of Berwick; power, energy and maintenance supplied by the Commission.)

40 watt fluorescent fixture	$ 6.06 per fixture per month
400 watt fluorescent fixture	$22.34 per fixture per month

YARD LIGHTING

DSM Rider: $0.00242 per kilowatt-hour for all consumption.

2010 FAM adjustment: -$0.00181 per kilowatt-hour for all consumption.

(Lamps burning 4,000 hours per year, lighting system supplied and maintained by the Commission, consisting of luminaries bracket-mounted on existing wood poles and energized from existing secondary circuits.)

125 watt mercury vapour	$ 9.50 per lamp per month
175 watt mercury vapour	$12.75 per lamp per month
250 watt mercury vapour	$15.96 per lamp per month
400 watt mercury vapour	$22.49 per lamp per month
400 watt mercury vapour floodlamp	$22.49 per lamp per month

70 watt high pressure sodium lamp	$ 9.70 per lamp per month
100 watt high pressure sodium lamp	$12.74 per lamp per month
150 watt high pressure sodium lamp	$15.46 per lamp per month
250 watt high pressure sodium lamp	$19.75 per lamp per month
400 watt high pressure sodium floodlamp	$22.54 per lamp per month
175 watt metal halide floodlamp	$12.76 per lamp per month
250 watt metal halide floodlamp	$15.96 per lamp per month
250 watt high pressure sodium floodlamp	$15.96 per lamp per month
400 watt MH halide floodlamp	$22.49 per lamp per month
70 watt high pressure sodium cobra head	$11.13 per lamp per month

OTHER LIGHTING & MISCELLANEOUS SMALL LOADS

(Applicable to street lighting, sign lighting and similar unmetered loads where demand, time of use and energy consumption are known, and the Commission supplies power and energy only.)

Demand Charge: $13.92 per month per kilowatt.

Energy Charge: $0.0767 per kilowatt-hour.

DSM Rider: $0.00242 per kilowatt-hour for all consumption.

2010 FAM adjustment: -$0.00181 per kilowatt-hour for all consumption.