

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

ORIGINAL	
D.P.U.C. Case No.	DE 11-250
Exhibit No.	# 116
Witness	Michael E. Hachey

Data Request PSNH
Dated: 04/16/2014

Question:

34. Page 13, Line 18 – You testify about assumptions regarding the forecast price of natural gas.
- Please provide all fuel price forecasts relating to the price of coal, oil and natural gas produced by or available to TransCanada from 2005 through 2012.
 - For each such forecast, identify the entity who prepared it and the purpose for which it was created.
 - Provide any internal TransCanada work papers or other documents supporting or commenting on each such forecast.
 - Provide any after-the-fact assessment or analyses prepared by TransCanada or consultants for TransCanada that contain an evaluation of such forecasts, including assessments or commentary about their accuracy and methodologies.
 - Provide any documents pertaining to how TransCanada believes such forecasts should be conducted.
 - Provide any documents pertaining to how methodologies for such forecasts should be revised after-the-fact when predictions are compared to actual prices.

Answer:

In the April 14, 2014 meeting, PSNH stated that it would be satisfied if responses were provided to 34a, b and e.

- The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, in preparing my testimony I reviewed the four forecasts that I am aware of that were available to PSNH as of September 2, 2008. These four forecasts were prepared by (1) Energy Ventures Analysis, Inc., (2) Synapse Energy Economics, Inc., (3) the United States Department of Energy's Energy Information Agency; and (4) the Brattle Group. These forecasts were included as attachments to my testimony as Attachments 16-19 respectively. The Companies purchase proprietary energy forecasts but these were not reviewed or relied upon in preparing my testimony and accordingly are not provided.
- The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, please see the response to 34a.
- The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, the Companies have no responsive documents.

Provided by: Michael Hachey

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

Data Request PSNH
Dated: 04/16/2014

Question:

37. In its yearly NGTL Annual Plans (see Q-DEPO-001), TransCanada states, "TransCanada's NYMEX gas price forecast was used to develop the Alberta Average Field Price (Alberta Reference Price), which represents the estimated price of natural gas at a point just prior to receipt onto the Alberta System."
- a. Please provide all of TransCanada's NYMEX gas price forecasts from January 1, 2006 through September 30, 2011.
 - b. Do you admit TransCanada forecast in 2009 that the Alberta field price of gas in 2015 would be approximately \$6.55/MMBTU? If not, please explain the basis for your opinion.
 - c. Do you admit TransCanada forecast in 2010 that the Alberta field price of gas in 2015 would be approximately \$6.90/MMBTU? If not, please explain the basis for your opinion.
 - d. Do you admit TransCanada forecast in 2010 that NYMEX natural gas prices would be \$7.17/MMBtu in real 2008 \$US by 2015? If not, please explain the basis for your opinion.
 - e. Do you admit TransCanada forecast in 2011 that the Alberta field price of gas in 2015 would more than double to approximately \$6.30/MMBTU? If not, please explain the basis for your opinion.
 - f. Do you admit TransCanada forecast in 2011 that NYMEX natural gas prices would reach an equilibrium price of \$6.75/MMBtu in real 2010 \$US by 2015? If not, please explain the basis for your opinion.
 - g. Do you admit TransCanada forecast in 2012 that the Alberta field price of gas in 2015 would be just over \$4.00/MMBTU? If not, please explain the basis for your opinion.
 - h. Do you admit TransCanada forecast in 2012 that NYMEX natural gas prices would reach an equilibrium price of \$5.75/MMBtu in real 2010 \$US? If not, please explain the basis for your opinion.

Answer:

In the April 14, 2014 meeting, PSNH stated that it would be satisfied if a response was provided to 37a.

The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, please see response to 34a.

Provided by: Michael Hachey

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

Data Request PSNH
Dated: 04/16/2014

Question:

52. Please provide copies of any and all documentation in TransCanada's possession regarding the forward market for natural gas delivered to New England in the 2008 through 2011 time frame.

Answer:

The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, please see response to 34a.

Provided by: Michael Hachey

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

Data Request PSNH
Dated: 04/16/2014

Question:

57. Page 16 - You contend that it was unreasonable for PSNH to use NYMEX futures prices for its natural gas price forecast.

d. Please provide information on all forecasts of natural gas prices developed by TransCanada (including its subsidiaries) over the period from June 2008 to March 2009.

Answer:

The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, the Companies do not have any responsive documents.

Provided by: Michael Hachey

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

Data Request PSNH
Dated: 04/16/2014

Question:

66. In 2007, was it reasonable to expect gas production across North America to remain flat, demand for gas to grow, and therefore, for gas prices to rise?

Answer:

In the April 14, 2014 meeting, PSNH stated that it would be satisfied if a response was provided to 66 with the question refined to ask for Mr. Hachey's opinion.

The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, please see North American Natural Gas Supply Assessment prepared for American Clean Skies Foundation by Navigant Consulting, dated July 4, 2008, for a description of the "tremendous growth in recent years" of natural gas shales. This conflicts with the premise "to expect natural gas production across North America to remain flat." The report is available at <http://www.cleanskies.org/pdf/navigant-natural-gas-supply-0708.pdf>.

Provided by: Michael Hachey

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

Data Request PSNH
Dated: 04/16/2014

Question:

67. In 2010, was it reasonable to expect that gas prices would be in the \$5 to \$8 range?

Answer:

In the April 14, 2014 meeting, PSNH stated that it would be satisfied if a response was provided to 67 with the question refined to ask for Mr. Hachey's opinion with respect to the following question: "At any point in 2010, was it reasonable to expect that gas prices would be in the \$5 to \$8 range in the foreseeable future?"

The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, I did not review or rely on forecasts developed in 2010 in preparing my testimony.

Provided by: Michael Hachey

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

Data Request PSNH
Dated: 04/16/2014

Question:

68. In February 2009, was it reasonable to assume that the natural gas supply bubble could last another 12 to 18 months and that prices would probably not drop much lower?

Answer:

The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, see the report provided with response 66.

Provided by: Michael Hachey

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

Data Request PSNH
Dated: 04/16/2014

Question:

71. Page 21, Line 9 – You testify that “PSNH appears to have ignored supply-related information that contradicted their internal assessment of natural gas prices. The combinations of technological advancements in horizontal drilling and hydraulic fracturing have led to surges in U.S.-based natural gas production and significant increases in proven natural gas reserves” and “Clear documentation existed as early as 2006 indicating that production of unconventional natural gas was exceeding production from conventional natural gas sources.”

On May 1, 2009, during the “Q1 2009 TransCanada Corporation Earnings Conference Call,” discussing Marcellus shale gas, Mr. Kvisle stated: “I’ve looked back over the last 15 years and if people --there have been many interesting new sources of gas come along. That at the time they come along, people proclaim that they’re going to change the world. And they get pretty significant, some of them, but in the grand scheme of things, they’re just one more source of supply. And I would particularly highlight coal bed methane. Coal bed methane was really going to have a dramatic effect and a lot of us thought it would never exceed 1 Bcf a day in western Canada. And it struggles to maintain 700 million a day. So, that in fact, has turned out to be the case. Looking broadly across North America, there’s clearly some shale plays that are going to generate very impressive volumes. But I would argue that they are just the latest place that industry looks to replace declining production.”

- a. Since you testify that the impacts of shale gas production were documented as early as 2006, was Mr. Kvisle’s statement to investors “flawed or outdated” as you used those terms on Page 19, Line 5 of your testimony?
- b. Similarly, did Mr. Kvisle “fail [] to disclose,” as you used those terms on Page 19, Line 6 of your testimony, information that was reasonably known to him at the time he made that statement?
- c. Was Mr. Kvisle’s statement made “for the sole purpose of economically justifying... construction” of TransCanada projects such as, but not limited to, the Mackenzie and Alaska pipeline projects?
- d. Do you consider Mr. Kvisle’s statement to be “at odds with contemporaneous forecasts available” to him as you used that term at Page 19, Line 12 of your testimony?
- e. Is it your opinion that Mr. Kvisle’s statement did “not realistically reflect actual pricing seen in the market” as you used that term on Page 19, Line 13?

Answer:

In the April 14, 2014 meeting, PSNH stated that it would be satisfied if a response was provided to 71 with the question refined to ask Mr. Hachey what documentation he relied on for the two statements quoted from his testimony.

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

Data Request PSNH
Dated: 04/16/2014

The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, in preparing my testimony I reviewed the four forecasts that I am aware of that were available to PSNH as of September 2, 2008. These four forecasts were prepared by (1) Energy Ventures Analysis, Inc., (2) Synapse Energy Economics, Inc., (3) the United States Department of Energy's Energy Information Agency; and (4) the Brattle Group. These forecasts were included as attachments to my testimony as Attachments 16-19 respectively.

Provided by: Michael Hachey

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

Data Request PSNH
Dated: 04/16/2014

Question:

74. Page 21 - You provide a quote from a Wall Street Journal article from November 2009 stating that the potential of unconventional gas supply "became clear around 2007."
- b. Please provide any studies or statements made by TransCanada in the 2008/2009 timeframe on the effects of horizontal drilling and hydraulic fracturing on future gas supply and prices.
 - c. Please provide supporting documents for your statement that "Clear documentation existed as early as 2006 indicating that production of unconventional natural gas was exceeding production from conventional natural gas sources."

Answer:

- b. The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, the Companies have no responsive documents.
- c. The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, see Attachment 22 to my testimony. Note: "conventional natural gas sources", on page 21 at line 16 of my testimony, should have read "onshore conventional natural gas sources".

Provided by: Michael Hachey

Question:

75. Page 21, Line 20 – You testify that “the potential of the unconventional gas supply ‘became clear around 2007’”.

During the “Q1 2009 TransCanada Corporation Earnings Conference Call,” the following discourse occurred:

OPERATOR: Thank you. The next question is from Andrew Kuske from Credit Suisse. Please go ahead.

ANDREW KUSKE, ANALYST, CREDIT SUISSE: Thank you. Good afternoon. Hal, if you could just give us some commentary on your thoughts on the value of long haul pipelines? And in particular, when you start to think about some of the shale plays, and things like the Marcellus and the Utica that are close to essentially big demand centers. And what does that mean for the longer term viability of pipelines like TransCo and really things heading up from the Gulf into those regions?

HAL KVISLE: I would say, we don't know, at this point, How aggressively people will develop the Marcellus, how sustainable the production is, what kind of decline rates will occur? Emphatically, we don't know what kind of local opposition people are going to run into as they try to get drilling locations. I'm not trying to be pessimistic on it but these are some of the things that we have to see unfold over time. And

ANDREW KUSKE: Now, if you see very aggressive development of the shale plays in the US and we do see some of the higher end numbers like the 5 B's out of the Marcellus actually come to fruition. In the North American context, what are your thoughts on what does that mean for plays like Horn River and Monteny? Do you see that essentially wind up being -- since it is the end of the pipe in a North American context, essentially not being developed or the base is blowing our pretty wide from an Alberta market perspective?

HAL KVISLE: I've looked back over the last 15 years and if people --there have been many interesting new sources of gas come along. That at the time they come along, people proclaim that they're going to change the world. And they get pretty significant, some of them, but in the grand scheme of things, they're just one more source of supply.

- a. If as you testify “the potential of the unconventional gas supply ‘became clear around 2007’”, why did Mr. Kvisle tell investors in May, 2009, that TransCanada did not know the impact of such gas supplies?
- b. Similarly, why did Mr. Kvisle tell investors that Marcellus gas was “just one more source of supply” in the grand scheme of things?
- c. When did TransCanada first acknowledge the impact of Marcellus gas on gas prices? Please provide all documents evidencing that acknowledgment.
- d. Regarding your statement that “the potential of the unconventional gas supply

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

Data Request PSNH
Dated: 04/16/2014

became clear around 2007, is it your view that the only prudent position would be to alter a resource plan based on this "potential"? Is it your view that Attachment 23 supports a view to which no reasonable person would take a contrary view as of 2007[?] e. At page 24, Line 2, you testify that 2008 was the "critical period" "when significant changes in natural gas markets became evident." Why did Mr. Kvisle tell investors in May, 2009 in response to a question regarding the impact of such changes, that "we don't know, at this point."?

Answer:

In the April 14, 2014 meeting, PSNH stated that it would be satisfied if a response was provided to 75d only.

The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, the spread between natural gas prices and coal prices played a fundamental role in determining whether the scrubber was economic for PSNH customers. To the extent PSNH desired to collect the costs of the scrubber from its remaining customers, it should have carefully examined the impact on the natural gas market prices from unconventional gas supply developments, and altered its resource plan accordingly.

Provided by: Michael Hachey

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

Data Request PSNH
Dated: 04/16/2014

Question:

97. Reference Exhibit II at page 1: Do you agree that new supplies of shale gas in North America have caused Canadian gas prices to tumble, thus causing or helping to cause the pricing issues TransCanada has been experiencing with the Mainline?
- a. Explain your answer.
 - b. When did TransCanada first identify this issue?
 - c. How was it identified?
 - d. Did TransCanada perform or commission any studies or analyses between 2005 and 2012 that assessed the threat to the Mainline from the development of shale gas in North America?
 - (1) Provide copies of all such documents.
 - (2) Provide copies of all internal TransCanada documents assessing or commenting on such studies.
 - e. Did TransCanada discuss the threat to the Mainline from shale gas in North America at any of its board meetings or at any meetings among senior executives between 2006 and 2012?
 - f. If so, please provide all notes, minutes or any other memorialization of any such meetings.

Answer:

In the April 14, 2014 meeting, PSNH stated that it would be satisfied if a response was provided by Mr. Hachey with the question refined to the following: "In preparing your testimony, did you consider that new supplies of shale gas in North America had caused Canadian gas prices to tumble?"

The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, the impact of new supplies of shale gas on Canadian gas prices was not considered in preparation of my testimony.

Provided by: Michael Hachey

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

Data Request PSNH
Dated: 04/16/2014

Question:

151. Please provide all fuel price forecasts relating to the price of coal, oil and natural gas available to TransCanada from 2005 through 2012.

Answer:

The Companies previously objected to this request. Notwithstanding the objection and without waiving the same, please see response to 34a.

Provided by: Michael Hachey