



**EDISON ELECTRIC  
INSTITUTE**

QUINLAN J. SHEA, III  
Executive Director, Environment

June 17, 2005

Mr. Franz Litz, Esq.  
Chair of the Regional Greenhouse Gas Initiative  
Senior Attorney, New York Department of  
Environmental Conservation  
625 Broadway, 14<sup>th</sup> Floor  
Albany, New York 12233-1500

Dear Mr. Litz:

Please find attached comments submitted by the Edison Electric Institute (EEI) regarding issues raised by the modeling results presented to date in the Regional Greenhouse Gas Initiative (RGGI). EEI is participating in the RGGI process as an interested observer, and takes this opportunity to comment in advance of the next meeting of the heads of the state environment programs for the nine RGGI states. EEI respectfully requests to have its comments posted on the RGGI web site.

EEI is the association of U.S. shareholder-owned electric companies, international affiliates and industry associates worldwide. EEI's U.S. members serve nearly 95 percent of all customers served by the shareholder-owned segment of the industry, generate more than 70 percent of all electricity in the country, and serve nearly 70 percent of all ultimate customers in the nation.

We also call to your attention a very serious deficiency of the RGGI process – the lack of availability of detailed modeling results. The release of detailed modeling results is crucial for better understanding the potential impacts of the program. We urge RGGI to make publicly available the detailed results from the most recent modeling runs and, as a matter of policy, to make such results available for future modeling runs.

We appreciate the opportunity to comment on issues raised in the RGGI process date, and plan to comment further on these issues once the model rule is finalized. If you have any questions or would like to discuss our comments further, please do not hesitate to contact me, Bill Fang (202/508-5617, [bfang@eei.org](mailto:bfang@eei.org)) or Eric Holdsworth (202-508-5103, [eholdsworth@eei.org](mailto:eholdsworth@eei.org)).

Sincerely,

A handwritten signature in black ink, appearing to read 'Quinlan J. Shea, III', written over a horizontal line.

Quinlan J. Shea, III

Enclosure

WLF:eh

**EEI Comments on RGGI Modeling Results**

Recent modeling results, and their underlying assumptions, presented at public stakeholder meetings raise a number of concerns regarding the ability of the Regional Greenhouse Gas Initiative (RGGI) process to achieve reductions of carbon dioxide (CO<sub>2</sub>) in a cost-effective manner without penalizing regional generators. This paper addresses the following issues:

- Leakage.
- Natural gas supply and infrastructure.
- Renewable energy projections.
- Reliability and transmission concerns.
- Offsets availability.

A very serious deficiency of the RGGI process to date must be noted at the outset – the lack of availability of the detailed modeling results. Industry stakeholders have repeatedly called for the release of the detailed modeling results in order to better understand the potential impacts of the program. As noted in a recent press report, out of the multiple runs completed to date, only details behind one of the modeling runs has been made available, yet the modeling “is expected to be a critical basis for states in deciding how strictly to limit emissions.” *Inside EPA*, April 22, 2005. Having to rely on PowerPoint slides – the only method through which the recent modeling results have been released – does not allow stakeholders and observers to fully understand, and therefore comment on, the modeling results and underlying assumptions. **We urge**

**RGGI to make publicly available the detailed results from the most recent modeling runs and as a matter of policy to make such results available for future modeling runs.**

### Overview

Perhaps the most significant concern from a policy-making perspective raised by the recent results is that they seriously call into question the ability of the RGGI program to be applied on a national basis. The modeling results show that in order to minimize the costs impacts, the RGGI program will have to rely on imported electricity for a significant portion of the required reductions. Another significant share of reductions is achieved through the use of offsets, comprised primarily of credits from the clean development mechanism (CDM) and joint implementation (JI) programs under the Kyoto Protocol, which have not generated a single offset credit to date. A third area of critical concern is the reliance of the modeling results on natural gas supplies and infrastructure – neither of which was subject to any limitation – and unrealistic projections of available renewable energy. Each of these areas is discussed in greater detail below. **RGGI policy-makers should pay particular attention to these results and their implications for developing an effective program.** A regional program that meets its reduction target by reducing internal generation and increasing the importation of energy will not be viewed as a national model. Neither will a program that increases reliance on imported natural gas, both from an energy security standpoint as well as from a reliability standpoint.

I. Leakage

As noted above, a principal concern with the potential impacts of the RGGI process is the un-addressed issue of leakage. According to recent press reports, states in the RGGI region “will likely put off a decision on how to offset a potential increase in CO<sub>2</sub> emissions in other parts of the country resulting from the regional controls.” *Inside EPA*, April 18, 2005. The article goes on to note that “states participating in RGGI believe leakage is a major concern because the added emissions outside the region could offset any reductions they achieve.” Detailed modeling results released at the February 2005 public stakeholder meeting showed that a reduction target of 15 percent below 1990 levels by 2015 would yield 15 million metric tons of CO<sub>2</sub> in reductions inside the RGGI region but that this would be largely offset through an increase in CO<sub>2</sub> emissions outside the region of 10 million metric tons.

There are two significant issues here. One is that, left unaddressed, the RGGI program will be subject to criticism as inappropriate as a national model due to the leakage factor. **A second, and even more significant issue, is that regional generators will be adversely impacted – and likely forced to reduce their generation – in order to meet the RGGI reduction targets. This would be a contradictory goal for the RGGI process since generation in the Northeastern states is already among the least carbon intensive in the nation and it would most likely be supplanted by coal-fired generation from outside the region. It would be both ironic and counterproductive**

**if RGGI were to decrease CO<sub>2</sub> emissions in the RGGI region but increase CO<sub>2</sub> emissions outside the region.**

At a recent public briefing, RGGI officials noted that the significant difference in economic impacts between a “RGGI-only” policy and a RGGI policy implemented in conjunction with a U.S. and Canadian cap on emissions is that under the RGGI-only policy, RGGI states can “buy” their reductions by purchasing electricity from outside the region, an option that does not exist under the other scenario. A press report on the recent RGGI modeling results also highlighted this issue, concluding that “the economic impact of the program would skyrocket under this scenario [a RGGI policy implemented in conjunction with a U.S. and Canadian cap on emissions], according to the model, because generation could not increase emissions in other parts of the country.” *Inside EPA*, April 22, 2005.

## II. Natural Gas

Another significant concern with the recent modeling results is the reliance on unrealistic levels of natural gas supply to help meet the targets. Even when the model allows coal plants to be built, the models show a significant shift to gas-fired generation, making this a key assumption for achieving the RGGI target. Yet the modelers and RGGI officials have repeatedly acknowledged that the modeling did not need to worry about supply or distribution constraints. Supply is a primary concern. It is dangerous to base policy largely on the questionable availability of a single fuel source, and it is not a reasonable

policy on which a national program could be based given national energy security concerns.

The RGGI modeling would require significant imports of natural gas, mainly from Canada, at a time when Canada is a) implementing the Kyoto Protocol and b) considering phasing out its coal plants and relying more on increased hydropower and gas-fired generation. These concerns are supported by the American Gas Foundation's *Natural Gas Outlook to 2020: The U.S. Natural Gas Market – Outlook and Options for the Future* (February 2005), which noted that “even with substantial natural gas resources in the ground, merely sustaining annual gas production will challenge domestic producers” and that “the trend of steadily increasing natural gas imports from Canada is likely over.” Relying on increased imports on liquefied natural gas (LNG) is also problematic, given the difficulties of siting new LNG terminals in the Northeast (*e.g.*, Providence, Weaver's Cove, and Broadwater).

Even if natural gas supplies were to be available, the region does not have an adequate infrastructure for ensuring the gas could be delivered to customers. One example of this constraint is reflected in the premium price that consumers in the Northeast pay for natural gas compared to the rest of the nation. As of April 2005, gas futures prices for some states in the RGGI region were almost 50 percent more than the national average for January 2006 delivery. In addition, the ISO New England's *RTEPO4 Technical Report* stated that “New England has long been at the end of the nation's natural gas

pipeline system.” In discussing a January 2004 cold weather event, the report noted that “while there was ample gas supply beyond the Northeast, the availability of gas transportation for non-firm customers within New England was a limiting factor and a root cause of both high gas prices and gas unit unavailability.” The RGGI programs could exacerbate these constraints. Simply put, the number of possible new gas plants is limited by gas infrastructure and demand, and therefore should be limited in the modeling, or the modeling should be adjusted to reflect the costs and the time needed to build new gas pipelines.

### III. Renewable Energy

The RGGI modeling results forecast the availability of 6,000 megaWatts (MW) of wind-powered renewable energy by 2006 as part of the base case scenario, with the amount of renewable energy used in the region growing to 10 percent by 2024. This assumption ignores the realities of the current situation. In the Northeast, currently there are only 55 MW of wind power operating,<sup>1</sup> and a number of proposed wind farms face significant public opposition, most notably the 420-MW Cape Wind project. Further, many utilities have had difficulty purchasing the required amounts of renewable energy for resale to meet state renewable portfolio standards in the Northeast. In many cases, retail suppliers have instead paid compliance penalties.

---

<sup>1</sup> Source: U.S. Energy Information Agency (EIA).

Regarding future availability of renewable energy, the U.S. EIA in its *Annual Energy Outlook 2005* (February 2005) notes that "renewable fuels are projected to remain minor contributors to U.S. electricity supply" and will decline from 9.3 percent of total U.S. generation in 2003 to 8.5 percent in 2025. Further, a high penetration of intermittent renewable resources may result in a higher internal reserve margin requirement than currently necessary, and also the need to maintain a higher number of capacity units in the market. This may be problematic, however, if those same must-run units are retired under the modeling to comply with the RGGI reduction requirements.

#### IV. Reliability and Transmission Concerns

The natural gas infrastructure cannot support an unlimited number of new gas-fired power plants in addition to needs that will arise from increasing future domestic and industrial demand. This raises concerns about system reliability and energy security. Consideration must also be given to the finite electric transmission system necessary to support new power plants or fill voids created by retirements of existing facilities. The modeling performed to date does not adequately reflect the risks to reliability and energy security or the financial costs and timing required to resolve the transmission and gas transportation improvements.

#### V. Offsets

**RGGI should not limit the use of offsets under the program.** There is no reason for artificially restricting the modeling of offset projects to landfill methane gas, SF<sub>6</sub>

reductions and afforestation, which limit the reductions achievable through this mechanism. Both the European Union (E.U.) and Kyoto Protocol emissions trading systems recognize a wide variety of projects. As the presentation at a RGGI public stakeholder meeting by Denny Ellerman of the Massachusetts Institute of Technology (May 20, 2004) demonstrated, offset activities of all types play a vital role in helping reduce the economic impacts of meeting a carbon cap. In addition, because climate change is a global issue, a ton reduced overseas or outside the RGGI region has the same effect on the atmosphere as a ton reduced in the RGGI region.

Several generators that will be subject to the RGGI program have engaged in significant sequestration offset projects. The use of credits from those projects should be allowed, and development of carbon reduction and sequestration projects should be encouraged regardless of where they occur. In addition, we support the call from KeySpan Energy (January 7, 2005, letter posted on the RGGI website) for the inclusion of the conversion of residential and commercial heating systems and of other small-to-moderate combustion sources to natural gas as viable offset projects.

The recent modeling results demonstrate that offsets will play a critical role in meeting the RGGI targets. In particular, offsets from the CDM are the source of most of the offset reductions, as opposed to those from the RGGI short list. However, the CDM and E.U. permit assumptions are overly optimistic. While the price range may be accurate, the assumption that an unlimited pool of these credits will be available to RGGI is

erroneous. At a recent public meeting, World Bank officials indicated that they believe the CDM will provide less than one-fifth (500 million metric tons) of the total reductions needed through the CDM for countries to be in compliance with their Kyoto Protocol targets by 2012. In fact, to date the CDM and JI programs have not resulted in the issuance of a single credit, and only a handful of projects have been approved. Thus, it is highly questionable if a significant amount of credits will be available from the CDM, and it is impossible to believe that an unlimited supply of such credits will be available for RGGI.

Assuming CDM credits were available, it is more likely they would be bought up by industries in countries subject to a reduction target under the Kyoto Protocol, since the CDM is one of the flexibility mechanisms established by the Protocol. However, the legality of allowing the use of CDM credits in the U.S. is another issue. Regarding permits from the E.U. emissions trading system (ETS), it also is more likely that European industries will buy them up, or insist they have the right of first purchase, before allowing U.S. entities to buy them. This seems logical since permits from the ETS are issued by European governments based on a national allocation plan for the covered sources in a particular country. Purchase of these allowances by non-European entities, such as U.S. firms, would reduce the pool of available allowances under the ETS and negatively affect covered E.U. entities.