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DominionTM

September 27, 2005

RGGI Staff Working Group
C/o Ms. Sonia Hamel
Special Assistant to the Secretary
Office for Commonwealth Development
100 Cambridge Street, 10th floor
Boston, MA 02114

Re: Comments on the Regional Greenhouse Gas Initiative

Dear Ms. Hamel:

Dominion would like to thank you and The Regional Greenhouse Gas Initiative (RGGI) Staff Working Group (SWG) for spending the time to meet with us on various occasions over the last several months, and is pleased to recap and submit the following comments relative to the RGGI proposal. We are concerned with RGGI not only from an environmental perspective, but also from an economic, fuel diversity and electric reliability perspective as well.

Dominion has been actively involved in the RGGI process as a member of the RGGI Stakeholder Group since its inception and has advocated for program elements that would create a sensible, workable program to reduce greenhouse gas emissions in the region. The RGGI requirements should be formulated to provide maximum flexibility for compliance and minimum adverse impact on energy reliability and price.

The RGGI program will have significant impacts on the energy market. We believe that each element of the proposal is important and have developed detailed suggestions, presented respectfully below, for making the RGGI proposal more realistic and workable.

Unit Shutdowns

There are no commercially available "back-end" controls for CO₂, making a flexible and robust offsets market a critical aspect of RGGI. Companies need to be able to comply though utilizing the least cost alternatives to generate offsets.

The most obvious method of avoiding emissions of carbon is to shut down. Providing companies with credit for unit shutdowns after the baseline dates would help with the additional cost burdens associated with any CO₂ program. The offsets or allowances generated from emission reduction credits (ERC's) from unit shutdowns could then be used by a facility for RGGI (or state requirements) compliance or sold to other facilities subject to RGGI or state requirements. The resulting emissions reductions are permanent and the CO₂ credit likewise should be permanent. For example, if a unit is shutdown, it should be allowed to retain those allocations. In a subsequent allocation period, the CO₂ reductions associated with the shutdown could be converted to offsets. If the unit that is shut down is located outside the RGGI region, then CO₂ reductions associated with the shutdown should be considered as offsets.

Offset Limitations and Types

The amount of offsets that can be used for compliance in each compliance period should not be limited (by 50% or by any percentage), nor should there be any geographical constraints imposed on the source or use of offsets. Offset restrictions create additional economic inequities for RGGI-subject facilities. Unrestricted offsets would allow RGGI region companies to have the opportunity to acquire cheaper offsets outside of the RGGI region, while still ensuring real, verifiable, and quantifiable carbon reductions. This would help to balance the economic disadvantages leakage creates. CO₂ is a global issue, so it would make both environmental and economic sense for the RGGI proposal to be amended to allow offsets not only from international Clean Development Mechanism (CDM) projects and the European Union (EU) program, but the entire US as well. There should be no geographic restrictions so that facilities subject to RGGI can realize at least some economic equity relative to those fossil facilities operating outside of the RGGI region.

Generators potentially subject to RGGI are also experiencing a high level of uncertainty associated with the availability and costs of obtaining offsets. Since the lead-time associated with projects such as “afforestation” and other offsets categories can take several years for investments to generate actual offsets, we believe that expanding the offset category list is a crucial aspect of the RGGI program. Certain category types like unit shutdowns, coalbed methane recapture¹, management of coal combustion products² and energy efficiency should be prioritized so that these types of offsets are available to be banked starting in 2006.

The types of offsets allowed should be expanded significantly *before* the program goes into effect to allow time for offset purchases by regulated sources.

Other offset considerations include:

- Allowing international offset sources such as CDM and the exchange of allowances from the trading program recently established in the EU without restriction – that is without regard to allowance trigger mechanisms (see below)
- Include other “currencies” from around the US, such as those from the Chicago Climate exchange, Oregon and other programs.
- Allow *any category* of project that is real, verifiable, etc., for example, coalbed methane capture, unit shutdowns, etc.

We also request that the details regarding the RGGI SWG offsets analysis be released as soon as possible, and that a separate teleconference call to review the material be organized. The methodology and data used by the Staff Working Group to estimate the quantity (and quality) of offsets available in the RGGI region is poorly understood. As stated by staff, US EPA national estimates were scaled and adjusted for the RGGI region. We are unclear if those adjustments accounted for such things as shortened growing seasons, land prices and weather patterns associated with the Northeast and Mid-Atlantic regions.

¹ As of 2000, the US total of ventilated air methane (VAM) accounts for 16.5% of the world’s total VAM or 36.0 MMT CO₂e. See http://www.epa.gov/cmop/pdf/ventilation_air_methane.pdf.

² See “Comments of the Utility Solid Waste Activities Group and C2P2 Funders” on the USDOE Revised General Guidelines and Draft Technical Guidelines for EPACT Section §1605(b) Voluntary Greenhouse Gas Reporting.

Set Asides

The regional allowance pool should not be cut by 20-25% through a public benefits auction or other set-asides. Requiring generators to purchase a significant number of allowances will raise the price of electricity in the region. In addition, the retention of a significant number of allowances by a public entity could result in market distortions. A small set-aside for purposes including new, emissions free generation, including nuclear uprates, would be more workable. We cannot make a constructive alternative suggestion given the many uncertainties surrounding the timing, price and availability of allowances. After these issues become more certain, we hope to be able to offer more helpful feedback. To the extent allowances are set aside, they should be made available to the market immediately and only available for generators to bid on.

Price Control Mechanism

An allowance and offset price control mechanism, which acts as a "safety valve" is critical to protect consumers, operators and the reliability of the market. A \$2³ per ton limit, escalating over time, may accomplish this goal.

The proposal states that EU allowances or CDMs could be used once a RGGI price threshold is hit for a sustained period. However, since the EU and CDM prices are so high, they would offer little or no reprieve to generators. Also, since the "sustained period" is not defined in the proposal, it is unclear how this policy trigger would work.

Carbon Equivalent Offsets

We strongly advocate the use of the carbon dioxide equivalent of the other greenhouse gases as eligible offsets under RGGI. This approach should include reductions of any of the six major greenhouse gases, particularly since their global warming potential is often several times that of CO₂. We also believe that this should be explicitly stated in the Memorandum of Understanding (MOU) and the Model Rule.

Biomass Fuel Credit

In order to further promote biomass fuel use within the RGGI region, a fossil fuel electrical generating facility subject to RGGI, which has a unit(s) co-firing an eligible biomass fuel⁴, should be given CO₂ tons equivalent credit for that percentage of biomass fuel it co-fires. In other words, the CO₂ equivalent from that portion of generation attributable to biomass fuel does not count towards the compliance obligations total of CO₂ tons emitted from that facility. The portion of

³ RGGI modeling shows prices for CO₂ tons to be \$1 in 2009 and \$2.50 in 2015. Also, the use of a monetary payment for CO₂ emissions is similar to the standard established by the MA's Siting Board for new power plants to offset 1% of their CO₂ emissions, in a similar cost range. This mechanism has been finalized in the various decisions, with the Dighton Power Final Decision, EFSB 96-3 being the decision that set the standard that was used in subsequent decisions including: ANP – Blackstone, ANP – Bellingham, and Brockton Power.

⁴ Although the burning of biomass also produces carbon dioxide, the primary greenhouse gas, it is considered to be part of the natural carbon cycle of the earth. The plants take up carbon dioxide from the air while they are growing and then return it to the air when they are burned, thereby causing no net increase. See <http://www.epa.gov/cleanenergy/renew.htm> - biomass .

the total electrical energy output subject to CO2 tons equivalent credit in a given time period should be equal to the ratio of the net heat content of the eligible biomass fuel consumed to the net heat content of all fuel consumed in that time period, without time or quantity restrictions on this ratio.

The SWG should consider a broad definition of 'Eligible Biomass Fuel' for the purposes of RGGI, to include not only those defined under state requirements for Eligible Biomass Fuel, but also those fuels mentioned herein. The emerging technology of "gasification" of municipal solid waste (MSW) to produce 'synthetic gas' should be considered, since it not only contributes to fossil fuel displacement, but avoids methane formation as well.

We further suggest that **all waste streams recycled as energy** be encouraged under RGGI. Examples of waste streams that should be considered include, but are not limited to, coal bed methane, manufactured biomass fuel, such as Enviro-Fuel Cubes, and natural oil by-products (NOBs)⁵. It is in the best interest of the environment that alternatives to creating energy from all waste streams, some of which would otherwise end up in landfills and/or creating greenhouse gas emissions, are explicitly supported in policy decisions of RGGI, since the landfill space and recycling co-benefits are such important issues in the states participating in RGGI.

Early Action Dates

Early action credit dates in the RGGI proposal are too restrictive, and should go back to **1996** when companies invested in voluntary early reductions, such as 1605(b) and other programs. Unrestricted early compliance banking and exchange between parties subject to RGGI is also essential to ensure market liquidity and preserve system reliability.

State Level Allocations

It should be explicit in the MOU and the Model Rule that State level allocation methodologies of allowances or set asides be designed to ensure that the allocation methodology does not pick winners and losers by favoring one fuel type over another. If states do not allocate fairly to generators, supply adequacy, fuel diversity and in some cases, reliability could be affected. Allocation methodologies must recognize that there currently is no available back-end control technology that can be deployed to fossil units to reduce CO2.

Side Agreements

States should not execute side agreements with other RGGI participating states to "give away" CO2 allowance allocations without going through a *public review and comment process*. Again, this is an issue that should be explicitly stated in the MOU and the Model Rule.

Energy Efficiency Offsets

We urge the SWG to consider demand-side and supply-side energy efficiency related offset projects, funded by the generators within the RGGI region. The generators would then have the rights to the resulting CO2 offsets. A precedent had been set for this in MA in the siting of ANP's

⁵ Typically a waste product from the soap making industry.

Bellingham and Blackstone facilities.⁶ This type of mechanism also serves as a surrogate to a public benefit set aside for energy efficiency projects, while using *market forces* to realize the least cost energy efficiency projects.

Renewable Energy Certificates Are Separate Attributes From CO2 Offsets

We suggest that the Staff Working Group issue a joint policy statement with the appropriate state renewable energy agencies which indicates that CO2 offset projects are allowed to simultaneously generate CO2 emission reduction credits (ERCs) and Renewable Portfolio Standard (RPS) renewable energy certificates (RECs). As such, a policy statement, which indicates that CO2 ERCs from offset projects and RECs are separate and collateral, regulatory commodities, may provide economic incentives for further renewables development.

Wind, solar and similar renewables may create emission reduction credits (ERCs) as offset projects indirectly by displacing system power on the dispatch curve. However, they do not directly reduce emissions of a greenhouse gas. Landfill gas projects (LFG) in particular, not only displace system power on a non-intermittent basis, but also actually reduce GHG emissions directly via destruction of methane that would have otherwise been emitted to the atmosphere from non-New Source Performance Standard (non-NSPS) landfills. As you are aware, methane is a greenhouse gas that is recognized by the International Panel on Climate Change as having a global warming potential that is 23 times more potent than CO2. Additionally, methane is second only to carbon dioxide as a U.S. contributor to greenhouse gas emissions. LFG projects are also on the short list of initially recognized offset projects by the RGGI Staff Working Group.

Many states are implementing challenging Renewable Portfolio Standards, and load-serving entities are struggling to meet these standards. In fact, the MA Department of Telecommunications and Energy (DTE) predicts that Massachusetts load-serving entities will not be able to meet RPS standards and will pay alternative compliance payments through 2007. If projects are not allowed to simultaneously generate RPS RECs and CO2 equivalent offsets, RPS REC projects could take over a sizable portion of the available CO2 offset projects in the market or vice versa, exacerbating the lack of availability of either, driven by market prices. This issue of RECs and CO2 offsets, with their potential market distortion, is also of particular concern to the Massachusetts Technology Collaborative Renewable Energy Trust. Therefore, it is especially important for the RGGI States to allow CO2 offset projects to simultaneously generate CO2 ERCs and RPS RECs for compliance with state CO2 requirements and to advocate for this same policy under the RGGI process.

Reasonable Provision for Transition

Multiple, overlapping requirements complicate compliance strategy planning, which could result in additional compliance and administrative costs. In order to minimize competitive disadvantage related to neighboring states, we believe that RGGI Region generators should be subject to only one CO2 regulatory program. We suggest that provisions or other reasonable mechanisms are implemented to transition facilities subject to other state requirements **solely into RGGI**, in order to avoid unnecessary confusion and duplication of compliance requirements.

⁶ Proposal of ANP Bellingham Energy Company in EFSB-97-1 and ANP Blackstone Energy Company in EFSB 97-2 to Mitigate CO2 Through Energy Efficiency, MacGregor Energy Consultancy, December 21, 2001.

Credit for Environmental Controls

Emissions resulting from the “parasitic load” of environmental control equipment installed and commercially operational after 2005 (mercury, sulphur dioxide, NO_x, cooling towers, etc.) should be exempt from regulation. Many facilities subject to RGGI are, or potentially will be, subject to numerous environmental requirements, including, but not limited to such requirements as the Massachusetts 310 CMR 7.29, the Clean Air Interstate Rule (CAIR), the Clean Air Mercury Rule (CAMR) and CWA 316(b). These requirements will most likely involve capital expenditures on new pollution control equipment that will increase the “parasitic load” used at the facility, which is not energy supplied to the regional electric grid.

As these additional environmental requirements become effective, the continued operation of those units subject to these new environmental requirements (particularly those who are not currently base-load units) will be examined from an economic perspective in light of all operational costs (capital and O&M) as well as their ability to supply energy to the grid. In order to encourage continued operation of marginal units, such as combined cycle units or oil-fired units, those units should be allowed to take credit for emissions resulting from the “parasitic load” of environmental control equipment.

Regional Cap

A cap that represents “stabilization” must account for load growth and its associated emissions, between the baseline years and when the RGGI program is implemented in 2009. In an attempt to recognize that some CO₂ emissions growth would occur between “current” emissions and 2009 emissions, the proposal suggested a starting point of about 150.6 million short tons. This number is approximately equivalent to the average emissions of the highest 3 years between 2000 and 2004, plus an additional 2.9% or 4.3 million tons. Of the total cap, ISO-NE states would be allocated approximately 54.5 million tons.

We believe that the additional 2.9% is not sufficient enough to account for expected load growth between the baseline years and what the expected 2009 “current emissions” will be, the year RGGI is proposed to start. For example, according to the New England ISO latest estimations,⁷ the adjusted load for New England alone is expected to rise 9.2% between 2004 and 2009. If emissions associated with this load growth rise only 1% per year from 2004 to 2009, this means that the ISO-NE cap should be set at no less than about 57.2 million tons and **the regional cap⁸ set at no less than 152.3 million tons.** However, given the uncertainties related to state level allocations coupled with the uncertainties as to which states will participate in RGGI, we are reticent to provide an exact regional cap recommendation at this time.

In addition, the level and timing of required reductions in the cap level should be set in a way to allow a realistic and feasible penetration of lower emitting and non-emitting generation into the region that will not compromise the region’s ability to maintain fuel diversity, electricity reliability and economic competitiveness. The RGGI modeling clearly demonstrates that a significant amount of lower emitting and non-emitting generation will be necessary in order to reduce CO₂ emissions to meet the desired 10% reduction by 2020. However, for reasons noted in

⁷ ISO-NE, “2005-2014 Forecast Report of Capacity, Energy, Loads, and Transmission (CELT) Report,” Section I.1 - Summaries – Summer, ISO-NE Control Area and Total New England August Capabilities and Summer Peak Load Forecast (MW) - 2004-2014

⁸ Assumes a mere 1% growth in emissions from ISO-NY and PJM RGGI states from 2005-2009.

the Modeling section below, the modeling contains a number of unrealistic assumptions that overestimate the penetration of such generation over the time period modeled and underestimate the potential cost of the program. The 10% reduction requirement proposed over the period 2015-2020 is unrealistic as this timeframe is not long enough to accomplish the fleet turnover that would be needed to meet this requirement.

Finally, the regional cap has been set without analysis (that we are aware of) of how this cap will affect system reliability. We suggest that a study be initiated to ensure that ISO regional reliability is not compromised with the cap level and other aspects of RGGI integrated into the analysis.

Modeling

There are several aspects related to the modeling effort that could have benefited from improved inputs, even though the model was only used to demonstrate “directionality” in influencing policy decisions. These aspects include:

- The RGGI modeling assumes a load growth of less than 1% per year. The historical load growth in this region is more than 2% in most years, and in some regions such as New England, has averaged over 3% per year. According to the New England ISO latest estimations,⁹ the adjusted load for New England alone is expected to rise from 1.4% to 2.3% per year between 2004 and 2009. The unrealistically low load growth rate in the RGGI model results in lower projected carbon emissions, lower new generation build needs, less consequences of assumed retirements, and artificially reduces the predicted cost of the program.
- More than 6,000 MW of dependable renewables are added into the RGGI region in the model, with the majority being offshore wind. Unless the states are willing to site a significant amount of offshore wind farms, 6,000 MW is unrealistically high. Despite RPS requirements, actual renewable build has been limited for various reasons, including consumer price concerns and siting difficulties.
- RGGI assumes that prices can decrease under this program while still providing incentives for new build. This is a very difficult outcome when combining energy, capacity, renewables costs, and carbon costs associated with the RGGI program.
- The model continues to add significant combined cycle capacity in the region even though power prices are decreasing. The economic justification is primarily through much higher capacity payments. The RGGI modeling also ignores gas transmission constraints in the region, assuming that the predicted increases in gas demand either can be met with existing transmission infrastructure or that necessary infrastructure improvements will be made.

This results in a fuel diversity in the region that is significantly worse than today's, with a higher dependence on gas. The addition of almost 7,000 mw of combined cycle and combustion turbine capacity in the region over the last 6 years has changed the fuel mix

⁹ ISO-NE, “2005-2014 Forecast Report of Capacity, Energy, Loads, and Transmission (CELT) Report,” Section I.1 - Summaries – Summer, ISO-NE Control Area and Total New England August Capabilities and Summer Peak Load Forecast (MW) - 2004-2014

in New England to one dominated by gas (increased from 16% of NE's capacity in 1998 to 42% in 2005). The ISO has recognized that fuel diversity is a problem. In its Draft 2005 Regional System Plan for 2005 (RSP05), ISO has identified a critical need for additional fuel diversity in New England's electricity generation mix.

- o Since preliminary REMI modeling results were based on the IPM modeling effort, the modeled economic impacts and consumer price impacts have been underestimated.

Summary and Conclusion

In summary, we believe the cap is too stringent by not accounting for load growth between the baseline years and the start of the program in 2009. The 10% reduction by 2020 does not allow for realistic penetration of non-emitting generation into the region. The unrealistic assumptions in the modeling effort have led to an underestimation of impacts to existing generation, fuel diversity, reliability, consumers and the economy.

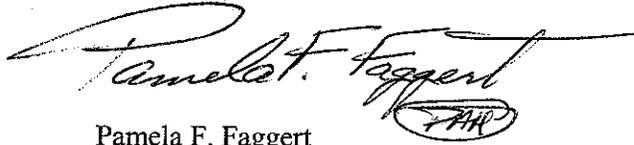
The amount of offsets that can be used for compliance in each compliance period should not be limited, nor should there be any geographical constraints imposed on the use of offsets. Any category of offset that is real, verifiable, etc. should be considered as appropriate; while certain category types like unit shutdowns, coalbed methane recapture, management of coal combustion products and energy efficiency should be prioritized so that these types of offsets are available to be banked as soon as possible. The allowance set-asides as proposed are too high and to the extent allowances are set aside, they should be made available to the market immediately and only available for generators to bid on, to allow generators to make informed pricing and operational decisions. A unit(s) co-firing an eligible biomass fuel should be given CO2 tons equivalent credit for that percentage of biomass fuel it co-fires and units should be given credit for "parasitic load" of environmental control equipment. The Memorandum of Understanding and Model Rule should explicitly address a price control mechanism, carbon equivalency, an early action date back to 1996 state level allocations, side agreements, energy efficiency offsets funded by generators, CO2 ERCs from offset projects and RECs are separate and collateral regulatory commodities, and a reasonable provision for transition from state requirements into RGGI and then from RGGI requirements into a national program, should there be one.

Dominion is pleased to submit these comments and appreciates their consideration by the RGGI Staff Working Group. Energy reliability and cost is a very important factor in any economy. As a responsible generator it is very important to us to be able to participate in this process, which will so significantly impact the energy market. The desired outcome is a program that provides enough environmental, economic and market security that it can be responsibly supported.

We look forward to continuing participation on development of the Model Rule and state-specific allocations and requirements. In that regard, we request that RGGI provide stakeholders the opportunity to provide comment on the MOU, the model rule and the Technical Support Document. We urge that this opportunity for public comment be afforded prior to submission to the Governors so they are able to effectively consider the comments and concerns of RGGI stakeholders before making policy decisions. We also are willing to assist the Staff Working Group in any capacity possible in the development of details regarding an allocation and offsets registry, as well as development of additional categories of approved offsets and their associated protocols.

Please feel free to call me at (804) 273-3467 if there are any questions you or other state representatives may have regarding our positions, we would be happy to discuss them further with you.

Respectfully,

A handwritten signature in cursive script that reads "Pamela F. Faggert". Below the signature is a small, circular stamp containing the initials "PFF".

Pamela F. Faggert

cc:

M. McGettrick - Dominion

L. Dupuis - Dominion

P. Hamel - Dominion

D. Weekley - Dominion