

TO: Regional Greenhouse Gas Initiative Agency Heads and Staff Working Group

FROM: Ron Drewnowski, Public Service Enterprise Group

DATE: May 22, 2006

RE: **Comments on RGGI Draft Model Rule**

This memo provides the comments of Public Service Enterprise Group (PSEG) in response to the Regional Greenhouse Gas Initiative Public Review Model Rule Draft entitled “Part XX CO2 Budget Trading Program” dated March 23, 2006 (the “Draft Model Rule”). PSEG has served as an official stakeholder to the RGGI process since its inception and actively participates in the Northeast Regional Greenhouse Gas Coalition (the “Coalition”) – a multi industry sector coalition that participates as a stakeholder in the RGGI process as well. PSEG endorses the Coalitions comments on the Draft Rule that are being submitted via separate memorandum today. Without limiting the Coalition’s comments, PSEG offers the following additional comments and concerns.

PSEG is a publicly traded (NYSE:PEG), energy and energy services company headquartered in New Jersey. PSEG’s main subsidiaries are: PSEG Power LLC (“PSEG Power”), Public Service Electric and Gas Company (PSE&G) and PSEG Energy Holdings LLC (“PSEG Energy Holdings”).

- PSEG Power is the owner of three main independent power producers in the United: PSEG Fossil LLC, PSEG Nuclear LLC, and PSEG Energy Resources and Trade LLC. These three PSEG Power subsidiaries own and operate a diverse portfolio of over 11,650 MW of generating capacity in the RGGI region, generating greater than 30 million megawatt-hours of electricity in the RGGI region on an annual basis.
- PSE&G is a regulated utility delivering gas and electric service safely and reliably to areas of New Jersey in which about 70% of the population reside. PSE&G serves 2.1 million electric and 1.7 million natural gas customers over a service territory of 2,600 square miles.

- PSEG Energy Holdings has two main unregulated energy-related businesses: PSEG Global and PSEG Resources. PSEG Global owns and operates domestic and international generation plants and distribution systems totaling 3,007 MW net in operation and approximately 2.94 million customers. PSEG Resources manages a diverse portfolio of energy related financial investments.

While PSEG has supported elements of RGGI with the goal of serving as a national model, PSEG has significant concerns over fundamental concepts in the Draft Model Rule that threaten the viability of the program. PSEG's comments focus on the following areas of the RGGI program: harmonization with a federal program; imports and leakage; consumer benefit allocation; safety valve trigger mechanisms, and carbon offsets.

In summary, our comments are as follows and detailed below:

- The Draft Model Rule must clearly convey the RGGI State's intention to harmonize RGGI with a mandatory national program and resist a parallel program with a national program.
- The Draft Model Rule should address leakage control prior to adoption either as legislation and/ or regulation.
- The consumer benefit or strategic energy purpose allocation must first be made available to affected sources.
- The signatory States should set a national example by utilizing a uniform method of allowance distribution that is output based and considers all sources of generation.
- The safety valve program control must be simple, clear and provide sufficient relief for a system performing outside acceptable margins.
- A sustainable offset development program is a significant example that RGGI can offer a potential national program. Although offset criteria must be clear, firm and represent real

reductions in GHG emissions, unnecessary limitations should not be part of the design criteria.

Harmonization with a Federal Program

Climate change is a global issue that can only be effectively addressed with a federal program and not a patchwork of state and regional programs. The RGGI MOU submits that Signatory States will transition into a federal program that is determined to be “comparable” to the RGGI program. However, there is no transition provision in the Draft Model Rule language. Without a clearly defined and immediate transition provision, RGGI may impose a redundant program, which may provide significant advantages to those operating in non-RGGI states potentially resulting in the closure of generating units which simply can not compete in a national market. Such a result would add costs to businesses and consumers that in turn result in economic dislocation.¹

RGGI should provide leadership in establishing a timely national program and, once a national program is enacted, the regional program should sunset. Climate change is a global issue that necessitates a coordinated multi-sector national response that is linked with approaches in other countries to maximize cost effective emission reductions. One region of the country will have minimal impact on global concentrations of greenhouse gases in the atmosphere. With this fact in mind, RGGI should strive to advance fundamental policy design principles in preparation for and to optimize the national debate process. The electric generating sector in the RGGI region has already become less carbon intensive than other parts of the country.

PSEG continues to be concerned that the RGGI MOU requires a national program to be “comparable.” Simply put, if a federal program is fashioned to reduce GHG emissions greater than RGGI, the “comparable” test should be satisfied and RGGI should defer to the national program. Anything less than clear, unambiguous, predetermined and simple criteria whereby

¹ The effects of a redundant program combined with the failure to address leakage, discussed below, could be disastrous.

RGGI will sunset to a national program will be an impediment to regional business growth and investment.

For example, if a federal program, such as that recently re-introduced by Senator Tom Carper (D-DE), is adopted, the RGGI program should end, and states should immediately transition to that national program.²

PSEG recommends that the following language be added to the RGGI Draft Model Rule as it is finalized by the staff working group:

***XX-11 Harmonization with a Federal Program.** Upon adoption of legislation and, if necessary, implementing regulation implementing a mandatory national CO₂ emission reduction program by the Federal Government, the provisions of this Part shall cease and the REGULATORY AGENCY will harmonize the CO₂ Budget Trading Program with that federal program.*

Imports & Leakage

RGGI Modeling estimates that the amount of electricity imported into the RGGI region, compared to what would otherwise occur in the absence of a regional carbon cap, will increase once a CO₂ emission cap is implemented. The CO₂ cap will increase the operating costs that electric generators in the RGGI region must bear versus the generators outside the region. Therefore, generators outside the RGGI region will have a competitive advantage and likely increase their percentage of the total market share. This fundamental economic fact will have the perverse consequence of potentially reducing CO₂ emissions and generation in the RGGI region, yet increasing CO₂ emissions (as well as NO_x, SO₂ and Hg) and generation to the west of the RGGI at the expense of generators in the RGGI region.

In fact, the fears of unconstrained imported power have begun to be realized. In recent news, major transmission lines have been announced that will originate in coal-heavy regions outside of the RGGI region, which will likely increase electricity imports and exacerbate emissions

² As proposed by Senator Carper, a national program would achieve cumulative CO₂ equivalent emissions reductions of 3,745 million tons by 2020.

leakage. The RGGI modeling used to support the MOU and the Draft Model Rule was prevented from considering these market developments. In the modeling performed to estimate the future impacts of RGGI on regional energy markets, the ability of the model to construct new transmission lines on an economic basis was disabled. In reality, several major projects are going forward at this time. Furthermore, the Energy Policy Act of 2005 (EPAct 2005) removes barriers and provides incentives for the construction of new interstate transmission lines. Additionally, new coal fired generation in surrounding non-RGGI states has been announced. The leakage identified in the modeling is significant and it would appear that it will get worse. Uncontrolled leakage, will financially reward generators outside of the RGGI region while disadvantaging facilities within RGGI state jurisdiction.

PSEG strongly contends that RGGI must credibly address electricity imports and the associated CO₂ emissions leakage with a direct regulatory approach to avoid negative environmental and economic impacts. The RGGI program should only move forward when the effects of electricity imports are credibly addressed. Specifically, a program to address the consequences of leakage must be legally defensible and implementable in the context of the realities of the workings of the wholesale markets, multiple regulatory jurisdictions (FERC, states, etc), and the Commerce Clause of the United States Constitution.

If electricity imports are not credibly addressed, RGGI consumers will pay higher electric costs for significantly less CO₂ emission reduction benefits while creating an adverse competitive dynamic for in-state electric generators.

The RGGI region encompasses three Regional Transmission Organizations (RTO) New England, New York, and the New Jersey/Delaware/Maryland portion of PJM. PJM is the largest RTO in the U.S. and the largest competitive wholesale electricity market in the world with over 160,000 MW of generating capacity in 2006. Since 2002, PJM has expanded west to Illinois and south to Virginia. Since 2002, six large power producing companies with generating facilities located in the Midwest have become PJM members –Allegheny Power in 2002, ComEd, American Electric Power and Dayton Power & Light in 2004 and Duquesne Light and Dominion in 2005 – dramatically increasing the scope of PJM’s operations. As a result, there has been a

threefold increase in power flows from west to east since market expansion because many of the constraints that served to adversely impact power flows have been internalized.³

As we have stated, more recently, new transmission lines have been proposed that will only exacerbate electricity imports and emissions leakage. American Electric Power, Allegheny Power, and Pepco have all recently proposed major transmission lines. The AEP transmission expansion proposal, called “AEP Interstate Project,” consists of a 765 kV line capable of carrying 5,000 MW of electricity from West Virginia to New Jersey. This line is proposed to begin service by 2014 just after the second compliance period of RGGI. The Allegheny transmission expansion proposal, called “Trans-Allegheny Interstate Line,” consists of a 500kV line capable of carrying greater than 3,000 MW from West Virginia to Maryland. These lines provide coal generation from West Virginia and Ohio access to RGGI markets just as the CO₂ cap starts to decline. Pepco Holdings, Inc. recently announced a proposed construction of a new 500 kV interstate 230-mile line, called the “PHI Mid-Atlantic Power Pathway,” which will originate in northern Virginia, cross Maryland and travel through the Delmarva Peninsula to New Jersey. Finally, a new transmission line from New Jersey to Long Island will carry PJM power to Long Island. This “Neptune RTS Project” involves the installation consists of a 500kV line that will connect New Jersey to electricity consumers on Long Island. This will facilitate the flow of power leaked into the PJM portion of RGGI into New York.

These projects clearly demonstrate that RGGI generation assets located in NJ, DE and MD will face direct competition from generators in the PJM market but not included in the RGGI program. Load-following coal dispatches before combined-cycle natural gas units absent a significant and sustained drop in natural gas price, even in spite of a recent spike in coal prices and emission allowance costs. Rising environmental compliance costs continue to push load-following coal to the margin, with the future price of natural gas and cost of CO₂ compliance emerging as the two wildcards in the viability of load-following coal capacity in the RGGI

³ Source: Testimony of Karl Pfirrmann, President, PJM Interconnection, L.L.C., Western Region, Prepared for the Federal Energy Regulatory Commission’s Technical Conference: Promoting Regional Transmission Planning And Expansion to Facilitate Fuel Diversity Including Expanded Uses of Coal-Fired Resources Docket No. AD05-3-000, May 13, 2005.

region. Load-following coal units outside RGGI are set to enjoy a dispatch cost advantage over similar units in RGGI. Transmission capacity becomes the only limit on this advantage.

PSEG acknowledges that the RGGI MOU states that the Signatory States recognize the potential that the Program may lead to increased electricity imports and associated emissions leakage. As such, the Signatory States agreed to the following:

“..to promptly, but no later than April 1, 2006, establish a multi-state working group consisting of representatives from the energy regulatory and environmental agencies in the Signatory States. The multi-state working group shall:

1. consider potential options for addressing leakage. Attention shall be paid not only to the potential effectiveness of a particular option to address leakage, but also to the potential impacts that option may have on energy prices, allowance prices, electric system reliability and on the economies of the RGGI states. In considering potential options, the working group shall consult with a panel of experts, stakeholders and representatives of the regional transmission organizations and
2. issue its findings and conclusions by December 2007.

...to consider, after taking into account the analyses and findings, what actions should be taken to address potential leakage prior to the launch of the program in January 2009.

However, there is no mention of imports & leakage in the Draft Model Rule rule. PSEG contends that a final model rule should not be adopted until leakage is addressed and controlled in a credible, practical and legally defensible manner.

If this rule is adopted prior to the development of provisions to mitigate leakage, PSEG recommends adding language to prevent the rule from becoming effective until a leakage mitigation program is added to the rule and the public is given opportunity to comment. PSEG recommends adding the following language to **Subpart XX-1.4 Applicability**:

Subpart XX-1.4(c) The emission limitation provisions of the Part XX CO2 Budget Trading Program shall not become effective until such time as a leakage mitigation program is adopted pursuant to Subpart XX-9.

PSEG also recommends retitling Subpart XX-9 RESERVED to ELECTRICITY IMPORTS AND EMISSIONS LEAKAGE as follows:

Subpart XX-9 [RESERVED] ELECTRICITY IMPORTS AND EMISSIONS LEAKAGE.

XX-9.1 [RESERVED] Purpose.

XX-9.2 [RESERVED] Definitions.

XX-9.3 [RESERVED] Applicability.

XX-9.4 [RESERVED] Standard Requirements.

XX-9.5 [RESERVED] Monitoring and Reporting.

Consumer Benefit Allocation

PSEG is very concerned with the consumer benefit or strategic energy purpose allocation provisions of the RGGI program. An allowance withholding of this magnitude has not been implemented anywhere in the world as part of market based environmental programs to date. Because this is a new concept, the implications on the competitive electricity markets and emissions trading markets is uncertain at best. In addition, given the current structure of the safety valve/trigger mechanisms, the allocation of the consumer benefit or strategic energy purposes allowances will likely have a major impact on the prices for RGGI allowances. Such an approach could increase the compliance cost for RGGI CO2 budget sources and therefore increase the costs of the program on RGGI consumers and the regional economy.

The Signatory States agreed in the RGGI MOU that 25% of the allowances would be allocated for consumer benefit or strategic energy purpose. It appears, however, that some Signatory States are ignoring that agreement and preparing to allocate more than 25%. To maintain regional consistency and a level playing field among CO2 budget sources, PSEG contends that every Signatory State should allocate precisely 25% of its CO2 budget to consumer benefit or strategic energy purpose during the first two compliance periods. During the review of the first compliance period in 2012 and the second compliance period in 2015, the Signatory States could evaluate the impact the consumer benefit or strategic energy purpose allocation provision had on allowance prices, overall costs and effectiveness of the program. The Signatory States could then make an informed decision as to the percentage that should be dedicated to the consumer benefit or strategic energy purpose allocation in the third compliance period.

The Draft Model Rule contains very little guidance on the consumer benefit or strategic energy purpose allocations. This translates into untenable business uncertainty and risk for CO2 budget sources. Regional consistency regarding the methodology and timing of the release of the consumer benefit or strategic energy purpose allowances to the market is critical for compliance and business planning purposes. The Draft Model Rule must have prescriptive language covering at least the following: the timing of the sale of consumer benefit or strategic energy purpose allocations, access to the consumer benefit or strategic energy purpose allowances, and the methods of sale of consumer benefit or strategic energy purpose allocations.

PSEG recommends that the following language be added to the RGGI Draft Model Rule as it is finalized by the staff working group:

XX-5.3(b) Consumer benefit or strategic energy purpose allocation. The REGULATORY AGENCY will allocate twenty-five percent of the NAME OF RELEVANT RGGI STATE CO2 trading program base budget for the 2009 through 2014 allocation years to the consumer benefit or strategic energy purpose account.

(1) By January 1, 2009, for the 2009 through 2014 allocation years, the REGULATORY AGENCY will:

- i. determine and disclose the method(s) with which the consumer benefit or strategic energy purpose allowances will be allocated; and*
- ii. determine the quantity of consumer benefit or strategic energy purpose allowances that will be dedicated to each of the following categories:*
 - 1. to promote energy efficiency,*
 - 2. to directly mitigate electricity ratepayer impacts,*
 - 3. to promote renewable or non-carbon emitting energy technologies,*
 - 4. to stimulate or reward investment in the development of innovative carbon emissions abatement technologies with significant carbon reduction potential, and/or*
 - 5. fund administration of this Program.*

- (2) By no later than December 31, 2009, the REGULATORY AGENCY will make available one hundred percent of the consumer benefit or strategic energy purpose allowances for the 2009, 2010, and 2011 allocation years to CO2 Budget Sources or their agents only.*
- (3) By no later than December 31, 2010, the REGULATORY AGENCY will make available any unsold consumer benefit or strategic energy purpose allowances for the 2009, 2010, and 2011 allocation years to CO2 Budget Sources or their agents and other participants.*
- (4) By no later than December 31, 2011, the REGULATORY AGENCY will make available one hundred percent of the consumer benefit or strategic energy purpose allowances for the 2012, 2013, and 2014 allocation years to CO2 budget sources or their agents only.*
- (5) By no later than December 31, 2012, the REGULATORY AGENCY will make available any unsold consumer benefit or strategic energy purpose allowances for the 2012, 2013, and 2014 allocation years to CO2 budget sources or their agents and other participants.*

Allowance Distribution

PSEG owns and operates affected sources in three RGGI states; in each of the three RTO's currently included in the RGGI. Multiple distribution methodologies among states will add complexity, confusion, and market variations that are unnecessary and do not provide a clear attribute for national examination and deliberation. Allocation methods are one of the hotly debated issues in national debate and RGGI has an opportunity to lay the groundwork for a national solution based on efficiency.

The signatory states should set a national example by utilizing a uniform method of allowance distribution that transitions to an output based methodology and considers all sources of electric generation. PSEG and many others agree that efficiency is of paramount importance in any program to address global warming. As such, an output based methodology for allowance distribution encourages the development and operation of electric generation while minimizing or negating the emissions of CO₂.

An updating output-based allocation rewards and encourages improvements in power plant efficiency, resulting in lower emissions per megawatt hour of energy production. By calculating the number of allowances that a company receives based on its output, it has a financial incentive to improve the operating efficiency of its fleet. An updating output based allocation also encourages the development of new, innovative technologies by providing a mechanism for new power projects to be integrated into the cap-and-trade program on an equal footing. A new source, once it has a sufficient operating history, would be allocated allowances based on the quantity of output that it generates, like the existing facilities in the program.

In terms of zero-emitting facilities—nuclear facilities and renewable projects—PSEG supports an equitable allocation that includes these facilities because of the vital role they play in providing electricity to consumers while avoiding the accumulation of greenhouse gases in the atmosphere. For example, the proposal noted above that has been re-introduced by Senator Tom

Carper (D-DE), proposes allocating CO₂ allowances to renewable energy and to nuclear power facilities, based on the incremental output of the nuclear plant (relative to 1990).

In recognition of the burden RGGI coal based generation must bear at the outset, PSEG recommends an input based allocation for the first compliance period transitioning to an output based allocation process for the second compliance period and beyond.

In addition, zero-emitting electric generation sources should be considered within the construct of the RGGI allowance program. PSEG recommends a workgroup be engaged to consider the process, potential and outcome of this consideration and make recommendations to the participating states.

Safety Valve Trigger Mechanism

PSEG has contended throughout the RGGI process that RGGI is based on a set of very optimistic modeling assumptions (e.g. gas prices, efficiency market penetration, renewable development).

The modeling results predict:

- Low CO₂ allowance prices averaging \$1.00 -\$3.00/ton (2010-2024).
- Regional natural gas consumption nearly doubling by 2015.
- Wind generating capacity growing nearly 100 times from about 55 MW to 5,203 MW by 2012, and nearly 180 times to 8,700 MW by 2024.

Given the uncertainty associated with the projected costs of RGGI, PSEG has stated that the program's design should provide for at least one of the following:

- Unlimited use of carbon offsets (no absolute usage limitations, no geographic discount factors, and broad list of eligible projects categories) or
- A price certainty mechanism such as a safety valve.

Neither of these two issues are effectively dealt with in the RGGI Draft Model Rule. In fact, the current RGGI “safety valve” trigger provisions do not provide price certainty. The safety valve triggers are far too convoluted and complex. In their current design, they serve to increase uncertainty for both the CO2 budget sources as well as the offset developers.

PSEG’s long stated preference to cost certainty is an effective and clear safety valve mechanism. An escalating safety valve \$/ton that affected companies could pay if reasonably priced offsets or allowances are unavailable in the market. This provides the clearest price certainty to affected sources in light of the fact that there is no commercially available cost effective CO2 control technology.

PSEG acknowledges that a straight escalating safety valve may be unlikely in RGGI due to the perception of such a price certainty mechanism. Therefore, working within the current structure of the safety valve trigger provisions, PSEG recommends that they be simplified and changed as follows:

- Allowance prices that reach \$7/ton trigger should allow the increase of offsets to 15%, which should be able to come from anywhere in North America;
- If allowance prices exceed \$7/ton twice in two consecutive 12 month periods, the use of offsets should increase to 20% and offsets, which should be able to originate internationally;
- Allowance prices of \$10/ton should allow the purchase of an unlimited number of permits at \$10/ton (one permit equals one ton CO2 emissions) for compliance purposes from the REGULATORY AGENCY; and
- The reset provisions should be completely eliminated.

Carbon Offsets

There is currently no commercially available and cost effective control technology to reduce CO2 emissions from electric generating units. As a result, carbon offsets must play a vital role in the near term (5-15 years) so that new technologies can enter the marketplace. However, the

current RGGI offset provisions create considerable regulatory and financial uncertainty both on the demand and supply side for offsets. The current Draft Model Rule offsets language is so constraining that it appears that the Signatory States are more motivated to establish barriers to offset development and use rather than encouraging least cost GHG emission reductions.

PSEG's long stated preference is for completely unconstrained offset provisions in RGGI. This would provide the clearest signal to both developers and CO2 budget sources alike to achieve GHG emissions at the lowest cost. However, we acknowledge that this is unlikely in RGGI due to the limitations on offsets included in the RGGI MOU. Working within the current structure of the offset provisions and safety valve triggers, PSEG recommends that the offset provisions be simplified as follows:

- The 2:1 discount for out-of-RGGI region offset projects should be eliminated completely.
- Offsets should be eligible from anywhere in North America; and
- The 3.3% limitation on the use of offsets should be increased to 5% at the outset of the program