

July 24, 2008

**Honorable Members of the Massachusetts House of Representatives:**

I am writing on behalf of Environmental Entrepreneurs (E2) ([www.e2.org](http://www.e2.org)) in support of the **Massachusetts Global Warming Solutions Act**. We strongly believe that this bill will improve our economy, spur innovative new industries, and give the state a competitive advantage in the emerging clean energy economy.

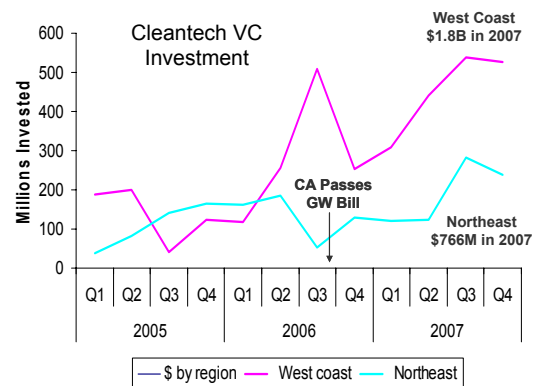
E2 represents a national community of over 850 independent business leaders – 80 of them in Massachusetts -- who believe in protecting the environment while building economic prosperity. E2 is widely recognized as a resource and an independent voice for understanding the business perspective on environmental issues. As a group of entrepreneurs, investors and professionals who collectively manage over \$20 billion of venture capital and private equity, have started well over 1200 businesses which in turn have created over 400,000 jobs, we believe that Massachusetts has many of the right ingredients to lead the clean energy economy if we have the political will to turn words into action.

**Massachusetts: Leader or Laggard?**

Massachusetts is at a unique turning point in history. In the next 50 years our economy will almost certainly be powered by something other than fossil fuels. The question is whether Massachusetts will become an innovative leader in this economy or continue to send our precious dollars to other states and countries to buy fossil fuels, the primary cause of global warming. By making a binding commitment to reduce emissions, the Massachusetts' Global Warming Solutions Act sends a signal to the world that Massachusetts is serious about clean energy, creating a market for our growing clean energy industries such as advanced batteries, cellulosic ethanol, and new forms of highly efficient insulation.

This bill, along with other progressive measures, will create jobs in renewables, efficiency and demand-side management that are applicable to workers at every level of the academic and skills ladder and across the entire state. Clean energy jobs run the gamut from Ph.D. research to solar panel installation, energy audits, weatherizing buildings and maintenance of wind turbines. Not only can these not be outsourced, but with proper training are appropriate for low-income and disadvantaged workers.

In September 2006, California passed its landmark Global Warming Bill (AB32) requiring a mandatory cap on global warming pollution. The bill is already paying dividends. Since passing the Global Warming Bill, California has taken a dramatic lead over the Northeast in cleantech venture investment. In 2007, California received over \$1.8B in venture funding for cleantech, more than 48% of the total \$3.7B of U.S. investments. As a rule of thumb, every \$100 million in venture capital funding could help spur creation of 2,700 direct jobs in venture-backed companies, \$500 million in



annual revenues over the next two decades, and many more indirect jobs.<sup>1</sup> An independent state report found that meeting their emissions goals will increase Californians' income by about \$4 billion and provide about 83,000 additional jobs.

CO <sub>2</sub> Emissions from Fossil Fuel Combustion Million Metric Tons CQ (MMTCO <sub>2</sub> ) <sup>*</sup>			
State	Sector	1990	2005
Massachusetts		83.92	84.83
	Commercial	8.40	6.59
	Industrial	5.96	4.84
	Residential	15.01	14.80
	Transportation	28.91	34.27
	Electric Power	25.64	24.33

Source: [http://www.epa.gov/climatechange/emissions/downloads/CO2FFC\\_2005.pdf](http://www.epa.gov/climatechange/emissions/downloads/CO2FFC_2005.pdf)

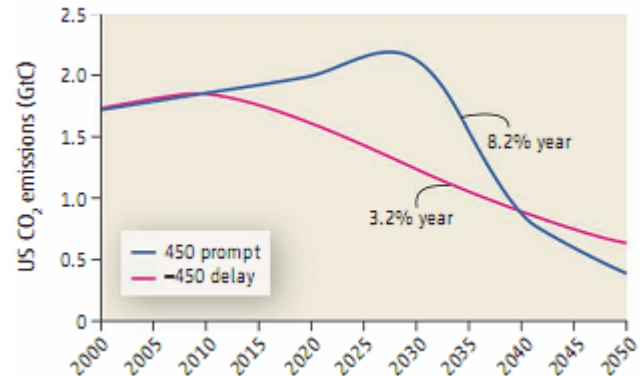
Massachusetts is well positioned to meet its pollution goals. Greenhouse gas emissions from burning fossil fuels in Massachusetts have been surprisingly stable since 1990. According to the EPA, emissions were 83.90 Million Metric Tons of CO<sub>2</sub> in 1990 versus 84.83 in 2005.<sup>2</sup> Reductions of 20% by 2020 and 80% by 2050, the goals that scientists have endorsed, are well within our grasp if we have the political will to take immediate action.

Most observers believe that within the next two years, regardless of who is elected to the presidency, there will be a federal cap on greenhouse gases. Some states will seize this opportunity and be well prepared to capitalize on the growing clean energy industry that this will spur. This bill can give us a running start in the race for clean technologies.

### Fast Action Means Lower Costs

A recent report from McKinsey & Company<sup>3</sup> analyzed the cost and methods for the United States to reduce greenhouse gas (GHG) emissions. The detailed report demonstrated that if we act quickly greenhouse gas emissions can be reduced one-third to one-half by 2030 at minimal economic cost. It showed that this can be accomplished without new technology breakthroughs and without reductions in our current standard of living. In addition, the investments in energy efficiency and renewables will grow many existing and new sectors of the economy, creating new jobs and keeping the country competitive.

The key to success is fast action. If emissions reductions begin soon, we can meet the goals that scientists have set by gradual reductions of about 3.2% per year. If we delay a serious start and allow continued emission growth at nearly the business-as-usual rate, the annual emission reduction rate required to stay on this path jumps to 8.2% per year.<sup>4</sup>



According to the Stern Review<sup>5</sup>, a highly respected economic study by the British government, "the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year, now and forever. If a wider range of risks and impacts is taken into account, the estimates of damage could rise to 20% of GDP or more. In contrast, the costs of action – reducing greenhouse gas emissions to avoid the worst impacts of climate change – can be limited to around 1% of global GDP each year."

<sup>1</sup> Creating Cleantech Clusters: 2006 Update, May 2006, E2 & Cleantech Capital Group

<sup>2</sup> [http://www.epa.gov/climatechange/emissions/downloads/CO2FFC\\_2005.pdf](http://www.epa.gov/climatechange/emissions/downloads/CO2FFC_2005.pdf)

<sup>3</sup> [http://www.mckinsey.com/client-service/ccsi/pdf/US\\_ghg\\_final\\_report.pdf](http://www.mckinsey.com/client-service/ccsi/pdf/US_ghg_final_report.pdf), McKinsey & Co., November 2007

<sup>4</sup> [www.sciencemag.org](http://www.sciencemag.org) An Ambitious, Centrist Approach to Global Warming Legislation, David D. Doniger, Antonia V. Herzog, Daniel A. Lashof, November 17, 2006

<sup>5</sup> [http://www.hm-treasury.gov.uk/media/4/3/Executive\\_Summary.pdf](http://www.hm-treasury.gov.uk/media/4/3/Executive_Summary.pdf)

## **Business Supports a Mandatory Cap on Emissions**

In 2007, a growing list of over 27 leading American companies known as the U.S. Climate Action Partnership (USCAP) issued an unprecedented call for a federal limit on heat-trapping pollution, backed by a market system that rewards quick results and cuts overall costs to the economy. USCAP's members include Alcoa, BP America, Caterpillar, Duke Energy, DuPont, FPL Group, General Electric, Lehman Brothers, PG&E, PNM Resources and many other large and respected companies.

In March 2007, a group of 65 institutional investors and US companies called on Congress to pass federal legislation to cut greenhouse gasses that lead to global warming. Organized by Ceres and the Investor Network on Climate Risk (INCR), the group presented a "Climate Policy Call to Action" with detailed responses to climate change they believe need to happen on a nationwide scale. This was the largest group of pension funds, state treasurers, state/city comptrollers, financial service firms, asset managers, foundation endowments and US companies ever to ask the Congress and federal government to act on this issue.

## **Old Economy versus New**

The market today for clean technologies that reduce global warming pollution is very small because the pollution can be emitted without charge. An enforceable limit on global warming pollution will provide clear market incentives for innovative technologies that reduce pollution. We are watching the economic opportunity of a lifetime unfold right in front of our eyes. Massachusetts can continue down the path of the old economy spending our precious dollars on ever higher priced fossil fuels. Or we can take our destiny into our own hands, set achievable mandatory limits on greenhouse gas pollution, and reduce the cost of energy by prudent investments that will leverage our own clean energy resources here at home.

A recent news article in the Springfield Republican may provide a look at the future. In Russell, Massachusetts developers of the Russell Biomass electrical power plant to be built on the site of the former Westfield River Paper Company say the company's new plant will provide tax revenues to the town of Russell that are 20 times greater than those paid by the former paper company and will eliminate the town's budget problems for the next 20 years.

Thank you for consideration of the E2 business perspective on these issues. Please contact Berl Hartman at 617 497-0393 or at [berl@berlhartman.com](mailto:berl@berlhartman.com) if you would like to discuss these important matters further.

Sincerely,

Berl Hartman  
E2 New England Co-founder & Chapter Leader

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