



State of New Jersey  
DEPARTMENT OF THE PUBLIC ADVOCATE  
DIVISION OF RATE COUNSEL  
31 CLINTON STREET, 11<sup>TH</sup> FL  
P. O. BOX 46005  
NEWARK, NEW JERSEY 07101

JON S. CORZINE  
*Governor*

RONALD K. CHEN  
*Public Advocate*

STEFANIE A. BRAND, ESQ.  
*Director*

June 30, 2008

**Via Hand Delivery**

Honorable Kristi Izzo  
Board of Public Utilities  
Two Gateway Center  
Newark, NJ 07101

Re: I/M/O a Greenhouse Gas Emissions Portfolio Standard and  
Other Regulatory Mechanisms to Mitigate Leakage  
BPU Dkt. No. EO08030150

Dear Secretary Izzo:

Enclosed for filing please find an original and ten copies of the Department of the Public Advocate, Division of Rate Counsel's comments in the above-referenced matter. A copy of these comments will also be circulated electronically through the electric list server ([RGGIADMIN@NJCLEANENERGY.COM](mailto:RGGIADMIN@NJCLEANENERGY.COM)) used by the Board of Public Utilities for these types of communications.

We are enclosing one additional copy of the materials transmitted. Please stamp and date the copy as "filed" and return it to our courier. Thank you for your consideration and assistance.

Respectfully submitted,

RONALD K. CHEN,  
PUBLIC ADVOCATE OF NEW JERSEY

STEFANIE A. BRAND,  
Director, Division of Rate Counsel

By: *s/ James W. Glassen*

James W. Glassen,  
Assistant Deputy Public Advocate

C: Anne Marie McShea, Office of Clean Energy, BPU  
Alma Rivera, BPU  
Tel: (973) 648-2690 • Fax: (973) 624-1047 • Fax: (973) 648-2193  
<http://www.state.nj.us/publicadvocate/utility> E-Mail: [njratepayer@rpa.state.nj.us](mailto:njratepayer@rpa.state.nj.us)

New Jersey Department of the Public Advocate

Division of Rate Counsel

Public Comments

I/M/O Greenhouse Gas Emissions Portfolio Standard and

Other Regulatory Mechanisms to Mitigate Leakage

BPU Docket No. EO08030150

The New Jersey Department of the Public Advocate, Division of Rate Counsel (“Rate Counsel”) submits the following comments in the referenced matter regarding greenhouse gas emissions (“GHG”) and leakage. Rate Counsel appreciates the New Jersey Board of Public Utilities’ (“Board”) efforts at addressing the statutory requirements of P.L. 2007, c. 340 § 12 (January 13, 2008) (the “Act”), *N.J.S.A.* 48:3-49 *et seq.* by adopting its March 18, 2008 Order in this matter (“Leakage Mitigation Order”). Rate Counsel understands and supports the desire of the Governor and Legislature to reduce GHG emissions. Following Rate Counsel's consideration of the proposals that have been identified to date, however, we believe these proposals will fail to be effective in preventing leakage and reducing GHG for a fundamental reason: In the absence of a national GHG program, energy efficiency measures are the only cost effective, legal method to actually reduce leakage and the resulting GHG emissions. Any other New Jersey-only measures that would be effective in mitigating leakage, would either violate the U.S. Constitution's Commerce Clause or involve excessive costs to New Jersey ratepayers.

In addition to commenting in response to the nine questions contained in the

Leakage Mitigation Order, these comments will address the proposals discussed at the working group meetings and also provide Rate Counsel's recommendations for the Board's consideration. The following summarizes our main points and recommendations about the issues raised by Docket EO08030150:

- There is no rational basis for eliminating consideration of energy efficiency as a solution to mitigate the effects of leakage;
- PSEG's Leakage Proposal<sup>1</sup> will add \$50 million annually to NJ ratepayer costs without any environmental benefit;
- Other potential policy measures are premature to consider unless and until New Jersey first pursues energy efficiency as the policy to reduce leakage;
- The Board should communicate to the legislature the incongruity of a process that seeks input on measures to reduce leakage without being able to include the single and largest likely policy measure that could satisfy the legislature's intent and request an amendment to the Act; and
- Rate Counsel strongly recommends that the Board work with stakeholders to implement coordinated energy policies, as proposed in the Energy Master Plan, that will result in increasing energy efficiency as quickly as possible.

### **The Need for Energy Efficiency**

In January 2008 the New Jersey legislature adopted amendments to the Global Warming Response Act requiring the Board to initiate proceedings that would result in the adoption of a GHG emissions portfolio standard or other regulatory mechanisms to mitigate leakage no later than July 2009. PL 2007, c. 340, § 12 (January 13, 2008)

Under this legislation, energy efficiency is specifically precluded from consideration as a leakage mitigation measure unless the New Jersey Attorney General issues an opinion finding that other measures that are being considered would violate the Commerce Clause

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<sup>1</sup> PSEG named its leakage mitigation proposal the "Carbon Abatement Program". Because PSE&G has an energy efficiency program named "Carbon Abatement" pending before the Board, Rate Counsel's comments will call PSEG's proposal in this docket as "PSEG Leakage Proposal".

of the United States Constitution. *Id.* This legislative direction eliminates from consideration the single policy measure that is most likely to be effective in mitigating leakage in the absence of a national GHG program.

The exclusion of energy efficiency as a measure to be considered by the Board inherently conflicts with the recommendations made by a multi-state working group established by the RGGI Agency Heads to study emissions leakage and possible policy responses. In March 2008 the working group issued its final reports, entitled “Potential Emissions Leakage and the Regional Greenhouse Gas Initiative” (the “RGGI leakage report”). Energy efficiency was identified as the key policy measure that RGGI states should pursue to reduce electric demand, and thus the need to import electricity from other states.

The RGGI leakage report categorizes policies that could reduce leakage and help to ensure that GHG emissions decrease. Measures related to energy efficiency are classified as “Category 1” measures, and the report recommends these be implemented first by the RGGI states. Category 2 and 3 measures were specifically identified as measures to be considered later, after implementation of Category 1 measures, and after an evaluation as to their effectiveness. The RGGI leakage report was a product of all the RGGI states. The release of the report was agreed upon by representatives of all of the RGGI states, including New Jersey. Rate Counsel notes also that energy efficiency is identified in the draft New Jersey Energy Master Plan as a key means to achieve the State’s energy goals.

Energy efficiency should be the primary focus of the Board’s efforts to reduce electricity imports. No other policy measures will ensure that the anticipated

environmental results, *i.e.*, reductions of GHG emissions, will occur without violating the Commerce Clause or creating excessive costs to ratepayers. Focusing on energy efficiency also helps New Jersey plan for and anticipate implementation of a national program to reduce GHG emissions. Any other policies considered by the Board may have to be revised or eliminated in order to synchronize with whatever might be necessary under a federal GHG program. We recognize the limitations placed on the Board in the legislation, but the Legislature has inexplicably removed the best and most cost-effective tool available to reduce leakage.

The legislature's direction to the Board to address and mitigate RGGI leakage without considering energy efficiency is unworkable. There is no rational basis for eliminating consideration of energy efficiency as a solution. Given the unnecessarily restrictive scope, the Board should consider seeking an amendment to the RGGI legislation to allow the Board to consider and evaluate all potential policies that could reduce emissions leakage.<sup>2</sup>

### **PSEG Leakage Proposal**

PSEG's Leakage Proposal seeks to effect changes in electricity dispatch by subsidizing in-state natural gas generation. There are several flaws in this proposal which, despite several questions to PSEG at both the April 30<sup>th</sup> and June 5<sup>th</sup> meetings, continue to raise serious doubts about its efficacy and costs. Rather than pursue this issue any further, we recommend that the Board drop the PSEG Leakage Proposal from consideration in this docket. The flaws we have identified include:

- The \$2.50/MWh (estimated value of one carbon abatement credit) represents a

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<sup>2</sup> In Rate Counsel's earlier comments during this process we noted that the Board should have the benefit of the Attorney General's opinion, which may provide some clarity in providing a practical solution to the questions presented.

direct transfer of over \$50 million annually from New Jersey ratepayers to New Jersey generators without any identified environmental benefits. This amount is based upon New Jersey's 2007 electricity consumption (EIA data) and information from PSEG on the estimated amount of electricity imported into New Jersey<sup>3</sup>; and

- In order for gas plants to displace coal in the PJM dispatch queue, and thus achieving GHG emission reductions, a subsidy of about \$50/MWh would have to be directed to the gas plants. Using the same data as were used in the bullet above (per footnote 1), the true financial incentive needed to displace coal would amount to over \$1.05 billion annually, creating an effective rate increase of 1.25 cents per/kWh for every one of the four million electric customers in New Jersey<sup>4</sup>.

This \$50/MWh price and its uncertain benefits compares poorly to the known benefits of energy efficiency programs, which are achieving savings equal to or greater than 1% of annual electricity sales at a cost of \$25-35/MWh<sup>5</sup>. Reducing demand will decrease the need to import electricity and benefit New Jersey's ratepayers in two ways: directly, through reduced bills for consumers that install more efficient appliances, lighting, etc., and indirectly, for all ratepayers by reducing peak hourly electricity prices.

Rather than devote additional time or resources to answering questions about the PSE&G Leakage Proposal or requiring PSE&G to conduct additional analysis, we recommend that the Board simply discard this proposal since its flaws are so fundamental that they will remain regardless of how much additional analysis is completed.

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<sup>3</sup> Based on United States Energy Information Administration ("EIA") data, 2007 consumption in New Jersey was 80.7 million kWh. PSEG estimates that the minimum amount of electricity imported into New Jersey is 26%.

<sup>4</sup> During the June 5<sup>th</sup> working group meeting, PSEG agreed with Rate Counsel's May 16<sup>th</sup> comments that a price differential of \$50/MWh would be needed to effectively displace coal from the PJM dispatch order. PSEG also admitted that its proposal would be insufficient to displace coal from the dispatch order, but its representatives indicated that PSEG Leakage Proposal would result in a situation where less efficient natural gas plants operated fewer hours and more efficient plants operated for more hours. Rate Counsel and others asked whether PSEG had conducted modeling or other analysis to confirm this effect. PSEG indicated that it had not completed any modeling, but the effect it noted was its belief based on its knowledge of how the electricity system operates.

<sup>5</sup> Connecticut, Massachusetts, Washington State, California energy efficiency program data for the period from 2000-2006. Some newer programs, like that of Fort Collins, Colorado, are achieving savings at less than \$20/MWh.

## **RAP Proposals**

The Regulatory Assistance Project (RAP) also presented its proposals at the April 30<sup>th</sup> RGGI leakage working group meeting. While these approaches hold some promise as a starting point for discussion of regulatory mechanisms that might be considered to mitigate leakage, Rate Counsel believes it is premature to consider any measures other than energy efficiency. Any other measure that would be effective in mitigating leakage would have to impose an effective carbon price at considerable cost to ratepayers, or impose implicit or explicit barriers to electricity imports into New Jersey, thus creating potential Commerce Clause violations. In the absence of other RGGI states adopting similar policies, we are also concerned that a New Jersey-only policy would place additional premiums on electricity sold into the state, since it would need to be distinguished from that sold to other states. Because of the likely costs and risks of other leakage mitigation measures, Rate Counsel believes it would be premature to consider such measures until New Jersey has first made every effort to pursue energy efficiency.

## **BPU Order EO08030150: Addressing the “Nine Questions” Posed By the Leakage Mitigation Order**

The Leakage Mitigation Order, BPU Order EO08030150, invited interested parties to address each of nine questions posed by the Board. Rate Counsel has separated the recommendations related to the PSEG and RAP proposals, as noted above, since those were the only proposals specifically presented to the working group as part of this process.

**1. Is RGGI expected to cause an increase in imports of electricity into NJ?**

The simple answer is that no one really knows for sure. The theory is that, by placing a cap on carbon, states within RGGI will pay a slightly higher price for electricity than those states that do not have mandatory carbon caps. Conceptually, this price differential could lead to additional quantities of electricity imported from high carbon dioxide emitting sources from outside RGGI into New Jersey. There are, however, many other confounding and potentially contradictory factors. Annual weather patterns alone can affect the amount of electricity consumed.

According to modeling conducted for RGGI by ICF International, a consulting firm, implementation of RGGI would add 1-3% to electricity rates within the RGGI states. Natural gas generation sets the marginal hourly clearing price in New Jersey. The forecast 1-3% price differential will not change this fundamental effect. This small increase also will not change the economic differences between generators operating in restructured areas v. those in regulated areas. Less expensive units located outside of the RGGI states will continue to export their generating output, from locations where they have access to transmission and the ability to contract with load serving entities inside the RGGI states. If the IPM<sup>6</sup> modeling is correct, the 1-3% increase in rates may lead to slightly higher imports, and thus leakage into RGGI, but other factors, mainly the differential costs between natural gas and coal generation are much more significant and will continue to cause electricity to be imported into RGGI whether there are carbon constraints or not.

**2. How would such an increase affect statewide goals, which also consider out-of-state emissions driven by NJ consumption?**

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<sup>6</sup> "IPM"- Intergrated Planning Model run by ICF.

With any increases in the amount of imported MWh, the benefits of RGGI will be diluted. Construction of one new coal plant, or an increase in the hours of operation from an existing coal plant, will more than offset New Jersey's share of the RGGI reduction goal. However, as discussed above, it is uncertain whether RGGI implementation will cause such an increase.

**3. Extent to which RGGI will cause differential in electricity cost between in and out of state generation?**

This amount of differential will not change the dispatch order. RGGI modeling, conducted by ICF, reflected that electricity rates within RGGI states would increase by 1-3% or by \$1-5/MWh over the period from 2009 to 2015. RGGI will result in the inclusion of a carbon price to each MWh, and this effect will be more pronounced for coal than for oil and gas. The Electric Power Research Institute ("EPRI") a non-profit organization funded by the electric utility industry, has conducted evaluations of the effects of carbon prices on various generation types to determine the degree to which a carbon price could change the order of resources dispatched in a particular power pool<sup>7</sup>. EPRI's analysis indicated that an effective carbon price equal to \$50/MWh would be required to change the dispatch order from coal being favored to one that favors natural gas. The \$1-\$5 price will be insufficient to displace coal as a baseloaded resource, or to discourage the imports of coal into RGGI from other regions that do not have carbon caps.

**4. What measures are available to mitigate leakage?**

The Board has raised several good questions in this section, but none of these measures would be effective at reducing leakage. Each would result in additional costs to

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<sup>7</sup> *The Change in Profit Climate: How will carbon-emissions policies affect the generation fleet?*; Victor Neimeyer, Electric Power Research Institute, Public Utilities Fortnightly, May 2007.

New Jersey ratepayers, potentially violate the Commerce Clause of the U.S. Constitution, or provide no environmental benefits. Energy efficiency is the best, first and most cost-effective measure that the Board should pursue to reduce demand and the need to import electricity into New Jersey. Other leakage mitigation measures that have been proposed are as follows:

**a. carbon procurement adder**

This policy option would require a retail service provider to include a shadow price for GHG emissions into its financial analysis of various options that it is considering, to recognize the global warming risks caused by electricity generation. California has a procurement adder of \$8/MWh.

**b. requirement on long-term contracts to meet specific emissions rate**

An environmental portfolio standard (EPS) would be applied to all long-term electricity contracts, applicable to in- and out-of-state providers. An EPS is expressed in terms of pounds of carbon dioxide per MWh (lb CO<sub>2</sub>/MWh). Providers would be required to assemble a portfolio of resources that meets the EPS.

**c. overall cap on emissions at retail level**

This proposal was presented by the Regulatory Assistance Project (RAP) on April 30, 2008. We discuss it separately above.

**d. creation of RGGI certificates**

For these comments, Rate Counsel will assume that the Board is referring to the PSE&G Leakage Proposal also presented on April 30, 2008, and have provided our comments on that proposal above.

All of these measures have weaknesses as set forth in paragraphs 5 and 6.

**5. What is the experience in other states to mitigate leakage?**

**a. carbon procurement adder**

The California Public Utilities Commission initiated a carbon procurement adder in December 2004<sup>8</sup>. This decision was made prior to the initiation of the Western Climate Initiative (WCI), a regional effort, like that of RGGI but with an economy-wide focus, to reduce GHG emissions 15% from a 2005 baseline by 2020. Implementation of California's plan may result in contract shuffling. Contract shuffling refers to a practice where electricity with lower GHG emissions is allocated to a different market area as a result of new environmental requirements, but where the total quantity of electricity generation does not change. Generation with higher GHG emissions is simply contractually allocated to buyers that do not have GHG emission constraints. No net environmental benefits are achieved, but the "cleaner" electricity sent to the state with the carbon constraints may be sold at a higher prices due to the requirements to reduce GHG emissions from the electric sector in that state.

**b. requirement of long-term contract to meet specific emissions rate**

California applies an emission standard of 1100 lb/MWh to all long-term contracts to both in- and out of state suppliers. There is some anecdotal evidence that California actions have caused some Nevada coal plants to defer or cease construction plans. However, it is also likely that the affect of California's policies are increased construction costs, thereby requiring a diligent evaluation of the proposed plant's economics by the state public service commission. There is also the danger of contract shuffling.

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<sup>8</sup> California Public Utilities Commission Decision 04-12-048, December 16, 2004

California is the only state that has passed any legislation or adopted regulations. Massachusetts and Connecticut have statutes that include specific emissions rates, but neither state has adopted implementing regulations, so there is no experience to report.

**c. overall cap on retail sales of electricity**

**d. creation of RGGI certificates**

Neither option c nor d has been proposed or implemented in any state.

- 6. For each measure proposed to mitigate leakage:**
- a. effect on NJ retail electric prices**
  - b. extent to which it would work to mitigate leakage; and**
  - c. what work is involved to develop and implement the measure and what is the estimated cost?**

The likely costs and effects of each of the proposed leakage mitigation measures are set forth in the following chart.

	Carbon Procurement Adder	Requirement of Long-term Contracts to Meet Specific Emissions Rate	Overall Cap on Emissions at Retail Level (RAP Cap and Count)	Creation of RGGI Certificates (PSEG)
a. Retail rate effects?	Increase	Increase	Increase	Increase
b. Would it work?	No, will lead to contract shuffling	No, will lead to contract shuffling	Has not been tried before.	Has not been tried before. Would not mitigate leakage
c. 1 Implementation requirements?	Legislation and Rulemaking	Legislation and rulemaking	Legislation and rulemaking	Unknown, likely legislation and BPU rulemaking
c. 2 Costs?	Unknown Administrative	Unknown Administrative	Unknown	Unknown high

**7. How can a NJ EPS, or other measures, be designed so that they avoid merely shifting emissions elsewhere w/o affecting generation. Will this result in cost to consumers with no environmental benefit?**

Rate Counsel's believes that none of these policy measures will be effective in preventing leakage and reducing GHG emissions. A fundamental reason why they would not work is that in order to be effective, a GHG program would either violate the U.S. Constitution's Commerce Clause or impose high costs on New Jersey ratepayers. Consequently, a national program and/or energy efficiency measures are the only cost effective, legal alternative to actually reduce leakage and the resulting GHG emissions.

**8. How can NJ best track emissions?**

Board staff should work with PJM to require that the following components be tracked through the Generation Attribute Tracking System (“GATS”):

- Amount of electricity sold into New Jersey from RGGI PJM states;
- Amount of electricity sold into New Jersey from non-RGGI PJM states;
- Amount of electricity sold into New Jersey from RGGI non-PJM states;
- Amount of electricity sold from New Jersey to RGGI PJM states;
- Amount of electricity sold from New Jersey to non-RGGI PJM states;
- Amount of electricity sold from New Jersey to RGGI non-PJM states
- For each of the six categories above, allocate the GHG emissions to the amount of electricity;
- For each of the six categories above, identify the plant name and municipality for each generation asset. We are aware that this level of precision might be difficult;
- For each of the six categories above, identify the type of contract and GHG attributes; and

The information listed above would help to assess and evaluate electricity imports into New Jersey and the associated environmental effects. For example, opportunities for contract shuffling may occur from implementing RGGI. It would be useful to know

whether load-serving entities (“LSEs”) in New Jersey have changed the type of electricity contracts being executed, and whether operations at particular generating plants have changed. Rate Counsel stands ready to participate in further efforts to work with PJM to explore further enhancement to GATS.

Information from GATS should be gathered and compiled so the public can understand how New Jersey is progressing in its efforts to reduce GHG emissions. Information should be in a format so that it is useful to the public, policy makers and stakeholders.

During the June 5, 2008 working group meeting, a representative from PJM explained the efforts being made by that RTO to increase transparency of data submitted and reported through GATS. The discussed revisions will improve the quality of information available to NJ regulators about electricity that is sold, imported or exported in PJM. In the answer to a question from Rate Counsel, the PJM representative also agreed that it could prepare a New Jersey specific report each year to assist the state to better assess electricity imports and exports, their origin, and their emissions attributes. The above bullets are Rate Counsel’s attempt to describe information that GATS could provide that would be most useful to increase the transparency of electricity sales information. Based on the PJM presentation, Rate Counsel also understands that GATS is designed to track attributes, and not dispatch. The Board may need to consider recommending the adoption of additional rule changes in PJM to assess the degree to which the implementation of RGGI has contributed to any changes in the order or hours of operation of generating units in PJM.

**9. How can leakage mitigation measures be designed to not conflict with the commerce clause?**

To pass scrutiny under the Commerce Clause, measures designed to mitigate leakage would have to place equal restrictions on in-state and out-of-state sources and could not discriminate against any out-of-state sources. Any incidental burden on interstate commerce would have to be outweighed by the benefit to New Jersey citizens. Given these constraints and the inherent interstate impact of the leakage problem, no measure considered by the Board will be as effective as energy efficiency at reducing electricity demand, reducing GHG emissions, and reducing costs to NJ ratepayers.

**Conclusion**

Energy efficiency is the key policy measure that the Board should pursue to reduce electricity consumption, and thus the need to import electricity into the state. This conclusion is also supported by the RGGI leakage report which emphasizes Category I measures, all focused on energy efficiency, as a first priority for implementation. Energy efficiency also avoids triggering the Commerce Clause, like most of the other policy measures being considered appear to do, and the performance and persistent benefits of energy efficiency are known and can be measured. Rate Counsel appreciates the efforts of the Board to engage stakeholders in this discussion on potential policy measures that could help to ensure that New Jersey's GHG emission reduction commitments are achieved, and not diluted from the effects of imported electricity from states outside of RGGI. We believe the legislative direction to the Board to exclude energy efficiency is unworkable and without a rational basis. Any policies the Board considers in the absence of energy efficiency will not be as effective, will result in increased administrative and ratepayer costs, and will not achieve the desired objective to reduce the effects of

leakage.

Policy measures considered by the Board in the context of the Leakage Mitigation Order also need to be reviewed in light of their ability to synchronize with a national program to reduce GHG emissions. Since the detailed components of a national GHG program are still fluid at this point, we believe the safest and most cost-effective approach is to continue to ramp up energy efficiency programs and to ensure that the proceeds from the RGGI allowance auctions are directed towards consumer benefits and reducing electricity demand.