

Benefits of Massachusetts' Energy Efficiency Programs

February 2015



Advancing the Clean Energy Future

Massachusetts can embrace an energy future that offers lower costs, greater consumer control and achieves significant progress toward state and regional greenhouse gas (GHG) emissions reduction goals. Indeed, the Commonwealth has made substantial progress toward an energy system that reduces emissions even while promoting economic growth. This trend must continue and even pick up the pace.

A large part of the emission reductions that Massachusetts has achieved to-date are due to the nation-leading energy efficiency programs that the Commonwealth has implemented. As we begin to prepare for the third three-year plan, it is useful to quantify the benefits of these programs from the last 5 years.

Financial Results:¹

- Total Benefits:² \$11 billion
- Program Costs:³ \$2.1 billion
- Net Benefits: \$8.9 billion
- Cost to benefit ratio: **\$1 invested = \$5.23 in benefits**

Economic Impact:⁴

- Increase in Gross State Product due to Massachusetts' energy efficiency programs: \$12.6 billion
- Economy-wide New Job Years due to Massachusetts' energy efficiency programs: 83,099

Climate and Health Impacts:⁵

- Annual GHG reductions: 2.57 million metric tons
 - equivalent to removing 537,873 cars from the road
 - 36% of 7.1 million metric ton reductions by 2020 attributed to energy efficiency programs in the Clean Energy and Climate plan⁶
- Annual NO_x reductions: 956 metric tons
- Annual SO₂ reductions: 2,513 metric tons

Energy Impacts:⁷

- Measures and programs funded through the first two 3-year plans are, by 2016:
 - Predicted to save consumers 3,617 GWh per year
 - Predicted to reduce peak summer demand by 614 MW, or 5% of total peak load
 - Predicted to reduce annual gas consumption by over 4.6 million MMBtu

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Green Jobs:⁸

- In 2014, there were 65,000 workers and more than 4,000 firms working in the Massachusetts energy efficiency industry
- 35.6% growth in the number of firms conducting energy efficiency work since 2013
- Energy efficiency firms expect to add more than 7,500 workers by 2016, the highest total number of any technology

For more information:

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¹ Data covering Jan. 1, 2010 through Sept. 30, 2014. From MA Energy Efficiency Advisory Council's 2012 and 2013 Annual Reports to the Legislature, and Program Administrators' 2014 Q3 data presented to EEAC, Nov 2014.

² Combines \$5,465,000,000 (Total Benefits 2010-2012, 2012 Annual Report) with \$2,811,000,000 (2013 Total Benefits, 2013 Annual Report), \$2,303,008,031 (2014 Q3 data, electric planned benefits figure), and \$495,571,580 (2014 Q3 data, gas planned benefits figure).

³ Combines \$1,190,000,000 (2010-2012 Program Spending, 2012 Annual Report) with \$574,000,000 (2013 Program Spending, 2013 Annual Report), \$273,279,967 (2014 Q3 data, electric actual spending), and \$96,167,112 (2014 Q3 data, gas actual spending).

⁴ Multipliers from Energy Efficiency: Engine of Economic Growth, ENE (Oct 2009) at 29-30; data from Program Administrators' 2014 Q3 data (Nov 2014), PAs' 4th Quarter 2013 Presentation (Feb 25, 2014), and MA Energy Efficiency Advisory Council 2010 Annual Report to the Legislature.

⁵ Data covering Jan. 1, 2010 through Sept. 30, 2014. From MA Energy Efficiency Advisory Council's 2012 Annual Report to the Legislature, and Program Administrators' 2013-2014 Q3 data presented to EEAC, Nov 2014.

⁶ 6.7 million metric ton reduction in 2020 for all cost-effective energy efficiency; 100,000-200,000 metric ton reduction for "Deep" Energy Efficiency improvements; 100,000 metric ton reduction for expanding energy efficiency programs to C&I heating oil; and 100,000 metric ton reduction for tree retention and planting program administered through the energy efficiency programs.

⁷ From "The Impacts of the Green Communities Act on the Massachusetts Economy: A Review of the First Six Years of the Act's Implementation," Analysis Group, March 2014

⁸ From 2014 Massachusetts Clean Energy Industry Report, MassCEC.