



NRG Energy, Inc.
Environmental & New Business
211 Carnegie Center
Princeton, NJ 08540
Phone: 609.524.4983
Fax: 609.524.4501

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Regional Greenhouse Gas Initiative (RGGI) Staff Working Group
rggicomm@gw.dec.state.ny.us

NRG is a leading wholesale power generation company, primarily engaged in the ownership and operation of power generation facilities and the sale of energy, capacity and related products in the United States and internationally. In the Regional Greenhouse Gas Initiative (RGGI) applicable states, NRG owns just over 7,700 MW or a little over 8% of the installed fossil-fired generation. As such, we are a significant regional stakeholder.

NRG appreciates this opportunity to comment on the Draft Model Rule. This letter outlines overarching issues that must be addressed for successful implementation of the RGGI. Specific comments on the language in the Draft Model Rule are attached. These comments are provided in the spirit of improving the Model Rule as written, but it should be noted that it is difficult to fully analyze the proposed language because issues that could fundamentally change the program are not addressed. The two most prominent are auctions and leakage.

We are encouraged that RGGI State Working Group plans an auction workshop. Similar to the Leakage Work Group, an Auction Work Group should be established to consider options for the auctioning of any allowances. Attention should be paid to the auction effectiveness along with potential impacts on energy prices, allowance prices, electric system reliability and the economies of the RGGI states.

The overarching issues are:

- Allowances should be allocated to affected sources and consideration should be given to a system based on fuel type.
- The model rule does not adequately address new units. New generation, other than renewables, will be needed to provide fuel diversity to maintain a reliable, affordable energy supply.
- Consistency among the states is key in order to have a robust allowance market.
- Any auction for the set-aside allowances should be conducted at least monthly and on a regional basis. The weighted average of auction prices can provide a center of liquidity to determine the value of allowances.
- Only affected units should be permitted to participate in any set-aside auction.
- Offsets meet the intent of the initiative in that they provide real greenhouse gas reductions. They will be critical for compliance. Creation of offsets should be encouraged, not limited by type, geography, or discounts. The model rule is far too

complex and results in far too many uncertainties for investors.

- Provisions should be made to provide relief in the event of a certified electric grid emergency.

NRG looks forward to working with the RGGI State Working group on the finalization of the Model Rule as well as with the individual state agencies as state specific regulations are developed.

If you have any questions or wish to discuss our comments, please feel free to contact me at (609) 524-4983.

Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Verne Shortell", written in a cursive style.

Verne Shortell

Executive Director, Environmental and New Business

Attachment A
Comments to the RGGI Draft Model Rule
NRG Energy, Inc May 15, 2006

Section XX 1.4– Applicability

Position: New units should be excluded from the program, until the new unit is able to receive a full allocation of allowances.

Comment: The region's three Independent System Operators each have identified the need to expand capacity for fuel diversity and reliability purposes in the next few years. The addition of these needed facilities could result in significant increased emissions in relation to the current size of the cap. With the help of a working group on this topic, the Draft Model Rule should be revised to contain specific standard provisions for new units that allow these needed units to be built, without affecting the ability of essential existing units to operate under the cap.

For new units, a set aside alone will be inadequate. New units should be excluded from the program, until the new unit is able to receive a full allocation of allowances. New units could be required to do monitoring and reporting upon start -up, but they should not be required to reconcile their emissions, at a minimum, during the first three-year control period following the start of commercial operation.

Section XX.5.2 – Timing Requirements for CO2 Allowance Allocations

Position: Source allocation determinations must be finalized by January 1, 2008.

Comment: At a minimum, the state regulatory agency should determine the CO2 allowance allocations for years 2009 – 2012 by January 1, 2008. Source allocations must be known in order to develop and implement compliance strategies. To make this determination by the start of the first compliance period means that sources would “lose” at least one year in implementing the strategy. Since the regional and state caps are very tight, any delay in the determination could mean that sources are not able to take advantage of opportunities, such as contracting lower emitting fuels, offset purchases, and allowance purchases.

Section XX 5.3(a) – General Allocations

Comment: The model rule should provide regional allocation guidelines.

Position: The model rule does not suggest a specific allocation method, but states that allocation provisions will vary from state to state with a minimum of 25% of the allocations going to the consumer benefit or strategic energy purpose allocation (CBSEPA). We believe the model rule should address, at a minimum, general guidelines for the participating states to assure program consistency and that the program basics are not compromised. If each state implements a fundamentally different methodology, program implementation may be burdened and possibly delayed, thus increasing program uncertainty. NRG suggests the Model Rule define a specific allocation method. This will benefit compliance and generation planning.

The individual state budgets were established based on the emissions of the eligible sources during the period 2000 –2004, with some minor modifications. It is then a simple leap to develop an allocation system based on those sources' emissions in the Baseline Period of 2003 – 2005. Since there is a mandated 25% set aside of the states' allowances

for the CBSEPA, it is imperative that the remaining allowances be allocated to the eligible sources. This is the only way that the RGGI program will meet its goal to develop

“...a program to reduce carbon dioxide emissions from power plants in participating states, while maintaining energy affordability and reliability and accommodating, to the extent feasible, the diversity in policies and programs in individual states.”

The issue then becomes one of establishing an allocation program that will provide parity among the states and generators. Clearly, maintaining fuel diversity in the region is key if the RGGI intends to maintain energy affordability and reliability while lowering CO2 emissions. Recognizing that carbon control technology is not available, it is important that an allocation methodology, to the extent possible, not reward one fuel type while penalizing another. So, the correct allocation method is one that looks at the generators by the type of fuel used in the Baseline period and allocating by the fuel used.

Simply explained, the EPA AP-42 CO2 emission factor should be used for each fuel type (coal, heavy oil, distillate oil, and natural gas) as the emission rate. The highest annual heat input, measured in MMBTUs, for each affected unit in the Baseline Period should be multiplied by the appropriate emission factor to determine “allowable” CO2 emissions. Calculated allowable emissions for the state should then be totaled. If the total was greater than 100% of the available state allocation then, the allocations for all sources would be prorated among all the generators so that the total allocations equal the total available allowances.

There have been presentations made and discussions held during RGGI Stakeholder meetings concerning the merits of an allocation system versus an auction system for the sources’ allowances. Since RGGI must take all efforts to minimize the increase in electricity prices as a result of the program, the method by which sources obtain their allowances must be one that results in the generators having lowest carbon adder possible in their bid prices. A direct source allocation would result in the lowest cost to generators and the end consumer.

An auction system for the 75% (non-CBSEPA) allowances will result in higher adder prices than an allocation since:

1. Administrative costs of an auction must be factored into the auction price, which will result in high allowance prices than an allocations method.
 2. All allowances must be purchased for compliance.
 3. Purchase for retirement by entities other than affected sources can result in higher allowance prices resulting in higher costs of electricity.
 4. Purchase for speculation or to manipulate the market will result in higher allowance prices with no ensuing greenhouse gas reduction or public benefit.
- Again, higher allowance costs will result in increased energy costs.

An auction and the resulting higher carbon adder prices will result in higher electricity prices, particularly during the off-peak hours. During off-peak hours coal based generation tends to be on the margin. This means that the RGGI-located coal units will compete with non-RGGI coal units, especially those on the geographic RGGI border during the off-peak hours. Since the non-RGGI units will have a lower bid price, they will be dispatched ahead/instead of the RGGI units. These non-RGGI units, with potentially higher emissions

(including SO₂, and NO_x), would enjoy economic benefit while RGGI units are penalized.

Section 5.3 (b) – Consumer Benefit and Strategic Energy Purpose Allocation

Position: The model rule should address reallocation of CBSEPA. For system reliability and generation planning purposes, the CBSEPA should be capped at no more than 25% and reallocation of the allowances, through a state allocation method or auction, should be limited to the generating sources.

Comment: Currently, the model rule does not address reallocation. After the CBSEPA is applied, generators are guaranteed and afforded only 75% of their baseline allocation. Lack of removal technologies, a very limited offset program, and the need for increased capacity in the RGGI region will increase the importance of these set aside allowances. If they are available for an unrestricted public auction, there is risk allowance would be removed from the program and not be available for generation compliance obligations. A shortfall in available allowances, could impact local system reliability.

XX-5.3 (c) Early Reduction Allocations

Position: The draft Model Rule (“Rule”) contains a provision for the creation and issuance of Early Reductions Allowances (“ERA”) for affected sources. NRG fully supports this approach with some modification.

Comment: ERAs should not be deducted from an individual state’s allocation for the first compliance period (2009 – 2011). All past cap-and-trade programs, such as the federal Acid Rain program and the regional NO_x Budget program, have permitted early reduction credits as a supplement to the established cap. This tried and proven incentive rewards companies who can and do lower their emission as an early effort to meet future targets. ERAs facilitate compliance in the critical first compliance period. The ERAs are an incentive, not a penalty for sources in a state that takes the initiative to reduce greenhouse gases early.

XX-5.3 (c) Early Reduction Allocations

Position: Clarification needed regarding plant shutdowns.

Comment: Section 5.3 states that total facility shutdowns are not eligible for ERAs. While not debating that merits of this action, the Rule must then, clarify that total facility shutdowns will still be eligible for an allowance allocation in the first allocation period specified in Section 5.2(a): 2009, 2010, 2011, and 2012.

XX-5.3 (c) (3) Early Reduction Allocations

Position: The Rule should use one equation to calculate the ERA; that being the difference between the Baseline CO₂ tons and ERP CO₂ tons, regardless of heat input.

Comment: The Rule contains two equations for the creation of the ERAs based on a comparison of a source’s heat input, measured in MMBTUs, for the Baseline Period (2003 – 2005) versus the Early Reduction Period (“ERP”) of 2006 – 2008. First, when the ERP heat input is lower than the Baseline heat input then, the ERAs are calculated based on the delta of source’s CO₂ rate, measure in lb/MMBTU, in the Baseline and ERP. Second, if a source’s ERP heat input is greater than the Baseline heat input then, the ERAs are simply calculated as the difference between the Baseline and ERP CO₂ tons. We understand that the intent of ERAs is to insure that the allocations issued are the result of actions taken at a site, which lowered CO₂ emission, rather than just a reduction in a source’s operations. In a case where the ERP heat input is lower than the Baseline heat input, a source should be required to submit a certification statement that the CO₂

emissions reduction was due to actions taken by the source. These actions would include an increase in the quantity of a lower emitting fuel, such as biomass or natural gas that is used by the source.

Add Section 5.3 (d) - New Source Allocation Provisions

Position: The model rule must make provisions for new generation growth. For new units, a set aside alone will be inadequate. New units should be excluded from the program, until the new unit is able to receive a full allocation of allowances. New units could be required to do monitoring and reporting upon start-up, but they should not be required to reconcile their emissions, at a minimum, during the first three-year control period following the start of commercial operation. (See comments on Section 1.4).

Comment: Currently, the model rule does not address allowances for new generation, specifically fossil fuel generation. (See comment on Section 1.4) Fuel diversity is needed to maintain a cost effective, reliable energy supply.

RGGI may discourage development of new clean coal technology in the participating states and, in fact, compromise the viability of clean coal projects already in the planning stages. Our analysis indicates, under the current state allocation scheme, many of the participating states would not be able to add new generation because the state budgets are limited and inadequate to add generation. For example, smaller states such as Connecticut and Delaware will hold approximately 8,133,777 and 5,678,090 allowances respectively after the 25% set aside. Most of these allowances will be consumed by existing generation. If a new generation source such as Integrated Gasification Combined Cycle (IGCC) was proposed, a typical 650 MW plant requiring about 4,545,000 allowances annually, would consume 56% of the Connecticut budget and 80% of Delaware's. Without significant retirements, there would not be enough allowances for new generation, thus limiting future generation options, impacting system reliability required to meet localized energy demand, and increasing the potential for leakage.

Add Section 5.3 (e) – Clean Coal Technology

Position: In addition, a portion of each state's 25% set aside should be saved for new clean coal generation.

Comments: The set aside should be implemented on a regional basis. Any unused portion can be returned to the states for redistribution to the existing generation sources.

XX-6 CO2 Allowance Tracking System

Position: Efficacy of the allowance tracking system is key and development should be initiated shortly.

Comment: The model rule establishes a CO2 allowance tracking system. The development and implementation of such a system is a major effort and should be started as soon as possible. In addition, because affected units have extensive experience with tracking systems a working group should be established to utilize that experience.

XX-6.5(a) (3) – Allowances Available for Compliance Deduction

Position: Reduce offset complexity. Once the Stage One Trigger event takes place, allow offset use up to 20%. Remove the Stage Two Trigger.

Comment: The trigger levels and scheme for the percent of offsets that a source can use are unnecessarily complex and significantly discourage offsets. Offset projects yield real reductions and should be encouraged. The uncertainty and complexity of the scheme will

make compliance planning and project financing difficult. There are too many offset use limits (3.3%, 5%, and 20%) to be efficient for a source to use. When planning a compliance strategy, it is critical that the limits and rules be fully described and understood in order to implement a strategy that will ensure compliance. Financing for offset projects will not take place with the uncertainty of the allowable offset pool as proposed.

Once the Stage One Event occurs, there should not be a reversion to the pre-event conditions. All of the characteristics that go into effect must remain at least until the planned program review takes place. To revert back to the pre-event conditions will only serve to cause confusion for the sources, with the risk of non-compliance and increased uncertainty for offset project financing.

Add xx-6.5 (e) - Electric Grid Reliability Emergency

Position: In the event of an electric grid reliability emergency, CO2 emissions from this period should be exempt from allowance requirements.

Comment: Operation during such an event should not be constrained by availability and cost of allowances. The following conditions should be met so as not to abuse this provision.

- (1) 'Certification of electric grid reliability emergency'. The Department must receive by the CO2 allowance transfer deadline a certification from the appropriate ISO that the source feeds an area that experienced one or more electric grid reliability emergencies during the control period. The certification must state the beginning and ending times (to the minute) of each electric grid reliability emergency;
- (2) 'Statement of intent and report of emissions'. The Department must receive from the source's CO2 authorized account representative both a statement of intent to exempt the source for compliance purposes and a report detailing the number of tons of CO2 emitted during the duration of each electric grid reliability emergency. The statement and report must be provided as part of the compliance certification report.

Subpart XX-7.1- Submission of Allowance Transfers

Position: Use the results of any auction of the allowances in the CBSEPA fund to determine the weighted average price.

Comment: The Rule proposes that the purchase or sale price of the allowances be included in any allowance transfer documentation for allowance transfers. It is these data that will presumably be used to determine the "volume-weighted average basis" that will be used to determine the Stage One and Stage Two Trigger Prices. This system is too complex and trading may be too sporadic. A large volume of allowances transfers may occur shortly before the compliance deadline, as seen in the Acid Rain and SIP Call/NOx Budget Program.

Should the states implement an auction, an alternative and simpler method to determine the market price of the allowances is to use the results to determine the volume-weighted average price. This approach should provide sufficient information regarding the market price of the allowances. Should auctions be used, they should occur monthly. Monthly auctions would provide a good database for calculation of the volume-weighted average allowance price.

XX-8.1 General Requirements

Position: Calculation methods for CO₂ as published in 40 CFR75 (CEMs) should be accepted to determine emission rates.

Comments: The Equation G-1 (40 CFR Part 75) determines the carbon emitted using fuel sampling and fuel feed rates. It is not clear why the draft model rule excludes this approach but consistency with the Federal regulations should be preserved as much as possible and, therefore, this approach should not be dismissed.

Position: Maintain consistency with Acid Rain rules.

Comments: Section 8.1(a)(1) In addition to references to 40CFR part 75.13 and 75.72, a reference to 40CFR Part 75.71 must be included. This will allow for the monitoring of peaking units that are not low mass emitters.

XX-8.5 Recordkeeping and Reporting

Position: Maintain consistency with Acid Rain rules.

Comments: 8.5 (d)(1) "The CO₂ authorized account representative shall report the CO₂ mass emission data and heat input data for the CO₂ Budget unit, in an electronic format prescribed by the REGULATORY AGENCY or its agent for each calendar quarter" should be changed to "The CO₂ authorized account representative or his or her delegated agent shall report the CO₂ mass emission data and heat input data for the CO₂ Budget unit, in an electronic format prescribed by the REGULATORY AGENCY or its agent for each calendar quarter" EPA 96.115 Delegation by CAIR designated representative and alternate CAIR designated representative specifically authorizes designated representatives the authority to delegate electronic submissions to the Administrator.

Position: Typo.

Comment: 8.5 (d)(2)(i) Typo: "REGULATORY AGENCY its agent" is missing an "or"

Position: Maintain consistency with existing guidance.

Comments: 8.5 (d)(2) This section should be consistent with the NYS RPS Biomass Guidebook. As far as we can tell this section is consistent.

Position: A plan to address the verification and reporting for non-Acid Rain sources still needs to be addressed.

Comments: 8.5 (d)(3) This section says to submit each quarterly report to the REGULATORY AGENCY or its agent and the reports shall be submitted in the manner specified in subpart H of 40 CFR part 75 and 40 CFR 75.64. The concern with this is that the EPA does not have a mechanism for reporting CO₂ emissions from for non-Acid Rain units. All reporting instructions for the current record types state that CO₂ emissions are reported for Acid Rain units only. Even with the revisions to the EDR reporting structure that the EPA is currently testing and finalizing, it is uncertain (and probably unlikely) that CO₂ data will be able to be submitted for these units. It is suggested that the SWG work with the affected sources and EPA to determine how the data will be submitted and quality assured for the non-Acid Rain sources. If the submittals follow the regulatory requirements why would a submittal beyond that required for the EPA be required?

Position: Maintain consistency with existing requirements.

Comments: 8.5 (d)(4) The compliance certification language is slightly different than EPA's and will require a special statement if you do submit to EPA. EPA data checking software will return an error message unless EPA is forewarned.

XX-8.8 Additional requirements to provide net output data.

Position: Reported output should account for parasitic load used to operate pollution control equipment.

Comments: Overall, CEMs monitoring should/must harmonize with Title IV (40 CFR 75) and NSPS Subparts Da, GG, and KKKK to reduce the burden on owners and operators. This includes the reporting of gross output (MWe and steam) as is done in present EDRs, not net output. It is recommended that only gross output data be used, consistent with current EPA reporting obligations. Gross output data accounts for parasitic load used to operate pollution control equipment. Failure to account for this energy penalty unjustly rewards uncontrolled sources.

XX-10 CO₂ Emission offset projects

Position: Offsets are real, cost effective greenhouse gas reductions that should be encouraged. RGGI can provide the economics to implement projects that would otherwise remain undone.

Comments: Instead of constraining the use of offsets through a high level of complexity and uncertainty, encourage new technologies and innovations to achieve real greenhouse gas reductions. To reduce offset complexity RGGI should allow offset use of up to 20% once the Stage One Trigger Event occurs and remove the State Two Trigger.

XX-10.3 General Requirements

Position: Provisions should be made to encourage offset projects beyond those listed.

Comments: The list of allowable projects is very prescriptive and limited. Any category of offset project that is real and verifiable should be included in the RGGI program. Add a category that sets criteria for projects not specifically listed, such as unit shut-downs, coal-bed methane recapture, and management of coal combustion products.

The RGGI MOU and Draft Model Rule should explicitly include reductions of any of the six major greenhouse gases, particularly since their climate change potential is often several times that of CO₂.

XX-10.7 Award of CO₂ Offset Allowances

Position: Certified projects from anywhere in the United States should be accepted.

Comments: CO₂ reductions from all sectors and regions should be encouraged because offsets are real greenhouse gas reductions. This discount, designed to penalize non-participating states, penalizes the regulated community in participating states. Time and again at RGGI stakeholder meetings, it has been stated that climate change is a national or global issue.

Position: After the declaration of a Stage One Trigger Event, certified projects from anywhere on the globe should be accepted.

Comments: Based upon the operation of the safety valve, the RGGI MOU allows the use of offset projects located anywhere in North America or from international trading programs. The language of the Draft Model Rule provides that offset projects may be located in States (within the United States), Mexico or Canada. The Model Rule needs to

include text that any projects certified under international Clean Development Mechanism (CDM) projects and the European Union (EU) program can be used automatically as an offsets project under the RGGI. Other currencies from around the U.S, such as those from the Chicago Climate Exchange, Oregon, and other programs, also should be included in the RGGI program.

Position: The use of offsets from the non-RGGI region should not be discounted.

Comments: CO2 reductions from all sectors and regions should be encouraged because offsets are real greenhouse gas reductions. This discount, designed to penalize non-participating states, penalizes the regulated community in participating states. Time and again at RGGI stakeholder meetings, it has been stated that climate change is a national or global issue.

In addition, the complexity of tracking the discount is unwieldy. The amount of offsets that are initially allowed are so small (3.3% initially), that it is unproductive to make the offset accounting so unwieldy.

Attachment B
Specific Questions Posed by RGGI
NRG Energy, Inc May 15, 2006

Introduction

In the RGGI document titled "States Solicit Comments on Draft Model Rule", dated March 23, 2006, there are specific questions raised concerning three issues related to offsets. These are additionality issues, creation of natural gas T&D offsets, and creation of natural gas, oil, and propane end-use energy efficiency offsets. NRG Energy ("NRG") provides its comments related to the Offset Additionality topic.

Offsets Additionality Issues

General Comments

As currently proposed, the draft Model Rule ("Rule") does not allow offsets for projects that receive system benefits charge funding or other incentives. In addition, projects that receive Renewable Portfolio Standard ("RPS") credits are not eligible for RGGI offsets unless the project transfers the rights to any and all RPS credits to the regulatory agency.

We disagree with both of these positions in that they will limit the number of offsets available to sources, and thus limit the options available to sources for compliance. RGGI should take the opposite approach and encourage actions that will generate offsets. Since the goal of RGGI is to lower greenhouse gas emissions ("GHG"), the goal of the RGGI offset program must be to make it as attractive as possible. By adding additional requirements to the offset creation, RGGI is discouraging offset projects.

Projects that Receive Funding

RGGI must not exclude projects which may receive funding from other sources such as a state's System Benefits Charge ("SBC") from eligibility as offset projects. Projects which have funding from sources such as an SBC are more likely to occur than projects that are solely reliant on private funding. With private funding only, a certain level of return on the investment would be required. For this reason, projects are often not implemented because the return (at any level) cannot be achieved. Having some public co-funding can assist in making a project reality, since now the financials for the project would work. Projects that may require co-funding but that help achieve the RGGI goal of lowering GHG should be encouraged. This includes projects that may receive funding from the yet-to-be designed the CBSEPA fund.

There should be a limitation on the amount of public project funding that a source can receive in order to be eligible for offsets or a prorated portion of the offset could be available. This amount should be at a level that would avoid a project sponsor from having none of the financial risk of a project while garnering all of the project gains. As an example, if a project was 100% funded with public dollars then, the project sponsor bears none of the financial risk. However, the project sponsor could have the right to all of the financial gains through the certification and subsequent sale of the offsets. This would not be an acceptable use of public funds. The project sponsor should bear some of the risk in order to get the rewards.

RGGI's secondary issue of suggesting that smaller projects below an unspecified threshold and/or projects below an unspecified market penetration level be eligible for

multiple funding is acceptable. However, it is not necessary to have these unspecified levels because RGGI should simply set a limitation on the percent of public funds that can be used for a project, regardless of the project sizes or market penetration.

RGGI Offsets and RPS Credits

RGGI should not require project sponsors to transfer their rights to any credits such as Renewable Energy Credits ("RECs") created under an RPS to the Regulatory Agency or its agent if the project sponsor wants to obtain offsets from the project. RECs are separate attributes from CO2 offsets, and should be recognized as two separate credit types. The Massachusetts Technology Collaborative (MTC) determined that RECs under that state's Green Power Partnership Program are a separate attribute from CO2 emission reduction credits. This position on RECs and carbon credits should be implemented in RGGI in the treatment of CO2 offset credits.

Environmental co-benefits of projects are recognized throughout environmental regulations. For example, if a source converts from heavy oil to natural gas firing, in calculating its emissions, the source gets credits for both the reduction in SO2 and NOx, since both of the reductions are real. Similarly, projects that meet the criteria for RECs and carbon offsets should be simultaneously rewarded for the increase in renewable generation and the reduction in CO2 emissions. RGGI acknowledges that CO2 offsets and RECs from an applicable project are separate and collateral regulatory commodities, which may provide incentives for further renewable development.