

**Comments on the Regional Greenhouse Gas  
Initiative (RGGI) Draft Model Rule – March 23,  
2006**

**Part XX CO<sub>2</sub> Budget Trading Program**

**SUBMITTED BY:  
EL PASO CORPORATION – PIPELINE GROUP**

**TENNESSEE GAS PIPELINE COMPANY  
ANR PIPELINE COMPANY  
SOUTHERN NATURAL GAS COMPANY  
EL PASO NATURAL GAS COMPANY  
COLORADO INTERSTATE GAS COMPANY**

**1001 Louisiana Street  
Houston, TX 77002**

**Contact:  
Fiji C. George  
Manager, EH&S  
[fiji.george@elpaso.com](mailto:fiji.george@elpaso.com)  
713-420-7913**

**SUBMITTED TO:  
Interstate RGGI Staff Working Group**

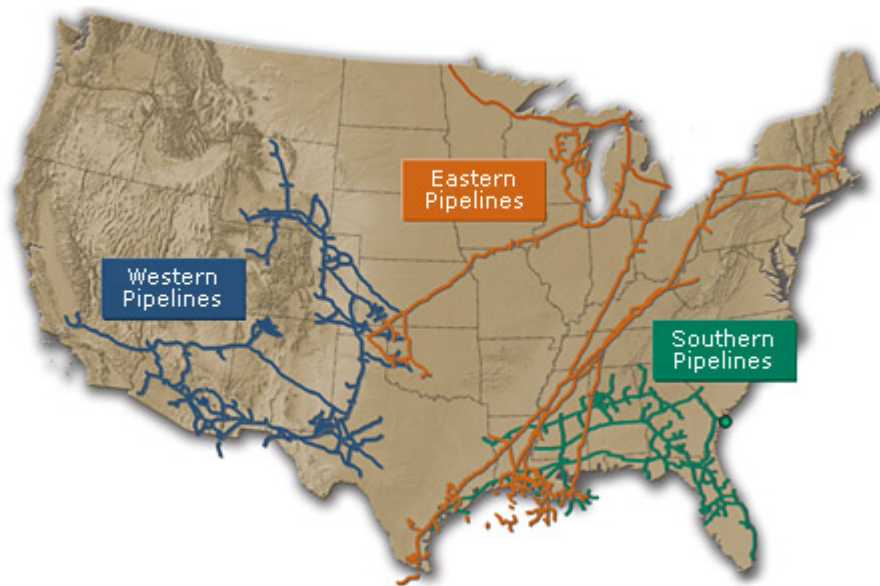
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## Comments on the RGGI Draft Model Rule

### Introduction

El Paso Corporation (El Paso) submits these comments on the Draft Model Rule for the Regional Greenhouse Gas Initiative (RGGI), which the Inter-State RGGI Staff Working Group published for public comment on March 23, 2006. El Paso also endorses comments filed by the Independent Power Producers of New York (IPPNY) and the Interstate Natural Gas Association of America (INGAA).

El Paso owns North America's largest natural gas pipeline system and one of North America's largest independent natural gas producers. El Paso's interstate transmission system spans the nation, border to border and coast to coast. The El Paso pipeline group's 55,500-mile interstate pipeline system connects the nation's most prolific natural gas supply regions with the largest consuming regions in the United States, transporting about one-third of daily natural gas consumption in the country.



Tennessee Gas Pipeline (TGP) is one of the interstate pipelines that make up El Paso Corporation's Eastern Pipeline Group. TGP is comprised of approximately 14,200 miles and 1.4mm certificated horsepower. The pipeline stretches from the Mexican border to Canada. Tapping supply regions in the Gulf of Mexico, Texas, Appalachia, and Canada, the TGP system serves markets across the RGGI Region the north east and mid-Atlantic regions, including major metropolitan centers such as New York and Boston.

While El Paso does not have an affected unit under proposed model rule (XX-1.4), we operate one of the largest natural gas infrastructure in the RGGI region. Our comments

focus on issues related to offsets (subpart XX-10) and general definitions related to the model rule.

## **1. Definitions:**

### ***a. Combustion turbine (XX-1.2(w)):***

El Paso recommends revising the definition to be consistent with New Source Performance Standards (NSPS) definitions of a stationary combustion turbine under 40 CFR 60 Subpart KKKK or GG.

*We recommend that definition to be revised as follows:*

*“Stationary gas turbine means any simple cycle gas turbine, regenerative cycle gas turbine or any gas turbine portion of a combined cycle steam/electric generating system that is not self propelled. It may, however, be mounted on a vehicle for portability”.*

### ***b. Global Warming Potential (GWP) (XX-1.2(ah)):***

The Intergovernmental Panel on Climate Change (IPCC) defines GWP as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kg of a substance relative to 1 kg of the reference gas (i.e., GWP is weight-based, not volume-based). Thus, greenhouse gas (GHG) emissions are commonly reported as CO<sub>2</sub> equivalents (e.g., tonnes of CO<sub>2</sub>eq, where a tonne is 1000 kg). Since GWP is a time-integrated factor, the GWP for a particular gas is dependent upon the time period selected. A 100-year GWP is the standard that has been broadly adopted for GHG reporting and was employed in the IPCC 1996 Second Assessment Report (SAR). In 2001, the IPCC Third Assessment Report (TAR) was adopted. The TAR updated the GWPs based on the most recent scientific data. In reviewing offset proposals for landfill gas, it appears that RGGI has employed GWPs from the TAR.

*Hence, El Paso recommends that the definition of GWP under proposed XX-1.2(ah) be revised to be either consistent with the IPCC definition or clarify that GWP employed in the RGGI model rule employs the GWP factors from the TAR.*

### ***c. Ton or Tonnage (XX-1.2(be)):***

The model rule employs short tons or 2000 pounds as the unit for measurement of CO<sub>2</sub> budget or CO<sub>2</sub>e offsets. Most GHG protocols employ “tonnes” or long tons (where 1 tonne approximately equates to 2200 pounds). If RGGI plans to integrate or link its program in the future with international programs, it is important to have a consistent platform for accounting CO<sub>2</sub> emissions or offsets.

*Hence, El Paso recommends either employing tonnes or insert appropriate conversion factor<sup>1</sup> from short tons to tonnes where relevant.*

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<sup>1</sup> 1 ton = 0.9071847 tonnes

***d. Maximum design heat input (XX-1.2(al)):***

El Paso recommends that the current definition be clarified as to whether the heat input refers to Higher Heat Value (HHV) or Lower Heat Value (LHV).

**2. CO<sub>2</sub> Emissions Offset Projects (Subpart XX-10)**

RGGI must be commended that it has engaged the regulated community and other stakeholders in the process of development of the model rules. Our comments related to offset projects relate to the following:

- a. Technology, role of offsets, pricing and modeling update;
- b. Geographical limitations related to use of offsets;
- c. Additionality Issues;
- d. Natural Gas offset sector issues;
- e. Early Reduction Allowances
- f. Integration with Clean Air Act regulations

***a. Technology, role of Offsets, pricing and modeling update:***

The National Commission on Energy Policy (NCEP) conducted a series of workshops in 2005 facilitated by Cambridge Energy Research Association (CERA). A final report titled "Design Issues for Market based Greenhouse Gas Reduction Strategies" was published in February 2006. The workshops were intended to engage a wide range of stakeholders in discussions related to a national GHG market based program. Technology innovation and deployment was a major theme during the workshops.

The challenges associated with GHG (CO<sub>2</sub>e reductions) are vastly different from current regulatory standards and policies affecting criteria pollutants. The typical options for an affected utility to reduce GHG emissions are either:

- Employ a lower intensive fossil fuel; or
- Increase the generation mix with renewables; and
- Install technologies to mitigate or reduce CO<sub>2</sub> emissions.

It is quite clear that with the current energy infrastructure, lack of "back end" CO<sub>2</sub> mitigation technologies and energy supply and demand, there needs to be a long term strategy by RGGI to promote cost effective ways for the RGGI market based policy to drive deployment of currently available low carbon emitting technologies and cause next generation technologies to be attractive to install.

Due to the lack of commercially available, cost effective CO<sub>2</sub> control technologies, offsets are essential to the ability of the RGGI program to achieve the desired emission reductions cost-effectively and for the successful implementation of the program.

The preliminary IPM energy modeling results that were completed in December of 2005 project that the seven states might be able to achieve the RGGI cap limits, primarily through expansion of both natural gas and renewable generation. We continue to believe that the RGGI analyses significantly underestimate natural gas prices and have

very optimistic assumptions that seriously deflate CO<sub>2</sub> prices and emission reduction possibilities. We believe it is important to have a carbon price signal in place to influence investment behavior.

Among these problematic assumptions are the following provisions:

- The RGGI limits offset usage to less than 4 million tons per year (3.3 percent of a source's total reported emissions);
- Henry Hub natural gas input assumptions of \$6.90/MMBtu (2003\$) in 2006 dropping rapidly to \$4.79/MMBtu (2003\$) in 2015;
- Regional firm electric power prices also would decline with natural gas prices, dropping from \$53.84/MWh (2003\$) in 2006 to \$47.39/MWh by 2024;
- no new coal or nuclear plant construction;
- new regional wind projects could supply over 9,000 MW and 25 TWh of new generation; and
- energy efficiency programs could significantly reduce generation growth (assumes that power reduction savings will more than offset the higher energy prices);
- These fundamental assumptions translate into a projection that all needed offset credit projects could be completed for less than \$2.50 per ton.

The RGGI team should update modeling for the program to account for the inclusion of Maryland and the exclusion of Rhode Island and Massachusetts.

It is essential that the RGGI Draft Rule be crafted in a manner that minimizes competitive disadvantages and does not reduce energy system reliability. It is a major leap of faith to assume at this point that the RGGI cap can be met by generators without the need to rely extensively on emission reductions from offset projects; indeed, RGGI documents, as well as stakeholders, have stated previously how essential offset projects are to the program's implementation.

***b. Geographical limitations related to use of offsets (XX-10.7):***

As explained above, we believe RGGI model rules underestimate the need and pricing of offsets. Considering the limitation of the carbon mitigation technologies, we urge the RGGI panel to not discount or dilute the value of the offsets. As described later, we are very concerned about the additionality provisions in the RGGI model rules that makes the offset program highly restrictive and unworkable in most cases. The offsets are an important "bridge" between the current period and the future when carbon capture and mitigation technologies evolve and become more employed on a widespread basis. Therefore, it makes no environmental sense to limit offsets in terms of amounts, types, geographic location or discounts on their allowance value based upon location. Unless provisions for offsets are redrafted to be more reasonable, offsets projects will not be able to act as the intended surrogate price control mechanism in place of the role that back end controls (which are unavailable for CO<sub>2</sub> emissions) typically play in cap and trade programs.

***c. Additionality***

Offsets are a key component of any GHG program since many GHG sources cannot be reached easily through a conventional cap and trade program. The design of offset programs in some regulatory schemes has been bogged down due to overly complex procedural requirements or over-zealous theoretical considerations (e.g., financial additionality<sup>2</sup>) that have little or no bearing on companies selecting the most appropriate emission reduction or offset strategy. El Paso supports straightforward and standardized offset creation procedures with appropriate safeguards. In general, projects or performance based standards should follow the principles laid out in the WBCSD/WRI GHG Project Protocol<sup>3</sup> and ISO Part 3<sup>4</sup> guidelines.

To generate GHG offsets, the project should be:

1. Real – A discrete reduction of actual greenhouse gas emissions resulting from specific and identifiable actions.
2. Quantified – Calculated using real data and a transparent and replicable methodology.
3. Verified – A third party must authenticate the action and calculations of the Seller and attest to the validity and quantity of reductions.
4. Surplus – Reductions must be excess of any emissions reductions that may be required of the source by existing regulations existing at the time.
5. Unencumbered – Seller must have clear ownership of the emission reductions.

In essence, the offset programs should only consider regulatory additionality, and not stifle implementation and harvesting of extensive, low-cost offsets. No limit should be placed on the use of verifiable offsets since many will be low-cost, effective reductions that can serve to jump-start the allowance trading markets and provide incentives to develop other emission reduction technologies. These offsets should not be subtracted from the overall cap, since they are not part of the baseline calculation used to establish a cap.

RGGI model rules should be flexible enough to consider performance standard approach to additionality. Under this approach, any project activity that exceeds the performance standards will result in additional offsets. The obvious advantage is that the performance standard based additionality avoids cumbersome and time consuming case by case project reviews. In addition, it provides a consistent and level playing standard to avoid individual baseline scenarios or competitive issues within RGGI states. RGGI should work with appropriate companies and/or trade associations representing the potential “offset” generation sector to address the temporal, spatial and stringency issues associated with development of the appropriate performance standards. It

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<sup>2</sup> Additionality is the principle that offset credit should apply to actions that are “in addition” to what is otherwise required. Historically this has been based on regulatory requirements, but some have suggested a financial component as well.

<sup>3</sup> The GHG Protocol for Project Accounting;  
<http://www.ghgprotocol.org/plugins/GHGDOC/details.asp?type=DocDet&ObjectId=MTc0MTg>

<sup>4</sup> ISO/FDIS 14064-3 “Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions”.

should be noted that several RGGI states have experience in development of such standards. Example- State of the Art Standards in New Jersey.

RGGI model rules consider the following additionality provisions:

(i) Regulatory Additionality:

El Paso supports this concept, however such additionality principles should not have retroactive applicability after an investment is made. In order to provide needed investment certainty and ensure access to financing, investments that met a regulatory additional test when project financing is obtained should remain eligible for at least a ten year period, even if a law or rule is changed to make an approved project ineligible going forward. The project sponsor's allowances should not be truncated to receipt of allowances only for the offset reductions that occurred before the law or rule change. After the initial ten year period, the project applicant could re-apply for access to allowances, and project eligibility could be re-evaluated at that point; the applicant should have the opportunity to update or adapt the project at the point of applying for renewal.

Retroactive regulatory additionality would inject much uncertainty into the value of offset projects; so much so, in fact, that it may be difficult to get the investment community to buy into these concepts to get any project funded. The RGGI Staff Working Group should consult with the investment community on how this restriction of offset projects will affect their viability in the marketplace.

(ii) Regulatory Plus Additionality:

There are three main issues that the model rule contemplates based on document provided by RGGI to various stakeholders on March 8, 2006<sup>5</sup> and in Section XX-10.3(d)(i)-(iii).

- Offsets projects may not receive funding or other incentives from any state System Benefits Charge (SBC) or Renewable Portfolio Standard (RPS) program
- Project sponsors must transfer the legal rights to any attribute credits (except RGGI offsets) to the REGULATORY AGENCY or its agent. (RECs, etc.)
- Offset credits may not be awarded to participants in any voluntary greenhouse gas program.

The RGGI model rule should not exclude projects, which already are receiving other sources of funding, from eligibility as offset projects. Regardless of the availability of co-funding, the RGGI should encourage projects that are brought to completion because of an investment related to the RGGI. Restrictions such as the size of the project or market penetration levels are irrelevant to whether a project is viable, and RGGI investments which help bring projects to completion should be encouraged.

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<sup>5</sup> Key Offsets Criteria\_3 8 06\_final\_1.doc, email from Maria Katchmar, NYDEC and follow up discussions on March 8, 2006 with Chris Sherry, NJDEP,

Projects that receive funding or other incentives, such as from any state SBC or RPS program or from funds provided through any yet-to-be-approved RGGI consumer and strategic purpose allocation, should receive RGGI offset credits for those activities, or portions of activities, funded above those public benefit program levels.

The requirement that project sponsors must transfer the legal rights to any attributes credits (except RGGI offsets) to the Regulatory Agency or its agent (such as the regional registry) should be deleted from the Draft Model Rule. Renewable Energy Certificates (RECs) are separate attributes from CO<sub>2</sub> offsets. Indeed, the Massachusetts Technology Collaborative (MTC) already has determined that RECs under that state's Green Power Partnership Program are a separate attribute from CO<sub>2</sub> emission reduction credits; this precedent should be expanded to the treatment of CO<sub>2</sub> offset credits.

CO<sub>2</sub> projects should be allowed to simultaneously generate CO<sub>2</sub> emission reduction credits (ERCs) and Renewable Portfolio Standards (RPS) RECs. The RGGI Staff Working Group should issue a policy statement which indicates that CO<sub>2</sub> ERCs from offset projects and RECs are separate and collateral regulatory commodities, which may provide incentives for further renewable development.

Finally related to invalidation of offset projects due to participation in Voluntary GHG reduction programs, we strongly urge RGGI to strike this concept from the model rule. Companies that have participated in these voluntary programs should be rewarded and credited for their efforts and not penalized for being a "trailblazer" in this field. These companies are often Environmental Leaders and their participation and leadership in voluntary programs should be applauded. The current language sends a wrong message to such companies and in reality only benefit the firms that have not been stewards of the environment or engaged in proactive measures. It will also force many other companies in the United States that have been just getting into the debate to take a step back and await potential future programs. However, sufficient "controls" (e.g. verification by third party and certification by the Responsible Company Official) can be incorporated in place to ensure that there is no "double dipping" from a single project under a voluntary program. Such controls can be easily be written into the current model rule without completely negating the opportunity for employing projects for offset consideration under any voluntary program.

In addition to the above two additionality concepts, RGGI has considered the concept of Financial Additionality (or Investment Test). As we understand this concept, the project is additional if it can be demonstrated that it would have a low rate of return without revenue from GHG offsets. Essentially this assumes that the decisive reason to conduct the project is for the revenues associated with the GHG offsets. This concept is inconsistent with the way most companies deploy capital or O&M monies, especially in the natural gas sector.

It is unclear what types of projects would be able to survive this test and still be able to obtain financing. The overall goal of the RGGI is to reduce emissions. Financial additionality would seem to exclude economic investments for which developers are more likely to obtain financing. Requiring offset projects to be above standard market

practice or beyond those that are attractive investment opportunities in the current marketplace are unreasonable, subjective and impractical provisions for meeting the goal of emission reductions. If financial additionality is applied to offset projects in the manner that the RGGI is contemplating, investments by energy market participants would be limited to those that are speculative or currently uneconomic.

RGGI documents state that additionality is a key criterion for ensuring that offset projects result in real emissions reductions. Emission reductions already would be considered real, if they are verifiable and permanent; it is unclear why financial additionality is needed to ensure otherwise that emission reductions are real.

Reductions are verifiable, when they are measured against a baseline or performance standards. They are permanent, when offset projects are completed and the resulting emission reductions are secured. Furthermore, monitoring and evaluation reports would ensure that emission reductions from offset projects are verifiable and permanent. The RGGI already proposes to have these reports approved by accredited certifiers, and this level of rigorous review should be sufficient for offset projects.

The imposition of financial additionality would reduce the types of offset projects in which energy market participants could invest, especially when generators cannot make changes substantial enough at their facilities to comply with RGGI requirements. This restriction could have the detrimental result of reducing the fuel diversity of New York State's electricity system, which is the foundation for reliable energy supply. The ability to obtain an allowance for an offset project should not be treated as a special incentive or subsidy but, instead, as a necessary way of securing lower emissions.

#### ***d. Natural Gas Offset Projects***

##### ***(i) Reduction of CO<sub>2</sub> emissions from Natural Gas Combustion***

Additional details should be included in the Draft Model Rule for conversions to natural gas for residential and commercial boilers and for natural gas transmission and distribution. End use efficiency projects should be extended to all sectors of the economy and not limited to merely the residential and/or commercial sectors.

There are many non Electric Generation Units (EGUs) within the RGGI states economy that could potentially switch fuel to the cleanest burning fossil fuel – natural gas. In addition to this scenario, many non EGU facilities could carry out efficiency improvement projects, fuel conservation and employ alternative/renewable sources of energy that could potentially result in GHG reduction projects. In fact, in the WRI GHG Project Accounting Protocol, there is an extensive case study that highlights this example<sup>6</sup>.

Fuel switching of industrial, commercial, residential and fleet entities from coal, oil, gasoline or diesel to more carbon efficient natural gas fuel can significantly contribute to lower emissions in the region and increase the availability of offsets for compliance.

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<sup>6</sup> <http://www.ghgprotocol.org/plugins/GHGDOC/details.asp?type=DocDet&ObjectId=MTc0MTg>, Part III, pages 110-118

End-use efficiency should include improvements in carbon efficiency as well as energy efficiency of the combustion system. Offset projects should include eligibility for switching from oil to natural gas, even if energy efficiency is not improved; improvements to carbon efficiency alone should be eligible.

(ii) Development of Standardized Offset Criteria for the Natural Gas Transmission and Distribution Category

The RGGI Staff Working Group should work with the Interstate Natural Gas Association of America (INGAA) to develop standards for this offset category. The details for this offset category should be developed and released as draft provisions for public comment, prior to final agreement on the text of the Draft Model Rule.

In general, performance standards (a.k.a. Business as Usual or BaU Standards) could be established for various projects. Anything above those standards would then be eligible. Spatial boundaries, temporal periods and stringency levels are the key factors to be considered in development of performance based standards. The EPA Natural Gas STAR program provides a wealth of data to initiate the development of such standards. RGGI could consider development of "offset standards" for various components encompassing best practice standards. The following list is not comprehensive, but derives itself from the highly successful EPA Gas STAR program.

<b>Current Standard</b>	<b>Offset Standard</b>
Replace Gas Turbine Starters – turbine and gas engine application	Install electric or compressed air powered starters
For recip. comp. – vent compressor piping after shutdown	Install gas recovery system
Replace comp. cylinder unloaders	Install efficiency no bleed unloaders with multiple seals on shaft
Use of standard flat face recip comp. packing	Install low emissions packing
For recip. engines operating w/o A/F ratio controller	Install A/F controller that is mapped to minimize fuel burned
Vent or blow down line to weld connection for new customer	Eliminate vented emissions by utilizing a hot tap for in-service connections
Vent or blow down line to cut out section of pipeline due to damage	Utilize pump down to lower gas line pressure before maintenance
Vent or blow down line to cut out section of pipeline due to damage	For "smaller" exterior pipeline damage, utilize composite wraps thus eliminating need to vent any gas
Use of gas assisted glycol pumps	Replace with electric or instrument air driven

Monitoring and quantification of GHG reductions can follow the principles laid out in the WRI GHG Project accounting protocol and INGAA GHG Emissions estimation guidelines<sup>7</sup>. Since any offset would need appropriate third party verification employing appropriate protocols, RGGI can be assured that the offsets would be of high quality and real.

We encourage RGGI to work with INGAA and various other governmental and non governmental stakeholders to develop these performance based standards.

***e. Early Reduction Allowances***

The Draft Model Rule states that “The Regulatory Agency may award early reduction CO<sub>2</sub> allowances (ERAs) to a CO<sub>2</sub> budget source for reductions in the CO<sub>2</sub> budget source’s CO<sub>2</sub> emissions (inclusive of all emissions from CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source) that are achieved by the source during the early reduction period (2006, 2007, and 2008), subject to the requirements of this subdivision. Total facility shutdowns shall not be eligible for ERAs.”

All past cap and trade programs have permitted early reduction credits as a supplement to any established cap. Not only does this tried and tested approach reward companies for their early efforts to meet future targets, but it also facilitates compliance in the critical first years of the program.

The most obvious method of avoiding emissions is for a facility to shut-down, and early reduction allowances should be available for total shut-downs. Providing companies with credit for shut-downs after the baseline dates would help with the additional cost burdens associated with any CO<sub>2</sub> program. The offsets or allowances generated from emission reduction credits (ERC’s ) from shut-downs could then be used by a company for RGGI or other state compliance requirements or sold to other facilities to meet requirements. The resulting emission reductions are permanent and the CO<sub>2</sub> credit likewise should be permanent. If a shut-down is located outside the RGGI region, then the CO<sub>2</sub> reductions associated with the shut-down should be considered as offsets.

Since a ton is a ton is a ton, all early actions should be treated equally. Early action dates in the RGGI are too restrictive and should go back to 1990, when companies invested in voluntary early reductions.

***f. Integration with Clean Air Act Regulations***

The RGGI Rule needs to be coordinated with NSR / PSD requirements in terms of various projects undertaken and their context against “interpretations” related to Routine Maintenance Repair and Replacement exemptions by certain state and/or federal agencies. Potential projects that can result in CO<sub>2</sub>e reductions (e.g. efficiency improvement), have been in some cases considered non routine. In fact, financial “additionality” considerations could potentially bolster claims that project that is designed to reduce CO<sub>2</sub> emissions and now is financially attractive due to offset credits,

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<sup>7</sup> <http://ingaa.org/environment/Climate.htm>

would have to undergo extensive PSD/NSR analysis. This will only discourage investors and companies from not performing these projects.

The RGGI Staff working Group should review the Draft Model Rule in the context of DEC's Draft NSR Rule and recent State rules (6 NYCRR 204, 6 NYCRR 237 and 6 NYCRR 238) and Federal rules (CAIR, CAMR, Title IV) and ensure that these rules can all work well together. At the very least, the DEC should ensure that the Draft PSD / NSR program should be implemented in a manner that better coordinates with these rules and the RGGI and does not impinge on the ability of companies to comply with these rules. For example, the DEC Draft NSR Rule is inconsistent with the requirements for the improved energy efficiency of facility operations contained within the RGGI and 6 NYCRR Parts 204, 237 and 238. Also, the DEC Draft NSR Rule may affect the ability of facilities to improve their heat rates (which are not O&M costs) under the RGGI, and RGGI compliance could involve major or minor modifications.