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November 30, 2010

Re: Regional Greenhouse Gas Initiative Program Review and Materials for November 12, 2010 Stakeholder Meeting

Dear RGGI Directors:

Spectra Energy appreciates the opportunity to provide comments and recommendations to the Regional Greenhouse Gas Initiative's (RGGI) Reference Case assumptions and sensitivity analyses. In particular, in this letter, we offer comments on the documents entitled "RGGI Reference Case Results and Assumptions" and "DRAFT Sensitivity Case Results and Assumptions" from the November 12<sup>th</sup> Stakeholder Meeting. We recognize the value of this modeling exercise and appreciate that RGGI is taking stakeholder input and carefully considering the assumptions and sensitivities in developing the model.

Spectra Energy believes that any climate change regime must be transparent, fair, efficient, and simple. Spectra Energy's perspective on the RGGI IPM Model Assumptions is informed by our experience as one of North America's premier natural gas infrastructure companies serving three key links in the natural gas value chain: gathering and processing, transmission and storage, and distribution.

### **Introduction**

Spectra Energy is keenly interested in the Reference Case assumptions and sensitivity analyses, particularly that the availability and pricing of natural gas are accurately and reasonably reflected in the model. We had submitted comments on the original IPM Model Assumptions, and appreciate RGGI considering and making some revisions in line with our comments.

Natural gas will play a prominent role in the region's energy mix in the years ahead, especially in the move to lower the carbon-intensity of our economy. In particular, using natural gas to generate electricity represents the greatest opportunity for meeting carbon reduction goals cost-effectively. Last year the United States witnessed the largest absolute and percentage decline in energy-related carbon dioxide emissions since 1949. Emissions declined 7 percent, or 405 million metric tons, according to the U.S. Energy Information Administration. A key contributor to this was fuel-switching in the electric sector from coal to natural gas.

With the abundance of natural gas supply from the Rockies, liquefied natural gas (LNG), and shale formations, the natural gas supply picture is very strong. Natural gas also offers the advantage of economy, at a time when we should be thinking in terms of efficient returns on our energy investment. In today's marketplace, the price ratio of crude oil to natural gas is about 20:1, a far cry from the historic ratio of 6:1, and a reality that should be factored into planning and policy discussions.

Natural gas can play a vital, expanded role in helping the region achieve the objectives of energy security, economic stability and environmental sustainability. The natural gas supply picture has changed dramatically in the last few years, and the importance of the impact of this supply on short term and long term pricing as well the role of natural gas infrastructure must be included in the RGGI modeling. It is for these reasons that RGGI needs to ensure that assumptions underlying natural gas for electric generation are accurately captured.

In this letter, Spectra Energy asks for clarification and offers recommendations on some of the natural gas price forecasting assumptions.

### **Background on Spectra Energy**

Spectra Energy Corp (NYSE: SE), a *FORTUNE 500* company, is one of North America's premier natural gas infrastructure companies serving three key links in the natural gas value chain: gathering and processing, transmission and storage, and distribution. For nearly a century, Spectra Energy and its predecessor companies have developed critically important pipelines and related infrastructure connecting natural gas supply sources to premium markets. Based in Houston, Texas, the company operates in the United States and Canada approximately 19,100 miles of transmission pipeline, more than 305 billion cubic feet of storage, as well as natural gas gathering and processing, natural gas liquids operations and local distribution assets. The company also has a 50 percent ownership in DCP Midstream, one of the largest natural gas gatherers and processors in the United States. Spectra Energy is a member of both the Dow Jones Sustainability World Index and the U.S. S&P 500 Carbon Disclosure Project's Leadership Index.

Spectra Energy's assets are key suppliers of natural gas to customers in the RGGI member states. Among Spectra Energy's assets in the northeast United States are the Algonquin Gas Transmission pipelines (Algonquin), the Maritimes & Northeast Pipeline, and a portion of Texas Eastern Transmission.

Algonquin transports 2.44 billion cubic feet of gas per day through 1,100 miles of pipeline in New England. To increase Algonquin's supply base, Spectra Energy has developed pipeline extensions providing high-pressure deliverability to serve New England's increasing demand for electric generation.

The Maritimes & Northeast Pipeline brings offshore, onshore and LNG-sourced natural gas from Atlantic Canada to North American markets. With 670 miles of pipeline (340 miles US), Maritimes & Northeast extends from Nova Scotia into New Brunswick, Maine, New Hampshire, and Massachusetts where it connects with Algonquin Gas Transmission's HubLine. The Maritimes & Northeast pipeline also connects to the North American pipeline grid at Dracut, Massachusetts.

With 9,200 miles of pipeline, Texas Eastern Transmission connects Texas and the Gulf Coast with markets in the northeastern United States, and has the capacity to transport over 4.5 billion cubic feet per day into those northeast markets. Texas Eastern also offers 75.1 billion cubic feet of gas storage and connects to Algonquin Gas Transmission.

### **Spectra Energy Position on Climate Change Policy**

Spectra Energy commends the RGGI Partners for taking a leadership role in developing a regional, market-based policy framework to address the complex and technical issues associated with a broad-based, mandatory greenhouse gas (GHG) emissions program. Ultimately, Spectra Energy strongly prefers a federally-crafted, economy-wide, market-driven, continental climate change program over an assortment of state, provincial and regional measures.

As natural gas is significantly less carbon intensive than other fossil fuels, it is a critical part of the solution to providing the energy our economies require now and in the future. An effective climate change program should recognize the positive role of natural gas in a carbon-constrained economy as a reliable, domestically abundant and cleaner alternative to other fuels. Such a program should allow for the likelihood that those companies helping to meet growing demand by producing, processing and transporting more natural gas may increase their direct emissions while serving to reduce overall regional and national emissions, thereby providing a net benefit to the environment.

At a federal level, market-based incentives should advance emissions reductions on many fronts, including encouraging increased efficiency, technological innovation and energy conservation. We believe that a workable federal climate change program should:

- Implement programs and requirements gradually and in conjunction with existing energy regulatory frameworks to avoid undue economic dislocations, leakage or industry movement to unregulated regions;

- Utilize existing, established and approved greenhouse gas quantification and reporting methodologies, particularly those accepted in current mandatory government reporting;
- Support development of a variety of technologies to increase efficiency of end-use consumption;
- Provide certainty about costs of compliance, preferably through a simple, efficient, revenue-neutral carbon tax;
- Although a revenue-neutral carbon tax is the preferred policy approach, a cap-and-trade scheme could prove workable as a primary regulatory mechanism, if the program includes a price cap on allowance prices, recognizes offsets – as long as they are real, quantified, verified, surplus and have clear ownership – as an important tool to encourage lower cost emission reductions; and supports development and investment in carbon capture and storage projects, providing incentives, such as bonus carbon allowances.

### **Comments on the IPM Model Assumptions and Sensitivities**

Spectra Energy has reviewed the documents from the November 12<sup>th</sup> Stakeholder Meeting, particularly the “DRAFT Sensitivity Case Results and Assumptions,” and would like to seek clarification on certain assumptions and make recommendations relative to natural gas price forecasting.

#### **Assumption: Fuel Prices**

We appreciate RGGI adding a low gas price sensitivity analysis to the modeling; however, we still assert that the price forecasts for natural gas in the reference case should reflect the increased domestic supply due to shale gas. Additionally, throughout the assumptions and sensitivities, RGGI should be very clear and consistent regarding transportation costs and delivered prices.

First, as a point of clarification, are RGGI’s price forecasts based on “delivered” or “hub” prices? Hub prices are essentially wholesale prices at a given point on the natural gas infrastructure system, whereas delivered prices include the transportation costs to a given delivery point. Hub prices are typically lower; however, both hub and delivered prices depend on the location assumed.

We note that in the original slide deck from the September 13<sup>th</sup> Stakeholder meeting, the graph with natural gas prices (slide 14) was labeled “Natural Gas at Henry Hub” but the more recent “RGGI Reference Case Results and Assumptions” deck (slide 36) shows delivered prices. At the November 12<sup>th</sup> Stakeholder Meeting, RGGI representatives stated that the price in the IPM model is “delivered price.” We note that the price forecast is higher in the more recent slide deck, and while this may be due to the shift from hub to delivered prices, it is unclear how and why that shift was made and the resulting impact on the model results. Spectra Energy asks for clarification on this change, and also would like to understand if the price increase is due entirely to the transportation cost addition, or if some other price adjustments have been made as well.

Spectra Energy requests that RGGI share the method used to quantify the transportation costs which are included in the delivered prices, particularly which locations were assumed as delivery points. The locations that are assumed for delivery have a significant impact on these transportation costs. Also, the assumptions here may have implications on other parts of the model as well—as new natural gas infrastructure is added over the next several years, it may increase the availability of natural gas supply and change the transportation costs for a given delivery point, and that would need to be reflected in the model.

Additionally, this change to delivered prices does not appear to be consistent—the graph on slide 11 in the “DRAFT Sensitivity Case Results and Assumptions” says “Natural Gas Prices at Henry Hub”. Therefore, are the sensitivity analysis and the IPM model using different methods to account for natural gas prices? This inconsistency between delivered and hub prices creates confusion and potentially errors in the modeling. Spectra Energy requests that RGGI clarify whether natural gas prices and forecasts shown in the IPM model and the various sensitivities are the “delivered” or “hub” prices and ensure consistency throughout the various sensitivities.

Second, Spectra Energy recommends that ICF and RGGI ensure that the forward price curve takes into account the increases in supply due to the impact of the domestic natural gas shale plays. It is anticipated that the portion of supply from shale gas will continue to grow over the next few decades. Shale gas has had such a significant impact on natural gas supplies that experts deem the boom a game changer, the most significant energy innovation of the century to date. Shale gas accounted for 1 percent of our natural gas supply in 2000. According to IHS Cambridge Energy Research Associates, today shale gas represents about 20 percent and by 2035 it could grow to 50 percent.

The United States has prolific natural gas supplies, stemming largely from our ability to extract gas from shale. This, combined with better access for Rockies gas and LNG to the northeastern states, has created a dramatic increase in supply that will help stabilize natural gas prices over the long-term and should be a key factor in any natural gas pricing forecasts.

Spectra Energy recommends that RGGI first clearly identify and consistently apply whether the gas prices included are hub or delivered prices, clearly identify the assumptions used, and ensure the natural gas forward price curve takes into account increased supply from shale gas.

### **Low Gas Price Sensitivity**

The "DRAFT Sensitivity Case Results and Assumptions" notes on slide 4 for the Low Gas Price Sensitivity: "Use differential of approximately \$1.50/MMBtu, on average, between delivered coal and gas to the RGGI region." The price of coal and natural gas are not historically tightly correlated. In reviewing the detailed results in the Excel spreadsheet, it is not clear how coal is priced for this sensitivity. It is not explained how this "tracked differential" works, and Spectra Energy is concerned that it may not be accurately reflecting the impact of the low gas price by artificially keeping coal prices low as well.

If this sensitivity is designed to model the impact of a low gas price, then the price of coal should be moving independently and not correlated to the price of natural gas. Spectra Energy asks the RGGI clarify this in the next round of materials.

Thank you for the opportunity to submit our comments. We look forward to participating in the next Stakeholder Meeting. Please feel free to contact me with any questions either via email (blmetzger@spectraenergy.com) or phone (713.627.5400).

Sincerely,



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