Status of Implementation of MA Global Warming Solutions Act of 2008
2020 GHG Reduction Target and Plan

Lee Dillard Adams, MassDEP

TUR Conference, Norwood, MA , November 3, 2010

2020 GHG Reduction Target and Draft Climate Implementation Plan

- Draft Published April 30, 2010
- Eight Public Hearings Around the State

  To receive public input on:

  - 2020 GHG reduction target (18%-25%); and
  - Draft implementation plan
- By January 1, 2011 Adopt 2020 GHG Reduction Target and Implementation Plan

Global Warming Solutions Act Public Hearings in June 2010

Tuesday, June 1
Pittsfield, MA

Thursday, June 3
Worcester, MA

Monday, June 7
Lowell, MA

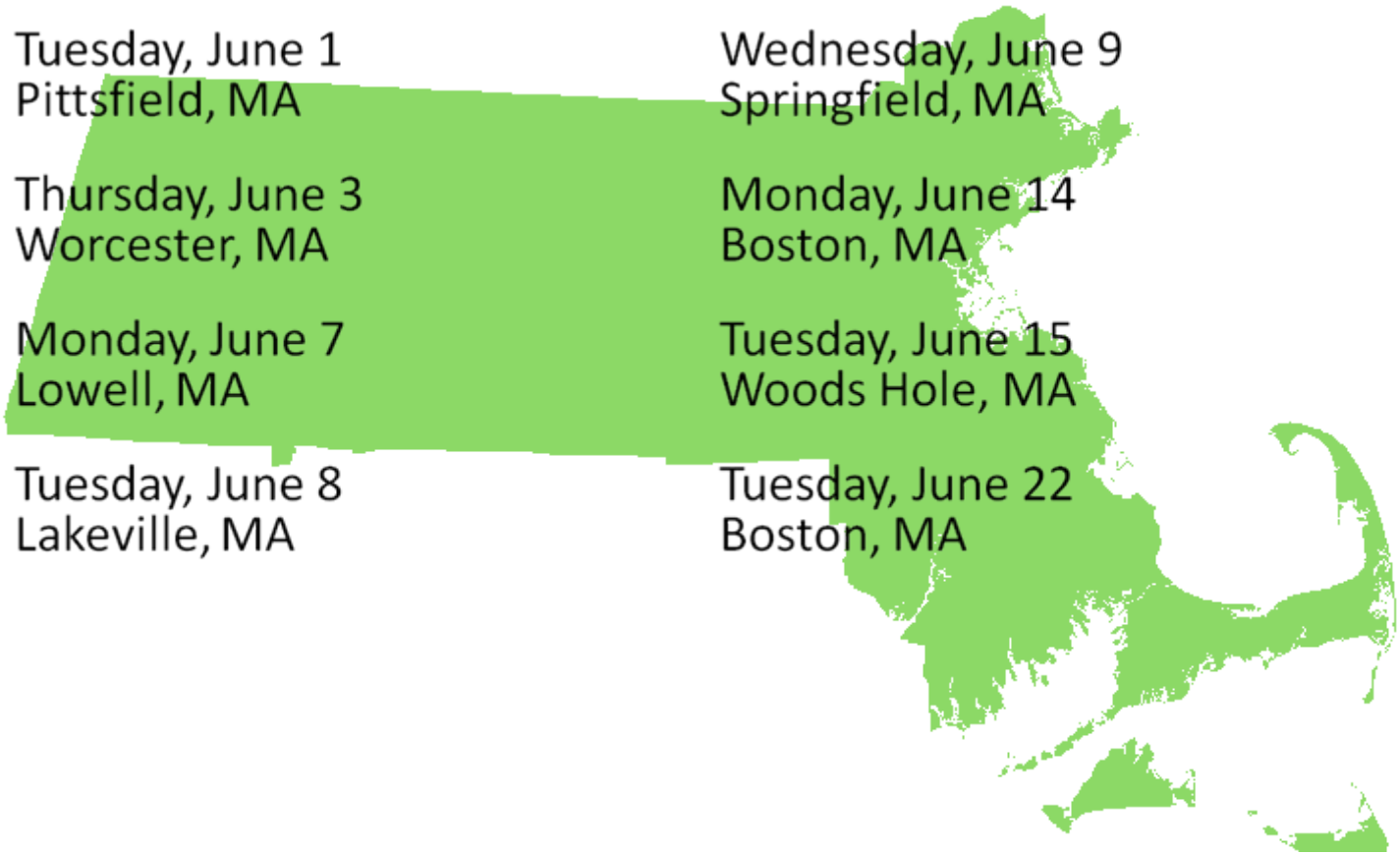
Tuesday, June 8
Lakeville, MA

Wednesday, June 9
Springfield, MA

Monday, June 14
Boston, MA

Tuesday, June 15
Woods Hole, MA

Tuesday, June 22
Boston, MA



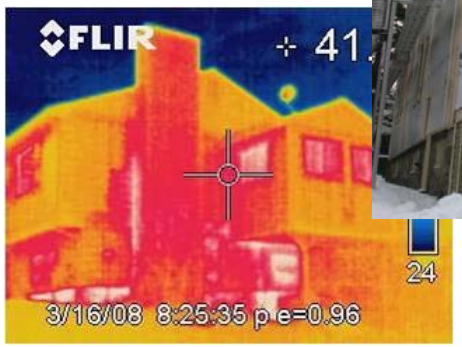
Massachusetts
Leadership in Climate and Clean Energy

1. Green Communities Act
2. Clean Energy Biofuels Act
3. Green Jobs Act
4. Oceans Act
5. Global Warming Solutions Act
6. Transportation Reform Act

Massachusetts
Leadership in Climate and Clean Energy

Energy Efficiency

- Most ambitious EE program in the country;
  - 3 X California/capita;
- $2 Billion Investment = $6 Billion Savings in 3 years;
  - Cheapest “new” source of energy;
- By 2020 – 20% electricity through EE;
- 5%-6% GHG reductions



Massachusetts
Leadership in Climate and Clean Energy

Solar

- 20-fold increase in solar PV – from 3.5 MW to more than 60 MW by end of 2010;
- 4-fold increase in number of firms involved in solar energy installation (50 >> 200);
- Doubling of employment in solar manufacturing and installation between 2007 to 2009.

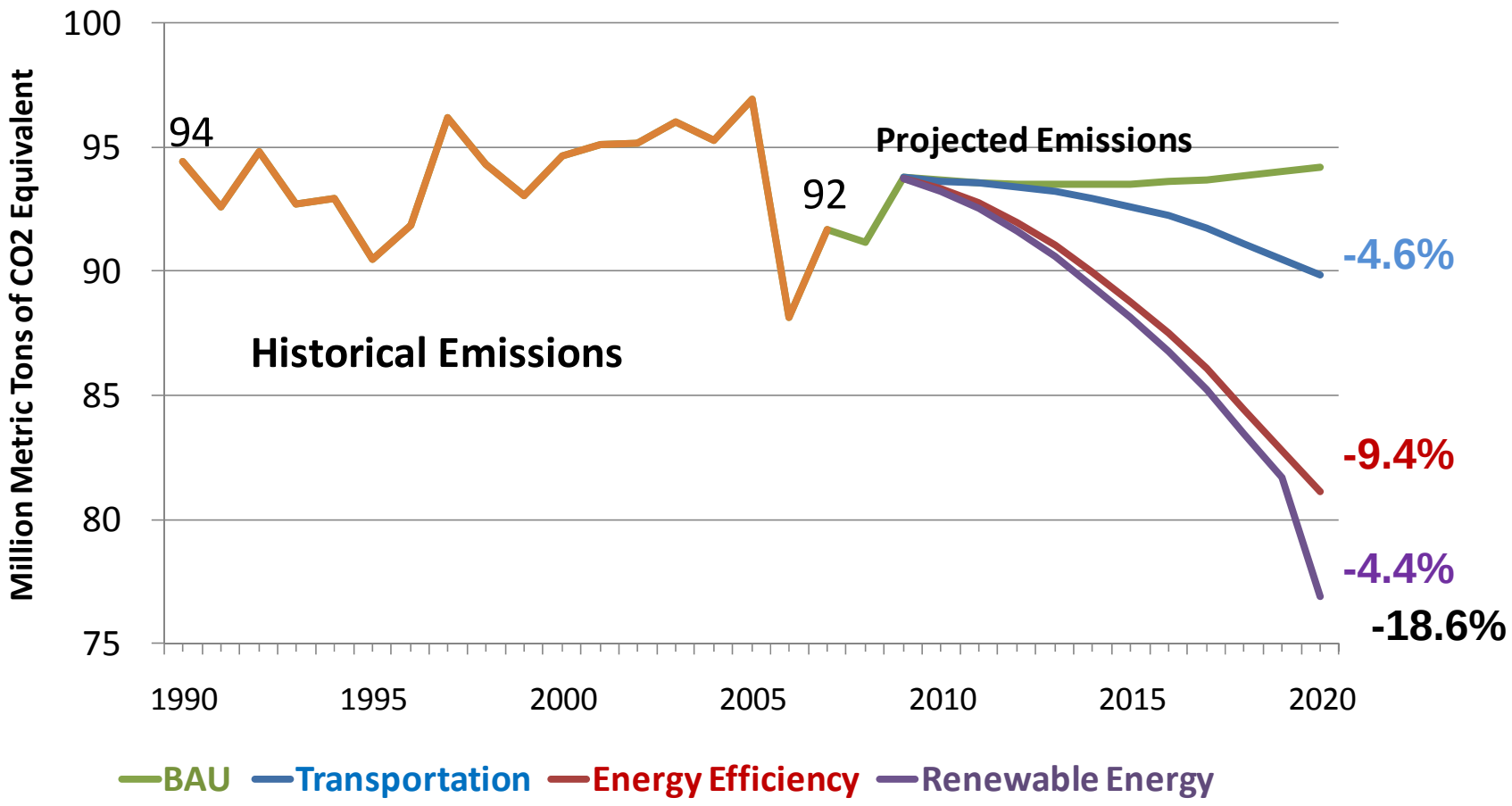




Global Warming Solutions Act

- Create an economy-wide program to reduce GHG emissions:
  - 80% below 1990 levels by 2050; and
  - Between 10%-25% below 1990 levels by 2020;
- Convene advisory committees
  - Climate Protection and Green Economy
  - Adaptation
- Develop 1990 Baseline and 2020 BAU Projection;
- Set 2020 target and adopt implementation plan by 2011.

Estimated Impacts of State and Federal GHG Policies since January 2007, by sector



Cost-Effective Greenhouse Gas Mitigation in Massachusetts

An Analysis of 2020 Potential

Eastern Research Group, Inc.
Project 0284.00.004.001
June 2010

What is the Potential for Cost-Effective GHG Mitigation by 2020?

Consider measures that…

Have readily quantifiable results

Are cost-effective

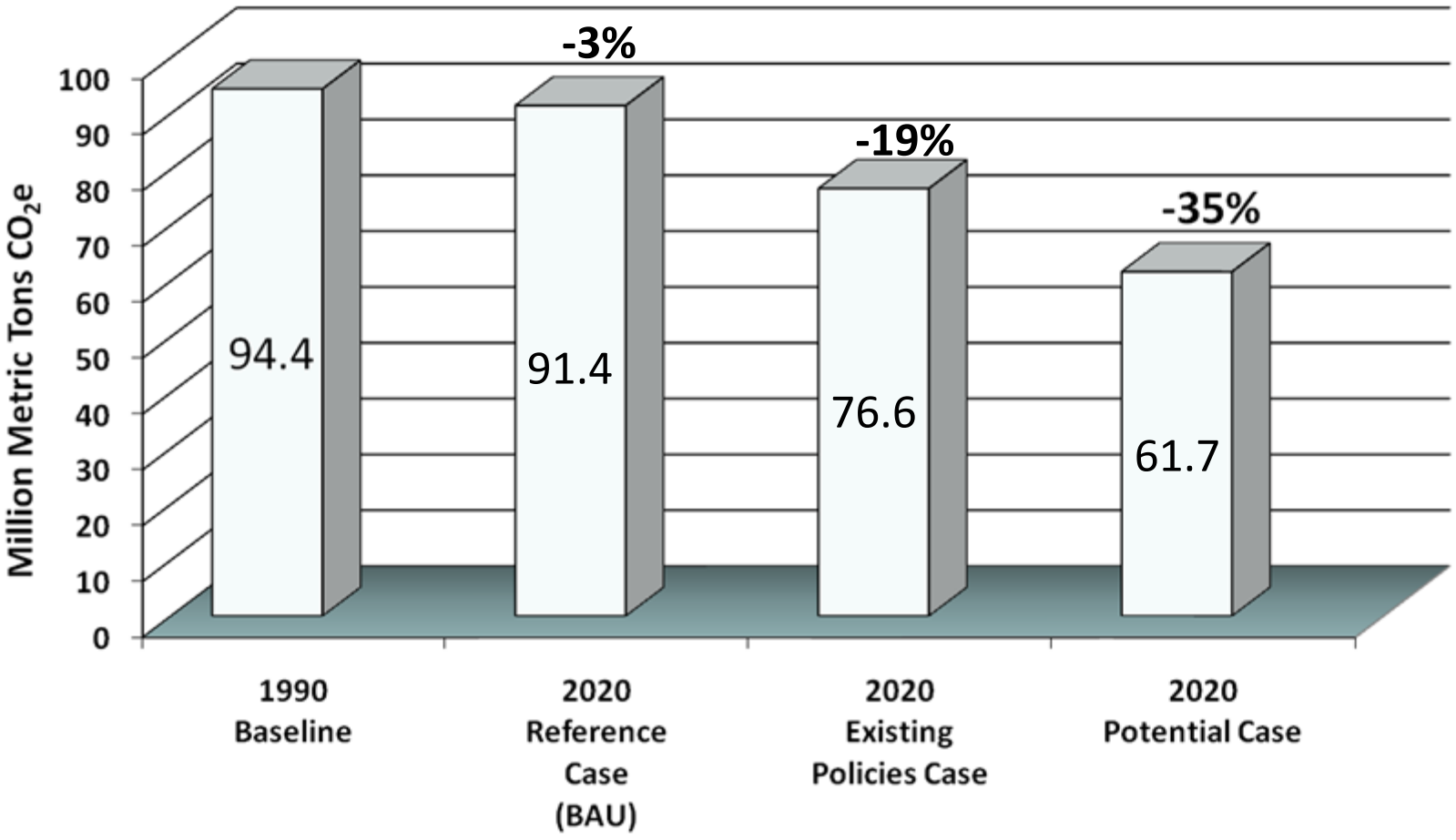
- Savings exceed costs
- Low or zero cost

Are based on existing technology

Are likely to affect sectors with greatest GHG emissions in Massachusetts

Estimate statewide emissions reduction potential in 2020—net of reductions expected from existing and planned policies

The 2020 Picture



Transportation

Potential for cost-effective mitigation

Reduce miles traveled

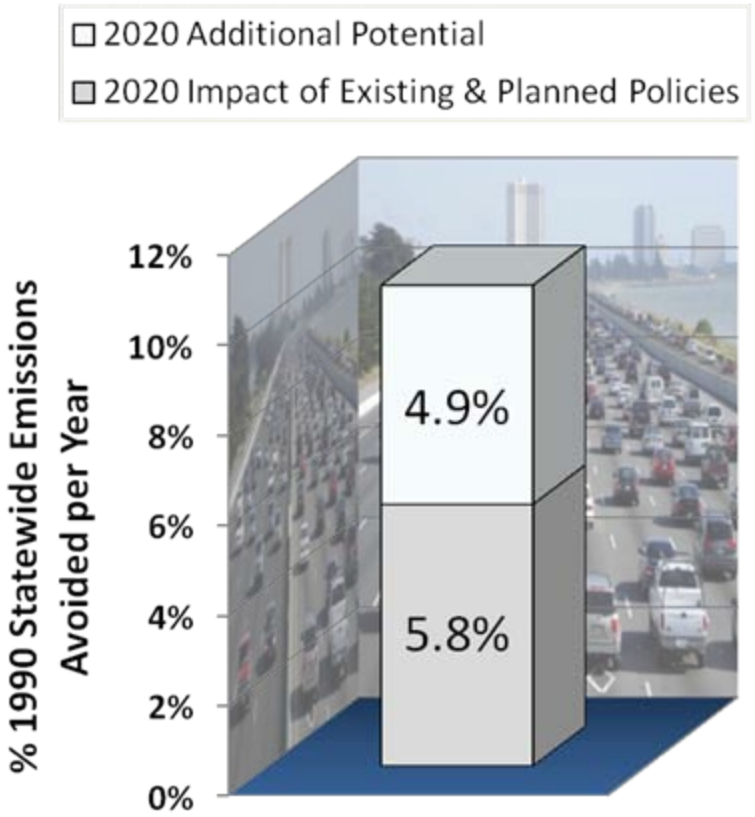
- Smart growth
- Alternative commuting programs
- Changes in non-commuting trips

Improve fuel efficiency

- Choosing more efficient vehicles

Optimize driving practices

- Moderating speed and acceleration
- Proper vehicle maintenance



Electricity

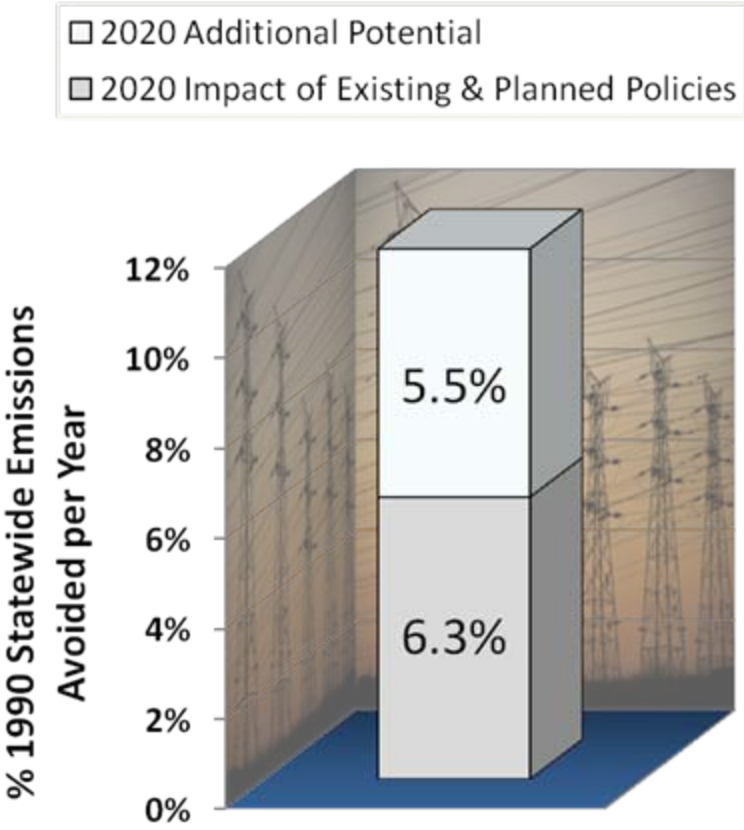
Potential for cost-effective mitigation

Improve efficiency in buildings and industry

- Lighting
- Heating, ventilation, air conditioning (HVAC) & insulation
- Equipment
- Appliances

Increase imports of carbon neutral Canadian power

Expand combined heat and power operations at industrial sites

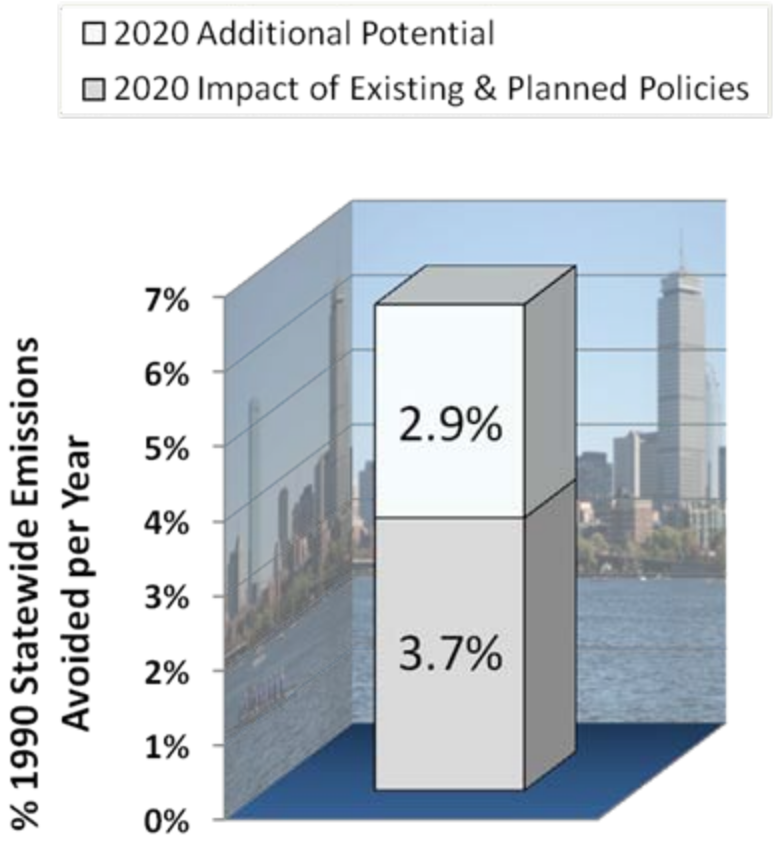


Residential and Commercial Buildings—Other Fuels

Potential for cost-effective mitigation

Improve efficiency of use of other (non-electricity) fuels—natural gas, oil, liquefied petroleum gas

- HVAC
- Insulation & building envelope
- Appliances



Industry—Other Fuels and Processes

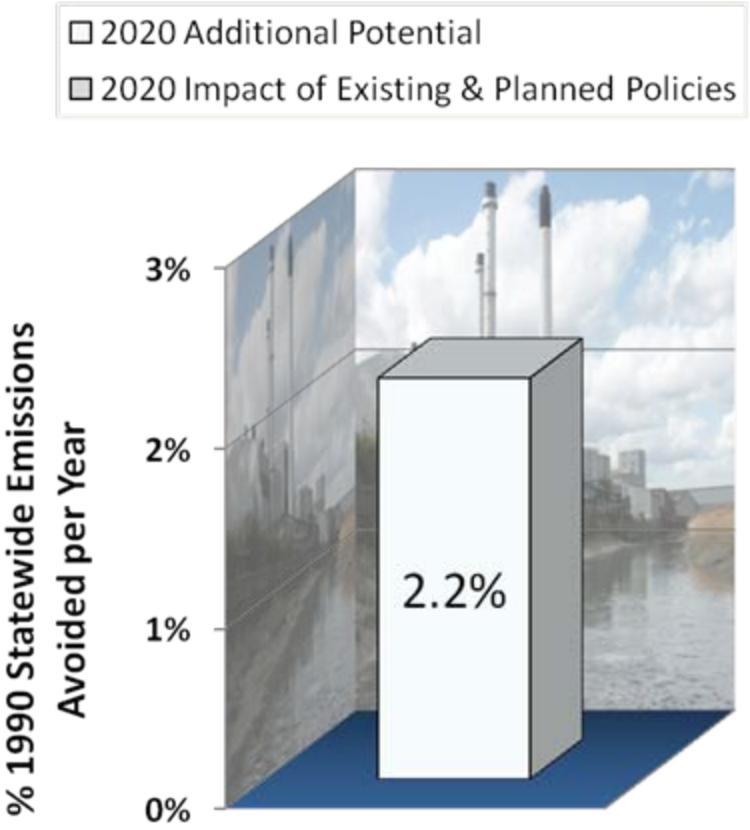
Potential for cost-effective mitigation

Improve efficiency of use of other (non-electricity) fuels—natural gas, petroleum, coal

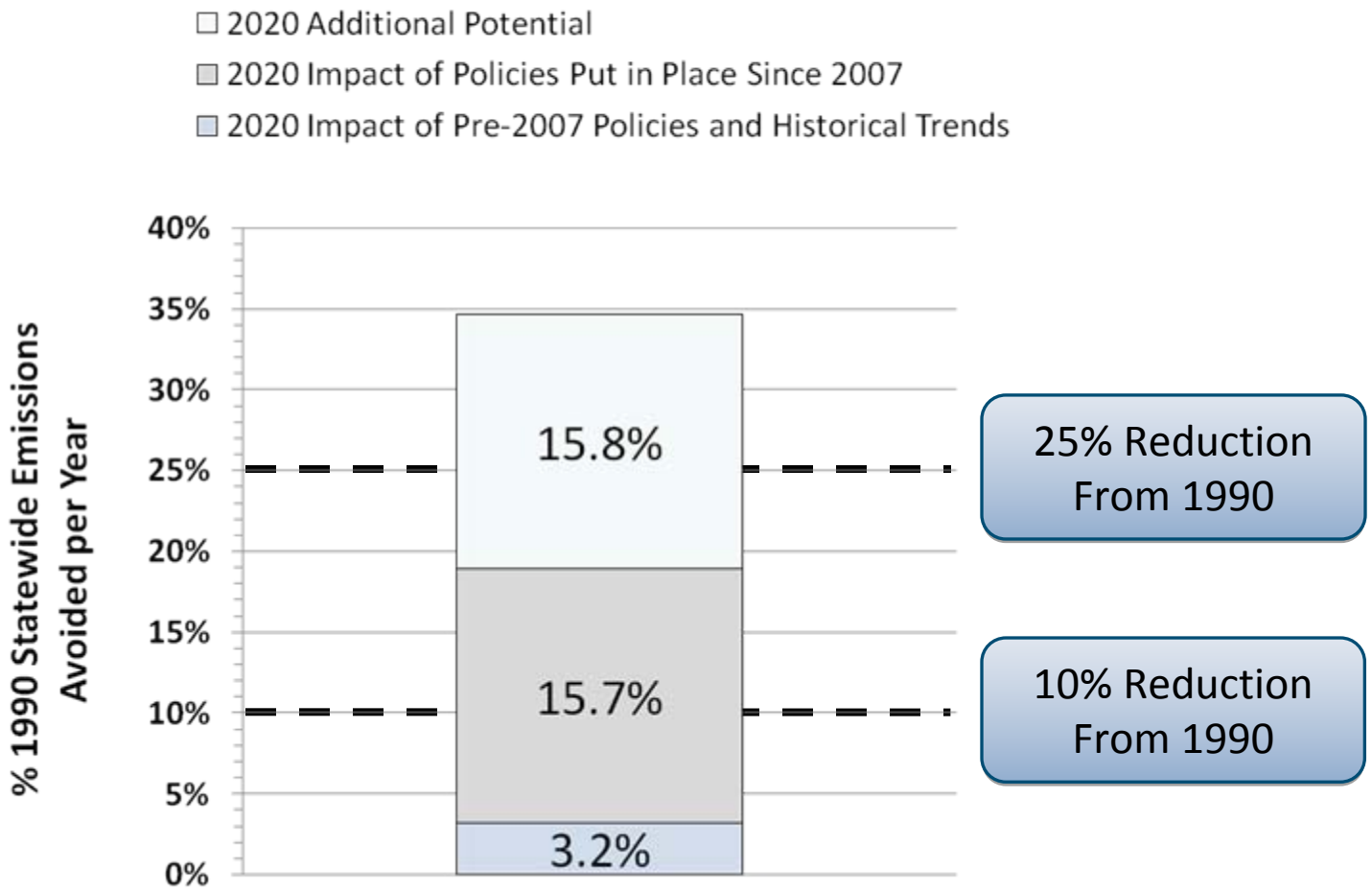
- Manufacturing processes
- HVAC
- Insulation & building envelope

Reduce emissions of high global warming potential gases

- Refrigerants and other substitutes for ozone depleting substances
- Sulfur hexafluoride from semiconductor manufacturing and electrical power systems



The 2020 Target



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