RGGI 2012 Program Review Public Meeting
September 19, 2011
CLF Stakeholder Comment

N. Jonathan Peress
njperess@clf.org

clf
conservation law foundation

Compelling link between CO2 emissions, climate change and ocean acidification

- Climate change is occurring, is very likely caused primarily by the emission of greenhouse gases from human activities, and poses significant risks for a range of human and natural systems. Emissions continue to increase, which will result in further change and greater risks. Higher emissions will result in more severe impacts. In the judgment of this report's authoring committee, the environmental, economic, and humanitarian risks posed by climate change indicate a pressing need for substantial action to limit the magnitude of climate change and to prepare for adapting to its impacts.

  Advancing the Science of Climate Change, *National Academy of Science (2011)*

- **CO2 Emissions Causing Ocean Acidification at Unprecedented Rate**
  - Unless man-made carbon dioxide emissions are substantially curbed, or atmospheric carbon dioxide is controlled by some other means, the oceans will continue to become more acidic,. Summary of a Congressionally requested study by the National Research Council. April 22, 2010

State law adopted emissions reductions targets

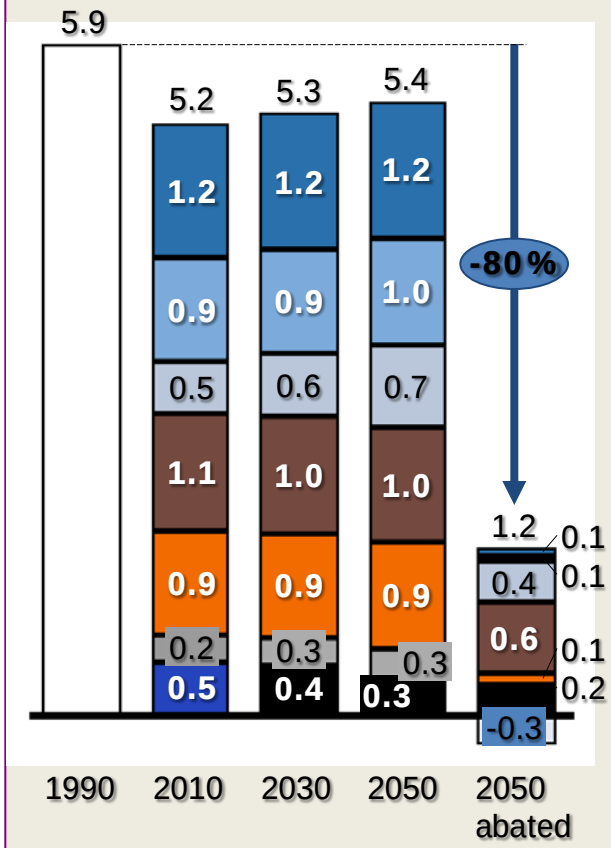
- Connecticut: statute - 10 % below 1990 levels by 2020; 80 % by 2050
- Maryland: statute – 25 % below 2006 levels by 2020
- Massachusetts: statute - 25 % below 1990 levels by 2020; 80 % by 2050
- New York: Executive Order – 80 % below 1990 levels by 2050

- California, Europe (even China), moving ahead with programs as Kyoto is set to expire

- RGGI is a core mechanism because achieving these legal mandates requires de-carbonization of electric sector

Understanding the role of the different sectors: 80% by 2050 (whole economy) only possible with *zero-carbon electricity*

EU-27 total GHG emissions
$GtCO_2e$ per year



Sector	Abatement	Within sector[1, 2]	Fuel shift
Power	**95% to 100%**	>95%	
Road transport	**95%**	20%	75% (electric vehicles, biofuels and fuel cells)
Air & sea transport	**50%**	30%	20% (biofuels)
Industry	**40%**	35% (CCS[3])	5% (heat pumps)
Buildings	**95%**	45% (efficiency and new builds)	50% (heat pumps)
Waste	**100%**	100%	
Agriculture	**20%**	20%	
Forestry	**-0.25 $GtCO_2e$**	Carbon sinks	

1 Based on the McKinsey Global GHG Abatement Cost Curve
2 Large efficiency improvements already included in the baseline
3 CCS applied to 50% of industry (cement, chemistry, iron and steel, petroleum and gas, not applied to other industries)

SOURCE: European Climate Foundation

Core working group

Cap and Trade / Marketable Permit is Proven Efficient Mechanism

- The Reagan White House conceived the first cap-and-trade program in the 1980s to phase out lead in gasoline at a lower cost. An EPA analysis shows:
  - …estimated savings from the lead trading program of approximately 20 percent over alternative programs that did not provide for lead banking, a cost savings of about $250 million per year.
- George H.W. Bush proposed the CAA Title IV Acid Rain program cap-and-trade system to SO2 emissions from power plants.
  - Overwhelmingly supported: Kit Bond (R-Mo), Trent Lott (R-MS), Mitch McConnell (R-KY), and Strom Thurmond (R-SC); Reps. Newt Gingrich (R-GA), Joe Barton (R-TX), Dennis Hastert (R-IL), Jim Inhofe (R-OK), and Fred Upton (R-MI).
  - The actual cost of cutting sulfur emissions by 40 percent was substantially lower than predicted: $1 to $2 billion per year, just one quarter of original EPA estimates.
- Core program design element: Building into the program continual and periodic evaluations to determine whether the desired results are being obtained and whether the program needs to be modified. The Implementation of Economic Incentives for Pollution Control. National Academy of Public Administration (1994).