

THE MASSACHUSETTS CLEAN ENERGY AND CLIMATE SCORECARD

March 2014

Executive Summary

The Patrick Administration’s successful clean energy initiatives have made Massachusetts a leader in energy efficiency, renewable energy and climate protection. In this report, the members of the Global Warming Solutions Project (GWSP), a diverse stakeholder network whose members are committed to ensuring Massachusetts achieves the objectives of the GWSA, have evaluated the state’s progress in reaching its requirements and offer proposals for action in 2014.

Under the terms of the 2008 Global Warming Solutions Act (GWSA) and the 2010 Clean Energy and Climate Plan for 2020 (the “2020 Plan”) Massachusetts is required to reduce its greenhouse gas (GHG) emissions 25% below the 1990 level by 2020 and at least 80% by 2050. While many states have adopted emissions goals, Massachusetts’ reduction target is among the strongest in the country, and is a legal mandate. Our assessment, shown below, is that the state will reduce GHG emissions about 20% by 2020. To reach the 25% mandate, further state action is needed, on an expedited basis.

Economy-wide 2020 Greenhouse Gas Emissions Reduction Below 1990 Levels

Clean Energy & Climate Plan 2020 forecast (middle case) – December 2010	27%
2020 reduction required by Global Warming Solutions Act	25%
Global Warming Solutions Project Scorecard estimate – March 2014	20%
<i>Difference between GWSA mandate & GWSP Scorecard estimate (March 2014)</i>	<i>-5%</i>

GWSP Forecast of Greenhouse Gas Emission Reductions

(as % of reductions in the Dec. 2010 Clean Energy & Climate Plan)

Sector	% of the reduction mandate we expect to be reached by 2020 [†] <i>(without intensified effort)</i> <i>“How much of the way there?”</i>
Buildings & Energy Efficiency	87%
Electricity Supply	88%
Transportation & Land Use	63%
Non-Energy Emissions	74%

All Sectors Weighted & Combined	81%
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[†]The *Clean Energy and Climate Plan for 2020* included emissions reduction programs totaling to a 27% reduction from 1990 emissions, 2% more than is legally required. These numbers are adjusted so that they are relative to the 25% requirement.

Key Findings

The GWSP members have scored the State on 28 policies that it committed to implement when it released the 2020 Plan in 2010. The Scorecard indicates that the state has performed strongly to date.

11% GHG Reduction achieved by 2010: According to the State’s GHG inventory, emissions fell by 11% between 1990 and 2010, getting us a substantial distance toward the 25% requirement in 2020.

GHG emissions likely to fall 20% by 2020: Given the current status of the policies, we estimate that by 2020 GHG emissions in Massachusetts will fall about 20% below 1990 level, or **four-fifths of the legal mandate**.

The state needs to take additional steps expeditiously: To reach the required 25% reduction by 2020 the State must take further steps to implement policies that are currently in their formative stages, and to enhance policies that are not currently on track to achieve their full potential.

Readily-available policies can get us to the 25% requirement: We have identified more than a dozen policies that in combination can achieve well above the 5% additional GHG reduction needed by 2020. Most of these are part of the 2020 Plan, a few were not. Most can be implemented by the Governor through administrative actions, a few require new legislation.

Policies must also support reaching the 2050 GHG mandate: Massachusetts can also reach the long-range requirement of at least an 80% emissions reduction by 2050, but to do so the state must not lock us in to significant emissions from new, long-lasting fossil-fuel facilities, such as natural gas pipelines and electric generating plants.

Actionable steps for Massachusetts to take in 2014 to ensure the 2020 GHG emissions reduction requirement is met

The policy changes listed below are, in total, more than sufficient to close the 5% gap between our current estimate of a 20% GHG reduction in 2020 and the legally required 25%. Detailed explanations of each policy are provided in the full report.

Overall

- Promulgate regulations setting declining annual emissions limits by source of emissions, as required by the Global Warming Solutions Act

Energy Efficiency

- Meet the electricity and heating fuel efficiency targets in the 2013-2015 Three Year Plan
- Acknowledge the real cost of CO₂ in evaluating the benefits of efficiency measures
- Adopt an updated version of the Stretch Code

Electricity Generation and Renewable Energy

- Encourage appropriately-sited, cost-effective transmission lines to bring additional renewable power into Massachusetts
- Add renewable thermal energy to the state's Alternative Energy Portfolio Standard

Transportation and Land Use

- Promulgate regulations to codify MassDOT's effort to triple the share of travel in Massachusetts being done by bicycling, transit and walking by 2030
- Pass zoning reform legislation
- Begin mileage reduction pilot program for auto insurance
- Prevent motor fuel and heating oil GHG emissions from rising due to imports of Canadian Tar Sands-derived oil
- Do "smart driving" education on how to save gas by driving more carefully and maintaining your car better

Non-Energy Emissions

- Cut methane leaks from natural gas pipelines
- Cut leakage of high-GHG gases from large refrigeration systems

Other Related Issues

- Ensure that all communities have equal access to the benefits of a clean energy future and that no communities bear a disproportionate burden of the expected impacts from climate change