

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC UTILITY CONTROL

DPUC Investigation of Measures
To Reduce Federally Mandated
Congestion Charges

Docket No. 05-07-14PH02
December 5, 2006

Connecticut Department of
Public Utility
Control
Request for Proposals
to reduce impact of FMCCs

DECEMBER 5, 2006 ADDENDUM
UPDATED FUEL PRICE FORECAST

1 Introduction and overview

As per Section 5.5.1.3 of the RFP (see page 50 of the RFP issued on September 15, 2006 or the “RFP”), the fuel price projections used in the Bid Evaluation are developed from various input sources such as NYMEX futures, *EIA Annual Energy Outlook 2006*, and historical data on plant-level delivered fuel costs for coal plants. The sources and methodology are summarized in the RFP (see pages 50-51 of the RFP).¹

Using the latest data available on NYMEX futures (as of December 4, 2006), the latest data released (as of December 5, 2006) for the *EIA Annual Energy Outlook 2007*, and the updated historical plant-level data to account for most up-to-date actual delivered fuel cost data through 2006, the fuel price projections to be used in the Bid Evaluation have been revised.

This document presents the updated fuel price projections (i.e. updated Figure 15 and Figure 16 of the RFP) and, thus, bidders must read this December 5, 2006 Addendum in conjunction with the September 15, 2006 RFP.

2 Natural Gas Forecast

The Base Case gas price forecast was developed using NYMEX forwards for the first six years of the forecast timeframe (2007-2012) and then blended into the long-term forecast from the *EIA Annual Energy Outlook 2007*. NYMEX futures have declined from the levels documented in Figure 15 on page 50 of the RFP. In addition, the latest forecast from EIA’s *Annual Energy Outlook 2007* suggests a more moderate nominal growth rate for natural gas in the long term. The analysis for determining the high and low gas prices have also been revised to include observed forecast errors in recent years. Figure 1 below presents the updated gas price forecasts for the base, high, and low cases.

Figure 1. Projected Boston Citygate natural gas prices under Base Case, High Case and Low Case (nominal \$/MMBtu)

| | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>2013</u> | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> | <u>2019</u> | <u>2020</u> | <u>2021</u> |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Base Case | \$9.17 | \$9.62 | \$9.29 | \$8.93 | \$8.53 | \$8.15 | \$8.05 | \$8.22 | \$8.25 | \$8.54 | \$8.99 | \$9.00 | \$9.06 | \$9.35 | \$9.51 |
| High Case | \$9.17 | \$9.96 | \$10.76 | \$11.57 | \$12.40 | \$13.23 | \$13.96 | \$14.70 | \$15.60 | \$17.00 | \$18.81 | \$19.75 | \$20.80 | \$22.42 | \$23.78 |
| Low Case | \$9.17 | \$8.43 | \$7.67 | \$6.89 | \$6.11 | \$5.31 | \$4.45 | \$3.60 | \$3.60 | \$3.60 | \$3.60 | \$3.60 | \$3.60 | \$3.60 | \$3.60 |

3 Coal and Oil Forecast

The oil price forecast is based on 18 months forwards for heating oil and six year forwards for light sweet crude oil, both available from NYMEX. The starting point (2007) for the distillate oil forecast is based on the heating oil forwards from NYMEX, which have not changed significantly. The NYMEX futures for light sweet crude oil are then used to escalate the distillate price forecast over the short term (those futures have risen over previous levels used in the tables in the RFP). A distillate-residual differential is applied to the distillate oil forecast,

¹ The RFP, revised Needs Assessment report (August 25, 2006), and related documents are posted on the RFP website - <http://www.connecticut2006rfp.com/index.php>.

based on the reported differentials from *EIA Annual Energy Outlook 2007*, in order to create the residual oil price forecast. In the longer term, both the residual and distillate oil price tracks are escalated based on the implied projected rate of growth for crude oil from *EIA Annual Energy Outlook 2007*.

The coal price assumptions are based on the average delivered price of coal (for the period January 2004 through July 2006) to each plant, escalated to nominal terms using the annual rate of change implied in the coal price index and inflation rate from *EIA Annual Energy Outlook 2007*.

Figure 2 presents the updated oil and coal price projections, effectively replacing Figure 16 on page 51 of the RFP.

Figure 2. Projected oil and coal prices under Base Case, High Case and Low Case (nominal \$/MMBtu)

| | <u>2007</u> | <u>2008</u> | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>2013</u> | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> | <u>2019</u> | <u>2020</u> | <u>2021</u> |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Distillate Oil | | | | | | | | | | | | | | | |
| Base Case | \$13.54 | \$14.15 | \$14.09 | \$13.93 | \$13.77 | \$13.63 | \$13.40 | \$13.53 | \$13.82 | \$14.03 | \$14.59 | \$14.99 | \$15.47 | \$15.78 | \$16.30 |
| High Case | \$13.54 | \$14.65 | \$16.32 | \$18.05 | \$20.01 | \$22.12 | \$23.24 | \$24.19 | \$26.12 | \$27.94 | \$30.53 | \$32.90 | \$35.52 | \$37.85 | \$40.74 |
| Low Case | \$13.54 | \$12.39 | \$11.63 | \$10.75 | \$9.86 | \$8.87 | \$7.41 | \$5.93 | \$6.03 | \$5.91 | \$5.84 | \$6.00 | \$6.15 | \$6.08 | \$6.17 |
| Residual Oil | | | | | | | | | | | | | | | |
| Base Case | \$6.83 | \$7.50 | \$7.76 | \$7.83 | \$7.93 | \$8.02 | \$7.87 | \$8.02 | \$8.36 | \$8.51 | \$8.86 | \$9.14 | \$9.53 | \$9.75 | \$10.19 |
| High Case | \$6.83 | \$7.76 | \$8.98 | \$10.15 | \$11.52 | \$13.02 | \$13.65 | \$14.34 | \$15.79 | \$16.95 | \$18.55 | \$20.06 | \$21.88 | \$23.39 | \$25.48 |
| Low Case | \$6.83 | \$6.57 | \$6.40 | \$6.05 | \$5.68 | \$5.22 | \$4.35 | \$3.51 | \$3.64 | \$3.59 | \$3.55 | \$3.66 | \$3.79 | \$3.75 | \$3.86 |
| Coal - New England average | | | | | | | | | | | | | | | |
| Base/ High/ Low | \$2.41 | \$2.45 | \$2.31 | \$2.37 | \$2.36 | \$2.60 | \$2.63 | \$2.65 | \$2.67 | \$2.71 | \$2.74 | \$2.76 | \$2.80 | \$2.85 | \$2.91 |