

ENERGYNORTH NATURAL GAS, INC.
d/b/a NATIONAL GRID NH
DG 10-017

National Grid NH's Responses to
Staff's Data Requests – Set #2

Date Received: June 18, 2010
Request No.: Staff 2-16

Date of Response: July 13, 2010
Witness: Ann E. Leary

REQUEST: Ref. Response Staff 1-54. Since the Company does not track and identify the decrease in revenues due to its energy efficiency programs, is there any evidence supporting the belief that the Company's energy efficiency programs are leading to a decline in revenues and if so, please provide such evidence.

RESPONSE: In Staff 1-54, the Company was asked to provide the actual decrease in delivery revenues due to National Grid NH's energy efficiency programs since its last rate case. Although the Company does not specifically identify the *revenue loss* resulting from its energy efficiency (or demand-side ("DSM")) programs, the Company does estimate the annualized reduction in *sales volumes* resulting from these programs. As shown in the response to OCA 1-33, the Company estimates the volumetric energy savings each year as a result of its DSM programs. This annual energy savings amount was computed by multiplying the number of actual energy efficiency measures installed by an estimated savings per measure. Note that this calculated number does not represent the total actual savings experienced in that specific year. It reflects an estimate based on the number of participants in the program that year times the estimated annual savings they are expected to achieve that same year. In order to determine the actual revenue reduction resulting from the Company's energy efficiency programs, the Company would have to prepare a lost margin calculation. In lieu of lost margins, the Company currently earns a performance incentive and therefore does not have such information readily available. However, in response to this question, the Company has prepared a ball park estimate of the decrease in delivery revenues in certain years that would have resulted from implementation of the Company's energy efficiency programs. This estimate is calculated by multiplying the average base distribution rate (average rate less customer charge) by the DSM savings identified in OCA 1-33 and later revised in OCA 2-57. In this fashion, the Company roughly estimates that it experienced a decrease in distribution revenues of approximately \$370,000 since June 2007 as a result of implementation of its DSM program and the associated reduction in gas usage attributed to the Company's energy efficiency programs. See Attachment Staff 2-16.

As described in Dr. Tierney's testimony the Company has been experiencing a trend in declining use per customer between 2002 and 2008 for residential customers. In fact, the Company has experienced a 15% decline in residential heating use per customer from 2002. (See Direct Testimony of Susan F. Tierney page 10.) The Company's energy efficiency programs have contributed to this decline, as have other factors (including customers' adoption of efficiency measures or installation of more efficient energy-using equipment unrelated to the Company's programs, or other actions to conserve energy). The decline in throughput would directly result in a decline in revenues, since some portion of the Company's revenues are based on variable charges tied to customer usage levels.

**Estimate of Net Base Revenue Reductions Resulting from the Implementation of
Company's Energy Efficiency Programs**

	Res	C&I	Total
	Therm	Therm	Therm
Quarterly DSM Savings *			
Quarter 1 2007	63,365	168,693	232,057
Quarter 2 2007	96,509	106,393	202,902
Quarter 3 2007	42,957	5,111	48,068
Quarter 4 2007	54,642	9,586	64,228
Sub-total	257,473	289,783	547,256
Quarter 1 2008	61,714	249,150	310,864
Quarter 2 2008	59,143	133,916	193,059
Quarter 3 2008	74,617	169,675	244,292
Quarter 4 2008	60,907	166,184	227,091
Sub-total	256,380	718,925	975,305
Quarter 1 2009	167,120	127,976	295,095
Quarter 2 2009	57,808	56,351	114,159
Quarter 3 2009	55,724	112,049	167,773
Quarter 4 2009	77,768	226,336	304,103
Sub-total	358,419	522,711	881,130

Annual DSM Volumetric Savings (Annual savings lagged six months)

	Time Period Used	Therm	Therm	Therms
July 2007-Jun 2008	Jan - Dec 2007	257,473	289,783	547,256
July 2008-Jun 2009	Jan-Dec 2008	256,380	718,925	975,305

Cumulative Savings

Jul 07-Jun 08	257,473	289,783	547,256
Jun 08-July 09	513,854	1,008,708	1,522,561

Average Volumetric Base Revenue (Base revenue without Cust Charges).

	\$/therm	\$/therm
Jul 07-Jun 08	\$0.241	\$0.162
Jun 08-July 09	\$0.214	\$0.150

Total Base Rate Savings Resulting from Implementation of Energy Efficiency Programs

Jul 07-Jun 08	\$61,930	\$47,065	\$108,995
Jun 08-July 09	\$109,841	\$151,373	\$261,215
Total Base Rate Savings	\$171,772	\$198,438	\$370,210

*- Note these Quarterly Savings represent the annualized savings associated with measures installed in that given Quarter

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National Grid NH's Responses to
OCA's Data Requests – Set # 3

Date Received: August 12, 2010
Request No.: OCA 3-3

Date of Response: September 15, 2010
Witness: Susan Tierney

REQUEST: Please provide a simulation of two years of the RDM using as a revenue target the proposed revenue requirement, and assuming 5% warmer than normal and 5% colder than normal (also 10% plus and minus if reasonable), conversions of R-1 to R-3 consistent with historical experience, and additions of new customers based upon historical experience. Please provide in electronic format with all formulae and cells intact.

RESPONSE: Attachment OCA-3-3 provides in electronic form a spreadsheet with separate worksheets that estimate and show the impact on residential heating customers' bills of different assumptions about weather relative to a normal year. The five scenarios are: (1) normal weather; (2) weather that is 5 percent warmer than normal; (3) weather that is 10 percent warmer than normal; (4) weather that is 5 percent colder than normal; and (5) weather that is 10 percent colder than normal. The results are summarized in the table below. All of these five scenarios assume: (a) the Company's proposed new rates (including proposed revenue requirement) and revenue decoupling mechanism are in place; (b) a number of residential non-heat customers (R-1) convert each year to heating services (R-3), based on recent historical trends in conversions; (c) the Company's forecasts of new (growth) residential heating customers; (d) the Company's RDM proposal for including all existing customers in the RDM process (including customers that converted from non-heat to heating service); (e) the Company's proposal to retain revenues for new customers (e.g., new meters) between rate cases and apply the RDM revenue reconciliation adjustment factor to new customers; (f) billing determinants used to calculate the RDM reconciliation in any year are based on an assumption of normal weather in the following year, regardless of the weather experienced in the year in which reconciliation is occurring; and (g) year-to-year constant usage per customer within a scenario (although the amount of usage varies by scenario, given that scenario's assumption about weather). Note that as agreed to at the technical conference, other than as related to weather, there is no change in customer usage assumed in this analysis.

R-3 Annual Customer Bill Impacts (With the Bill Impacts in a Year based on the Effect of the Prior Year's Revenue Reconciliation)			
	Rate Year 1	Rate Year 2	Rate Year 3
	(No Revenue Reconciliation in 1 st Year)	(1 st Year of Revenue Reconciliation)	(2 nd Year of Revenue Reconciliation)
Scenario:	2011	2012 (relative to 2011)	2013 (relative to 2012)
10% warmer weather	-	+1.001 %	+0.984 %
5% warmer weather	-	+0.494 %	+0.484 %
Weather-normalized	-	0.000%	0.000%
5% colder weather	-	-0.496 %	-0.488 %
10% colder weather	-	-0.996 %	-0.979 %
<p>Note: The calculation of bill impact in a year is based on the following calculation, using Year 2 as an example of the first year in which an RDM Adjustment would be included in rates: taking the prior year's RDM Reconciliation Adjustment (if any) in dollars per therm (e.g., based on Year 1's RDM revenue imbalance (actual billed revenue per customer relative to target revenue per customer, divided by Year 2's billing determinants)), times (b) the upcoming year's expected average usage per customer (e.g., Year 2's weather-normalized average use), which would equal (c) the total RDM revenue adjustment (positive or negative) to be collected from each customer in the upcoming year (e.g., Year 2). This amount (in \$) divided by estimated total customer bill (in \$ and including commodity and delivery charges) is the percentage bill impact in the upcoming year. In other words, this produces the percentage impact of the RDM Reconciliation Amount relative to the overall customer bill.</p>			

Note that the Company's degree day data for the 40-year period from 1968/69 through 2007/2008 indicate that over half (53%) of the years had degrees that were within +/- 5% of normal year degree days, and 90% of the years had degree days within +/-10% of normal-year degree days. In light of this type of variation in weather conditions, weather variation in combination with trends in conversions of existing residential customers from non-heating to heating service is likely to keep bill impacts associated with RDM reconciliations within +/- 0.5 percent for 5 out of 10 years and within +/- 1.0 percent for 9 out of 10 years, all else being equal.

Additionally, in order to calculate the per-customer therm usage for the scenarios, this spreadsheet assumes that 73 percent of a residential heating customer's usage is weather-sensitive, and that a 1 percent change in degree days equals a change of 6 therms in a customer's usage for that weather sensitive portion of the customer's bill. This is shown in the first tab of the workbook (labeled "Data inputs OCA-3-3), on lines 16 through 22. These assumptions are based on Company experience.