

Written Direct Testimony of David B. Charleson

Q 1: Please state your name and position.

A 1: My name is David Bryce Charleson. I am the General Manager of Enbridge Gas New Brunswick Inc., the general partner of Enbridge Gas New Brunswick Limited Partnership ("EGNB"). My Curriculum Vitae is attached as Exhibit A, Schedule 1.

Q 2: What is the purpose of this pre-filed evidence?

A 2: In its June 23, 2000 decision on an application by EGNB for approval of its rates, the then Board of Commissioners of Public Utilities of New Brunswick, now the New Brunswick Energy and Utilities Board ("Board") approved EGNB's market-based approach for setting its distribution rates during the development period. In a decision dated December 15, 2005, the Board approved EGNB's current Contract Large General Service LFO ("LFO") distribution rate.

On November 5, 2007, EGNB filed an application to change its market-based LFO distribution rate. This evidence presents the proposed distribution rate, which is filed at Exhibit A, Schedule 2, as well as supporting data, assumptions and methodology used in generating it.

Q 3: EGNB has stated previously that its distribution rates are market based. Please explain the purpose of market based rates.

A 3: Market based rates are predicated on local market conditions with the objective of providing potential end-use customers with an economic incentive to convert and continue to use natural gas.

Q 4: Does EGNB continue to feel that the market based methodology of setting its rates best suits the greenfield market in New Brunswick?

A 4: Yes, the market-based approach for setting rates continues to enable EGNB to establish rates based on local market conditions and supports EGNB's objective to provide potential and existing end-use customers with sufficient economic incentive to convert and continue to use natural gas.

Q 5: Could you review the Board approved methodology for setting distribution rates?

A 5: In general, the methodology for establishing distribution rates is as follows:

- Establish a relevant retail price for the alternate commodity used as the basis of comparison for typical customers in each rate class. With the exception of the Small General Service – Residential Electric rate class, the retail oil price is used.
- Calculate the annual alternate commodity cost for a typical customer in each rate class.
- Discount the annual cost by the appropriate amount to establish a target annual natural gas cost.
- Calculate the target burner tip natural gas unit price by dividing the target annual natural gas cost by the expected natural gas consumption.
- Calculate the distribution rate by subtracting the commodity price for natural gas.

EGNB has adopted targeted annual savings for the market categories that, when combined with other benefits of natural gas and other economic considerations, such as the typical age of heating systems and switching costs, should provide sufficient incentive for customers to switch to natural gas. For the large industrial sector (LFO), 10% opposite light fuel oil has been established as the annual savings target. The following table summarizes this approach:

Derivation of Distribution Rates		
Line	Item	LFO
(1)	Retail Oil Price (\$/L)	0.6337
(2)	Retail Oil Price (\$/GJ)	16.39
(3)	Typical Annual Oil Consumption (L)	821,217
(4)	Typical Annual Oil Consumption (GJ)	31,745
(5)	Annual Oil Cost (\$) (Line 1 x Line 3)	520,405
(6)	Target Savings Level (%)	10%
(7)	Target Annual Savings (\$) (Line 5 x Line 6)	52,041
(8)	Typical Annual Natural Gas Cost (\$) (Line 5 minus Line 7)	468,365
(9)	Typical Annual Natural Gas Consumption (GJ)	31,745
(10)	Target Natural Gas Burner Tip Unit Price (\$/GJ) (Line 8 divided by Line 9)	14.75
(11)	Commodity Price (\$/GJ)	9.52
(12)	<b>Target Distribution Rate (\$/GJ)</b> (Line 10 minus Line 11)	<b>5.2307</b>
Breakdown of Distribution Charge between Monthly and Delivery Charges:		
(13)	Annual Distribution Charge per Customer (\$) (Line 12 x Line 9)	166,050
(14)	<b>Monthly Demand Charge (\$/GJ)</b>	<b>5.20</b>
(15)	Average Monthly Contract Demand (GJ)	350
(16)	Annual Demand Charge (\$) (Line 14 x 12 months x Line 15)	21,840
(17)	Annual Delivery Charge per Customer (\$) (Line 13 minus Line 16)	144,210
(18)	<b>Delivery Charge per GJ (\$)</b> (Line 17 divided by Line 9)	<b>4.5428</b>

EGNB continues to feel that oil is the most appropriate benchmark against which to set its LFO rate. It is generally the predominant existing energy alternative for customers within this class and in many cases remains as an alternate fuel source for these customers after conversion.

Also, generally speaking, oil and natural gas commodity prices tend to track one another, that is, when the price of oil goes up so does the price of natural gas, and vice-versa.

Q 6: Does the LFO delivery rate of \$4.5428 represent all of the blocks in this rate class?

A 6: No, the delivery rate of \$4.5428 for the first 33,000 GJs is designed to deliver the target savings of 10% to the typical customer in the LFO class:

<b>Monthly Distribution Delivery Charge:</b>	<b>Current</b>	<b>Proposed</b>
Demand Charge per GJ of Contract Demand (\$ per GJ)	5.20	5.20
For the first 33,000 GJ delivered per month (\$ per GJ)	2.3910	4.5428
For the next 25,000 GJ delivered per month (\$ per GJ)	0.1900	0.1900
For volumes delivered in excess of 58,000 GJ per month (\$ per GJ)	0.0800	0.0800

The second and third blocks of this rate class apply to only very large customers with significantly greater volumes and purchasing power than the typical customer. The lower rates of the second and third blocks result in additional savings over 10% for any customers with annual volumes in excess of 33,000 GJs.

Q 7: What justifies EGNB applying for the level of rate adjustment requested?

A 7: Since EGNB applied for its 2006 rates adjustment in August 2005, after staying relatively constant during 2006, the wholesale price of oil has risen steadily on a forward basis during the past year while natural gas has remained relatively flat.

EGNB's market-based rates methodology supports the level of adjustment sought. The current, increased competitive advantage of natural gas not only allows, but requires EGNB to adjust its rates at the earliest possible opportunity to ensure that EGNB is recovering the maximum amount of its costs of providing distribution service.

EGNB must strive to balance the provision of economic incentive and continued savings to customers with its own financial viability through the recovery of as much of its costs of providing service during the development period. To ensure that its rates are just and reasonable, EGNB should not provide any more economic incentive to customers to convert to and continue consuming natural gas than is absolutely necessary.

Q 8: If an increased competitive advantage of natural gas is the reason for the rate adjustment, why is EGNB only requesting an increase for the LFO rate?

A 8: EGNB has assessed the competitiveness of each of its distribution rates. Based on this review, rate increases in the Small General Service Commercial (“SGSC”), General Service (“GS”) and Contract General Service (“CGS”) rate classes may also be warranted. However EGNB is finalizing a proposal to redesign the structure of these rates. EGNB expects to file a separate application to address these structural changes and the competitiveness of these rates in that application.

Q 9: Do end use customers have to realize the precise savings level in order to convert to or continue consuming natural gas?

A 9: No. End user conversion decisions are based upon their own unique circumstances and as such, conversions are achievable at various pricing levels. The emphasis of this pricing mechanism is on “target” savings because EGNB does not and cannot control all components of the delivered price of natural gas or competing fuels.

These target savings are guidelines and will evolve with the market for natural gas. The actual savings realized by a customer will be based on the combined costs of distribution and commodity compared with a customer’s alternate energy costs and will vary from customer to customer and over time as energy prices evolve.

Price is only one of the factors influencing a customer's decision to switch to or continue consuming natural gas. In practice, EGNB is aware of end-user situations in which customers have made the switch to natural gas in the face of price premiums to their incumbent energy choice, demonstrating that price was only one aspect of the decision and not always the primary factor driving a customer's choice.

Q 10: Could a rate increase hinder future customers converting to natural gas?

A 10: An increase in distribution rates could impact a customer's decision to convert to natural gas. However, natural gas prices are only one factor that potential end-use consumers consider when making the decision to convert. Capital costs to convert (and any off-setting incentives), payback periods, environmental benefits, maintenance cost reductions, reliability and flexibility are other examples of related factors that consumers also take into consideration.

Further, it is important to remember that if EGNB determines at any time that distribution rates are acting as a deterrent to customer acquisition or retention, it can apply to the Board or use the rate rider mechanism to lower rates.

Q 11: Have EGNB customers with dual fuel capability switched to oil in response to the 2006 LFO rate adjustment?

A 11: No fuel switching took place as a result of the 2006 LFO rate adjustment.

Q 12: Can you please indicate what retail oil price EGNB proposes to use in setting the LFO distribution rate and the methodology EGNB used in establishing it?

A 12: The retail oil price that is being used in establishing the proposed distribution rate is \$0.6337 / litre or \$16.39 / GJ (see Line 1 and 2 of the table in A5).

For its forecast, EGNB has used the closing settlement prices for West Texas Intermediate (WTI) crude oil from NYMEX (New York Mercantile Exchange) as

the anticipated price of crude oil over the forecast period - in this case January through December 2008. WTI was selected as it is the commonly traded North American index for crude oil prices. Since NYMEX is a market view of forward pricing which changes on a daily basis as a result of market conditions and expectations, a 21-day average<sup>1</sup> is utilized to estimate monthly crude costs over the forecast period. The anticipated crude oil cost for this period using this methodology is \$US 82.01 /barrel (bbl). These crude prices are converted to Canadian dollars using a similar 21-day average of the future strip for the Canada/US exchange rate. The exchange rate derived using this approach is \$CDN 1.0304 per \$US.

In order to calculate retail oil prices, a “market spread” is needed for the New Brunswick market (the difference between the cost of crude oil and the price of refined products or distillates). For New Brunswick, historical information was used to estimate the typical market spread for each of the products and sectors. This historical information included prices collected by EnerData (Statistics Canada), New Brunswick Department of Energy as well as data independently collected by EGNB. These spreads were then added to the Canadian dollar value for the NYMEX strip for crude oil. The price indicated above is a retail oil price estimate derived in this manner. Note that, due to the competitive nature of the retail oil market, significant variations of these typical amounts have been observed, i.e. these prices will vary on an individual customer basis.

Q 13: Returning to the methodology outlined in the response to Question 5, once the target burner tip price is established, how does EGNB arrive at the distribution rate?

A 13: The distribution rate represents the target burner tip price less the commodity price. The commodity price is the amount end use customers will pay to have their gas supply delivered to EGNB’s distribution system.

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<sup>1</sup> 21 day average is an industry standard to reduce the effect of possible market anomalies of a particular trading day

Q 14: How did EGNB arrive at the commodity price?

A 14: EGNB has used the price of the Enbridge Variable Product (“EVP”) as the reference price for commodity for the purpose of setting its proposed LFO distribution rate. This product is indexed to the monthly NYMEX price plus \$2.25, the sum of which is then converted to CDN\$/GJ. The \$2.25 addition is intended to recover the costs associated with providing this product to the market, such as pipeline transportation and administrative costs. As a result, the current 12-month forecast EVP price of \$9.52/GJ has been used as the commodity price.

Q 15: How did EGNB develop the forecast of the commodity price?

A 15: The forecast EVP price is based on the closing natural gas settlement prices for Henry Hub from NYMEX as the anticipated price of natural gas over the forecast period - in this case January through December 2008. Henry Hub was selected as it is the commonly traded North American index for natural gas prices. For the same reasons as crude oil pricing, discussed in Answer 12, a 21-day average is utilized to estimate monthly gas costs over the forecast period. The forecast natural gas cost for this period using this methodology is \$US 10.35 /mmBTU. This forecast is then converted to Canadian dollars using a similar 21-day average of the future strip for the Canada/US exchange rate and is then converted from mmBTU to GJ using an industry standard conversion factor, as demonstrated in the following table:



Derivation of EVP Price		
Line	Item	
(1)	NYMEX Natural Gas Price (\$US / mmBTU)	\$8.10
(2)	EVP Cost recovery (\$US / mmBTU)	\$2.25
(3)	EVP Price in \$US / mmBTU (Line 1 + Line 2)	\$10.35
(4)	Canada / US exchange rate	1.03
(5)	EVP Price in \$CDN / mmBTU (Line 3 / Line 4)	\$10.04
(6)	Number of GJ per mmBTU	1.055
(7)	EVP Price in \$CDN / GJ (Line 5 / Line 6)	\$9.52

Q 16: EGNB has historically used its standard Enbridge Utility Gas (“EUG”) product as the reference price for commodity. Why is EGNB now proposing to use EVP as the reference price for commodity?

A 16: EGNB has historically used the price of EUG due to its price transparency and the high percentage of gas users that purchase EUG. EGNB’s objective in choosing EUG in the past was to provide a reasonable approximation of what customers will pay on average for the provision of commodity. In the case of Small General Service customers, over 80% of customers purchase EUG. However, less than one third of LFO customers purchase EUG.

Since EGNB’s 2006 rates application, EGNB introduced EVP as an option for the marketplace that was geared to larger gas users. Similar to EUG, the price of EVP provides the necessary price transparency for establishing the LFO distribution rate. EGNB also believes that, given the low usage of EUG by LFO customers, this product is more reflective of the type of gas purchased by this class of customer. In addition, EGNB believes that larger customers with greater purchasing power may be able to contract for natural gas at more favourable pricing than EVP, resulting in additional savings.

It is important to note that EGNB's objective in choosing EVP is to provide a reasonable approximation of what customers will pay on average for the provision of commodity. Each supplier will take into account its own value proposition objectives and related cost structures when establishing its prices. This is another reason why targeted savings need to be considered as an order of magnitude rather than a hard target.

Q 17: How would the proposed LFO rate differ if EUG had been used as the reference price for the commodity?

A 17: If EUG, using the same forecast parameters as EVP, had been used as the reference price, the proposed LFO rate would have been \$4.2256 / GJ, 7% lower.

Q 18: Would this type of difference typically be expected when using EVP instead of EUG?

A 18: No. The difference between EUG and EVP will vary over time due to factors that will independently impact the two prices. One of the significant factors impacting EUG at this time is the recovery of amounts in the Purchased Gas Variance Account ("PGVA"). EUG currently includes the recovery of costs primarily related to an out-of-the-money hedge during the winter of 2006/07 that are causing EUG to be higher than it would otherwise be. If the recovery of PGVA costs were excluded from the EUG price, the LFO rate using EUG as the reference price would be \$5.0484 / GJ, 11% higher than the price using EVP.

Q 19: What would be the outcome if marketers charge more than EVP?

A 19: Everything else being equal, if a marketer charges more than EVP then the savings achieved by the impacted customers will be less than the targeted savings. As previously mentioned the targeted savings are more an indication of an order of magnitude rather than an absolute target to reach. Indeed, it would be

impossible to achieve a specific savings level for each customer as many variables impact a customer's actual realized savings.

Q 20: Is EGNB taking advantage of current high oil prices to increase their distribution rate?

A 20: No. Since the 2006 rate application (August 2005), the forward wholesale oil prices have risen from \$US 61.78/bbl for 2006 to \$US 82.01/bbl for 2008. While there continues to be volatility in the price of crude, current market conditions would tend to indicate a prolonged period of oil prices that are significantly higher than the prices seen at the time of the 2006 rate application. For example, forward oil prices for 2008 have been trading in excess of \$US 70/bbl for the last six months. These prices have had a direct impact on the market competitiveness of natural gas in comparison to oil, as natural gas has not experienced the same increase. It is important that EGNB ensure it responds to these changing market dynamics to recover the maximum amount of its costs of providing distribution service, while continuing to deliver its targeted savings.

Q 21: What are the implications if the actual cost of natural gas proves to be materially higher or oil materially lower than reflected in setting the LFO distribution rate?

A 21: If the competitive advantage of natural gas were to deteriorate to the point where it is negatively impacting the target savings levels, EGNB would apply to the Board to adjust the rate through the use of a rate rider.

\*\*\* I have no further questions.

## **Schedule 1**

### **Curriculum Vitae of David B. Charleson**

## CURRICULUM VITAE

**David B. Charleson**

### EDUCATION

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- 1998 Executive Program, Queen's University
- 1988 Honours Bachelor of Math (Math and Business), University of Waterloo

### BUSINESS EXPERIENCE

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- 2007– Present Enbridge Gas New Brunswick, Fredericton, New Brunswick
- 2007 – Present General Manager
- Responsible for providing overall strategic and policy direction for EGNB and for overseeing its ongoing development and operations.
- 1988 - 2007 Enbridge Gas Distribution Inc., North York, Ontario
- 2004 - 2007 Director, Energy Policy and Analysis
- Responsible for development and execution of short and long term strategies regarding gas supply planning, gas acquisition, and gas supply risk management.
- 2003 – 2004 Manager, Energy Strategy
- Responsible for the development of a Company strategy related to upstream transportation, storage, and commodity.
- 2001 - 2003 Manager, Strategic & Key Accounts
- Responsible for the effective management of relationships with large volume customers, Agents, Brokers, and Marketers.
- 2000 - 2001 Manager, IT Strategy & Support
- Responsible for ensuring the appropriate execution and delivery of IT services for the organization from a service provider.

1997 - 2000	Manager, Accounting Systems	Responsible for the effective operations of the Accounts Payable, Inventory Accounting, Payroll and Plant Systems departments.
1996 - 1997	Manager, Volume and O&M Budgets	Responsible for the management of the day-to-day operation of the Volumetric and Operating and Maintenance sections of the Budget department, including the production and defence of all relevant budgets and background materials.
1991 - 1996	Information Technology Supervisor, Information Services	Responsible for leading a team of 20 IS, contract, and business professionals in the development, implementation, and support of the organizations general ledger and budget preparation system.
1988 - 1991	Information Services, Positions of Progressive Responsibility	

#### **REGULATORY EXPERIENCE**

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Ontario Energy Board	Appeared as a witness in numerous regulatory proceedings, representing Enbridge Gas Distribution on matters including Volumetric and O&M Budgets, Utility Unbundling, Performance Based Rates, Business Systems, Gas / Electric Industry Interfaces, and Gas Supply related matters.
National Energy Board	Appeared as a witness representing Enbridge Gas Distribution's interests in two TransCanada Pipelines service design proceedings.

#### **OTHER EXPERIENCE**

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2005 - 2007	Director, Newmarket Hydro Limited, Newmarket, Ontario
2006 - 2007	Independent Electricity System Operator (IESO) Technical Panel, Natural Gas Sector Representative, Toronto, Ontario

## **Schedule 2**

### **Contract Large General Service LFO Rate Schedule**

**RATE NUMBER**  
**CLGS-LFO**

**CONTRACT LARGE GENERAL SERVICE LFO**

**APPLICABILITY**

Contract Large General Service LFO Rate is applied to any Applicant whose alternate fuel is Light Fuel Oil (#2), Liquid Petroleum Gas, Kerosene or Electricity, requiring to use EGNB's Distribution System to have a supply of natural gas transported to a single Terminal Location served through one meter. Service under this Rate Schedule is limited to Applicants using more than 14,000 GJ per year who enter into a service contract with EGNB for a Contract Demand of not less than 40 GJ per day.

<b>RATE</b>	
<b>Monthly Distribution Delivery Charge:</b>	
Demand Charge per GJ of Contract Demand (\$ per GJ)	5.20
For the first 33,000 GJ delivered per month (\$ per GJ)	4.5428
For the next 25,000 GJ delivered per month (\$ per GJ)	0.1900
For volumes delivered in excess of 58,000 GJ per month (\$ per GJ)	0.0800

The rates quoted above shall be subject to adjustments that reflect all taxes including HST. The rates will also be subject to the Revenue Adjustment Rate Rider contained in Rider A. EGNB may apply the Revenue Adjustment Rate Rider, in the same or different amounts, to any one or more of the Monthly Distribution Delivery Charges contained in the Rate Schedule.

**Billing Demand:**

The Billing Demand shall be the Contract Demand. However, in the event that any Applicant exceeds such Contract Demand in the period of December 1 through March 31 of any contract year, Applicant's actual maximum daily demand between December 1 and March 31 shall be the Billing Demand for the entire applicable contract year. The Applicant will be charged, and shall pay, accordingly for both prospective use and for use since the beginning of the then current contract term. Authorized Overrun will not institute application of this ratchet provision.

**Minimum Monthly charge:**

The minimum monthly charge shall be the Monthly Distribution Delivery Demand Charge.

**Minimum Annual Charge:**

The minimum annual charge will be imposed in the event the Applicant uses less than 14,000 GJ per year and will equal the demand charges plus the difference between actual annual consumption and 14,000 GJ billed at \$4.5428 per GJ.

**Term of Service:**

One year (1) with automatic annual renewal unless the Applicant notifies EGNB thirty (30) days prior to the annual roll over date that service is to be discontinued.



**Terms and Conditions of Service:**

The provisions of Parts II, III, IV, V, VI and VII of EGNB's **Handbook of Rates and Distribution Services** apply, as contemplated therein, to service under this Rate Schedule. Each Applicant served under this Rate Schedule shall enter into a Service Agreement with EGNB.

**Effective Date:**

To apply to all bills rendered for gas transported on and after February 1, 2008.

**Special Metering Provision:**

For Applicants taking service under this Rate Schedule, EGNB shall install metering and communication devices, which will provide EGNB with hourly and daily consumption data.