Roger Caiazza Personal Comments on the 2018 New York State Regional Greenhouse Gas Initiative Operating Plan Amendment

January 5, 2018

These comments are submitted as a private retired citizen. They do not reflect the position of any of my previous employers or any other company I have been associated with, these comments are mine alone. I have been involved in the Regional Greenhouse Gas Initiative (RGGI) program process since its inception. Before retirement from a non-regulated generating company, I was actively analyzing air quality regulations including RGGI that could affect power company operations and was responsible for the emissions data used for compliance. As a result, I have a niche understanding of the information necessary to critique the operating plan.

I am motivated to submit these comments to make the point that the majority of New York State ratepayers are unaware of the Regional Greenhouse Gas Initiative and certainly have no inkling of the potential ramifications of the 2018 Regional Greenhouse Gas Initiative Operating Plan Amendment. As a result, input to the operating plan is limited to a small and motivated subset of the population. I intend to provide at least one critical comment of the operating plan amendment. I am very concerned about the "emperor has no clothes"[1] public story of RGGI success. In particular there is no apparent recognition in the plan that the budgeted program investments coupled with historic CO_2e emission reduction benefits from those programs calculated by the agencies are woefully short of what is needed to meet the NYS emission reduction goals.

The Positive

I applaud the timing and budgeting changes to the operating plan. I agree that a three-year window makes sense for planning purposes. It is also appropriate to budget investments based on a conservative estimate of revenues.

The Rest

I listened to the December 20, 2017 annual operating plan stakeholder meeting webinar. In the opening remarks at the meeting the story from the agencies was that RGGI has been a rousing success and the investments have been a significant factor in that success. Alicia Barton, NYSERDA President, said that RGGI was "extraordinarily successful in driving positive environmental outcomes and fostering clean energy" and would be useful implementing a "cleaner, more reliable and more affordable future in the electric system". Julie Tighe, DEC Chief of Staff, said that "emissions from the power sector in New York have fallen more than 50% since the states agreed to set the cap in 2005." However digging into the numbers shows a different picture than portrayed by these quotes.

[1] The Emperor's New Clothes is a Danish fairy tale written by Hans Christian Andersen and first published in 1837. The phrase "The Emperor Has No Clothes" is often used in political and social contexts for any obvious truth denied by the majority despite the evidence of their eyes, especially when proclaimed by the government. Source: http://en.wikipedia.org

Investment Effectiveness

Two documents released as part of the Operating Plan stakeholder process provide the information necessary to determine the potential effectiveness of the operating plan programs on reducing CO_2e emissions. The calculated expected (CO_2e) tonnage benefits to date are in RGGI Operating Plan ("2017 Operating Plan") Table 1: Cumulative RGGI Benefits by Program. In DRAFT - 2018 RGGI Operating Plan Amendment ("Draft 2018 Operating Plan Amendment") Table 1: Revenues and Program Funding Allocations, the proposed RGGI allowance revenue program investments for the next three years are listed. Multiplying the total budget amounts by the observed emission reductions dollars per ton benefits is all that is necessary to estimate how much CO_2e is expected to be reduced.

Table 1 Comparison of RGGI Program Investments combines information from both of those tables and slide 15 (Fig. 1 Program Investments for FY 18-21) in the stakeholder presentation that describes the proposed program investments for the next three years. It was an interesting exercise to figure out how the categories meshed between the Draft 2018 Operating Plan Amendment and the Program Investments slide but I think the listings in my table are close. The total program investments budgeted in Fiscal Years 2018-2019 are $244.5 million. At the stakeholder meeting five investment strategies were described:

- Building capacity for long-term carbon reduction
- Energy Efficiency and Renewable Energy technologies
- Empowering New York communities and transition to cleaner energy
- Innovative financing
- Stimulating entrepreneurship and growth of clean energy

Those categories are listed under Stakeholder Presentation in Table 1. The specific programs from the Draft 2018 Operating Plan Amendment are listed opposite those strategies.

Figure 1: Program Investments for FY 18-21

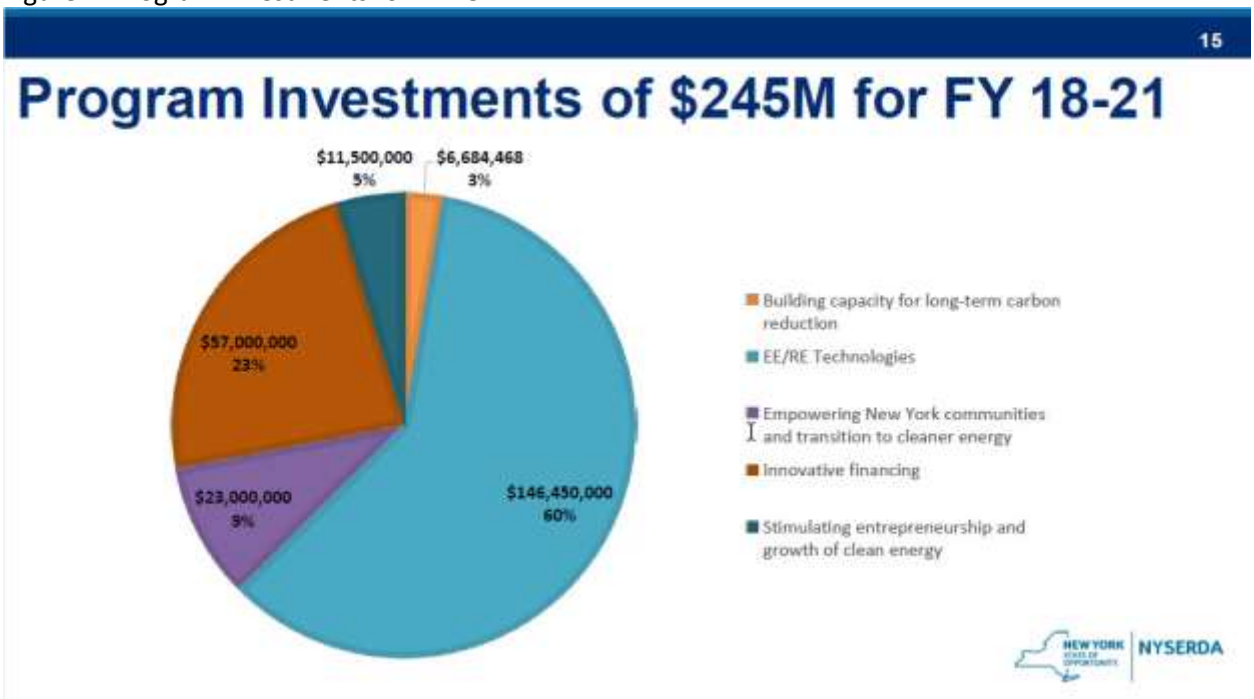

Table 1: Compare Program Investments of $245M for FY 18-21 in the 12/20/2017 Stakeholder Presentation With Draft 2018 Operating Plan Amendment Table 1

Draft 2018 Operating Plan Amendment Table 1 3-year budget		Stakeholder Presentation		$ per ton Annual Benefits	Expected Reductions (Tons CO2e)
Category	$ million	$ million	Category		
Renewable Energy	0.0	146.4	EE/RE Technologies		
LIPA Efficiency and Renewable Energy	76.0			706	107,578
EmPower NY	0.6			2283	263
Home Performance with Energy Star	0.9			809	1,112
Directed Transfer to State - Env. Tax Credits	69.0			706*	97,734
Innovative GHG Abatment Strategies	11.5	11.5	Stimulating entrepreneurship and growth of clean energy	1096	10,493
Community Clean Energy	8.0	23.0	Empowering New York communities and transition to cleaner energy		
Directed Electric Generation Facility Cessation Mitigation Program	15.0				
Directed Transfer to Green Jobs-Green NY- Additional Funding	57.0	57.0	Innovative financing	1,451	39,283
Clean Energy Fund	6.7	6.6	Building capacity for long-term carbon reduction	551	12,132
Totals	244.6	244.5	Totals		268,594

* Expected reductions for this category were not presented so the lowest EE/RE Technology $ per ton benefit was used.

For each of the specific programs the $ per ton annual benefit calculated values presented in the 2017 Operating Plan are included in the table. Note that the category "Directed to the State – Environmental Tax Credits category did not have a $ per ton benefit calculated. I used the lowest of the three EE/RE cost benefit numbers to give the most CO_2e reduction bang for the buck. Neither of the Empowering New York communities and transition to cleaner energy categories in the 2017 Operating Plan had emission reduction benefits calculated. The Directed Electric Generation Facility Cessation Mitigation Program provides payments to municipalities that depended on large fossil-fired generating plant property taxes when those facilities are closed down which certainly does not translate into reductions. Community Clean Energy programs "support the transition to sustainable and resilient communities" which apparently does not translate into direct CO_2e reductions

Finally, the program 3-year investments are divided by the $ cost per ton benefit to determine how much CO_2e reduction can be expected. For the $244.5 million investments the projected annual (how much is expected each year from the investment) emission reductions total is 268,595 tons of CO_2e. The annual investment emissions reductions expected is one third of that or 89,531 tons of CO_2e.

Let's put those numbers into context. The RGGI model rule states:

> The regional emissions cap in 2021 will be equal to 75,147,784 tons and will decline by 2.275 million tons of CO2 per year thereafter, resulting in a total 30% reduction in the regional cap from 2020 to 2030.

The New York share of the total allocations is 38.9% so New York's share of the emission reductions necessary is 885,721 tons per year. The New York investments from the RGGI allowance auction revenues are expected to only reduce annual emissions 89,531 tons at an average investment rate of $81.5 million. In other words the RGGI investments are only expected to provide about 10% of the needed emissions reductions. If we back calculate to determine how much would have to be invested in these programs to get all 885,721 tons needed each year, it would take $731 million per year. That translates into a weighted average allowance price of $48 per ton, nearly nine times the assumed price.

Even more gob smacking is the NYS Reforming the Energy Vision (REV) goal of a 40% reduction of 1990 emissions by 2030. NYS 1990 emissions were 205.8 million tons so the 2030 goal is 123.5 million tons. In 2015 NYS emissions were 178.9 million tons so for the next 15 years annual emission reductions have to be just under 3.7 million tons per year to get to the target goal. It would take over $3 billion per year to be invested by these programs to get the 3.7 million tons needed each year to meet the 2030 REV goal.

RGGI Emission Reduction

As noted above, Julie Tighe, DEC Chief of Staff, said that "emissions from the power sector in New York have fallen more than 50% since the states agreed to set the cap in 2005." Tighe's statement conflating the emissions reductions with setting the RGGI cap clearly implies that the reason the emissions went down was because of RGGI. However, by my calculations reality is much different and that fact has serious ramifications.

I calculated the RGGI reductions as follows. The RGGI reductions in the first two compliance periods of 2009-2011 and 2012-2014 will be compared to a pre-program baseline of 2006-2008. Table 2 lists annual CO_2 emissions in the RGGI states by fuel type. Table 3 lists annual changes in CO_2 emissions in the RGGI states by fuel type. Table 4 lists annual % changes in CO_2 emissions in the RGGI states by fuel type. Note that this analysis uses EPA data and is not completely compatible with the RGGI affected source inventory.

The total and fuel-type specific annual emissions were subtracted from the baseline to get the reductions during the RGGI program. For the facilities in this dataset in 2016 there has been a 60 million ton reduction from the 127 million ton baseline or a 35% reduction. Note that coal and residual oil emissions dropped 59 million tons from the baseline of 85 million tons or 71%. Natural gas emissions increased 15 million tons. Over the same time period, gross loads and steam load declined 25% and 58%, respectively.

The Operating Plan should quantify the State's situation relative to reductions to date so that the investment plan can focus on what is needed. This example calculation shows the magnitude of the effort required in RGGI as a whole. Clearly, the elimination of coal would go a long way to the target but only if that generation is replaced by non-fossil emissions. In New York most of the coal plant emissions are already gone. To this point coal generation has been primarily replaced by natural gas generation roughly dropping emissions by half. New York is the primary source of residual oil generation but primarily serve a market niche of over 8,000 MW of capacity backup. Because the latest emissions mostly represent minimal operations and testing those emissions will either stay the same or a lot of backup capacity will need to be developed.

Table 2: RGGI States, Annual Totals, All Program Units: CO2 Mass (Short Tons) by Primary Fuel Type

		CO2 Mass (Short Tons)						Load	Steam
Year	Total	Coal	Other Solid	Residual Oil	Other Oil	Natural Gas	Other Gas	(MWh)	(1000 lb)
2006	128,402,332	74,482,225	445,565	12,977,610	1,984,279	38,288,295	224,357	178,593,586	98,661,029
2007	133,903,150	75,223,761	1,001,373	14,177,045	2,480,820	40,871,862	148,289	188,533,942	95,382,948
2008	119,577,750	67,977,062	1,428,256	9,709,910	2,104,278	38,215,109	143,136	166,139,460	92,777,237
2009	108,487,823	57,324,247	1,164,165	6,879,835	1,834,159	41,141,370	144,047	147,434,248	69,305,382
2010	118,444,437	59,736,642	1,054,168	8,385,012	1,557,561	47,691,093	19,961	161,111,800	62,316,413
2011	104,844,759	43,871,136	855,087	5,175,109	1,504,451	52,381,671	1,057,306	154,295,324	47,356,683
2012	95,595,473	29,096,542	1,105,357	6,575,331	1,905,569	56,069,189	843,485	152,426,369	43,017,645
2013	89,115,811	31,759,050	1,171,191	4,915,312	1,599,335	49,499,432	171,491	138,186,304	43,737,027
2014	89,553,622	31,060,039	2,039,574	4,858,765	1,394,087	49,980,173	220,984	136,051,149	41,706,830
2015	86,309,540	23,279,018	2,253,858	4,972,163	1,335,180	54,283,220	186,101	136,088,543	40,053,785
2016	82,617,811	20,929,372	2,676,946	3,660,965	1,236,303	53,932,507	181,718	133,942,434	39,828,612

Table 3: RGGI States, Annual Totals, All Program Units: CO2 Changes from 2006-2008 Baseline

		CO2 Mass (Short Tons)						Load	Steam
Year	Total	Coal	Other Solid	Residual Oil	Other Oil	Natural Gas	Other Gas	(MWh)	(1000 lb)
Base	127,294,411	72,561,016	958,398	12,288,188	2,189,792	39,125,089	171,927	177,755,662	95,607,071
2009	-18,806,587	-15,236,769	205,767	-5,408,353	-355,633	2,016,281	-27,880	-30,321,414	-26,301,690
2010	-8,849,974	-12,824,374	95,770	-3,903,177	-632,231	8,566,004	-151,966	-16,643,863	-33,290,658
2011	-22,449,651	-28,689,880	-103,311	-7,113,080	-685,341	13,256,583	885,378	-23,460,338	-48,250,389
2012	-31,698,937	-43,464,474	146,959	-5,712,857	-284,223	16,944,100	671,558	-25,329,293	-52,589,427
2013	-38,178,600	-40,801,966	212,793	-7,372,877	-590,458	10,374,344	-436	-39,569,358	-51,870,044
2014	-37,740,789	-41,500,977	1,081,176	-7,429,423	-795,705	10,855,084	49,056	-41,704,513	-53,900,241
2015	-40,984,871	-49,281,998	1,295,460	-7,316,025	-854,612	15,158,131	14,174	-41,667,120	-55,553,286
2016	-44,676,600	-51,631,644	1,718,548	-8,627,223	-953,489	14,807,418	9,791	-43,813,229	-55,778,460

Table 4: RGGI States, Annual Totals, All Program Units: CO2 % Changes from 2006-2008 Baseline

Year	Total	Coal	Other Solid	Residual Oil	Other Oil	Natural Gas	Other Gas	Load	Steam
2009	-15%	-21%	21%	-44%	-16%	5%	-16%	-17%	-28%
2010	-7%	-18%	10%	-32%	-29%	22%	-88%	-9%	-35%
2011	-18%	-40%	-11%	-58%	-31%	34%	515%	-13%	-50%
2012	-25%	-60%	15%	-46%	-13%	43%	391%	-14%	-55%
2013	-30%	-56%	22%	-60%	-27%	27%	0%	-22%	-54%
2014	-30%	-57%	113%	-60%	-36%	28%	29%	-23%	-56%
2015	-32%	-68%	135%	-60%	-39%	39%	8%	-23%	-58%
2016	-35%	-71%	179%	-70%	-44%	38%	6%	-25%	-58%

RGGI Program Investments CO2 Reductions

I have evaluated the claimed reductions in the 2014 and 2015 RGGI Investment Summary Reports but frankly am not sure how to interpret the difference between lifetime and annual effects. The 2014 report states that as a result of RGGI programs funded through 2014 "The lifetime effects of these RGGI investments are projected to save 76.1 million MMBtu of fossil fuel energy and 20.6 million MWh of electricity, avoiding the release of approximately 15.4 million short tons of carbon pollution." According to Table 2 in that document the cumulative (2008-2014) effects of these RGGI investments are projected to save 5.3 million MMBtu of fossil fuel energy and 2.4 million MWh of electricity, avoiding the release of approximately 1.7 million short tons of carbon pollution annually. My interpretation of the difference is that relative to the 2,275,000 Model Rule annual reduction the lifetime number is not the one that should be used for the comparison.

In order to get the total annual benefit effect through 2015 I combined the effects of RGGI investments from 2014 RGGI Investment Summary Report that listed the cumulative (2008-2014) annual benefits with the annual benefits of 2015 investments form the 2015 RGGI Investment Summary Report. I recognize that the 2015 report notes that "previously reported benefits plus 2015 benefits may not sum exactly to updated cumulative benefits" because of "state revisions or corrections to benefits calculations over time" so this is not an exact estimate. The total annual benefits of the RGGI investments are projected to save 6.8 million MMBtu of fossil fuel energy and 3.0 million MWh of electricity, avoiding the release of approximately 2 million short tons of carbon pollution. In 2015 RGGI CO_2 emissions were 86,309,540 tons of CO_2 so based on these RGGI reports were it not for RGGI there would have been 2 million more tons of CO_2 emitted so total emissions would have been 88,354,290 tons. In other words, the investments are only responsible for a 2% reduction in annual emissions.

If I am wrong and you should use the lifetime totals for comparison that calculation is similar. Combining the two report values the total annual benefits of the RGGI investments are projected to save 104.1 million MMBtu of fossil fuel energy and 29.6 million MWh of electricity, avoiding the release of approximately 20.7 million short tons of carbon pollution. In 2015 RGGI CO_2 emissions were 86,309,540 tons of CO_2 so based on these RGGI reports were it not for RGGI there would have been 20.7 million more tons of CO_2 emitted so total emissions would have been 106,909,540 tons. In other words, even if you should look at the lifetime benefits the investments are still only responsible for a 19% reduction.

Econometric Modeling RGGI CO2 Reductions

A paper by Murray and Maniloff (2015) includes an estimate of RGGI program emission reductions. They concluded that "after the introduction of RGGI in 2009 the region's emissions would have been 24 percent higher without the program, accounting for about half of the region's emissions reductions during that time". The April 29 2016 RGGI stakeholder presentation described that paper and further suggested that "The other half is due to recession, complementary environmental programs and lowered natural gas prices." The results in this paper are based on an econometric modelling analysis.

There are interpretation questions about this paper. After the publication of the Murray and Maniloff paper I contacted the authors with my reservations about their approach. After an initial response from Dr. Maniloff to my reservations I never received a follow up to my response to resolve the issues. One disagreement was whether CO2 is different than all other air pollutants such that this undermines their explanation of how firms react to carbon constraints. I took exception to their characterization "firms facing a future carbon price regime may have reacted by retooling power plants to lower emitting processes in advance of the regulation taking effect". I noted that there are no end of pipe abatement technologies for CO2, as there are for other pollutants (e.g. SO2 scrubbers) save for CCS which is not economic. Dr Maniloff responded that "this hardly means there are not actions that can be taken in response to the carbon constraints. Plants can improve efficiency (heat rate) at fossil units as they have, and firms can engage in fuel switching/redispatch from coal and oil to gas and renewables, as they have." I responded that this if fine in theory but in practice, especially in a de-regulated market, the control strategy is to simply run with the allowances that are purchased. Heat rate improvements run the risk of running afoul of New Source Review requirements. If EPA determines that facility upgrades improve performance above their thresholds, then that the facility must upgrade its pollution control equipment to new source standards. Significant improvement to heat rate would likely throw the facility into NSR immediately and the costs of that equipment cannot be directly recovered in the bid price and those costs would overwhelm any value to RGGI compliance. The cost of carbon has been so low relative to the fuel cost that a switch to natural gas was the driver only based on fuel costs. Affected de-regulated sources do not re-dispatch to the operator's renewables, they simply run less. Practically speaking for RGGI affected sources CO2 control is different because the only viable option is to run based on allowances purchased.

I think the biggest problem is that econometric models cannot fully account for site specific regulation impacts. No model can account for all the effects of regulations on company decisions to invest in new control equipment unless each facility is explicitly considered. Because of my particular experience in New York I have explicitly considered the factors affecting particular facilities when analyzing the impact of regulations. Consider, for example, the former coal-fired RG&E Russel station in Rochester, NY and the NRG Huntley station outside Buffalo, NY. Before RGGI began the owners were faced with decisions for the future.

Before 2009, Russel station needed to invest in pollution control equipment for particulates, Hg and NOx or the facility would not be able to operate and meet emission compliance requirements already on the books. It operated from 2006-2008 (emitting ~ one million tons of CO2) but retired before 2009. I believe the owners decided that they might not be able to recover the costs for all the pollution control equipment over time so they decided to retire the facility. RGGI compliance is only an issue when the unit runs and simply adding the allowance cost to the bid price insures that cost is recovered. Therefore, I conclude that none of the observed reductions from this facility can be ascribed to RGGI.

At the other end of the spectrum for New York coal facilities was Huntley. This facility retired in early 2016 even though its owners made investments in pollution controls to meet the opacity, Hg and NOx limits. Despite those investments the facility closed like many other coal-fired plants because the

operating cost of burning coal was not competitive with gas-fired competition. Presumably the erosion of load due to the recession and loss of manufacturing higher load requirements also played a factor. It can be argued that adding the allowance price to their bids meant the unit ran less. In practice I believe that this factor was so small to be negligible. It is only when the added price is enough to change the order of the bids in a step-wise fashion that there is an effect. My understanding is that the allowance price is so small relative to the fuel price differential that it was inconsequential. Given the range of factors affecting these coal units we can assume that New York coal retirements and operating reductions are more likely due to non-RGGI factors than RGGI itself. Ultimately, look at it this way - in the absence of RGGI the facilities would still have retired so any modeling approach that presumes that RGGI influenced the NYS coal retirements is wrong.

As an aside, note that this line of reasoning also affects the statement mentioned before by Julie Tighe that "emissions from the power sector in New York have fallen more than 50% since the states agreed to set the cap in 2005." As shown, it is inappropriate to claim any emissions reduction due to RGGI for the years 2006 to 2008. As shown in Table 5, the percentage reduction in 2016 from 2005 is "over 50%" but against the more appropriate baseline of the average of 2006 to 2008 the emissions reduction is only 40.7%.

Table 5: New York State RGGI Emissions Reductions

	Tonnage Reduction		Percent Reduction	
	2005	2006-2008	2005	2006-2008
Baseline	62,718,683	52,567,819		
2009	-24,857,275	-14,706,411	-39.6%	-28.0%
2010	-20,605,512	-10,454,648	-32.9%	-19.9%
2011	-25,570,304	-15,419,440	-40.8%	-29.3%
2012	-27,078,241	-16,927,377	-43.2%	-32.2%
2013	-28,959,090	-18,808,226	-46.2%	-35.8%
2014	-28,285,727	-18,134,863	-45.1%	-34.5%
2015	-29,701,089	-19,550,225	-47.4%	-37.2%
2016	-31,524,168	-21,373,304	-50.3%	-40.7%

Lower Bound Estimate

The lower bound for RGGI program CO_2 emissions reductions during this period can also be estimated. It can be argued that the coal and residual oil emissions were lower due solely to the changes in cost differences relative to natural gas and additional regulations and compliance pressure for NOx, Hg, and (in New York) opacity. This assumes that RGGI compliance is incorporated into the bid price and so was not a direct driver in facility pollution control decisions. Making those assumptions then means that the CO_2 reductions directly due to RGGI should only be from the savings of 6.8 million mmBtu of generation from natural gas and the natural gas emission factor for CO_2 should be used for CO_2 displacement. This results in only a 400,865 ton reduction or miniscule 0.5% reduction due to RGGI. If on the other hand

the lifetime benefits should be used then emissions would have been only 6.6% higher than without the program.

To summarize, there is a range of CO2 emissions with and without RGGI based on assumptions and methodology. The upper bound is an econometric model that estimates that emissions would have been 24 percent higher without the program. Lower bound estimates range from 0.5% to 6.6%. Using the RGGI investment summary report with annual benefits estimates RGGI was responsible for only 2% of the reductions and with lifetime benefits 19%

Implications

Overall RGGI has been a success inasmuch as it has successfully demonstrated how a cap and auction program can be run, has contributed to the observed CO2 reductions and has provided worthwhile investments in energy efficiency, energy conservation, and ratepayer direct bill assistance. On the other hand, RGGI has no demonstrated success providing the magnitude of CO2 reductions necessary to meet the Model Rule post-2021 cap reduction of 2,275,000 tons per year. Based on the Investment Summary Reports all the investments 2008-2015 provided an annual reduction of only 2,044,750 tons.

New York's performance in this regard is arguably worse. We are above average in administration costs and our governors have raided the proceeds for budgetary manipulations. I personally believe that RGGI costs should only go to energy efficiency, energy conservation, and ratepayer direct bill assistance but will begrudgingly accept all other programs that reduce CO2 emissions. The operating plan has two programs that project no reductions.

The inconsistency between investment performance and the needs relative to NYS CO2 reduction goals has to be addressed in the NYSERDA RGGI Operating Plan. New York has a record of which investments are the most effective reducing CO2 emissions. The operating plan should be revised to increase funding for those programs that are most effective and de-fund any program that is not providing reductions. Given these apparent difficulties meeting the goals it would also for the operating plan to outline how the State will meet its commitments.

Additionally, there is one serious potential implication that must not be overlooked. The 30% decrease post 2021 will reduce allowances to the point where there could be fewer allowances available than those necessary for operations at any realistic historical level. This is unprecedented in any allowance trading program I am aware of. The ultimate affected source compliance option for any allowance trading program is to simply not run when the allowances are used up.

Finally, it appears to me that the State is putting the cart before the horse. Setting the aggressive emission cap reductions puts us in an unprecedented situation and risks credibility of the whole program but it does not appear programs are in place to get the reductions needed. If there is anything that begs for economic modeling it would be an analysis of what the market price would have to be to trigger the investments needed to make the State's goals.

Stakeholder Engagement

Julie Tighe mentioned that DEC has had robust stakeholder conversations, "above and beyond" the SAPA requirements. I want to point out that while that may be technically true the reality is that critical comments were not addressed formally. RGGI is also guilty of the same thing compounded by the fact that their turnaround time for comments was consistently very short. Not unlike this response deadline. Sixteen days over the end of year holiday period is completely inadequate if in fact you wanted substantive reviews. I recommend that future NY stakeholder processes include a formal response to all comments and adequate time for comments to be developed.

Conclusion

The similarity of this situation to the Emperor's New Clothes is striking. Cuomo's CO2 reduction goals garner praise and adulation from motivated backers of alternative technology and all the agencies fawn over them and the results so far. However, actually looking at the performance of the RGGI investments and determining the cause of electric sector emission reductions tells a completely different story than that presented by NYSERDA and DEC at the NYS RGGI operating plan stakeholder meeting. RGGI investments are not providing anywhere near the emission decreases necessary to meet the additional 30% RGGI cap reduction that New York championed. As shown, fuel switching was the primary reason emissions dropped since 2005 and the problem is that there are limited opportunities for further reductions. In addition, remember that the State also wants to shut down over 2000 MW of CO2-free generation by closing Indian Point. The reckless insistence of New York and the RGGI states to lower the emissions cap despite these issues could have negative consequences. New York State must prioritize its operating plan investments to get effective emission reductions because the electric sector itself has little else to provide.

Roger Caiazza

Personal contact information redacted