ENVIRONMENTAL ENERGY ALLIANCE OF NEW YORK

7679 Bay Circle
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March 7, 2016

Submitted Via E-Mail to climatechange@dec.ny.gov; info@rggi.org

Re: Regional Greenhouse Gas Initiative 2016 Program Review

Dear Madam/Sir,

I am pleased to write on behalf of the Environmental Energy Alliance of New York, LLC ("the Alliance"; see list of company members highlighted below on this page) to provide our comments on the 2016 program review especially as it pertains to the Clean Power Plan (CPP). Alliance members own and operate electric generating and transmission and distribution facilities located throughout New York State and, in some instances, across the nation and the globe. The operations of Alliance members contribute to the reliability of the State's electric grid and to the economic well-being of New York State.

In these comments we offer two recommendations. We reiterate our support for the flexibility of the Cost Containment Reserve (CCR) and offer further support for our suggested approach. We also recommend that the Department of Environmental Conservation (DEC), Department of Public Service (DPS) and New York State Energy Research and Development Authority (NYSERDA) develop a cross-reference document to enable comparison of their components of fuel mix reported values. We request a meeting to discuss these recommendations in more detail.

The Alliance values the flexibility provided by the Cost Containment Reserve (CCR) and feels that the program can be revised to maintain this important mechanism. We believe that the CCR will be an important feature of the RGGI program as the allowance bank is consumed and the RGGI cap declines from current emission levels. Table 1 presents annual CO_2 emissions in all programs for New York sources from the EPA CAMD database which includes data from small sources not part of RGGI, but the ramifications of the entire data set are important. In particular, these data suggest that most of the "economic" emission reductions have been made where economic means those reductions took place because a less expensive fuel was available or more efficient generation came on line. Because natural gas has become less expensive than coal and oil, natural gas displaced those higher CO_2-emitting fuels and that was the primary reason CO_2 emissions were

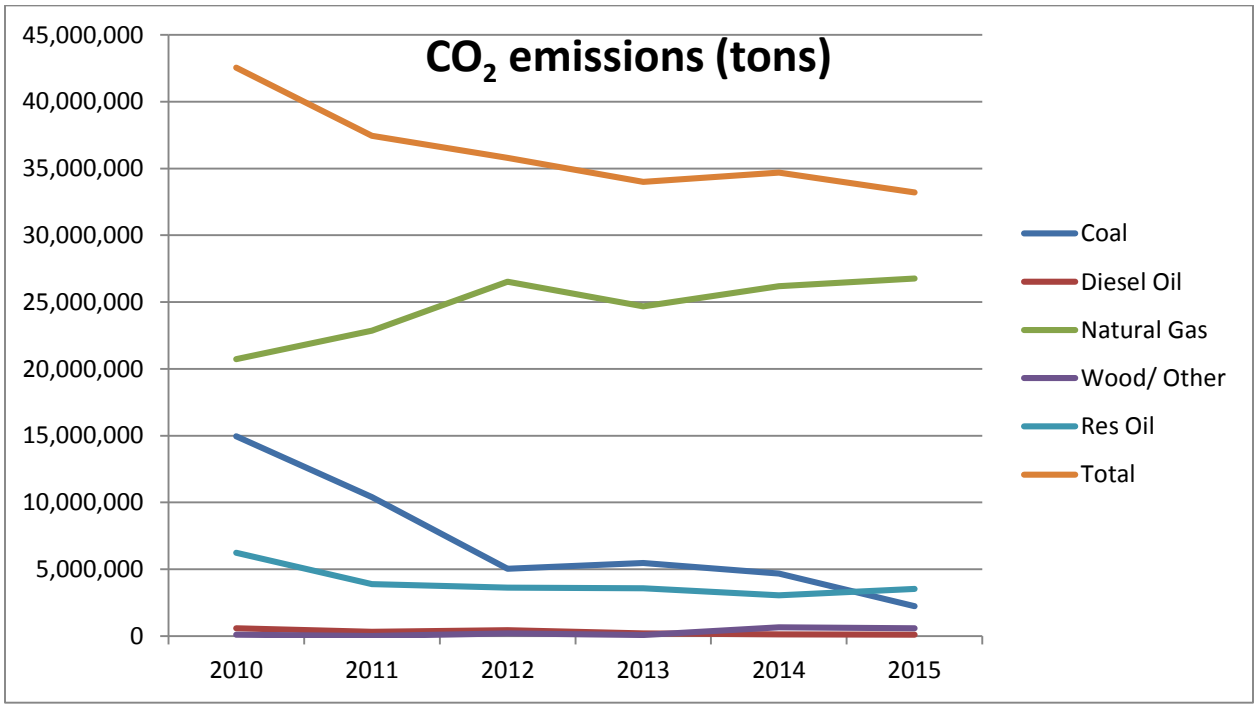
reduced. There are only two million CO_2 tons more available from coal generation, while diesel oil and residual oil emissions are very likely at their minimum levels due to electric reliability requirements and gas supply constraints. Therefore, these data suggest that further reductions from current emissions will not be driven primarily by fuel switching economics so they will be more difficult and costly than in the past because no retrofit control technologies are possible. As a result, a flexibility mechanism will be valuable in the future, particularly if the market is limited to RGGI participating states should the CPP fail to be implemented.

Table 1: EPA CAMD All Program CO2 Emissions (tons) by Primary Fuel Type

Year	Coal	Diesel Oil	Natural Gas	Wood Other Solid	Residual Oil	Total
2010	14,950,792	576,286	20,714,884	88,666	6,233,220	42,563,848
2011	10,394,280	306,381	22,864,174	0	3,880,581	37,445,417
2012	5,030,164	437,716	26,520,219	186,615	3,625,339	35,800,053
2013	5,463,637	199,768	24,679,151	74,661	3,573,923	33,991,141
2014	4,667,127	124,538	26,197,561	657,883	3,045,104	34,692,213
2015	2,229,725	108,193	26,764,567	573,578	3,524,698	33,200,761

The graphical representation of the data table above (Figure 1) emphasizes the fact the emissions have been reduced dramatically since the beginning of this decade; the ascendancy of natural gas emissions while the total emissions have come down suggest that there is only a limited opportunity for further reductions in emissions without either a significant reduction in demand or an optimistic growth in zero emissions sources.

Figure 1: EPA CAMD All Program CO_2 Emissions (tons) by Primary Fuel Type



The Alliance believes that EPA recognized the significant reductions made by the RGGI states when the CPP targets and budgets were finalized and believes that the RGGI states should not forfeit this in developing their CPP implementation plans. In the final CPP, the EPA is requiring a 10% reduction in RGGI state mass emissions from 2012 as opposed to a nationwide average reduction of 25%, validating the effectiveness of the actions and programs already undertaken in the RGGI States.

The Alliance recommends that the CCR be revised to be either the difference, some fraction (50% for example) of the difference, or a difference that declines over time between the total of CPP budgets for the RGGI States and RGGI cap. The CCR provides flexibility and helps to ensure that regulated entities will be able to comply with the regulations as the cap reduces and the electric system transitions to cleaner, less emitting sources. According to the RGGI modeling, the bank of allowances will be drawn down in the 2020-2022 timeframe; the CCR will be the only easily accessible flexibility provision that will help to mitigate any reliability impacts of a declining cap. The Alliance stresses the importance of the modelling to determine the appropriate size of the CCR as well as price and ratepayer impacts.

Additionally, we recommend that modeling be done during the current RGGI program review to determine the appropriate price trigger for this feature of the program as well as determine any reliability or ratepayer impacts. It is the Alliance's belief that, for the most part, the regulated generators will only be procuring enough allowances to meet their compliance obligations (with a small safety margin). The downside of the open auction is that it allows for other parties to procure allowances; this puts the pressure on allowance availability and price. As can be seen from the Table 2, large price increases and the release of the CCR have happened when the majority of the allowances have gone to non-compliance entities. The Alliance recommends that the modeling attempt to predict at what price point the CCR would need to be triggered, assuming all allowances are going to the compliance entities. This price should provide a lower bound for the CCR.

The Alliance also has concerns about the increasingly larger proportion of the banked allowances that are owned by non-compliance entities that could be alleviated with the CCR flexibility. As their portion of the banked allowances are used by compliance entities in the future while the cap decreases, the share of the bank owned by non-compliance entities will increase. Current projections indicate that the cap in 2020 will be less than RGGI emissions. If there are no flexibility options then the non-compliance entities can demand prices that are not only higher but also that do not accrue to the state programs. Therefore, the continued use of the CCR is warranted.

Table 2 RGGI Auction Summary-2014 and 2015

RGGI Auction Summary*			
Auction Date	Price	% Purchased by Compliance Entities	Notes
12/4/2015	$ 7.50	23%	
9/9/2015	$ 6.02	51%	EPA released final CPP 8/3/15. CCR Triggered
6/3/2015	$ 5.50	47%	
3/11/2015	$ 5.41	100%	
12/5/2014	$ 5.21	88%	
9/3/2014	$ 4.88	80%	
6/4/2014	$ 5.02	55%	
3/5/2014	$ 4.00	45%	CCR Triggered
*Data from Market Monitor Reports			

The DEC, DPS, and NYSERDA should develop a cross-reference document that describes what data are used for the various parameters; for example, does the oil/gas/steam category include data for distillate combustion turbines? Complete descriptions of data sets will allow comparison of their components of fuel mix reported values. RGGI and DEC reports net generation for 11 unique categories in the DRAFT_Results_RGGI_2016_PR_Reference_Case spreadsheet (Table 3). The DPS White Paper on the Clean Energy Standard[1] has 10 fuel mix categories in the Appendix B Statewide Fuel Mix for Electricity Generation table (Table 4). The NYSERDA Patterns and Trends report[2] has 12 fuel mix categories in its Table 3.5 NYS Electric Generation by Fuel Type (Table 5). In order to understand and comment on the projections by RGGI and DPS it is necessary to compare them with historical values documented by NYSERDA. This is important, for example, to be sure that the generation projections for residual and distillate oil in New York which are difficult to project due to market forces beyond the control of the generating facilities, are reasonable in both the RGGI and DPS estimates. The RGGI IPM projection has a category for oil/gas steam but nothing that indicates that distillate combustion turbines are included. Both the DPS and the NYSERDA fuel mix categories have one for oil or petroleum that presumably covers both distillate and residual oil. There are other inconsistencies between the fuel type numbers that also should be reconciled. The Alliance recommends that a single table be prepared by the agencies that enables comparison of the projections and historical data.

[1] DPS Staff White Paper on Clean Energy Standard, Case 15-E-0302, January 25, 2016

[2] http://www.nyserda.ny.gov/About/Publications/EA-Reports-and-Studies/Patterns-and-Trends

The Alliance is willing to meet with the Agencies to help resolve these issues or answer any questions about our recommendations.

Sincerely,

Roger Caiazza
Director

Comparison of New York Net Generation Data (GWh) Tables

Table 3: DEC RGGI 2016 Program Review Reference Case

Fuel Type	2017
Biomass	1,782
Coal (Without CCS)	1,594
Combined Cycle (Gas)	44,737
Combustion Turbine (Gas)	5,289
Nuclear	42,304
Oil/Gas Steam	16,588
New Combined Cycle (Gas)	0
New Combustion Turbine (Gas)	391
Other	61
Conventional Generation Total	*112,747*
Hydro	29,336
Solar	51
Wind	2,854
New Solar	0
New Wind	0
Other Renewable	883
Renewable Generation Total	*33,124*
Total	**145,871**

Table 4: DPS White Paper Statewide Fuel Mix for Electricity Generation

Fuel Type	2014
Biomass	609
Coal	7,205
Gas	58,454
Hydro	35,835
Nuclear	49,409
Oil	708
Biogas	394
Solar (inc. BTM)	682
Solid Waste	2,075
Wind	3,776
Total	159,147

Table 5: NYSERDA Patterns and Trends NYS Electric Generation by Fuel Type Data

Fuel Type	2011	2012	2013
Coal	9,426	4,551	4,697
Natural Gas	50,805	59,462	54,354
Petroleum	1,189	580	1,007
Nuclear	42,695	40,775	44,756
Net Imports	25,202	26,182	25,694
Conv. Hydro	27,634	24,572	25,631
PS Hydro	721	731	766
Waste	1,878	1,897	1,799
LFG	735	736	828
Wood	210	311	377
Wind	2,828	2,992	3,569
Solar	7	53	67
Total	163,330	162,842	163,545