

NH Climate Change Action Plan Mitigation and Adaptation Options List

The following list of options includes potential programs, policies and other strategies to mitigate the causes and adapt to the impacts of climate change in N.H. The options are intended to cut across all emission sources but are not intended to be the sole source of strategies to address this issue. This list of policies and programs is intended to provide the Working Groups with a starting point and the list may be modified as extensively as the Working Groups deem necessary in order to develop a comprehensive, effective and feasible Action Plan.

Cross-Sector Issues (CSI)

- 1.1. Coordination with the 25 x '25 Plan
- 1.2. Northeast Low Carbon Fuel Standard
- 1.3. Economy-Wide Input-Based Carbon Systems Benefit Charge
- 1.4. Climate Change Action Plan Administrative Entity
- 1.5. Comprehensive Education and Outreach Program
- 1.6. Greenhouse Gas Inventorying and Registry Reporting Assistance

Electrical Generation and Usage (EGU)

EGU-1 Emission Control

- 1.1. Pass and Implement the Regional Greenhouse Gas Initiative (RGGI)
- 1.2. Expand the Regional Greenhouse Gas Initiative
- 1.3. An Output-Based CO₂ Systems Benefit Charge
- 1.4. Mandate Capture and Storage of CO₂ from Existing Energy Sources
- 1.5. Incentives for a CO₂ Pipeline to Enable Carbon Capture and Storage (CCS)
- 1.6. Implement an Output-Based New Source Performance Standard
- 1.7. Implement an Output-Based Performance Standard for Older Plants

EGU-2 Renewable and Non-Emitting Generation

- 2.1. Implement Existing Renewable Portfolio Standard (RPS)
- 2.2. Develop and Implement an Expanded Renewable Portfolio Standard (RPS)
- 2.3. Research and Incubation of Emerging Technologies
 - 2.3.1. Assessment of Project Potential
 - 2.3.2. Promote Renewable Energy Research and Development
 - 2.3.3. Consumer Clean Energy Option
 - 2.3.4. Streamline Renewable Energy Siting
 - 2.3.5. Production Tax Credit
 - 2.3.6. Investment Tax Credit
 - 2.3.7. Payback Buy-Down
 - 2.3.8. Promote Novel Emerging Finance Mechanisms
- 2.4. Nuclear Power Plant Capacity and Licensing

EGU-3 Demand Response

- 3.1. Remove Barriers to Clean Distributed Generation
- 3.2. Third Party Demand Response Techniques
- 3.3. Pricing Mechanisms
 - 3.3.1. Time of Use Metering
 - 3.3.2. Real-Time Pricing (RTP)
 - 3.3.3. Smart Metering
- 3.4. Preferential Energy Efficiency Purchasing

EGU-4 Energy Efficiency

- 4.2 Energy Efficiency as a Priority Resource
- 4.3 Regional Energy Efficiency Initiative
- 4.4 Establish an “Energy Efficiency Utility”
- 4.5 Rate Decoupling
- 4.6 Market Transformation and Tech. Development Programs
- 4.7 Funding
 - 4.7.1 RGGI Energy Efficiency Fund
 - 4.7.2 Increase SBC Funding
 - 4.7.3 Modify SBC Funding program
 - 4.7.4 Energy Efficiency Investment Tax Credit
- 4.8 LED Traffic Signals
- 4.9 Cooling Load Reduction
 - 4.9.1 Urban Tree Planting Program
 - 4.9.2 Suburban Tree Planting Program
 - 4.9.3 Green Roofs and White Roofs
- 4.10 Appliances
 - 4.10.1 State-level Appliance Efficiency Standards
 - 4.10.2 Federal-level Appliance Efficiency Standards
 - 4.10.3 Old Appliance Retirement
 - 4.10.4 Institutional Bulk Purchase Programs
 - 4.10.5 Consumer Education Program

EGU-5 Transmission and Distribution

- 5.2 Increase Transmission and Distribution Efficiency
- 5.3 Transmission Constraints
 - 5.3.1 Electrical Lines
 - 5.3.2 Natural Gas
- 5.4 NH Energy Market Structure
 - 5.4.1 Complete Deregulation or Decide Final Structure
 - 5.4.2 Interconnection Standards
 - 5.4.3 Net-Metering Standards

Transportation and Land-Use (TLU)

TLU-1 Vehicle Design

- 1.1. Tailpipe Greenhouse Gas Standards
- 1.2. Encourage Improved Corporate Average Fuel Economy (CAFÉ) Standards
- 1.3. Clean Diesel/Black Carbon Reduction
- 1.4. The SmartWay[®] Program Implementation
- 1.5. Add-On Vehicle Technology
- 1.6. Advanced Technology Vehicles and Infrastructure
 - 1.6.1. High Fuel Economy Hybrid Promotion
 - 1.6.2. Fuel Cell Promotion and Infrastructure Development
 - 1.6.3. Plug-in Promotion and Infrastructure Development

TLU-2 Low Greenhouse Gas/Black Carbon Power Sources

- 2.1. Electric
- 2.2. Biodiesel
- 2.3. Ethanol
- 2.4. Natural Gas
- 2.5. Propane
- 2.6. Hydrogen

TLU-3 Fuel Efficiency

- 3.1. Market-Based Mechanisms
 - 3.1.1. Revenue Neutral Feebate
 - 3.1.2. CO₂ -Based Registration Fee
 - 3.1.3. “Clunker” Retirement Program
 - 3.1.4. Green Car Labeling
 - 3.1.5. Preferential Parking or Travel Lanes for Low Emission Vehicles
 - 3.1.6. Tax Relief for Advanced Technology/High Efficiency Vehicles
 - 3.1.7. Green Fleet Incentive Program
- 3.2. Vehicle Operation
 - 3.2.1. Speed Limit Reduction
 - 3.2.1.1. Speed Limit Enforcement
 - 3.2.1.2. Lower Speed Limit
 - 3.2.2. Truck Stop Electrification
 - 3.2.3. Improved Traffic Flow
 - 3.2.3.1. Targeted Congestion Management and Air Quality (CMAQ) Funds
 - 3.2.3.2. Traffic Light Timing
 - 3.2.4. Locomotive Anti-Idling Policy and Program
 - 3.2.5. Vehicle Maintenance Training
 - 3.2.6. Enforce and Expand Anti-Idling Programs and Regulation

TLU-4 Vehicle Miles Traveled (VMT) Reduction

- 4.1. Vehicle Miles Traveled (VMT) Reduction Programs
 - 4.1.1. Modify Gas Tax
 - 4.1.2. Commuting Efficiency Program
 - 4.1.2.1. Park and Rides
 - 4.1.2.2. Commuting Incentives
 - 4.1.2.3. Congestion Pricing
 - 4.1.2.4. High Occupancy Vehicle (HOV) Lanes
 - 4.1.3. Commuting Trip Reduction Initiative
 - 4.1.3.1. Promote Telecommuting
 - 4.1.3.2. Flexible Schedules
 - 4.1.4. Vehicle Miles Traveled (VMT)-Based Insurance Premium Structure
 - 4.1.5. Location Efficient Mortgages (LEM)
 - 4.1.6. Pricing Measures to Reduce Vehicle Miles Traveled (VMT)

TLU-5 Smart Growth

- 5.1. General
 - 5.1.1. Quantitative Goals for Future Land Use and VMT
 - 5.1.2. Management of Land Use Information
 - 5.1.3. Integrated Land Use, Transportation and Emissions Planning
 - 5.1.4. Encourage and Strengthen Regional Land Use Planning
 - 5.1.5. Smart Growth Planning, Modeling, and Tools
 - 5.1.6. “Fix-it-First”
 - 5.1.7. Infrastructure to Support Higher-Density Development
 - 5.1.8. Fund Preference for Communities Adopting Appropriate Policies and Zoning
 - 5.1.9. State School Funding
 - 5.1.10. Two Rate Tax Structure
 - 5.1.11. Development Impact Fees
- 5.2. Transit/Alternative Transportation Infrastructure
 - 5.2.1. Regional Intermodal Transportation System
 - 5.2.2. Expand Transit Infrastructure
 - 5.2.3. Transit-Oriented Development (TOD)
 - 5.2.4. Bike and Pedestrian Infrastructure
 - 5.2.5. Focus Transportation Enhancement Funding
- 5.3. Land Use
 - 5.3.1. Land Development Project Evaluation
 - 5.3.2. GHG/VMT Evaluation of Large Development Projects
 - 5.3.3. Educate and Assist Community Planning Officials
 - 5.3.4. Transfer of Development Rights
 - 5.3.5. Higher-Density Development Roadway Design and Management
 - 5.3.6. Traditional Neighborhood/Pedestrian-Oriented Design
 - 5.3.7. Infill Development
 - 5.3.8. Allow Accessory Dwelling Units
 - 5.3.9. Redevelopment

- 5.3.10. Brownfield Redevelopment
- 5.3.11. Schools
 - 5.3.11.1. Smart School Siting Standards
 - 5.3.11.2. “Safe Routes to School”
- 5.3.12. Reduced Parking Requirements

Residential, Commercial and Industrial (RCI)

RCI-1 Heat and Hot Water

- 1.1. Thermal RPS
- 1.2. Building Energy Efficiency
 - 1.2.1. Thermal System Benefit Charge (SBC)
 - 1.2.2. Fuel Neutral Efficiency Program
 - 1.2.2.1. Fuel Blind Revolving Loan Fund
 - 1.2.2.2. Efficient Heat Retrofit
 - 1.2.2.3. Efficient Heating Installation

RCI-2 Building Design

- 2.1. Residential and Commercial Energy Codes
 - 2.1.1. Upgrade Building and Energy Codes
 - 2.1.1.1. Adopt the Most Recent IECC
 - 2.1.1.2. Performance-Based Code
 - 2.1.2. Increase Code Compliance
 - 2.1.2.1. Improve Enforcement
 - 2.1.2.2. Increase Training of Code Enforcement Officers
- 2.2. “Time-of-Sale” Energy Requirement for Existing Buildings
- 2.3. High Performance Buildings
 - 2.3.1. Incentives for High Performance/LEED Certified Buildings
 - 2.3.2. Training and Education for Builders and Contractors
 - 2.3.3. Climate Change Core Competencies in Professional License Programs
 - 2.3.4. Outreach and Education Program to Real Estate Agents Association
- 2.4. Building Materials
 - 2.4.1. Increased Use of Blended Cement
 - 2.4.2. Increased Use of Salvaged Materials in Construction (See AFW-4.1.4)

RCI-3 Energy Conservation

- 3.1. Commercial and Industrial Building Operator Training
- 3.2. Municipal Energy Management Program
- 3.3. Residential Behavior Change Program
 - 3.3.1. Identify, Assist, and Leverage Community-Based Organizations
 - 3.3.2. Energy Efficiency and Conservation in School Curriculum
 - 3.3.2.1. Develop Climate Change Solutions Curricula
 - 3.3.2.2. Integrate and Highlight School’s “Best Practices”
- 3.4. Remove Barriers to Renewable Energy and Energy Efficiency

RCI-4 Industry

- 4.1. Mandatory CO₂ Reporting
- 4.2. Emission-Based Fees
- 4.3. Expanded Regional Greenhouse Gas Initiative (RGGI)
- 4.4. Input-Based Carbon System Benefit Charge
- 4.5. Waste Energy Recycling
- 4.6. Process Gases Management
- 4.7. Use of Alternative Gases

Agriculture, Forestry and Waste (AFW)

AFW-1 Carbon Sequestration

- 1.1. Research Forest Management and Sequestration
- 1.2. Build-Up Soil Carbon
 - 1.2.1. Increase Winter Cover Crops
 - 1.2.2. Reduce Summer Fallow
 - 1.2.3. Improve Water and Nutrient Use
 - 1.2.4. Increased Organic Farming Practices^[0]
 - 1.2.5. Increased Conservation Tillage/No-Till Farming Practices
 - 1.2.6. Convert Land to Grassland or Forest
- 1.3. Land Preservation
 - 1.3.1. Agriculture Land Preservation
 - 1.3.2. Forested Land Preservation
- 1.4. Forest Management
 - 1.4.1. Stocking Thin Stands with Fast -Growing Trees
 - 1.4.2. Biomass Electricity Feedstock Promotion
 - 1.4.3. Early Commercial Thinning
 - 1.4.4. Greater Mortality Captured in Timber Harvest
 - 1.4.5. Active Softwood Increase
 - 1.4.6. Increase Forestation on Under Producing Lands
 - 1.4.7. Durable Wood Product Promotion

AFW-2 Nutrient Management

- 2.1. Improved Nutrient Use
- 2.2. Non-Farm Fertilizer Usage Reduction
- 2.3. Manure Management
- 2.4. Organic Farming
- 2.5. Change Feedstocks

AFW-3 Fuel and Electricity Generation

- 3.1. Waste-to-Energy
 - 3.1.1. Clean Municipal Biomass Waste
 - 3.1.2. Biogas

- 3.1.2.1. Centralized Manure Digesters
- 3.1.2.2. Waste Treatment Plants
- 3.1.2.3. Landfill Gas
 - 3.1.2.3.1. Energy Project Development
 - 3.1.2.3.2. Landfill Gas Flaring
- 3.2. Encourage Sustainable Biofuel Crop Production
 - 3.2.1. Forest Management - See AFW 1.4
 - 3.2.2. Research Crops, Harvesting and Production Methods
 - 3.2.3. Biodiesel Production
 - 3.2.4. Develop Biofuel Demonstration Projects on Farms
 - 3.2.5. Identify and Promote Non-Forest Biomass Feedstocks
 - 3.2.6. Expanded Use of Forest Biomass Feedstocks for Electricity (Fuel Switching)
 - 3.2.7. Expanded Use of Forest Biomass Feedstocks for RCI Heating

AFW-4 Recycling and Source Reduction

- 4.1. Increased Recycling and Source Reduction
 - 4.1.1. Resource Management Contracting Initiative
 - 4.1.2. Pay-As-You-Throw Initiative (PAYT)
 - 4.1.3. Deposit Bottle Bill
 - 4.1.4. Reusable Building Materials Salvage Incentives
 - 4.1.5. Statewide eWaste Recovery Infrastructure
 - 4.1.6. Encourage Commercial Composting
 - 4.1.7. Ban Organics in Landfills

AFW-5 Regional, State and Local Food Supply

- 5.1. Improve Opportunities for New Farmers
- 5.2. Strengthen Local Food Network

Government Leadership and Action (GLA)

GLA-1 Building Efficiency and Conservation

- 1.1. State Shared Energy Savings Program
- 1.2. Energy Star Purchase Policy
- 1.3. Building Automation Systems
- 1.4. Climate Savers Computing Initiative
- 1.5. Building Design
 - 1.5.1. State Defined High Performance Public Building Standards
 - 1.5.2. LEED Rating for New Buildings

GLA-2 State Promotion of Renewable Energy

- 2.1. Siting Renewable Energy on State Lands
- 2.2. Renewable Electricity Purchase
- 2.3. Building Heating and Hot Water

GLA-3 Transportation

- 3.1. Low GHG Procurement Policy
 - 3.1.1. Low-MPG Mandate
 - 3.1.1.1. Hybrid Vehicle Mandate
 - 3.1.2. Right-Sizing Mandate
 - 3.1.3. Low Carbon Fuel Mandates
 - 3.1.3.1. Biodiesel Mandate
 - 3.1.3.2. Ethanol Mandate
 - 3.1.3.3. Compressed Natural Gas Mandate
- 3.2. State Government VMT Reduction Plan
 - 3.2.1. Commuting
 - 3.2.2. State Business Related Travel

Adaptation (ADP)

ADP-1 Increase Resistance to Extreme Events

- 1.1. Upgrade and Harden the Built Environment
- 1.2. Preserve and Restore the Ecological Environment

ADP-2 Health and Wellness

- 2.1. Prepare for Changes in Infectious Disease Prevalence
- 2.2. Maintain Water Supply
- 2.3. Secure the Food Supply
- 2.4. Prepare for Air Quality Changes
 - 2.4.1. Develop Appropriate Interventions for Likely Changes
 - 2.4.2. Address Non-Climate Causal Factors
- 2.5. Heat-Related Impacts
 - 2.5.1. Prepare for heat illness

ADP-3 Economy

- 3.1. Established Sectors
 - 3.1.1. Identify Sectors Likely to Experience Losses
 - 3.1.2. Spur Innovation and Growth
- 3.2. Emerging Opportunities
 - 3.2.1. Identify Sectors with Emerging Opportunities
 - 3.2.2. Spur Innovation and Growth in Emerging Markets