

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

Date Request Received: 07/25/2014
Request No. TC 6-037
Request from: TransCanada

Date of Response: 08/08/2014
Page 1 of Bulk

Witness: William H. Smagula

Request:

Reference page 21 of your testimony. What is your understanding of termination provisions in the contracts that PSNH entered into? Is there a difference between the contractual value and the value that PSNH would have had to pay if it had terminated the contract early? Please explain, and provide values PSNH was obligated to pay in the following months and years:

June 2008

July 2008

August 2008

September 2008

October 2008

November 2008

December 2008

January 2009

February 2009

March 2009

April 2009

May 2009

June 2009

July 2009

August 2009

September 2009

October 2009

November 2009

December 2009

Response:

Please see attached document provided via US Postal Service.

Service Co. of N.H., Order No. 25,566 at 5 (Aug. 27, 2013).” This request violates this standard.

Q-TC-06-038:

Reference your testimony concerning conclusions drawn by Legislators and the Public Utilities Commission regarding going forward with the Scrubber in spite of “higher costs” as well as your testimony on page 23 regarding fuel diversity. Please provide copies of any and all price forecasts for natural gas, electric and coal produced by or available to PSNH, its affiliates, or parent company from 2005 through 2014.

PSNH objects to this request on the following bases:

- i. This request is unrelated to the testimony of the witness it was directed to. This question was addressed to Mr. Smagula. Mr. Smagula did not testify regarding the prices of natural gas, electricity or coal. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, “Standard for Requests of a Party Regarding its Witness’s Testimony” (Standard #2), the Commission decided, “PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party’s witness and they could not provide impeachment evidence.”
- ii. In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding price forecasts; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.
- iii. Relevance. The time periods for the requested documents does not correlate to the Scrubber Project.
- iv. PSNH’s affiliates and parent company are not parties to this proceeding. In Order No. 25,646 the Commission stated, “Discovery is generally limited to ‘any party.’ Puc 203.09(b),” unless “a particularized showing” of “substantial need for specific information from a non-party . . . is necessary to this docket and not otherwise available... .”

Q-TC-06-039:

Reference your testimony concerning conclusions drawn by Legislators and the Public Utilities Commission regarding going forward with the Scrubber in spite of “higher costs” as well as your testimony on page 23 regarding fuel diversity. Please provide copies of any and all documentation in PSNH’s possession, or in the possession of PSNH’s affiliates or parent

company regarding the forward market for natural gas delivered to New England from 2008 through 2011.

PSNH objects to this request on the following bases:

- i. This request is unrelated to the testimony of the witness it was directed to. This question was addressed to Mr. Smagula. Mr. Smagula did not testify regarding the prices of natural gas. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."
- ii. In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding price forecasts; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.
- iii. PSNH's affiliates and parent company are not parties to this proceeding. In Order No. 25,646 the Commission stated, "Discovery is generally limited to 'any party.' Puc 203.09(b)," unless "a particularized showing" of "substantial need for specific information from a non-party . . . is necessary to this docket and not otherwise available..."

Q-TC-06-040:

Reference your testimony concerning conclusions drawn by Legislators and the Public Utilities Commission regarding going forward with the Scrubber in spite of "higher costs", as well as your testimony on page 23 regarding fuel diversity. Please provide copies of any and all studies regarding the economic viability of coal plants in the ISO-NE region produced by or obtained by PSNH, its affiliates, or parent companies from 2005 through 2012.

PSNH objects to this request on the following bases:

- i. This request is unrelated to the testimony of the witness it was directed to. This question was addressed to Mr. Smagula. Mr. Smagula did not testify regarding the economic viability of coal plants in the ISO-NE region. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and

they could not provide impeachment evidence.”

- ii. PSNH’s affiliates and parent company are not parties to this proceeding. In Order No. 25,646 the Commission stated, “Discovery is generally limited to ‘any party.’ Puc 203.09(b),” unless “a particularized showing” of “substantial need for specific information from a non-party . . . is necessary to this docket and not otherwise available... .”

Q-TC-06-046:

Reference your testimony at page 21, lines 13 through 15. If Merrimack Station were closed, would such closure result in emissions reductions that would exceed the emissions reductions requirements set forth in RSA 125-O?

PSNH objects to this request on the following bases:

- i. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #1, “Standard for Requests to Compel Legal Responses” (“Standard #1), the Commission decided, “we will generally not compel lay witnesses to respond to discovery questions that seek legal interpretations.” This request violates this standard as it seeks a legal interpretation from a lay witness.
- ii. This question poses a hypothetical question and does not seek facts within the control of the witness.
- iii. This question seeks a legal opinion.

Q-TC-06-047:

With regard to your testimony at page 22 and the savings to customers this past winter, please explain how such savings were calculated. In so doing, please enunciate all costs included in valuing the power produced by Merrimack Station (e.g., O&M costs, scrubber costs, commodity costs, rate of return, etc...). Please provide all costs on a monthly basis for each month since the scrubber began operating. Please also provide all data used to determine the ISO-NE “daily” price enunciated in Attachment WHS-R-03. Please provide all documentation, including relevant spreadsheets or other calculations you used to calculate the “savings” for ratepayers on a monthly basis for each month since the scrubber began operating.

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. The information requested is reviewed by the Commission in the Energy Service ratesetting docket and the annual ES/SCRC reconciliation docket, and is not within the scope of this proceeding.

Q-TC-06-049:

Please reference your testimony at page 22. If PSNH had to purchase additional power to meet its electricity supply, would it do so by purchasing power on the spot market?

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. The question requires speculation.
- iii. The information requested is reviewed by the Commission in the Energy Service ratesetting docket and the annual ES/SCRC reconciliation docket, and is not within the scope of this proceeding.

Q-TC-06-050:

Relative to your testimony on page 22, lines 3 – 6, provide a monthly tabulation for Merrimack Station from the date of scrubber operation through June, 2014 of :

- a. MWHs generated*
- b. market revenues from all NEPOOL markets*
- c. fuel costs billed to consumers*
- d. all non-fuel costs billed to consumers*
- e. costs incurred but not yet billed to consumers*

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. The information requested is reviewed by the Commission in the Energy Service ratesetting docket and the annual ES/SCRC reconciliation docket, and is not within the scope of this proceeding.

information from a non-party . . . is necessary to this docket and not otherwise available... .”

Q-TC-06-062:

Reference your testimony at Attachment WHS-R-04. Is Merrimack Station an “at risk” facility as identified by ISO-NE?

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. This request is unrelated to the testimony of the witness it was directed to. This question was addressed to Mr. Smagula. Mr. Smagula did not testify regarding the provisions of the ISO-NE Tariff. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, “Standard for Requests of a Party Regarding its Witness’s Testimony” (Standard #2), the Commission decided, “PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party’s witness and they could not provide impeachment evidence.”

Q-TC-06-065:

Please provide a list of all documents you reviewed and/or relied upon in developing your testimony. For each document, indicate whether it has been provided to the parties, and if so, where (e.g., data request number, exhibit number, etc...). If the document has not yet been provided to the parties, please provide it.

PSNH objects to this request on the following bases:

- i. Burdensome. As Director-Generation and more recently Vice President – Generation, Mr. Smagula has been involved in all facets of the Scrubber Project from the earliest days of the original Multi-Pollutant Reduction Program Law enacted as RSA Chapter 125-O in 2002, through to the present. PSNH has provided tens of thousands of pages of documents in response to the myriad questions asked by Staff and other parties to this proceeding during the multiple rounds of discovery.
- ii. Mr. Smagula’s rebuttal testimony specifically identifies matters relied upon as part of that testimony

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

Date Request Received: 07/25/2014
Request No. TC 6-093
Request from: TransCanada

Date of Response: 08/08/2014
Page 1 of 1

Witness: John Reed

Request:

Reference page 22 of your testimony. Do you believe that it was reasonable for PSNH to rely on NYMEX futures to analyze the economics for the Scrubber Project for 2012 through 2027?

Response:

The reasonableness of fuel price forecasts are addressed by the testimony of Drs. Kaufman and Harrison, not Mr. Reed.

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

Date Request Received: 07/25/2014
Request No. TC 6-094
Request from: TransCanada

Date of Response: 08/08/2014
Page 1 of 1

Witness: John Reed

Request:

Reference page 22 of your testimony. Have you ever relied on NYMEX or similar futures to determine future commodity prices to be estimated out for ten years or more? If yes, please list the circumstances that you have relied on NYMEX or similar futures and provide any written documentation regarding said reliance.

Response:

The reasonableness of fuel price forecasts are addressed by the testimony of Drs. Kaufman and Harrison, not Mr. Reed.

Q-TC-06-096:

Reference pages 18 through 22 of your testimony. Provide the study and any presentation materials associated with CEA's assessment of various energy options for the Oberlin City Council in connection with the decision whether to participate in a pulverized coal plant in Ohio in 2008.

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. This request is unrelated to the testimony of the witness it was directed to. This question was addressed to Mr. Reed. Mr. Reed's testimony relates to the applicable prudence standard and the availability of practical options to installation of the Scrubber by PSNH. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-102

Are you aware of capital investments in coal plants (environmental or otherwise) that were halted before they were completed for economic reasons between 2005 and 2012? Please list any such coal plants, the investment amount, and the reason the investment was not completed.

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. This request is unrelated to the testimony of the witness it was directed to. This question was addressed to Mr. Reed. Mr. Reed's testimony relates to the applicable prudence standard and the availability of practical options to installation of the Scrubber by PSNH. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-125:

Reference page 28 of your testimony. What did you know about fracking in 2008-2009? During 2008 through 2010, did you or any other employee of Concentric Energy Advisors, Inc. refer to the impact of fracking on gas prices in any testimony, report, or study? Please list all such testimony, report, and/or studies and provide copies of the same.

PSNH objects to this request on the following basis:

In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding the impact of gas fracking; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.

Q-TC-06-126:

Reference page 29, lines 16 through 18 of your testimony. In a recent report, La Capra Associated determined that the reconciled value for Merrimack Station is \$10 million as of December 31, 2014 after the scrubber investment was made (see page 91 of http://www.puc.state.nh.us/Electric/PUBLIC%20VERSION%20PSNH%20Asset%20Valuation%20Report_FINAL.pdf). Is it your conclusion that the \$422 million investment in the Scrubber produced benefits for customers? Please explain.

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. The cited La Capra report was prepared in 2014, well after the time period of relevance for this proceeding.
- iii. This request is unrelated to the testimony of the witness it was directed to. This question was addressed to Mr. Reed. Mr. Reed's testimony relates to the applicable prudence standard and the availability of practical options to installation of the Scrubber by PSNH. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."
- iv. Requires speculation, as the future of the energy market during the life of the Scrubber cannot be determined at this time.

Q-TC-06-130:

Reference page 36, lines 12 through 20 of your testimony. Are you aware that Order Number 24,898 is not a final order and that the Commission further clarified its position in Order Number 24,914?

PSNH objects to this request on the following basis:

The question seeks a legal conclusion.

Questions Directed to Dr. Harrison and Dr. Kaufman

Q-TC-06-132:

Please provide copies of all invoices paid to you or NERA Economic Consulting by PSNH, its affiliates, or parent company between 2008 and present

PSNH objects to this request on the following bases:

- i. Relevance. The material requested is not relevant to this proceeding nor would it lead to the discovery of admissible evidence.
- ii. PSNH's affiliates and parent company are not parties to this proceeding. In Order No. 25,646 the Commission stated, "Discovery is generally limited to 'any party.' Puc 203.09(b)," unless "a particularized showing" of "substantial need for specific information from a non-party . . . is necessary to this docket and not otherwise available... ."

Q-TC-06-134:

Please provide all communications between NERA Economic Consulting and any representative of Public Service Company of New Hampshire related to Docket DE 11-250 and/or Merrimack Station.

PSNH objects to this request to the extent it seeks materials that are not related to this docket.

Q-TC-06-135:

Please provide all drafts of your testimony, including all redlines or other versions (including handwritten and electronic).

PSNH objects to this request on the following bases:

independent economic analysis they prepared. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-137:

Reference pages 5-6 and page 8 of your testimony, was it reasonable and prudent for PSNH to rely on actual natural gas prices from the first four months of 2008, instead of any natural gas price forecast, as an assumption of what the price of natural gas would be on going forward basis for 15 years beginning in 2012, escalated at 2.5% per year?

PSNH objects to this request on the following basis:

This request is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Drs. Harrison and Kaufman. Their testimony relates to the independent economic analysis they prepared. They did not testify to prudence, nor did they testify regarding PSNH analyses. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-138:

What is your understanding of the obligation a public utility has to its customers?

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. This request is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Drs. Harrison and Kaufman. Their testimony relates to the independent economic analysis they prepared. They did not testify regarding the subject of this question. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek

- iii. This request seeks information that is privileged or which constitutes work product. See TransCanada's General Objection #4. *"The Companies [TransCanada] object to requests for information or production of documents that is or are subject to the attorney-client privilege, constitute work product, is or are proprietary, is or are protected under state or federal law, constitute draft and/or non-final documents and/or constitute communications containing or concerning any of the above. (See Bates page 92, of PSNH Motion to Rescind Intervenor Status of TC, Feb 21, 2014). TransCanada did not provide copies of drafts, redlines, or other versions of testimony of its witness. As a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.*

Q-TC-06-149:

Reference page 10 of your testimony. Please provide copies of any and all fuel price forecasts or forecasts of electricity prices produced by or available to NERA, its affiliates or parent companies in 2008 and 2009.

PSNH objects to this request on the following bases:

- i. In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding price forecasts; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.
- ii. Much of the information requested is confidential

Q-TC-06-150:

Did PSNH forecast natural gas prices in association with its economic analysis of the scrubber project? Were PSNH's actions with respect to its failure to forecast prices prudent?

PSNH objects to this request on the following bases:

- i. The information requested is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Drs. Harrison and Kaufman. Their testimony relates to the independent economic analysis they prepared; they did not testify regarding any PSNH analyses. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-152:

Reference your testimony on pages 10 to 11 regarding the economic realities of commodity prices in 2008 and 2009. Do you agree that PSNH concluded that an escalating differential of \$5.29/MMBtu was needed to economically justify scrubber construction? Do you agree with PSNH's conclusion that the market would support that differential?

PSNH objects to this request on the following basis:

The information requested is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Drs. Harrison and Kaufman. Their testimony relates to the independent economic analysis they prepared; they did not testify regarding any PSNH analyses. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-153:

Reference page 11, lines 6-8 of your testimony. You cite "supply effects of expanded use of advanced technologies to drill for shale gas (notably horizontal drilling and hydraulic fracturing typically referred to as "fracking")". Please provide all sources of information available in 2008-2009 that informed your statements regarding this statement.

PSNH objects to this request on the following basis:

In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding the impact of gas fracking; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.

Q-TC-06-154:

Provide studies, analyses, related documents and copies of testimony by NERA on behalf of commodity dealers under investigation by the United States Commodity Futures Trading Commission.

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. The request seeks information that was prepared on a confidential basis for other clients.

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

Date Request Received: 07/25/2014
Request No. TC 6-157
Request from: TransCanada

Date of Response: 08/08/2014
Page 1 of 1

Witness: David Harrison, Noah Kaufman

Request:

Provide a list of natural gas price forecasts known to you (e.g., IHS Global Insight, EVA, Deloitte, Seer, Exxon-Mobil, Infonun, etc...). Which of these would have been available to PSNH between 2006 and 2009?

Response:

On pages 18-19 (and Attachments 6, 7 and 8) of our testimony we describe the range of natural gas price projections used in our study, and the sources that we used to develop these forecasts. All sources were published prior to either mid-2008 or early-2009. We of course cannot comment on the access of PSNH to particular projections between 2006 and 2009.

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

Date Request Received: 07/25/2014
Request No. TC 6-158
Request from: TransCanada

Date of Response: 08/08/2014
Page 1 of 1

Witness: David Harrison, Noah Kaufman

Request:

Please explain why you did not analyze the gas price forecasts referenced in question 157 to determine the economic impacts the scrubber to PSNH customers. Why did you create a new forecast rather than relying on a forecast that would have been available to PSNH?

Response:

On pages 18-19 (and Attachments 6, 7 and 8) of our testimony we describe the range of natural gas price projections used in our study, and the sources that we used to develop these forecasts. Our testimony also notes the advantages and disadvantages of developing natural gas price projections based on current futures market data and forecasts developed many months earlier.

independent economic analysis they prepared; they did not testify regarding prudence. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-160:

Reference your testimony on page 11. How much was known about the shale gas revolution in 2008 and 2009? Please provide all documents you reviewed to draw your conclusion.

PSNH objects to this request on the following basis:

In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding the impact of gas fracking; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.

Q-TC-06-162:

Reference page 14 of your testimony, lines 5 through 8. Are you aware that PSNH has sold portions of electricity it has produced into the ISO-NE market instead of providing that electricity to its customers? (see page 4 of the following testimony:

<http://www.puc.state.nh.us/%5C/Regulatory/Docketbk/2014/14-120/INITIAL%20FILING%20-%20PETITION/14-120%202014-05-01%20PSNH%20PTESTIMONY%20F%20WHITE.PDF>

Does this fact change your analysis?

PSNH objects to this request on the following basis:

Relevance.

Q-TC-06-162:

Reference page 14 of your testimony. How do the costs of power from Merrimack Station compare with other facilities in PSNH's generating portfolio? Please explain with respect to each of PSNH's generating units.

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. The information requested is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Drs. Harrison and Kaufman. Their

testimony relates to the independent economic analysis they prepared. They did not testify regarding the subject of this question. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-168:

Is there a difference between dispatch prices and forecasts? Please explain. Would a prudent utility rely on just dispatch prices and not fuel and electricity price forecasts?

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. The information requested is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Drs. Harrison and Kaufman. Their testimony relates to the independent economic analysis they prepared. They did not testify regarding dispatch prices. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-171:

Provide all information available to you or NERA relative to the topics of shale gas, fracking, and unconventional gas between 2006 and 2010.

PSNH objects to this request on the following basis:

In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding the impact of gas fracking and shale gas; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.

Q-TC-06-172:

Did any NERA consultant advise a client that U.S. natural gas reserves had increased significantly due to development of shale gas between 2006 and 2010? If so, provide all supporting documents.

PSNH objects to this request on the following bases:

- i. In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding the impact of gas fracking and shale gas; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.
- ii. The question seeks confidential information prepared for clients other than PSNH.

Q-TC-06-174:

Reference page 19 of your testimony. Please explain whether a prudent utility would have undertaken the analysis that you have performed, and/or whether such a utility would have utilized an already-prepared commodity price projection (such as the EIA futures data).

PSNH objects to this request on the following basis:

The information requested is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Drs. Harrison and Kaufman. Their testimony relates to the independent economic analysis they prepared; they did not testify regarding prudence. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-175:

Would a prudent utility considering a capital investment of over \$400 million consider the following information in deciding whether to make that investment? Please explain.

- a. *Relevant short term fuel/electricity forecasts.*
- b. *Relevant long term fuel/electricity forecasts.*

PSNH objects to this request on the following basis:

The information requested is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Drs. Harrison and Kaufman. Their testimony relates to the independent economic analysis they prepared; they did not testify regarding prudence. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-182:

Reference page 34 of your testimony in which you identify several alleged shortcomings in Mr. Hachey's testimony. Was PSNH's use of dispatch prices for the first four months of 2008 superior to those forecasts identified by Mr. Hachey? Explain.

PSNH objects to this request on the following basis:

The information requested is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Drs. Harrison and Kaufman. Their testimony relates to the independent economic analysis they prepared; they did not testify regarding any PSNH analyses. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-183:

Reference page 37 of your testimony. Are you aware of any studies regarding natural gas prices that would have been available in mid-2008 that were not listed by Mr. Hachey? Please list all such studies and provide copies of them.

PSNH objects to this request on the following basis:

In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding price forecasts; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.

Q-TC-06-184:

Are you familiar with the provision in the scrubber law that limits recovery to default service customers?

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. The information requested is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Drs. Harrison and Kaufman. Their testimony relates to the independent economic analysis they prepared. They did not testify regarding the subject of this question. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to those requests because they do not seek evidence relevant to that party's witness and they could not provide impeachment evidence."

Q-TC-06-191:

Reference Attachment 11 to your testimony. Provide your understanding of the reason commodities prices increased significantly in the 2006 – 2008 timeframe.

PSNH objects to this request on the following basis:

Relevance.

Questions Directed to Mr. Large and Mr. Vancho

Q-TC-06-192:

Reference pages 1-2 of your testimony. With respect to non-Scrubber capital projects at PSNH:

- a. *Please explain how economic assumptions are developed (i.e. fuel and energy forecasts and the frequency these assumptions are revised/updated for specific projects).*
- b. *Please provide a list of capital projects developed during 2006-2010 and their respective capitalization periods.*

c. Please provide all forecast assumptions for natural gas, electric and coal developed for the capital projects listed in subsection (b)

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. Burdensome. During the time period contained in this question, there were nearly 1000 capital projects undertaken by PSNH relating to fossil generating plants alone.

Q-TC-06-205:

Have either of you ever testified before the NH Legislature? If so, please provide a list of all such testimony, including the following:

- a. Date of testimony;*
- b. Bill and/or subject of such testimony; and*

Any written testimony or documentation provided to the legislator(s) either at the hearing or after the hearing.

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. Overbroad.
- iii. In Order No. 25,566 the Commission stated it saw “no relevance to PSNH’s ... involvement in cooperating with the Legislature to pass the Scrubber law.”
- iv. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #3, “Standard Requests for Statements to Legislators or other Governmental Officials” (“Standard #3), the Commission decided, “evidence that proves whether a party was ‘cooperating with’ or ‘attempt[ing] to block’ legislation is irrelevant, *Public Service Co. of N.H.*, Order No. 25,566 at 5 (Aug. 27, 2013).” This request violates this standard.

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

Date Request Received: 07/25/2014
Request No. TC 6-195
Request from: TransCanada

Date of Response: 08/08/2014
Page 1 of 1

Witness: James J. Vancho, Terrance J. Large

Request:

Reference page 3, lines 12 through 15 of your testimony. Please identify each analysis that you refer to, and identify the specific data request or other means by which that analysis was provided to the parties.

Response:

All parties to these proceedings have received all data request responses from PSNH. TransCanada may review those responses and compile the list requested.

Q-TC-06-208:

Reference pages 4-5 of your testimony regarding economic analyses undertaken by PSNH and page 6 of your testimony regarding Mr. Hachey's testimony. Please provide copies of any and all fuel price forecasts of natural gas and coal, and electricity price forecasts produced by or available to PSNH, its affiliates or parent company from 2005 through 2014.

PSNH objects to this request on the following bases:

- i. In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding price forecasts; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.
- ii. Relevance. The time period stated in the question goes beyond the relevant time period for this proceeding.
- iii. PSNH's affiliates and parent company are not parties to this proceeding. In Order No. 25,646 the Commission stated, "Discovery is generally limited to 'any party.' Puc 203.09(b)," unless "a particularized showing" of "substantial need for specific information from a non-party . . . is necessary to this docket and not otherwise available... ."

Q-TC-06-209:

Reference pages 4-5 of your testimony regarding economic analyses undertaken by PSNH and page 6 of your testimony regarding Mr. Hachey's testimony. Please provide copies of any and all documentation in PSNH's possession, or in the possession of PSNH's affiliates or parent company regarding the forward market for natural gas delivered to New England in the 2008-2014 timeframe

PSNH objects to this request on the following bases:

- i. In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding price forecasts; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.
- ii. Relevance. The time period stated in the question goes beyond the relevant time period for this proceeding.
- iii. PSNH's affiliates and parent company are not parties to this proceeding. In Order No. 25,646 the Commission stated, "Discovery is generally limited to 'any party.' Puc 203.09(b)," unless "a particularized showing" of "substantial need for specific information from a non-party . . . is necessary to this docket and not otherwise available... ."

Q-TC-06-210:

Reference pages 4-5 of your testimony regarding economic analyses undertaken by PSNH and page 6 of your testimony in response to Mr. Hachey's testimony. Please provide copies of any and all studies regarding the economic viability of coal plants in the ISO-NE region produced by or obtained by PSNH, its affiliates, or parent companies from 2005 through 2014.

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. In an act of contempt, TransCanada has refused to obey Commission Orders to provide information in its possession regarding price forecasts; hence, as a matter of fairness, equity, and due process TransCanada is not entitled to this information from PSNH.
- iii. The prudence standard is not a hindsight review; thus the relevant time period for this inquiry does not extend through 2014.
- iv. PSNH's affiliates and parent company are not parties to this proceeding. In Order No. 25,646 the Commission stated, "Discovery is generally limited to 'any party.' Puc 203.09(b)," unless "a particularized showing" of "substantial need for specific information from a non-party . . . is necessary to this docket and not otherwise available... ."

Q-TC-06-214:

As employees of public utilities what do you consider to be your obligations to customers? To shareholders? Does PSNH or NU have any memoranda, protocols, standards of conduct, or other communications that provide direction to employees about their obligations to either customers or shareholders? If so, please provide copies of any such documents

PSNH objects to this request on the following bases:

- i. Relevance.
- ii. The information requested is unrelated to the testimony of the witnesses it was directed to. This question was addressed to Mr. Large and Mr. Vancho. Their testimony relates to the economic analyses they produced regarding the Scrubber Project. They did not testify regarding the subject of this question. In Order No. 25,646 the Commission set forth five discovery standards. Per Standard #2, "Standard for Requests of a Party Regarding its Witness's Testimony" (Standard #2), the Commission decided, "PSNH also directed questions at parties that are unrelated to the testimony sponsored by those parties. We will generally not compel answers to

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

Date Request Received: 07/25/2014
Request No. TC 6-218
Request from: TransCanada

Date of Response: 08/08/2014
Page 1 of Bulk

Witness: James J. Vancho, Terrance J. Large

Request:

Reference page 4, lines 7-11 of your testimony. Please describe the steps that are part of Northeast Utilities' oversight process for large capital projects. Provide all documentation regarding that process.

Response:

In the 2008 timeframe, large projects such as the Scrubber project were governed by the NU Capital Project Approval Policy and Procedures (CaPP).

Please see attached documents provided via US Postal Service.

Capital Project Approval Policy and Procedures (CaPP)

Enterprise Risk Management

ERM-2001, Rev. 2

Process
Owner:

Susan Weber
Director, Enterprise
Risk Management

Effective Date: 5/28/2008

Table of Contents

1. Purpose and Scope	2
a. Link to Annual Capital Plan and Budget	2
b. Definition of Capital Projects	2
c. Capital Project Expenditure Categories	3
2. Capital Project Approval Roles and Responsibilities.....	3
a. Risk and Capital Committee Structure.....	3
b. Corporate ERM Group	3
c. Finance Group	4
d. Other Risk Management Groups	4
3. Capital Project Review Procedures	4
a. Coordination of Capital Project Proposals	4
b. Stages of Capital Project Proposal Review by the RaCC	4
4. Approval Limits	6
a. Approval Authority.....	6
b. Approval Limit Amendments	6
c. Policy Exception Management.....	6
5. Summary of Changes.....	7
a. Revision 2	7
b. Revision 1	7
APPENDIX I	8
Capital Project Proposals.....	8
APPENDIX II.....	10
Capital Project Approval Limits	10
APPENDIX III	11
Project Financial Evaluation Framework.....	11
APPENDIX IV.....	17
Overall Project Evaluation Process Map.....	17
APPENDIX V.....	18
Glossary of Terms.....	18
EXHIBITS.....	19

1. Purpose and Scope

The following NU Capital Project Approval Policy and Procedures (CaPP) formalizes the NU approach to evaluating and monitoring capital projects and programs (hereinafter referred to as "Capital Projects"). The CaPP sets out the requirements for the development of Capital Project proposals, proposal evaluation, Risk and Capital Committee (RaCC) review of Capital Project proposals, proposal approval and Capital Project monitoring.

The CaPP is intended to apply to all NU operating companies as well as the corporate shared services organization.

a. Link to Annual Capital Plan and Budget

The preparation and submission of a Capital Plan to the NU Management Committee for review and approval is required on an annual basis. Each year, the Capital Plan will be developed consistent with the longer term Strategic Plan, and the annual operating plans and budgets. The Capital Plan, in its final approved state, does not authorize Capital Project requests detailed in the plan. Each Capital Project request must follow Section 3 below to obtain the necessary approvals to proceed.

Each year, subsequent to the annual establishment of the Capital Plan and operating plans ("the plans") of the NU businesses, but by no later than March 31 of such year, the board of directors of each operating company (The Connecticut Light and Power Company, Public Service Company of New Hampshire, Western Massachusetts Electric Company and Yankee Gas Service Company) will confirm their review and approval of the plans for their respective operating company. This approval will include a delegation of authority to the Chairman of the Board of that operating company to make reasonable changes to the approved plans during the year and to approve specific Capital Projects under the plans as the Chairman of the Board of that operating company deems appropriate.

b. Definition of Capital Projects

For purposes of Capital Project review and approval, clear approval channels have been established for each Capital Project. The following definitions will be used to ensure that proposed Capital Project expenditures are routed through the appropriate approval channels as further described in Section 3.

Stand-alone Project – Capital Projects that are independent of existing projects and no additional capital spend is expected in order to generate all expected benefits contemplated in the project plan.

Component Project – Portion of a Capital Project that is required in order to achieve the benefits expected in a larger project plan or an add-on to a project that has already been approved. This component project requires an additional capital spend and may or may not have additional benefits independent of the larger defined Capital Project.

The term Capital Project, as used herein includes capital program expenditures which are \$10 million or greater, individually or in the aggregate (spanning multiple functions or businesses), and meet one or more of the following criteria:

1. Non-routine capital program;
2. Capital program which involves a new or complex technology;
3. Capital program which increases the company's strategic, financial, operational or reputation risk

Each year, subsequent to the establishment of NU's longer-term strategic plan, the Enterprise Risk Management (ERM) Group will provide the RaCC with a list of all proposed capital expenditures \$10 million or greater included in the plan which are recommended for future RaCC review. The ERM Group will document the rationale for such recommendations based on the criteria listed above. The ERM Group will update the list of capital expenditures recommended for RaCC review, as necessary, after the Capital Plans and operating plans are approved by the boards of directors of each operating company.

The RaCC may, at any time, request to review any proposed capital expenditure, regardless of recommendations made by the ERM Group.

Large Procurement Programs – The NU Purchasing Department, in conjunction with the businesses, enters into “Large Procurement Programs” which could include “Of Choice” Contracts, Master Service Agreements and/or Blanket Purchase Orders. These procurements are governed under the NU Purchasing Policy Large Project Procurement Process and are generally not subject to RaCC review. However, if any Large Procurement Program results in an exposure to NU of \$10 million or more, such program must come before the RaCC for a formal review and recommendation to the CEO/Chairman for approval.

Each month the Directors of Purchasing and ERM (or their designees) will jointly determine if any Large Procurement Program requires RaCC review. In addition, the Directors will determine if there are any issues associated with Large Procurement Programs which warrant an informational briefing of the RaCC.

Informational briefings on Large Procurement Programs, as required, will be provided to the RaCC by either the Director of Purchasing or the Director of ERM, depending on the issues which are to be discussed.

c. Capital Project Expenditure Categories

Each Capital Project will be categorized as follows:

Non-Discretionary – Capital Projects are considered to be Non-Discretionary when the company is obligated to make the investment in order to comply with: federal, state or local laws; legally binding codes, standards or regulations; legally binding orders or are the subject of commitments by the company in the context of a regulatory proceeding. (i.e., new business load growth, regulatory commitments)

Discretionary – All other Capital Projects (i.e., system renewal, IT, facilities)

2. Capital Project Approval Roles and Responsibilities

a. Risk and Capital Committee Structure

The RaCC is NU's governing Enterprise Risk Management Committee. The RaCC Charter details the RaCC's objectives, which include reviewing and making recommendations for approval of specific Capital Projects to the Chairman of the Board (Chairman), President and Chief Executive Officer (CEO) of Northeast Utilities and the Chairmen of the Boards of the operating companies (as applicable) (Referred to hereinafter as CEO/Chairman)

b. Corporate ERM Group

The general responsibilities of the Corporate ERM Group are detailed in the Northeast Utilities Risk Policy and are further defined herein.

c. Finance Group

The Finance Group's responsibilities under the CaPP are as follows:

1. **Vice President – Finance (VP Finance)** – Responsible for reviewing and approving all financial analyses, addressing capital allocation issues and providing guidance to the Financial Planning and Analysis Group associated with project evaluations.
2. **Manager - Financial Planning and Analysis (FPA)** – Responsible for overseeing the day-to-day management of project evaluations, including the provision of guidance to the FPA Staff, approving appropriate analysis metrics, and regularly updating the VP Finance on the status of all project and initiative evaluations. The Manager of the FPA Group will also interface regularly with the Director of Enterprise Risk Management and/or the appropriate ERM Business Unit Risk Controller regarding the status of current and future RaCC projects.
3. **FPA Staff** – Responsible for working directly with the project teams to provide financial guidance and perform required analyses. Further duties are described within Appendix III.
4. **Director – Financial Forecasting** – Responsible for running the NU corporate financial model at the request of the VP Finance for certain projects when capital allocation issues are anticipated, for significant projects when impact to NU consolidated results are required, or for other reasons as determined by the VP Finance.

d. Other Risk Management Groups

Other risk management groups within NU, including, but not limited to, Treasury, Environmental and Purchasing, are responsible for managing discrete risks and will provide information on those risks and risk management activities to the operating units and the ERM Group on an ongoing basis and to the RaCC as appropriate.

3. Capital Project Review Procedures

All proposed Capital Projects greater than or equal to \$10 million in gross capital expenditures (the threshold for RaCC review) must be presented to the RaCC by a Sponsoring Officer and formally approved by the CEO/Chairman upon recommendation of the RaCC. Capital projects which are greater than or equal to \$50 million are subject to the review of both the RaCC and the NU Board of Trustees with final approval by the CEO/Chairman. Capital Projects below the \$10 million threshold are subject to the approval procedures specified by the operating unit or corporate shared service organization with which they are associated.

a. Coordination of Capital Project Proposals

Capital spending for Northeast Utilities is directed and coordinated by the originating operating unit or corporate shared services organization. All Capital Project Proposals are to be submitted to the Sponsoring Officer for initial review. Capital Projects meeting the threshold for RaCC or Board review will require further analysis and risk assessment which must be provided as discussed below. Appendix I provides further details on the components of the Capital Project Proposals to be provided to the RaCC.

b. Stages of Capital Project Proposal Review by the RaCC

There are typically six stages in a Capital Project life-cycle which are subject to review by the RaCC. These stages are intended to provide the RaCC with sufficient information to allow the RaCC to review, approve, and monitor each Capital Project during its life-cycle. RaCC may, at its discretion, accept presentations made in other venues (e.g., Management Committee) in lieu of any of these stages or waive stages.

- i. **Conceptual Opportunity Discussion** – This is the earliest stage of review by the RaCC and entails the conceptual review of a potential strategic opportunity which could require a capital investment of \$10 million or greater. Information in this review will include a description, strategic rationale, preliminary risk assessment and next steps to pursue the identified strategic opportunity.
- ii. **Conceptual Capital Project Review** – Once a strategic opportunity can be described in terms of a specific Capital Project, the Sponsoring Officer will bring the Capital Project to the RaCC for a formal briefing on the details of the project. This briefing is intended to provide the RaCC with a detailed review of the Capital Project but will not include any request for approval. Information in this review will include a description, strategic rationale, preliminary timeline, risk assessment and financial assessment and next steps for the development of the Capital Project. Stages i. and ii. may be combined, if appropriate, based on the development status of a Capital Project.
- iii. **Capital Project Approval Proposal** – Prior to a final commitment to a Capital Project, the Sponsoring Officer will provide the RaCC with a detailed review and risk assessment of the Capital Project, which will form the basis of a recommendation by the RaCC to the CEO/Chairman for a project approval. If the Capital Project is greater than or equal to \$50 million, this proposal will be also reviewed with the NU Board of Trustees. Information in this review and any request for approval will include a project description (capital expenditure category, strategic alignment), project purpose (need, solution, benefits and alternatives considered), project timeline, risk assessment, financial assessment and monitoring plan. Triggering events, which upon occurrence, could require the Capital Project be brought back for additional review and recommendation for re-approval by the RaCC, should be detailed in each monitoring plan. Triggering events may include the following:

- (1) Bankruptcy of key suppliers/vendors
- (2) Significant increases in key inputs (e.g., commodity prices)
- (3) Significant budget over or under runs at any point during the project
- (4) Significant changes, early or late, in project in-service date
- (5) Significant changes in the pattern of capital costs between years while maintaining overall total project cost.

Changes to the Capital Project resulting in the lesser of \$10 million or 20% of total project costs will be deemed significant for total costs, project to date cash flow or annual project budget.

A change of 3 months (early or late) to a project in-service date will be deemed significant.

- iv. **Capital Project Monitoring Review** - On a monthly basis a summary of all RaCC approved Capital Projects will be provided to the RaCC by the Sponsoring Officers, including a brief status update for each Capital Project and indication of any occurrences of triggering events. At the request of the RaCC, the Sponsoring Officer will provide a detailed assessment of any triggering event and resulting consequences by no later than the following regularly scheduled RaCC meeting, or within a timeframe agreed to by the RaCC at the meeting during which the RaCC is informed of the occurrence of the triggering event. Such detailed assessment may include a request for Capital Project re-approval at the discretion of the RaCC. In addition, detailed quarterly project status updates will be provided to the RaCC by the Sponsoring Officers consistent with the monitoring plan set forth in each Capital Project Approval Proposal. Information in the quarterly status update will include project description, status of project, project timeline, current capital spending pattern compared to the CEO/Chairman approved plan and status on key risks.

- v. **Post Completion Capital Project Review** – Within six months following the completion of a Capital Project (declaration of in-service), the Sponsoring Officer will provide the RaCC with a detailed review of the results of the Capital Project with a focus on risks encountered and lessons learned.
- vi. **Post Completion Capital Project Monitoring** - Once a Capital Project is in full operation, further performance monitoring will be at the discretion of the RaCC.

Templates for stages i - v of Capital Project review are included in Exhibit 1 to this procedure.

4. Approval Limits

In order for a Capital Project to be considered for approval, the Sponsoring Officer must obtain the proper level of management and executive approval prior to beginning any project work or committing to any contracts.

a. Approval Authority

All capital spending must be reviewed and approved according to the approval levels in CaPP Appendix II. Capital may not be transferred from a Capital Project reviewed by the RaCC to another project without prior review and approval by the RaCC. Capital may not be transferred from any Capital Project to another project if it causes the level of capital in that project to exceed the RaCC review level without prior approval by the RaCC. On an ongoing basis, actual capital spending in excess of approved amounts must be approved on an aggregate project basis according to the approval levels in this policy. If a project that was not reviewed by the RaCC requires additional capital which results in total capital for the project to be above the RaCC review limit, the entire project must be reviewed by the RaCC and the Board (as appropriate) and approved by the CEO/Chairman.

b. Approval Limit Amendments

The RaCC has approval authority over the terms of the CaPP, the operating unit level capital approval authority limits and appropriate sub-limits at the commodity level, and the approved products and activities. At a minimum, it is the responsibility of the Chief Financial Officer (CFO), ERM Director, and the RaCC to review the CaPP annually to ensure that it is aligned with Northeast Utilities' objectives, strategic goals and business activities.

It is the responsibility of the ERM Group to ensure that CaPP is current and reflects existing business activities. The CaPP is intended to reflect the risk control processes that are in place governing Capital Project expenditure approval throughout the Northeast Utilities system. The Northeast Utilities' internal auditors shall review CaPP as they deem necessary.

c. Policy Exception Management

All exceptions to the CaPP will be handled individually in accordance with the following procedures:

All identified exceptions will be communicated to the RaCC in writing by the Sponsoring Officer responsible for the Capital Project which generated the exception. If a Capital Project which created an exception does not have a specific Sponsoring Officer, the Officer in charge of the business unit which generated the exception will be responsible for communication with the RaCC.

Each exception must be documented in writing including a detailed explanation of the exception, the applicable policy statement that was not complied with and remediation steps taken as necessary to ensure that such exception does not occur again.

All exceptions must be conditionally approved depending on expenditure levels (Appendix II) in writing prior to execution and then reviewed by the RaCC

If the RaCC does not approve the policy exception, the out of policy action taken must be remedied prior to the next meeting of the RaCC.

5. Summary of Changes

a. Revision 2

- i.** Replaces ERM-2001, Revision 1. Effective 3/27/2008
 - o Replaces description of Financial Assessment with Financial Planning and Analysis Framework presented to the Risk and Capital Committee on April 25, 2008

b. Revision 1

- i.** Replaces ERM-2001, Revision 0. Effective 3/28/07. New provisions included:
 - o Approval of Capital Plan and operating plans by operating company boards of directors
 - o Large Capital Program review process
 - o Large Procurement Program review process

APPENDIX I

Capital Project Proposals

Project Description

Each Capital Project Proposal must include a detailed description of the rationale for the project. This section of the Capital Project Proposal should contain the following information:

Operating Unit proposing the project

Identification of Sponsoring Officer

Capital Expenditure Category - (e.g., Non-Discretionary, Discretionary)

Total Capital Expenditure – shown by year

Strategic Alignment – Describe how this project aligns with the company's strategic objectives and goals. This section should clearly indicate which of the objectives and goals this project is fulfilling as detailed in the current NU Strategic Plan and/or Operating Plans.

Project Purpose – The reason that Northeast Utilities should undertake this Capital Project. This section should describe in detail the need that the project addresses; what the project entails (the solution); the benefits of the project; and any possible alternatives to the proposed project.

Project Timeline

The expected timing of capital expenditures, any flexibility in capital spend, contingent liabilities that could arise as a result of this project and an explicit exit strategy. All capital expenditure amounts should be clearly noted along with the timeframe during which they are expected to occur.

Risk Assessment

The Capital Project Proposal Team with the help of the appropriate Business Unit Risk Controller (BURC) performs and documents qualitative and quantitative risk assessments of the business case as required. The risks should be documented in a Risk Scorecard including risk owners, mitigation plans. The risk analyses performed will be tailored to each Capital Project but may include:

Probabilistic Sensitivity Analysis

Scenario Analysis

Qualitative Risk Mapping (Heat Map)

These analyses will be included in the Capital Project Proposal that is presented to the RaCC.

In addition, the Risk Assessment should contain a cost driver sensitivity analysis, which quantifies the identified risks, calculates an expected value of each risk resulting in a total risk exposure compared to the cost contingency assumed in the total cost estimate.

Financial Assessment: See Appendix III – Project Financial Evaluation Framework

Monitoring Plan

Each Capital Project Proposal will detail a project-specific monitoring plan to occur throughout the development life cycle of each Capital Project including identification of triggering events, which, upon occurrence, could result in a request for re-approval of the project.

Appendix

Capital Project Proposal Team –The names and contact information for the proposal team should be provided should there be any questions or comments on materials in the project proposal package. Each Project Proposal Team must be led by an officer, who is the official “Project Sponsor” for the Capital Project.

Business Unit Risk Controller (BURC) – The name and contact information for the appropriate BURC should be included in the Statement of Purpose so that he/she can be contacted for explanations regarding the risk analyses included in the project proposal package.

APPENDIX II

Capital Project Approval Limits

Project Capital Spend	Required Review	Approval Authority
<\$10 million	Responsible Officer	Executive Vice President Operations
=\$10 million <\$50 million	Risk and Capital Committee	Chief Executive Officer/Operating Company Chairman (as appropriate)
>=\$50 million	Risk and Capital Committee NU Board of Trustees	Chief Executive Officer/Operating Company Chairman (as appropriate)

APPENDIX III

Project Financial Evaluation Framework

1. Objective

The purpose of this Appendix is to establish a consistent but flexible framework for evaluating the financial merits of new business opportunities, significant capital projects and programs (hereinafter referred to as projects), and strategic and tactical initiatives. This framework is designed to ensure that appropriate financial analyses are performed for large capital projects and other various strategic initiatives that are subject to the CaPP. This analysis includes, but is not limited to, evaluation of project cost estimates and underlying assumptions, financial impacts of the capital investments (net present value, internal rate of return, earnings per share, expected ROE, etc.), sensitivities to the financial results given a variety of different assumptions/scenarios, financing alternatives, capital structure considerations/implications, and the financial assessment of alternative approaches considered to achieve each project's stated goals.

The FPA Group is responsible for ensuring that the appropriate analysis is performed for each project subject to the CaPP, tailored to meet the specific needs of each individual project. This framework consists of (a) the process by which the FPA Group will evaluate all projects falling within the scope of this framework, (b) identification of the various types of financial analytics and metrics that may be used in evaluating projects, and (c) procedures for identifying and resolving potential capital constraints.

2. Scope

This framework will apply to all capital projects subject to RaCC review and recommendation for approval by the CEO/Chairman. Similar protocols to those described within this framework may be applied to other projects and initiatives not requiring RaCC review at the discretion of the FPA.

3. Project Analysis

a) Capital Allocation

If the proposed capital expenditures for a project under evaluation have already been included in an approved five-year forecast or annual operating budget, then that project was deemed, at the time of the forecast or budget approval, to have had adequate financing capability, and, therefore, no initial capital allocation limitations. In these cases, a current assessment will be made as to whether any significant project, company-specific or macroeconomic issues have arisen since the last approved forecast or budget that could now constrain capital spending (See Appendix IV for an overall project analysis flow map). Pertinent issues include, but are not limited, to:

- Significant increases in project capital expenditures
- Deteriorated financial market conditions
- Adverse rate case results
- Credit downgrade

If any of the above (or other) issues arise that could inhibit NU's access to capital, result in deteriorated credit metrics, or lead to other unfavorable outcomes that could deter the company from proceeding with a particular project, then the forecast or budget may be re-run with any significant updated assumptions.

If the model re-run indicates that a capital constraint will in fact result, as determined by the VP Finance, then the given project must be prioritized against all other corporate projects, assuming no other financing or mitigation options are available. An evaluation of the project will be coordinated by the FPA Group based on the following considerations:

- Is the project discretionary?
- Can it be postponed?
- What are its' risk and return characteristics?

- What is the project's EPS Contribution?
- What is the project's strategic fit compared to other projects?
- What regulatory, political, societal factors should be considered?

Upon completion of the evaluation, results will be presented to Management Committee and other appropriate Senior Management representatives or to the RaCC as appropriate. Once a project is determined to pose no capital allocation issues, or if an issue existed, it was determined that the project had priority over other projects, the financial evaluation will be completed and the project, can then be brought to the RaCC for review, and, if appropriate, for recommendation to Chairman/CEO for approval.

4. Evaluation Process

The FPA Manager will meet with the Project Sponsor to discuss the strategic, tactical, or operational intent of the particular project, the general project timeline, and the expectations of the FPA Group. The FPA Manager will then assign the project to FPA Staff and develop an evaluation plan, including the type of financial analysis required and relevant financial metrics to assess. After discussing the plan with the VP Finance, the plan will be revised as appropriate.

FPA Staff will work directly as a member of a project team arranged by the Project Sponsor through project completion, which, for RaCC projects, will be either project termination or the post-completion review, or, for non-RaCC projects, when a project has been approved or terminated by senior management. FPA Staff assigned to the project are responsible for (a) assessing all project cost estimates provided by the project team, (b) coordinating with all finance-related departments to provide any required financial support, such as financial assumptions, financing considerations, accounting treatment, tax implications, etc., and (c) working with project team to develop feasible alternative solutions and scenarios. FPA Staff will also build any required financial models to assess assumptions and scenarios, calculate appropriate financial metrics, and assist with any financial aspects of a related regulatory filing.

a) Financial Metrics

The particular financial analysis that will be performed and metrics that will be utilized will depend to some degree on the type of project being evaluated and will correlate with the pending RaCC approval phase (all projects for the purposes of this framework are treated as if they require RaCC review and CEO/Chairman approval since most major projects are anticipated to exceed the \$10 million RaCC threshold). However, similar analyses may take place at various times for projects not subject to RaCC review, at the discretion of the FPA Group.

Metrics that will be used for project evaluations can be generally categorized as follows: Customer-focused Financial Metrics, Shareholder Financial Metrics, and Project-Specific Financial Metrics, which are defined below. Furthermore, analyses may include a sensitivity analysis that stresses basic financial assumptions to understand the level of risks inherent to a project and assess their potential financial impacts. Although the sensitivities measured will depend on specific project characteristics, examples of assumptions to be stressed are also provided below.

In addition, for complex projects, multiple analyses may be developed to account for various project scenarios, such as the use of different technologies, alternative business models or corporate structures, unique regulatory recovery mechanisms, or the combined impacts resulting from sensitivities to multiple assumptions. The appropriate metrics and sensitivities would typically be applied to all viable scenarios.

The following section is not meant to be an exhaustive list of all applicable metrics, and all metrics listed for any one category are not required to be used for each project. The list provides guidelines for the types of analyses and metrics that should be considered for each project. Actual analyses and metrics utilized will depend on the unique characteristics and expectations for each project, as well as the time available for analysis.

Customer-Focused Financial Metrics - Customer-focused financial metrics are those used to assess project costs from the customers' perspective, and may include the following:

- Project Impacts on Average Customer Rates
- Project Impacts on Average Customer Bill
- Present Value of Revenue Requirements
- Revenue Requirement Break-even in Years

Shareholder Financial Metrics- Shareholder Financial Metrics will be used for all project analyses, and will be used to assess the basic financial impacts of a project on NU. These metrics include:

- Total Capital Spending and Timing
- Annual O&M (Fixed and Variable)
- Project ROE, NPV, and IRR
- Earnings and EPS contributions
- Annual Cash flow

Project-Specific Financial Metrics - Project-Specific Financial Metrics are additional financial indicators that are dependent on the nature of the project being evaluated. They are utilized to ascertain the value of a project per dollar spent, or to compare multiple projects seeking to solve a similar problem. These metrics include, but are not limited to, the following, as categorized by project type:

- Generation Projects
 - Capital Dollars Spent/Megawatt
 - Incremental Busbar Costs/Megawatt Hour
- Transmission Projects
 - Capital Dollars/Transmission Mile
 - Congestion Costs Eliminated
- Distribution Projects
 - Reliability Improvements Achieved per Dollars Spent
 - O&M savings, efficiencies such as FTE reductions
- IT
 - Response time or System availability improvements per Dollars Spent
 - O&M savings, efficiencies such as FTE reductions
- Facilities/Real estate
 - Cost per Square foot

Sensitivity Analysis— Certain sensitivity analyses are applicable to all projects, while others are dependent on specific project characteristics. The impact of risks identified by the Project Sponsor and/or Project Team working with Enterprise Risk Management will be considered in this section. Below are examples of sensitivities that may be utilized.

- +/- Capital spend
- +/- O&M spending
- Recovery lost due to in-service delay.
- Recovery lost due to regulatory lag
- Scenario Analysis

5. **Application of Analysis/Metrics to RaCC review phases** The following table provides a summary of the various types of metrics and analyses that may be applied to a project in a particular RaCC approval phase. Certain metrics may be provided to RaCC as part of a specific deliverable, while other metrics may be prepared only for internal Finance Department analysis and review.

Conceptual Discussion/Review	Project Approval	Project Monitoring	Post-Completion Review
<p>Shareholder Metrics</p> <ul style="list-style-type: none"> High-level Capital Expenditures High-level Capital Expenditures timing (by year) Expected Return on Equity (ROE) and Equity Percentage <p>Customer Metrics</p> <ul style="list-style-type: none"> High-level Revenue Requirements Directional project impacts on average rates and bills <p>Other</p> <ul style="list-style-type: none"> Identify alternative project options 	<p>Shareholder Metrics</p> <ul style="list-style-type: none"> Same as for Conceptual Review, with greater precision Net Present Value (NPV) and Internal Rate of Return (IRR) Earnings Per Share (EPS) Contribution <p>Project-Specific Metrics</p> <ul style="list-style-type: none"> Specific metrics dependent on project (See 4a) <p>Customer Metrics</p> <ul style="list-style-type: none"> Detailed rate impacts Detailed Revenue Requirements analysis Present Value of Revenue Requirements Revenue Requirements Break-even year <p>Sensitivities</p> <ul style="list-style-type: none"> +/- Capital spend +/- O&M spending Impact of Timing Delays Other project-specific metrics Impacts to ROEs, NPVs, Earnings 	<p>Quarterly Updates on project Costs/timing</p> <ul style="list-style-type: none"> Compare actual metrics against metrics in RaCC Project Approval document(s) Compare to sensitivity analysis Coordinate with Financial Forecasting as necessary to update NU Model (to the extent available) Adjust sensitivities for other similar projects, if applicable 	<ul style="list-style-type: none"> Compare actual metrics against metrics in RaCC Project Approval document(s) Adjust sensitivities for other similar projects, if applicable Financial "Lessons Learned" Back-testing of assumptions/sensitivities

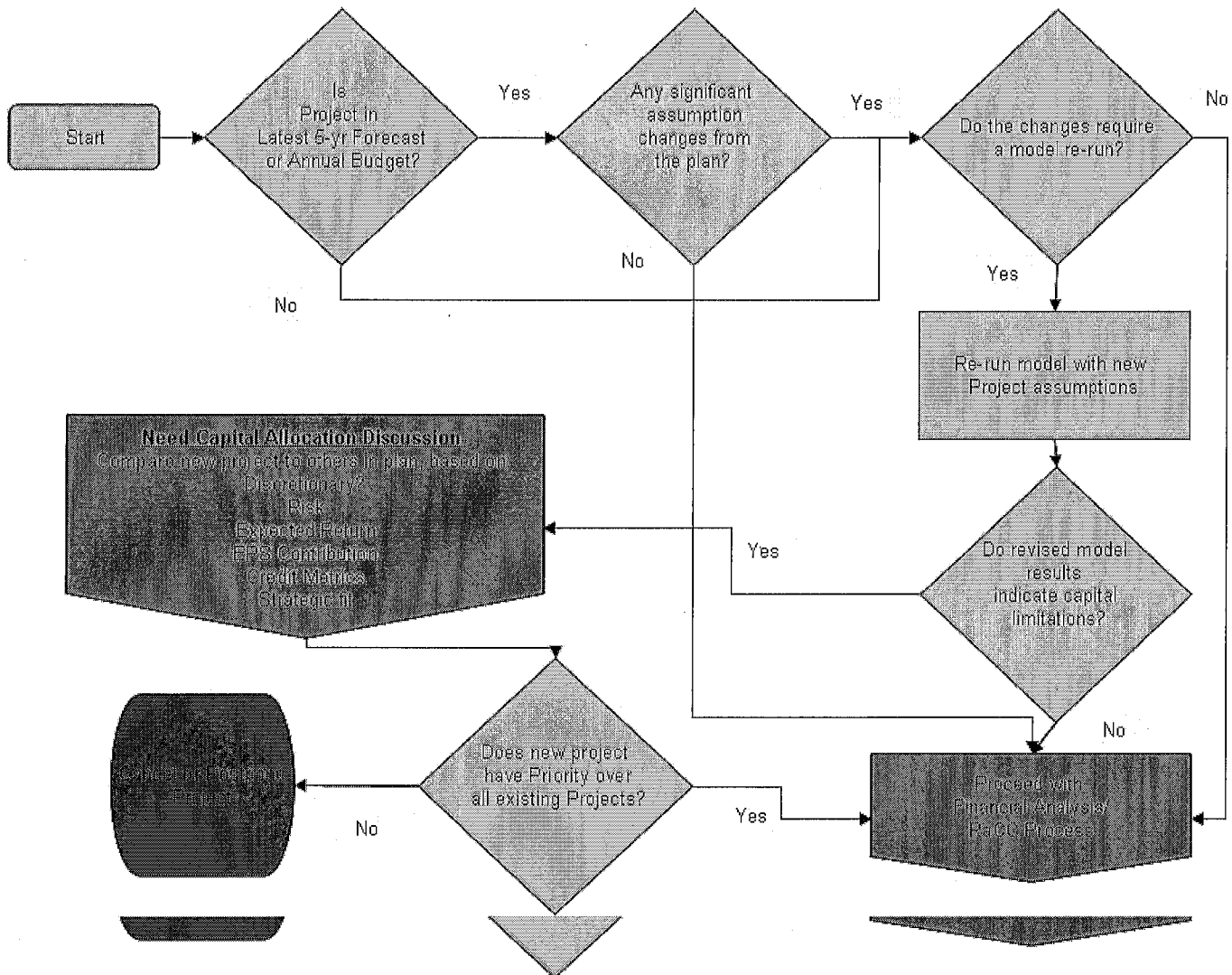
6. Project approvals contingent on savings expectations

Certain projects recommended by RaCC are approved by the CEO/Chairman with the expectation that savings will accrue as a result of the project, e.g., Full Time Equivalent (FTE) reductions, lower operations and maintenance costs, improved efficiency, etc. When projects are approved on such a basis, either partially or fully, the FPA Group will coordinate with Financial Forecasting and the appropriate Business Unit to ensure that such estimated savings are captured in the latest budget or forecast. In addition, project teams may be asked to substantiate actual savings to the RaCC at either a Capital Project Monitoring Review or Post Completion Capital Project Monitoring meeting, or at a later date that aligns with the anticipated timing of the achievement of such savings.

7. Framework Review

This framework will be reviewed periodically and updated as necessary to reflect new business practices and analysis.

Appendix IV- Overall Project Evaluation Process Map



APPENDIX V

Glossary of Terms

Risk: The presence of a lack of certainty regarding the outcome of a particular decision or action which is measured by a Risk Score.

Impact: Impact is evaluated using management judgment on a scale from one to five (representing minor to worst case respectively).

Risk Tolerance: The maximum negative outcome that can be tolerated by NU relative to its strategic, operational and officer goals.

Risk Assessment: The systematic identification of risks and their corresponding Risk Score.

Risk Score: Risk Scores are determined by estimating the potential magnitude of impact of the decision or action and multiplying it by the level of uncertainty associated with the decision or action.

Risk Management: Actions or decisions by management to accept, increase, or reduce the current Risk Score in a manner that considers and balances the tradeoffs between risk and return. Mitigation may include avoiding risk by partial or complete cessation of the activity, reducing the likelihood through preventive controls, reducing the consequences with a contingency plan, or transferring the risk to a third party.

Risk Scorecard: An electronic database of the identified and assessed risks of the business which includes the assignment of accountability for the risk and the current or planned risk management activities identified for that risk.

Exhibits

Capital Project Review and Approval Templates

Exhibit 1 – Conceptual Opportunity Discussion Template

Exhibit 2 – Conceptual Capital Project Review Template

Exhibit 3 – Capital Project Review and Approval Template

Exhibit 4 – Capital Project Monitoring Review – Monthly and Quarterly Templates

Exhibit 5 – Post Completion Project Review Template

TransCanada Motion to Compel
August 25, 2014
Exhibit C
Docket De 11-250

THE OBERLIN REVIEW

<< Front page

News

February 22, 2008

Final Power Plant Decision: Council Votes Down Coal

Alice Ollstein

After almost five hours of presentations and fierce debate, the Oberlin City Council voted four to three to withdraw its participation from the proposed 50-year contract for a pulverized coal plant in Meigs County, OH. Council President David Sonner and council members David Ashenhurst and Charles Peterson voted against the coal plant from the start, while vice-president Jack Baumann only voted to withdraw from the contract after a great deal of indecision. His swing vote decided the issue.

Before the meeting officially began, the consulting firm, Concentric Energy Advisors, presented the findings from their assessment of various energy options to the city council. The council had ordered this study in October when the data from the first study by R.W. Beck was deemed insufficient, and Oberlin College provided most of the finance. This presentation, along with a presentation from the Natural Resources Defense Council, were instrumental in the council's final decision.

Councilman Ashenhurst expressed his admiration for the Concentric study and for all the information it brought to light.

"The study shows us how to get from here to there, and how to tread water in between," he said. "I now see that market power is reliable. It's there. The coal plant sounded like the risky direction to me. To start a pulverized coal plant now is ridiculous."

Oberlin College's Sustainability Coordinator, Nathan Engstrom, was also impressed with Concentric's presentation, especially in the realm of cost. "What shocked people the most is the rising cost estimate of the coal plant," he said. "It's gone from under two billion to over three billion in only a year. If we had bought in now, who knows how much it would have cost by the time it was completed."

Shannon Fisk, a representative from the midwest branch of the NRDC, presented before the council on the financial and environmental risks of the coal project. "Federal regulation on CO2 emissions is not a question of if, but when," he said. "AMP-Ohio's plant would burn 2.8 million tons of coal per year and produce over seven million tons of CO2, with no promise to capture it." He noted other environmental risks, including mountaintop removal coal mining and cautioned the audience that global temperatures would rise between four and 11 degrees if humans took no steps to curb their pollution.

Representatives from American Municipal Power of Ohio, the corporation building the plant, presented next, calling the NRDC report "ridiculous" and assuring the audience that the plant would pollute far less than the one Oberlin currently maintains. Oberlin has been involved with AMP-Ohio from the organization's start. Last night marked the city's first rejection of an AMP-Ohio project.

Citizens of Meigs County, local business owners, religious leaders, students, faculty and concerned community members shared both data and personal experience. Elisa Young, a farm owner in Meigs County, looked at the contract from an environmental justice perspective, citing the severe health problems caused by the existing coal plants in the area. "There's a disparity," she said. "The people buying this cheap electricity will never feel the human and environmental effects. It's sacrificing one community for

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August 25, 2014
Exhibit C
Docket De 11-250

another. How many Meigs County lives does it cost to produce one kilowatt-hour of electricity?"

Several people used their turn at the microphone to express their support for the coal plant contract. Environmental ethics professor Tim Hall pushed for buying an even greater share in the plant. "Our challenge is to adapt to a global climate change, not to prevent it," he said.

One local business owner noted that since business consumes 80 percent of Oberlin's energy, it should have more of a say in this decision. "How can we expand when we don't know where our energy will come from?" she asked.

Sonner noted that the results of the vote have drawn a lot of criticism. "By not looking at things the same old way, we've opened ourselves up to accusations that we're irresponsible, that we're taking too many chances. But the way I evaluate it, we have put ourselves in a position where we must discover new sources of power. Oberlin can do this. We can provide ourselves with locally produced green power and we'll all be better off for it. Better off in the pocket book, better off in the air we breathe, better because we'll be participating less in the destruction of the planet. We'll show other communities how it's done. Messianic? That's the Oberlin style."

With the decision made, all are looking towards the future, some with anticipation and some with uneasiness. "In turning this down we open up a full array of opportunities to serve the community better," said Sonner. "I won't say we're fearless, because the truth is, we're scared. But we're happy-scared."

College senior Benjamin Whatley, whose speech on town-gown relations received the longest applause of the evening, feels that the student role in this issue has been pivotal: "There is a prevalent attitude that students are meddling in the community, bullying the city on issues, voting for tax increases, etc. I wanted to set that straight because I feel that there are many students who are invested in this community, who, in the words of Marvin Krislov, are 'inextricably intertwined' with the City and College."

When asked if he felt the student presence at the meeting made a difference, Sonner responded, "Hell, yes. We need you guys. Don't let anyone say that students shouldn't be participating. Keep at it."

He continued, "Whatever the next step will be, it will be in step with the College. Community and College: That's the marching song. We're going to help Oberlin College make its carbon footprint disappear, and the College will help the city become the green model for Ohio."

Engstrom agreed with this sentiment of cooperation: "The College and the City need to work closely together to make energy conservation an even higher priority than it already is," he said. "We now have five years to figure out what we want our community's energy future to be. From here we get to work on figuring out what technologies make sense for us and on what scale, where to build them, how to pay for them, who owns and operates them, and how to make sure that we create an energy portfolio that represents our needs — not just in terms of environmental and social responsibility, but in terms of 'dollars and sense' and reliability."

After the final vote, the many students at the meeting ran outside into the snow. They huddled into a group hug under a streetlamp, some crying, some cheering.

"The real work begins today," said Whatley. "We need to provide energy security for Oberlin with clean, renewable electricity. We can build it, we can do it soon, but we need to prove that we're still going to be there. Otherwise our attendance, concern and comments at last night's Council meeting won't mean a thing. I'm hopeful, because I believe in Oberlin."

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August 25, 2014
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Docket De 11-250

TransCanada Motion to Compel
August 25, 2014
Exhibit D
Docket De 11-250

Clean Air Project

Development of Costs associated with
a CAP Cancellation Scenario

An analysis was performed to identify the total cost exposure in the event that the Clean Air Project was cancelled at any given month from Project inception to in-service.

March 28, 2014

Table of Contents

Part I: Overview

Objective	4
Approach.....	4
Results	5
Attachments	5

Part II: Detailed Discussion

Section 1: Project Costs and Liabilities	6
General	6
Chimney Contract	6
FGD Contract.....	7
PWWT Contract.....	7
Material Handling Contract	8
Program Management Contract	9
NU Labor.....	9
Outside Services.....	10
Employee Expenses, Vehicles, Rents & Leases, and Indirect Costs.....	10
AFUDC.....	10
Contract Labor	10
Materials	10
E-Warehouse	10
Booster Fan Spares.....	10
Meeting Place	10
Electric Power Supply	11
Secondary Waste Water Treatment System (SWWT System)	11
Section 2: Termination Costs	12
General	12
Demobilization	12
Final Invoicing	12
Recovery of Proposal Costs	12
Missed Opportunity for Other Projects / Home Office Reassignments	12
Profit.....	12
Material Order Cancellations	12
CAP Cancellation Cost Analysis	

Subcontract Cancellations	12
Section 3: Station Remediation and Project Area Moth-Balling Costs	13
General	13
Material Storage of Unused Parts and Materials.....	13
Site Cleanup	13
Re-engineering of Unfinished Structures for Safety	13
Maintenance of Existing Station Equipment or Systems.....	13

Part I: Overview

Objective

Testimony filed in Docket DE 11-250 has prompted PSNH to provide the following analysis and forecast of Clean Air Project (CAP) Cancellation costs. The Company recognized a detailed estimate of cost exposure at key points throughout the Project would be valuable information to develop. As this exercise requires extensive knowledge of CAP and experience in project management, the Company, along with the Project's Program Manager, URS, is the only party with the first-hand knowledge and experience to provide such an analysis.

Approach

Developing exposure costs associated with cancellation of a multi-year, large scale project is complex. The structure of the contract, construction schedule, payment schedule, engineering, design, long lead material procurement, fabrication, shop testing, and delivery were some of the factors considered. A detailed discussion of the methodology implemented is included in Part II.

To accurately assess this Project cancellation scenario, costs were developed per the *Contract Termination* provision, defined in all of the major Clean Air Project agreements. As a reference, the following is the applicable *Contract Termination* language, excerpted from the Waste Water Treatment System Agreement signed with Siemens Water Technologies and Northern Peabody on December 5, 2008.

(b) In the event of a termination for convenience under this Section 16.2, as full and final compensation for Contractor's services hereunder, Owner shall pay to Contractor, upon Contractor's satisfaction of all Agreement requirements, as applicable, with particular attention to the requirements, terms, conditions, and provisions of this Section 16.2, the sum of:

(i) payment for Work completed or partially completed through the effective date of termination, less amounts previously paid to Contractor; plus

(ii) Reimbursement of costs and expenses paid to Subcontractors resulting from an orderly termination of the Work, including costs and expenses of unused materials, equipment, tools, construction equipment and machinery, warehousing, cancellation and restocking charges, engineering and other services for which Owner has agreed to compensate Contractor under this Agreement to the extent that (i) such services have been rendered to date of such termination and (ii) payment pursuant to the preceding paragraph (i) does not include payment in respect of such services rendered; plus

(iii) Demobilization expenses of Contractor's equipment and personnel that are actually incurred by Contractor as a result of such termination; plus

(iv) Reasonable and customary settlement costs with Subcontractors that are actually incurred by Contractor; plus

(v) Such other termination expenses as may be reasonably identified and mutually agreed by Owner and Contractor, plus

(vi) A reasonable markup on the above (i) through (v) for Contractor's profit and overhead on such completed Work.

Consistent with the prescribed termination language in each contract, four categories were defined to capture and build the cost exposure; the summation of these categories represents the total cost exposure. These categories can be applied to all CAP contracts and agreements as they have similar elements. The following defines and briefly describes the categories.

- Category I: **Money Spent** – all project costs that were paid or booked on a monthly basis such as vendor and contractor invoices, outside services, material purchases, Company indirect costs, and NU labor.
- Category II: **Project Costs and Liabilities** – projected payment for all tangible contractor and vendor work completed or partially completed and all actualized subcontractor costs incurred up to cancellation. Also, those additional direct and indirect costs associated with a large project wrap-up such as continued outside services, AFUDC, and support staff to resolve contract cancellation. See Section 1 for further discussion.
- Category III: **Reasonable and Customary Termination Costs** - all costs associated with contract termination including demobilization, home office re-assignment, profit and markup. See Section 2 for further discussion.
- Category IV: **Station Remediation and Project Area Moth-Balling** – all costs required for site remediation and restoration such as safety, storage, and clean-up. Additional costs to place Project equipment in safe and preserved condition. See Section 3 for further discussion.

Results

All of the various cost components of the Clean Air Project were evaluated in accordance with contract termination language and grouped into the above described categories. The resulting data is provided in the Total Cost graph (*Attachment 1*). An additional graph was provided for ease of review of key dates in the Project's history (*Attachment 2*). A detailed description of the evaluation methodology is available in Part II of this report.

Below are the cancellation costs at key dates in the Project's history.

Cancellation Date	Cancellation Cost
July 1, 2008	\$41,189,650
October 1, 2008	\$67,420,301
January 1, 2009	\$106,759,373
April 1, 2009	\$141,764,247
July 1, 2009	\$176,488,193

Attachments

Attachment 1: Depiction of Concept

Attachment 2: Total Cost Graph

Attachment 3: Total Costs at Key Dates

Part II: Detailed Discussion

Section 1: Project Costs and Liabilities

General

For all of the major island contracts (Chimney, FGD, PWWT & Material Handling), the units of property value submittals that were completed by the contractors were used along with contract pricing sheets to establish the values for the various equipment components and systems supplied by the contractors. The units of property submittals provided breakdowns for engineering, equipment & materials, and installation costs.

For the Program Management contract, the invoice scheduled payments and potential hours required to negotiate and close out major contracts were used to estimate future expenditures.

The contract construction schedules and monthly reports submitted by the contractors were reviewed to establish the following:

- Engineering durations
- Dates for sub-contractor(s) purchase order awards for various equipment, components or subcontracts
- Fabrication periods and equipment / component delivery dates to the site
- The start and duration for installation activities associated with the various equipment components or process systems. These installation durations also reflected time for the associated piping and electrical systems associated with the equipment component or system.

Chimney Contract

The Hamon Custodis initial engineering release for the chimney contract was made 7/16/2008 followed by Contract Award on 12/9/2008. Since this work needed to be completed early in the project, efforts to move this work forward promptly were important. The contract payment schedule required an initial payment of \$450,000 during the first month to fund detailed engineering activities. Values for the engineering subcontracts for vortex shedding, flow modeling and obtaining the air permit are reflected over the appropriate periods. The balance of the engineering costs are distributed over the 5 month engineering duration ending in October 2008.

The FRP liner subcontract LNP was made in September 2008 and an initial \$500,000 payment was required by the contract payment schedule to fund engineering activities. Upon receipt of the air permit, the sub-contract for the FRP liner was awarded and 30% of the liner material/fabrication costs are allocated to the first month to account for material procurements. The balance of the FRP liner subcontract is distributed over the fabrication period and the erection costs are spread over the liner erection period.

The balance of the fabrication and erection costs were assigned to the following categories:

- Concrete shell
- Structural Steel
- Electrical
- Elevator

These subcontracts were treated in a similar manner. A portion of the material/fabrication costs (30% for electrical and elevator and 50% for structural steel) were assigned to the month when the subcontract was placed to address material procurements. The balance of material costs are estimated to be fabrication costs and were distributed over the fabrication period. In general construction costs were distributed evenly over the construction period for the component. A higher percentage was allocated to the first month of the concrete shell construction to account for mobilization costs for the slip forming equipment.

FGD Contract

The Siemens Environmental Systems and Services (SESS) initial engineering release was issued on 7/10/2008 followed by Contract Award on 10/20/2008. SESS engineering costs could be distributed evenly over a 21 month engineering duration ending in March 2010, however large complex systems such as this one and others can be front loaded to insure design, interface, and procurement activities are well supported to avoid delays and added costs.

The FGD System costs are broken into the following major sub-systems:

- Absorber Tower (including the recycle tank agitators)
- Field Fabricated Tanks (including agitators)
- Limestone Day Silos
- Absorber Recycle Pumps (including knife gate valves)
- Limestone Ball Mills
- Oxidation Air Blowers
- Vacuum Belt Filters, Pumps & Motors
- Misc. Pumps
- Hydroclones & Distribution Boxes
- Building Costs as follows:
 - Structural Steel
 - Siding and Roofing
 - Fire Proofing & HVAC
 - Lighting

For each sub-system's material/equipment costs, a split was estimated based on our experience between material and fabrication costs. Material costs were assigned to the month that purchase orders were released with fabrication costs appropriately distributed over the fabrication period leading up to delivery. In general, the material cost portion of the various equipment components was estimated between 25 to 33% of the overall material/fabrication cost for the component. This accounts for placement of steel mill orders, orders for major components such as motors and commitments to other sub-suppliers.

Erection costs were distributed over the installation period for the sub-system. A percentage of the installation costs, generally 20%, were assigned to the first month to account for initial costs such as equipment mobilization, scaffolding, component staging and installation, rigging, etc. The balance of the installation costs were distributed over the construction period as identified in the schedules and monthly reports. The construction period included installation of the associated piping and electrical raceway systems.

PWWT Contract

The Siemens Water Technologies (SWT) initial engineering release was issued on 9/30/2008 followed by Contract Award on 10/20/2008. SWT engineering costs are appropriately distributed over the 21 month engineering duration ending in June 2010. Based on the contract payment schedule, 40% of the

engineering costs were assigned to the first 4 months when the majority of the process engineering was completed. 80% of the engineering was complete by September 2009 with the balance distributed over the last 9 months.

The PWWT System costs are broken into the following major sub-systems:

- PWWT Building, Structure & Foundation
- Air Compressors
- Pump Skids
- Chemical & Polymer Feed Skids
- Solids Contact Clarifiers
- Continuous Backwash Gravity Filters
- Lime Silos
- Filter Presses
- FRP Tanks
- Sump Pumps
- Variable Frequency Drives
- Enhanced Mercury Treatment System (EMARS)
- Softening Conversion System

The last two bullets for the EMARS and softening systems were changes to the PWWT contract, so the engineering associated with these systems was distributed separately from the primary system engineering discussed above.

Similar to the FGD system discussion, for each sub-system's material/equipment costs, a split was estimated between material and fabrication costs. Material costs were assigned to the month that purchase orders were released with fabrication costs appropriately distributed over the fabrication period leading up to delivery. In general, the material cost portion of the various equipment components was estimated between 25 to 33% of the overall material/fabrication cost for the component. Most of the PWWT skids have small components with quite a bit of intricate piping and electrical raceway on the skid, so in most cases material costs were estimated to be the lower value of 25% assigning a higher weighting to fabrication costs.

Also similar to the FGD system, erection costs were distributed over the installation period for the sub-system. A percentage of the installation costs, generally 20%, were assigned to the first month to account for initial costs such as equipment mobilization, scaffolding, component staging and installation, rigging, etc. The balance of the installation costs were appropriately distributed over the construction period as identified in the schedules and monthly reports.

Material Handling Contract

The Dearborn Midwest (DMW) initial engineering release for the material handling contract was made 11/14/2008 followed by Contract Award on 12/19/2008. The contract payment schedule required an initial payment of \$1,087,000 during the first month to fund initial engineering activities. Based on the contract schedule, 80% of the engineering was complete by June 2009. The balance of the engineering costs were distributed over the final 4 months ending in October 2009.

The Material Handling System costs are broken into the following major sub-systems:

- Structural Steel & Tubular Conveyor Galleries
 - Limestone Conveyors

- Gypsum Conveyors
- Limestone Storage Silos
- Gypsum Storage Building
- Conveyor Equipment Components
 - Limestone Conveyors
 - Gypsum Conveyors
 - Bucket Elevator and Belt Feeders
- Rotary Plows
- Limestone Truck Delivery Facility (LTDF)

Similar to the previous systems discussion, for each sub-system's material/equipment costs, a split was estimated between material and fabrication costs. Material costs were assigned to the month that purchase orders were released with fabrication costs distributed over the fabrication period leading up to delivery. Material costs for structural steel, conveyor galleries and the gypsum storage building were estimated to be 33% of the overall equipment/fabrication cost to reflect early commitments to mill orders for structural steel. The conveyor equipment components consist of idlers, conveyor belts, skirts, motors and other components that require minimal fabrication. Therefore for these systems the material cost was estimated to be 50% of the overall material/fabrication cost. The larger equipment (rotary plows and LTDF) used a lower percentage of 40% as these components required more shop fabrication.

Also similar to the previous systems, erection costs were distributed over the installation period for the sub-system. A percentage of the installation costs, generally 20%, were assigned to the first month to account for initial costs such as equipment mobilization, scaffolding, component staging and installation, rigging, etc. The balance of the installation costs were distributed over the construction period as identified in the schedules and monthly reports.

Program Management Contract

The Program Management (PM) contract was awarded in the fall of 2007 and began with the development of the project cost estimate and the primary Island specifications and contracts. This contract continued with the development of conceptual designs, studies, evaluations, detail design, procurement, construction management/oversight and project close out.

To estimate cost exposure over the life of the PM contract, the following categories were analyzed:

Delayed invoicing: Due to contract payment terms and the delay in invoicing for hours spent, the next two month's invoices were used to account for hours spent but not yet billed.

Contract cancellation support: Should there have been a need to close out contracts due to cancellation of the project, hours were estimated over the life of the PM contract to account for support services in negotiating fair and reasonable contract cancellation terms to account for costs incurred by the vendor/contractor. These contract close-out costs were estimated for the four major Island contracts, Foundation and Site Preparation contracts, Ductwork and Steel, Mechanical and Electrical Installation contracts and eleven major purchases of Engineered Equipment.

NU Labor

A number of months of PSNH Project team resources were included to support and facilitate the cancellation process. The Company, with support from URS, would be responsible for contractual and commercial items such as contract close-out, final invoicing, and accounting. In addition, PSNH would need to oversee Project area moth-balling and Station remediation.

Outside Services

Technical, legal, and other consulting services would be required throughout the cancellation process. A number of months of this resource are included to address legal and environmental issues arising as a result of Project cancellation.

Employee Expenses, Vehicles, Rents & Leases, and Indirect Costs

The Project would continue to incur Company expenses over the course of Project cancellation. All assets and responsibilities would be eliminated as soon as reasonably possible. Similar to the NU Labor discussion, the costs for a number of months were included.

AFUDC

Recognizing that as contracts are settled and final invoicing is submitted, charges to the Project will continue throughout the cancellation process. These ongoing charges would result in additional monthly AFUDC. An estimate of six months was used.

Contract Labor

Contracts primarily tasked with the installation of equipment and materials were evaluated similarly. These labor intensive contracts could potentially be resolved more quickly as they were not tasked with long-lead equipment purchases or material procurement. After structures and equipment have been moth-balled, labor can be eliminated. Contracts of this structure include:

- Balance of Plant Mechanical
- Balance of Plant Electrical
- Duct & Steel Installation
- Site Preparation
- Foundations
- Construction Services
- Site Finalization

Materials

These vendor agreements are primarily for the procurement of equipment or materials. Materials would include items such as:

- Booster fans
- Duct isolation valves
- Ductwork fabrication and delivery
- Support steel fabrication and delivery
- Major electrical equipment

To determine future exposure, consideration was given to milestone payment schedules, delivery schedules and engineering and manufacturing costs.

E-Warehouse

E-Warehouse was completed and placed in-service in early 2008. Accordingly, the total cost is included.

Booster Fan Spares

The milestone payment schedule, delivery schedule and engineering and manufacturing costs were reviewed to estimate committed dollars for this long-lead material purchase.

Meeting Place

Material purchases and contractor labor associated with this building were reviewed. To determine future exposure, consideration was given to milestone payment schedules, delivery schedules and engineering and construction costs.

Electric Power Supply

Engineering, material purchases and contractor labor associated with the substation were reviewed. To determine future exposure, consideration was given to milestone payment schedules, delivery schedules and engineering and construction costs.

Secondary Waste Water Treatment System (SWWT System)

Engineering, materials and contract labor associated the SWWT system were reviewed. Materials would include AquaTech supply scope of work, structural steel supply, the DCS, major electrical equipment and miscellaneous materials. Contractor labor includes Burns & McDonnell engineering, Foundations & Underground work, BOP Mechanical Work, BOP Electrical Work, and miscellaneous contractor labor. To determine future exposure, consideration was given to milestone payment schedules, delivery schedules and engineering and construction costs.

Section 2: Termination Costs

General

This section considers costs that a contractor would be looking to recover if a contract was cancelled. The information contained in this section is based on years of experience with construction, consulting, and the contract cancellation process. These items would be included in a contract termination settlement and negotiated in accordance with specific contract termination language.

Demobilization

Detailed manpower and onsite equipment schedules are laid out in advance of construction. A ramp-up, peak, and wrap-up of these resources is planned, thus maximizing efficiency. To alter that plan would result in a more costly demobilization. The cost of demobilization was estimated based on the progress of the contract.

Final Invoicing

Invoicing complexity varies with the structure of the contract and through the course of a project is estimated and anticipated on a monthly basis. In the event of cancellation, all costs would be actualized resulting in an extensive final invoicing process. Contractors and vendors would require ample time to receive and compile subcontractor and vendor costs. Once final invoices were submitted, ample time would be needed to verify invoiced costs. Factory visits may be required to confirm the status of equipment and materials.

Recovery of Proposal Costs

An upfront cost to contractors is the proposal preparation. These costs, along with others, are built into the overhead component of the contract price and recouped over the life of the contract. Therefore, it is reasonable to compensate the contractor for proposal costs and expenses.

Missed Opportunity for Other Projects / Home Office Reassignments

Contractors schedule manpower to accommodate various jobs and schedules. When a job is awarded, staff is assigned to the project and when sufficient back log levels are achieved, contractors will not pursue or bid on other projects. If a contract is cancelled, staff re-assignments will be necessary and the contractor will seek recovery of costs to compensate the overheads of idle time while a new project is pursued.

Profit

As with any industry or business, profit is fair and customary expense. The contractors and vendors assume significant costs and risks, especially on large multi-year projects. Accordingly, it is reasonable to compensate the contractor a portion of profit and mark-up on completed or partially completed aspects of their contract. A judgment has been made in this analysis to not maximize profit but also not to ignore it.

Material Order Cancellations

Contractors would be fully reimbursed for material purchases that have not yet been invoiced, including any applicable freight, restocking fees, or cancellation penalties.

Subcontract Cancellations

Many aspects of the Project required primary contractors and vendors to engage subcontractors for portions of their work scope. In the event of cancellation, those subcontractors would recoup similar costs discussed above such as profit, demobilization, proposal preparation, and material order cancellation.

Section 3: Station Remediation and Project Area Moth-Balling Costs

General

This section considers costs required to preserve partially or fully installed equipment and structures as well as to restore a safe, working Station. The information contained in this section is based on years of construction and power plant operation experience. To the extent possible, these tasks would be completed by PSNH labor/resources. An overall estimate was developed, as this component is a Project wide expense, not based on individual contracts.

Material Storage of Unused Parts and Materials

Any unused materials belong to the owner and will need proper preparation and storage. There would be a large effort to find appropriate storage locations and facilities for thousands of items until a determination can be made on final disposition. Then these items could be resurrected locally with a project start or possibly used in a new application by NU/PSNH or sold to minimize storage charges. Storage fees would apply until the material was used or removed.

Site Cleanup

Cancelling any project mid construction would leave the site in disarray. The site would need to be restored to a safe, useable condition which may include closing excavations, finishing roads, completing drainage, stabilizing soils, and meeting all local, state, and federal permitting requirements.

Re-engineering of Unfinished Structures for Safety

Unfinished structures would require additional engineering and potential labor to ensure no failures would occur. Unfinished structures are susceptible to failure from snow loads, wind loads, and earthquakes due to a design's reliance on the completed structure.

Maintenance of Existing Station Equipment or Systems

Select Station equipment was slated for retirement as the Project would render those items obsolete. Cancellation would initiate maintenance and/or replacement of this existing equipment in order to maintain a safe and reliable operating facility.

Cancellation Cost Categories

STATION REMEDIATION & PROJECT AREA MOTHBALLING

- Place Project equipment into safe and preserved condition
- Satisfy all site permit requirements
- Re-engineer structures to maintain safe and effective plant operations
- Restore and clean-up Merrimack Station

TERMINATION COSTS

- Profit
- Demobilization
- Proposal Preparation
- Home Office Support
- Staff Reassignments

PROJECT COST LIABILITIES

- Subcontractor Payments
- Support staff to negotiate fair and reasonable contract cancellation terms
- Ordered or Unused Material

MONEY SPENT

- Contractor labor
- Materials
- AFUDC
- Fees and Payments
- NU Labor and Company Costs

Attachment 2: Total Cost Exposure

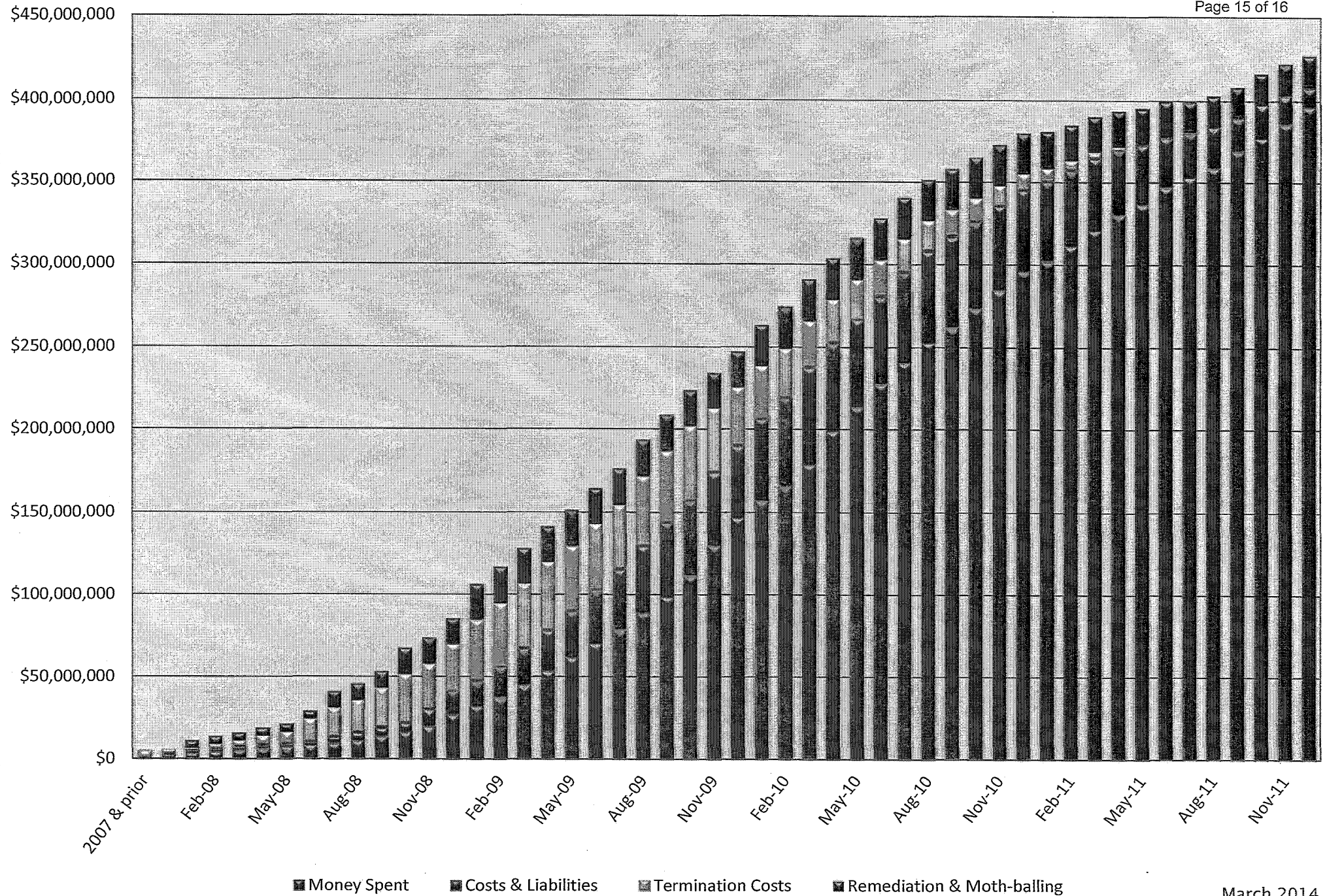
Docket No. DE 11-250

Data Request TC 6

Dated 07/25/2014

TC 6-037

Page 15 of 16



March 2014

Attachment 3: Total Cost Exposure at Key Dates

