# Draft List of Decarbonization Measures for the Massachusetts Comprehensive Climate Action Plan

As a part of the development of the Massachusetts Comprehensive Climate Action Plan under the U.S. Environmental Protection Agency's <u>Climate Pollution Reduction Grant</u>, Climate Office is working across state government to compare the benefits from a variety of greenhouse gas reduction "measures".

The table below presents roughly 60 "measures" to achieve decarbonization across all sectors of the Massachusetts economy. Each measure may be achieved through multiple state programs and policies.

As we begin our planning process, we invite Massachusetts stakeholders to provide feedback on the draft list of measures. In particular, we invite you to share your comments on whether there are any significant gaps in emissions that the current list of measures does not address. We also invite you to identify the measures that matter most to you and your constituents. In addition, we recognize that each measure may be implemented in ways that increase the benefits or costs for various communities, and we invite you to share your comments on ways each measure may be implemented to maximize greenhouse gas emissions reduction, overall benefits, and the benefits that accrue specifically to environmental justice populations.

Please provide your comments by email to <a href="mailto:climate.office@mass.gov">climate.office@mass.gov</a> by September 23<sup>rd</sup>. This list will continue to be revised based on the feedback we receive as well as additional input from staff across state agencies.

## TRANSPORTATION SECTOR

**Measure T1: Support transit-oriented development** 

Measure T2: Improve existing transit systems, e.g., improve reliability

Measure T3: Increase public transit, e.g., new rail lines, more buses

Measure T4: Reduce vehicle miles traveled

T4A: Increase access to zero- or low-emission travel modes

**T4B: Travel demand management** 

**Measure T5: Electrify bus systems** 

Measure T6: Increase utilization of non- or low-greenhouse gas emitting fuels by trains

Measure T7: Increase utilization of non- or low-greenhouse gas emitting fuels by shipping/vessels

Measure T8: Increase utilization of non- or low-greenhouse gas emitting fuels by aviation

Measure T9: Reduce use of internal combustion vehicles (private and government)

Measure T10: Increase adoption of light duty electric vehicles (private and government)

Measure T11: Increase adoption of medium and heavy-duty electric vehicles (private and government)

Measure T12: Install electric vehicle charging infrastructure

# **BUILDING SECTOR**

Measure B1: Increase energy efficiency in all buildings, e.g., weatherization

Measure B2: Install non-GHG emitting thermal technologies in existing buildings, e.q., electrification

Measure B2A: Income restricted housing

Measure B2B: Public housing

Measure B2C: 1-4 unit residential buildings

Measure B2D: Multifamily buildings (5+ units)

**Measure B2E: Commercial buildings** 

Measure B2F: State, municipal, university, school and hospital buildings

Measure B2G: Buildings using delivered fuels for heat

Measure B2H: Buildings using natural gas for heat

Measure B2I: Buildings using electric resistance for heat

Measure B3: Increase efficiency and utilization of non- or low-greenhouse gas emitting fuels in manufacturing and industrial processes

Measure B4: Install non-GHG emitting thermal technologies in new buildings, e.g., electrification

Measure B5: Increase the number and capacity of district level non-greenhouse gas emitting thermal systems

Measure B6: Increase onsite clean energy production, e.g., rooftop solar

Measure B7: Tactically reduce the gas distribution system to align with building electrification

#### **POWER SECTOR**

Measure P1: Expand clean energy generation capacity

Measure P2: Expand resources for balancing clean energy, e.g., energy storage such as batteries

Measure P3: Increase clean energy procurement

Measure P4: Improve interconnection capacity and timing for clean generation

Measure P5: Build out the electric distribution system

Measure P6: Build out transmission infrastructure for connecting clean generation from offshore

and out of state generation resources

Measure P7: Cap fossil fuel generation

Measure P8: Increase participation in/scale of demand response programs

Measure P8A: Residential demand response programs (including EV charging)

Measures P8B: Non-residential demand response programs

## **NATURAL AND WORKING LANDS SECTOR**

**Measure NWL1: Conserve existing forests** 

Measure NWL2: Conserve and maintain the quality of existing wetlands

Measure NWL3: Conserve existing agricultural land

Measure NWL4: Manage forest health and resilience

Measure NWL5: Improve wood utilization

Measure NWL6: Support climate-smart agriculture and healthy soils management

**Measure NWL7: Reforest lands** 

**Measure NWL8: Restore wetlands** 

Measure NWL9: Expand urban tree canopies by protecting existing trees and planting new ones

# **WASTE SECTOR**

Measure W1: Divert, reuse or reduce recoverable materials

Measure W2: Reduce food waste, e.g., increase composting

Measure W3: Reduce emissions from wastewater treatment systems

Measure W4: Reduce emissions from septic systems

Measure W5: Increase energy recovery from wastewater infrastructure

# **INDUSTRIAL SECTOR**

Measure I1: Reduce emissions of hydrofluorocarbons (HFCs) e.g., reduce use in products

Measures I2: Reduce emissions of sulfur hexafluoride, e.g., reduce use in products and process leaks

Measure I3: Reduce methane leaks from gas infrastructure