

# Docketed Correspondence

## Docket 10-10-09

### Filer Information

**Official Filer(s) Name:** Janet R. Palmer  
**Filing Firm's Name:** Northeast Utilities  
**Company Name(If different than Filing Firm):** Yankee Gas  
**Date Filed:** 12/01/2010 12:17:46 PM  
**Individual (If any):** Yankee Gas  
**Type:** Other

**Brief Description:** 2011-2015 YGS Forecast of Demand and Supply Filings

**Date:** 12/01/2010

Attached Correspondence:  - Submittal Letter.doc

 - Table of Contents & Index of Exhibits.doc

 - Cover Forecast of Natural Gas Demand and Supply.doc

 - Exhibit NGAmkt update0510.pdf  - Exhibit NGAmkt update0510.rtf

 - Section I Final.doc  - Section II Final.doc  - SectIII EconTbIs&Plts for dist.xls

 - SectIII TbIs&Plts for dist.xls  - Section III Final.doc  - Text10 SectIII Final.doc

 - Exhibit IV-1.1 to IV-1.4 Contracts.xls  - Exhibit IV-2 Historic Peaking.xls

 - Exhibit IV-3 TopTen Sendout 2001-2010.xls  - Exhibit IV-4 Schematic Diagram.xls

 - Exhibit IV-5 Peak Day Forecast.xls  - Exhibit IV-6 Supply Disposition Normal.xls

 - Exhibit IV-7 Supply Disposition Design.xls

 - Exhibit IV-8 Incremental vs Rolled in Price.xls  - Section IV Final.doc

**Comment:**

December 1, 2010

Ms. Kimberley J. Santopietro  
Executive Secretary  
Department of Public Utility Control  
10 Franklin Square  
New Britain, CT 06051

Re: Docket No. 10-10-09 – DPUC Review of Connecticut Gas Utilities Forecasts of Demand and Supply 2011-2015

Dear Ms. Santopietro:

On October 1, 2010 in Docket No. 10-10-04, Yankee Gas Services Company (“Yankee Gas” or the “Company”) filed with the Department of Public Utility Control (Department) its 2011-2015 five-year forecast of loads and resources as required by Section 16-32f of the General Statutes of the State of Connecticut. In the cover letter, the Company requested they be allowed by the Department to will file their complete updated forecast with supporting material no later than 90 days after a Final Decision is issued in Docket No. 08-10-02.

On October 8, 2010, the Department notified the Company that it had reviewed the company’s Report and finds that it does not fully comply with the specific reporting provisions contained in subsection (a) of Conn. Gen. Stat. § 16-32f. The Department, in that communication, notified Yankee to fully comply with the requirements of Conn. Gen. Stat. § 16-32f and file its complete updated forecast with supporting material by December 1, 2010.

Yankee Gas submits herewith the new forecast and supporting materials. The forecast report and supporting material will be available to the public during normal business hours at the Company’s offices, located at 107 Selden St., Berlin, Ct. 06037, or by requesting a copy by contacting Ms. Tyra Peluso at (860) 665-2674. Copies of this report and supporting materials are also being furnished to the municipal, state and regional officials and agencies as required by CGS 16-32f.

Sincerely,

Janet R. Palmer  
Manager, State Policy - CT  
NUSCO - As Agent for Yankee Gas Services Company

Attachment

cc: Municipal Chief Executive Officers, Yankee Gas Service Area  
Regional Planning Agencies  
Attorney General  
President Pro Tempore of the Senate  
Speaker of the House of Representatives  
Committee on Energy and Public Utilities

## Table of Contents

	<u>Page Number</u>
<b>Section I -- Introduction .....</b>	<b>I-1</b>
A. Overview of Demand and Supply Filing .....	I-1
B. Consistency Among Planning Elements and Models .....	I-1
C. Legislative / Regulatory Mandates .....	I-2
D. Forecast Highlights .....	I-2
Demand .....	I-2
Supply .....	I-3
E. Updates on Developments Affecting the Industry .....	I-4
 <b>Section II -- Conservation .....</b>	 <b>II-1</b>
A. 2011 Gas Conservation Plan .....	II-1
Background .....	II-1
Program and Budget Goals .....	II-2
B. 2011 Gas Conservation Program Deployment .....	II-2
Energy Efficiency Board.....	II-2
Plan Development.....	II-3
Synergies of Gas and Electric Programs .....	II-3
C. 2011 Gas Conservation Program Analysis .....	II-4
Integrated Resource Planning .....	II-4
Cost-Effectiveness Test .....	II-4
Benefit-Cost Tests.....	II-5
Avoided Costs .....	II-6
Financial Indicators .....	II-7
 <b>Section III -- Demand .....</b>	 <b>III-1</b>
A. Reference Case Forecast Results .....	III-2
Background .....	III-2
Sales Forecast Summary .....	III-2
Firm .....	III-2
Nonfirm .....	III-5

## Table of Contents

	<u>Page Number</u>
B. Major Forecast Inputs .....	III-7
Economic Forecast .....	III-13
Overview .....	III-13
Economic Outlook .....	III-17
Highlights of the Connecticut outlook through 2015.....	III-8
Natural Gas Prices.....	III-18
C. Modeling Approach and Development.....	III-19
Economic Model Development.....	III-20
Economic Model Variables.....	III-24
Statistically Adjusted End-Use Models .....	III-25
Constructing XHeat .....	III-26
Constructing XOther .....	III-27
Appendix -- Econometric and SAE Model Output and Statistics .....	A-1
Diagnostic Statistics .....	A-1
<b>Section IV -- Disposition of Gas Supply to Meet Forecast Demand .....</b>	<b>IV-1</b>
A. Introduction .....	IV-1
B. The Model .....	IV-1
Sales Forecast .....	IV-2
Model Operation .....	IV-2
Gas Dispatching .....	IV-2
C. Firm Transportation .....	IV-3
D. Pipeline/Storage Demand Costs .....	IV-3

### SECTION III -- DEMAND

Section III presents the overall demand forecast, including the results of the class-specific firm and nonfirm forecasts, as well as information concerning the assumptions and methodologies used to generate these forecasts. The section is comprised of the following subsections, which detail the various components of the total demand forecast. Detailed model information is contained in the Appendix at the end of this section.

- Section III.A. -- Reference Case Forecast Results
- Section III.B. -- Major Forecast Inputs
- Section III.C. -- Modeling Approach and Development
- Appendix -- Econometric and SAE Model Output and Statistics

## B. MAJOR FORECAST INPUTS

The demand forecasting process utilizes a set of projected economic/demographic assumptions as one of the primary driving forces behind the volume projections. The economic consulting firm of Moody's Analytics provides the basic economic/demographic forecasts for the State of Connecticut, consistent with its national forecast. These forecasts provide the assumptions used in the Company's econometric models to produce both the customer and use per customer forecasts. The economic forecast used was produced in July, 2010.

Another major input to the forecast models is energy prices. The Company uses Energy Ventures Analysis, Inc. ("EVA") forecasts of retail and wholesale energy prices in its forecasting process. EVA uses the Moody's Analytics U.S. outlook to drive its forecasts, providing further consistency in the forecasting process. Highlights of the Moody's Analytics and EVA forecasts for the U. S. and Connecticut as well as corresponding economic and price data used in Yankee Gas' sales models are presented on the following pages and in Exhibits III-3 through III-7.

As mentioned above, the models are adjusted for known or expected out-of-model impacts. The first impact examined was the potential for large customer changes. In the normal course of business, firms are continually leaving or entering the market. To be considered, the size of the change for any customer, or the size of the change across a particular class of the Company's customers, would have to be significant; e.g., the addition to commercial load from the 2002 Mohegan Sun expansion. For this forecast, the migration from interruptible to firm load represented a significant event precipitated by the decoupling of the historical oil to gas relationship. This migration represents a shift in load from interruptible to firm of approximately 1.1 Bcf. It is expected this phenomenon will quickly run its course, largely complete by 2011. Other changes noted were relatively small and tended to be offsetting. They were considered to be within the normal trend of the forecast models and, as such, embedded in the "noise" of the data.

Two other explicit adjustments were made to the model results. The first was for Company-sponsored conservation and load management impacts. The C&LM savings used in this forecast are consistent with those discussed in detail in Section II [check this]. For this forecast, the traditional low-income residential programs have been expanded by making them available to a wider spectrum of the residential customer class. Also, there has been a significant ramp-up in efforts to develop C&LM programs for the commercial and industrial sectors. The savings associated with these programs are included in the forecast.

The second adjustment was for the impact of distributed generation. This is a group of customers who intend to use natural gas to generate electricity for their own needs and to supply any excess power to the electric distribution system. The methodology for modeling the adoption of DG has progressed from its infancy a few years ago, but still has little historical data on the

Public Service Company of New Hampshire  
Docket No. DE 11-250

Data Request TC-03  
Dated: 08/24/2012  
Q-TC-006  
Page 1 of 2

Witness: Terrance J. Large  
Request from: TransCanada

**Question:**

Reference the September 2, 2008 report by PSNH to the Commission in DE 08-103, page 15, Section IV.D, please provide the heat rate factor that PSNH applied and provide any and all documentation in PSNH's possession or the possession of any of its agents related to the analysis described in this section. Please explain when and why this analysis was done.

**Response:**

The heat rate factor applied was 7.62 MMBtu/MWh. This is a 2008-2011 average implied heat rate calculated from NYMEX gas prices. The attached exhibit provides the supporting detail for the 7.62 number. This analysis was done in the summer of 2008 to support the update filing to the NHPUC.

	APB Peak	APB Offpk	NYMEX 24 hr Hub Gas	NE Gas Basis	NE Gas (NYMEX plus basis)	NE Gas (EVA)	Implied HI Rate	Power Price		
Cal 08	129.74	101.15	114.38	12.91	1.71	14.62	8.37	7.82	114.38	apb
Cal 09	117.75	92.25	104.24	11.72	2.18	13.90	8.81	7.60	104.24	apb
Cal 10	107.00	83.63	94.61	10.60	1.92	12.51	8.82	7.56	94.61	apb
Cal 11	103.03	81.25	91.77	10.28	1.80	12.08	9.04	7.60	91.77	apb
Cal 12				10.34	1.70	12.04	9.53		91.78	nymex
Cal 13				10.55	1.73	12.28	8.97		68.38	eva
Cal 14				10.77	1.77	12.54	9.24		70.37	eva
Cal 15				10.99	1.81	12.80	9.50		72.43	eva
Cal 16				11.22	1.84	13.07	9.78		74.52	eva
Cal 17				11.46	1.88	13.34	10.06		76.67	eva
Cal 18				11.70	1.92	13.63	10.36		78.87	eva
Cal 19				11.96	1.97	13.93	10.65		81.14	eva esc.
Cal 20				12.22	2.01	14.22	10.95		83.47	eva esc.

Nominal dollars

Used TZ6 Basis swap from NYMEX Jun 11th for 2008- 2012 basis  
 Used EVA (Feb 2008 forecast) for 2013 - 2018 delivered gas  
 Used EVA growth rate to derive 2019 - 2020 delivered gas (Boston clygate)