Economic Benefits of RGGI

June 2013

States participating in the Regional Greenhouse Gas Initiative (RGGI) have gained significant benefits from the program to-date, and far greater benefits will be realized by implementing recently agreed reforms.

RGGI at a Glance:

- 9 States (MD, DE, NY, CT, RI, MA, VT, NH & ME)
- Applies to CO_2 emitting power plants over 25 MW
- Went into effect Jan 1, 2009
- At quarterly auctions power plants purchase allowances to cover emissions
- Revenue reinvested according to state plans
- Reforms to cap level and other changes take effect in 2014

Greenhouse gas emissions from power plants in the region have dropped significantly since RGGI was formed. Meanwhile, revenue from auctions of allowances (permits to emit CO_2) has been invested in energy efficiency and other consumer programs that reduce energy costs while increasing economic output and employment. RGGI-funded energy efficiency programs reduce expenditures for fossil fuels imported to generate power, thus making states more competitive while reducing carbon emissions. RGGI states have agreed to program improvements based on the first four years of operation – most importantly the allowance budget (the "cap") is being reduced to account for long-lasting changes in the electricity sector that have brought emissions to historic lows.[i] Implementing these reforms and investing additional RGGI revenue in clean energy and other consumer programs will benefit participating states significantly.

Benefits To-Date

Tracking RGGI dollars through state reinvestment programs makes it possible to calculate RGGI's impact on member states' economies to-date, taking into account direct effects of projects funded by RGGI, as well as broader impacts from wages and efficiency savings boosting consumer spending throughout the economy. Through June 2013 sales of allowances have generated $1.4 billion in revenue, which has been reinvested in energy efficiency and other programs that add $2.4 billion in net value to participating states' economies over 10 years. This increase in growth generates over 23,000 job years of employment across the economy (each job year represents one fulltime job for 1 year).[ii]

Benefits from a Strengthened RGGI

In order to account for the significant and enduring decline in CO_2 emissions since RGGI began, RGGI states agreed to reduce the oversupply of allowances and reset the cap at current emissions levels (91 million tons). **If states continue invest additional revenue from RGGI according to existing plans, through 2020 RGGI could generate an additional $3.2 billion in funding and add over $8 billion in net value and 57,000 job years of employment to state economies.**[iii]

	Current RGGI - Benefits To-Date			*Improved RGGI - Additional Benefits 2013-2020*		
	Funding ($ millions)	Value Add ($ millions)	Employment (job years)	*Funding ($ millions)*	*Value Add ($ millions)*	*Employment (job years)*
Connecticut	$ 80	$ 294	2,036	*$ 225*	*$ 823*	*$ 5,702*
Delaware	$ 38	$ 108	915	*$ 137*	*$ 385*	*$ 3,271*
Maine	$ 41	$ 140	1,398	*$ 124*	*$ 420*	*$ 4,194*
Maryland	$ 277	$ 207	2,235	*$ 655*	*$ 1,655*	*$ 5,294*
Massachusetts	$ 217	$ 758	5,772	*$ 567*	*$ 1,981*	*$ 15,083*
New Hampshire	$ 53	$ 61	735	*$ 129*	*$ 202*	*$ 1,798*
New Jersey*	$ 125	$ 159	1,867	--	--	--
New York	$ 499	$ 496	7,031	*$ 1,313*	*$ 2,193*	*$ 18,520*
Rhode Island	$ 22	$ 106	867	*$ 57*	*$ 277*	*$ 2,274*
Vermont	$ 10	$ 33	296	*$ 26*	*$ 88*	*$ 779*
Total	**$ 1,362**	**$ 2,362**	**23,152**	***$ 3,236***	***$ 8,024***	***56,914***

*New Jersey ceased participation in RGGI and received no funding after 2011

The Role of Energy Efficiency

The majority of auction proceeds across the region are used to support **energy efficiency** programs, which directly benefit consumers in a number of ways:

- First, reduced energy consumption due to efficiency improvements brings down monthly electric bills for participating consumers.
- Second, reduced consumption decreases wholesale electricity prices, delivering additional savings to all consumers.
- Third, reduced demand for electricity brings down emissions from fossil fuel-fired power plants, decreasing the demand for allowances and the overall cost of reducing emissions.

Efficiency investments also create the highest level of **economy-wide benefits** by creating local efficiency-related jobs, by reducing expenditures on imported fossil fuels, and by boosting consumer spending on other goods and services. Direct employment benefits of efficiency programs range from energy service contractors who install insulation and efficient equipment to manufacturers of advanced energy saving technologies. Indirect employment benefits accrue across the economy as the money customers save on monthly energy bills is spent locally, benefitting everyone from bus drivers to bus boys. In New England states every $1 spent on electric energy efficiency improvements creates $4.30 to $6.40 in economic activity.[iv] While all states accrue net benefits from participation in RGGI, states investing greater proportions of auction proceeds in efficiency derive the greatest benefits.

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Notes:

[i] Recent analysis of RGGI emissions trends and drivers by ENE finds that fuel-switching, non-emitting generation, and efficiency investments have caused emissions to fall ~35% to 45% below the cap since the program began in 2009, and these trends show no sign of reversing. Report available at: http://www.env-ne.org/resources/detail/rggis-past-and-future-emissions-trends-and-potential-reforms

[ii] Calculation of economic benefits in this report draws on economic multipliers from the IMPLAN model, inferred from the 2011 Analysis Group 2011 report *The Economic Impacts of the Regional Greenhouse Gas Initiative on Ten Northeast and Mid-Atlantic States* (available at: http://www.analysisgroup.com/RGGI.aspx) and assumes spending of auction revenue according to existing state plans (catalogued in ENE Auction Tracker, at: http://www.env-ne.org/resources/detail/rggi-auction-tracker).

[iii] Estimates of 2013-2020 benefits based on IMPLAN economic multipliers, assuming allowance price of $3.60/ton in 2014 increasing to $10.21/ton in 2020 from RGGI states' modeling of 91 million ton cap, at: http://rggi.org/docs/ProgramReview/February11/Results_91_Cap_Alt_Bank_MR.xls.

[iv] See ENE's *Energy Efficiency: Engine of Economic Growth*, p. 29, at: http://www.env-ne.org/resources/detail/energy-efficiency-engine-of-economic-growth,