

New Hampshire's Climate Change Action Plan

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Climate Change Policy Task Force

Purpose and Goals

- Established through Executive Order 2007-3
December 6, 2007
 - Establish quantified greenhouse reduction goals considering regional and international goals
 - Recommend a comprehensive set of actions directed at achieving the goals, currently available and technology development



Climate Change Policy Task Force Composition

- State agency commissioners;
- House and Senate members;
- General commerce and industry;
- Environmental interests;
- Forestry sector;
- Science/academia;
- Public utilities;
- Municipal government; and
- Insurance industry.



Process

- Review inventories and projections
- Consider commitments of the state
- Analyze and prioritize options
- Both state and regional approaches
- Voluntary, regulatory, and policy actions
- Document final recommendations following public comment





Greenhouse Gas Inventory

- Inventoried six gases
 - Carbon Dioxide (CO_2)
 - Methane (CH_4)
 - Nitrous Oxide (N_2O)
 - Hydrofluorocarbons (HFCs)
 - Perfluorocarbons (PFCs)
 - Sulfur Hexafluoride (SF_6)
- } Synthetic gases



Greenhouse Gas Inventory

- The sources included:
 - fossil and biomass fuel combustion;
 - industrial production processes;
 - gas and oil activities;
 - landfills and wastewater treatment;
 - agriculture;
 - and land use change and forestry.



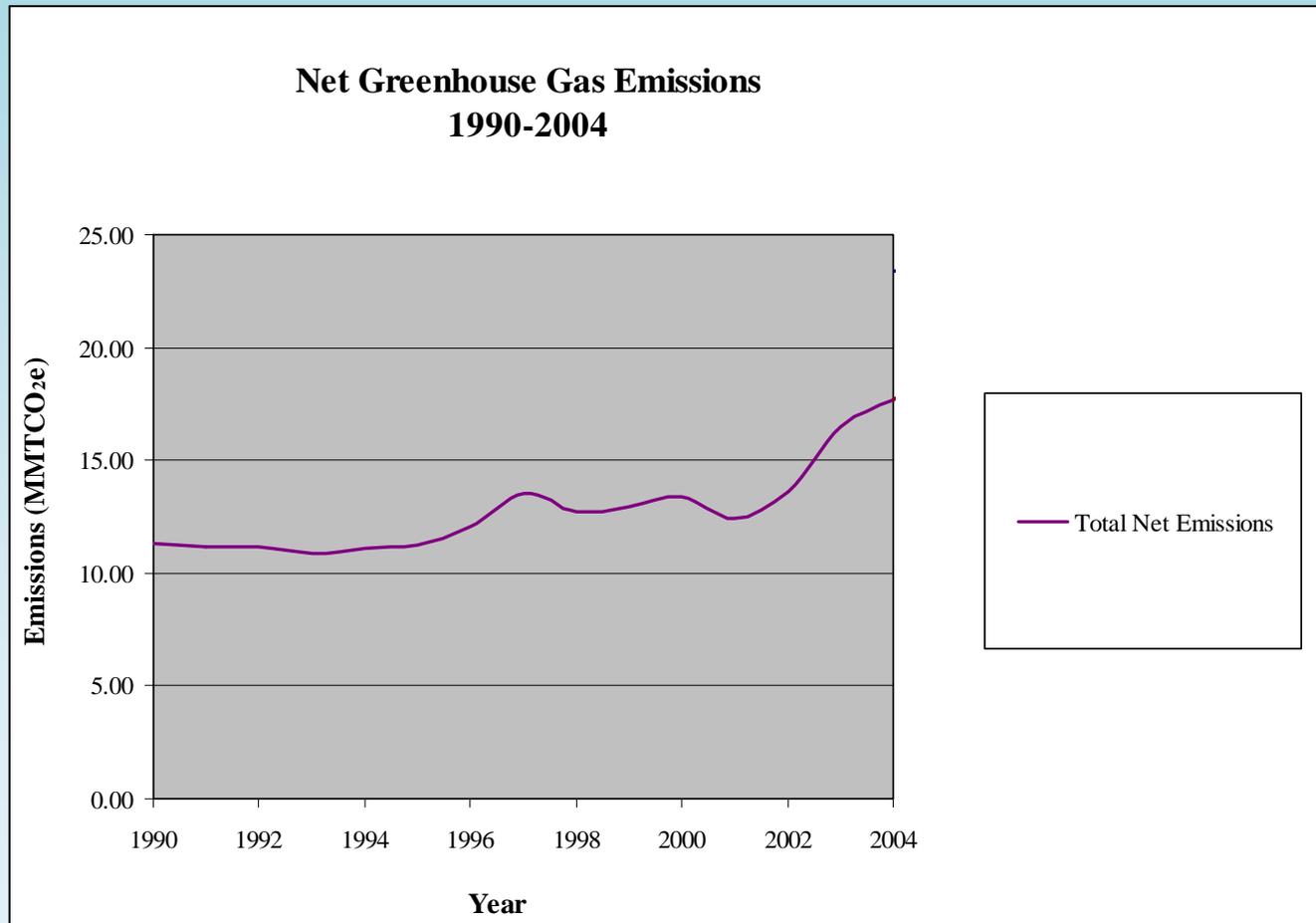


Greenhouse Gas Inventory

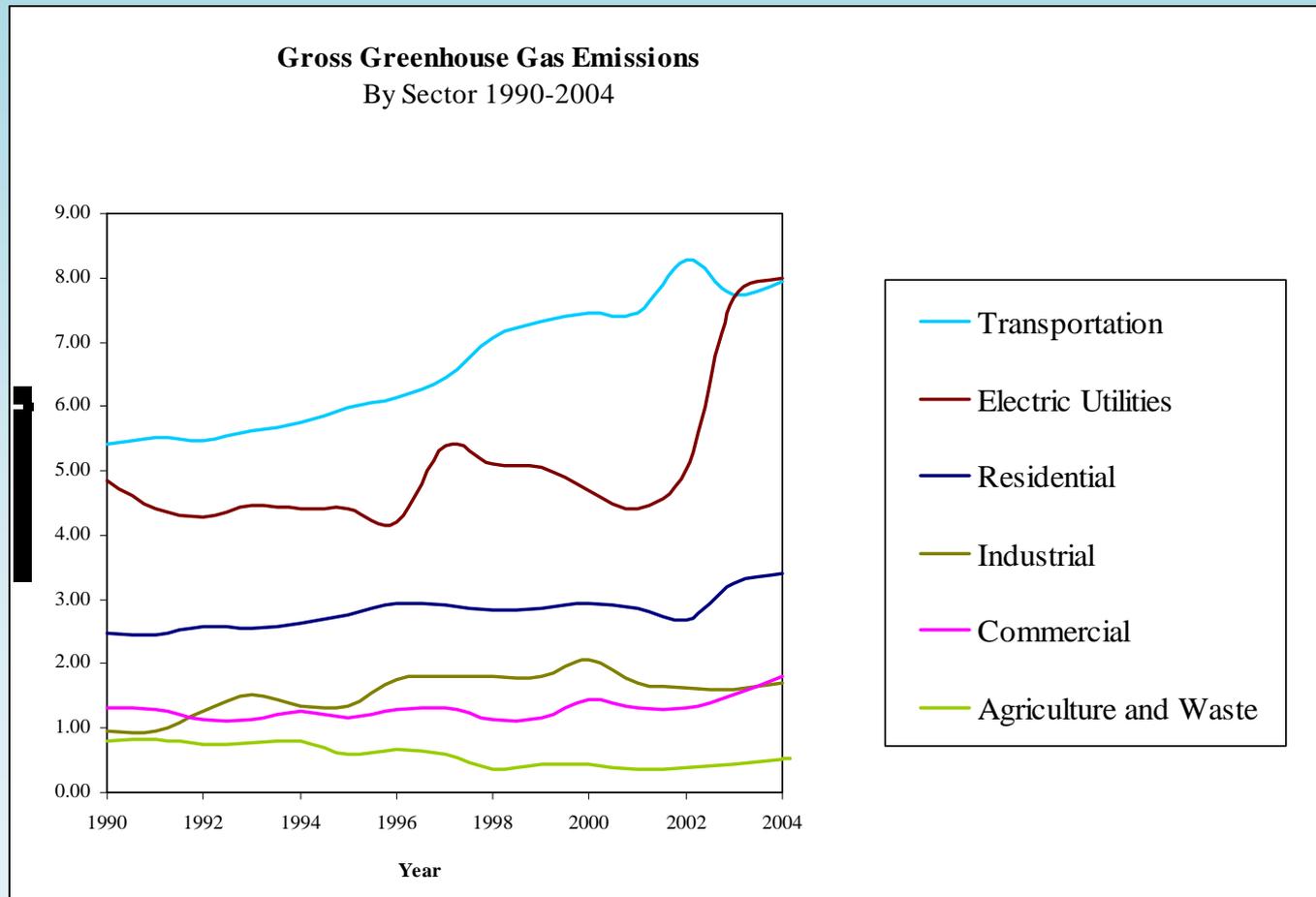
- Gross emissions aggregated by source sectors
 - Electric Generation
 - Transportation
 - Residential
 - Commercial
 - Industrial
 - Agriculture and Waste
 - Land Use Change and Forestry



Greenhouse Gas Inventory



Greenhouse Gas Inventory





Greenhouse Gas Inventory

- Drivers of Emissions Growth
 - New Hampshire
 - Population growth
 - Economic growth
 - Sprawl type growth
 - Regional grid
 - Nationally
 - Increase in electronics
 - Increase in light duty truck sales



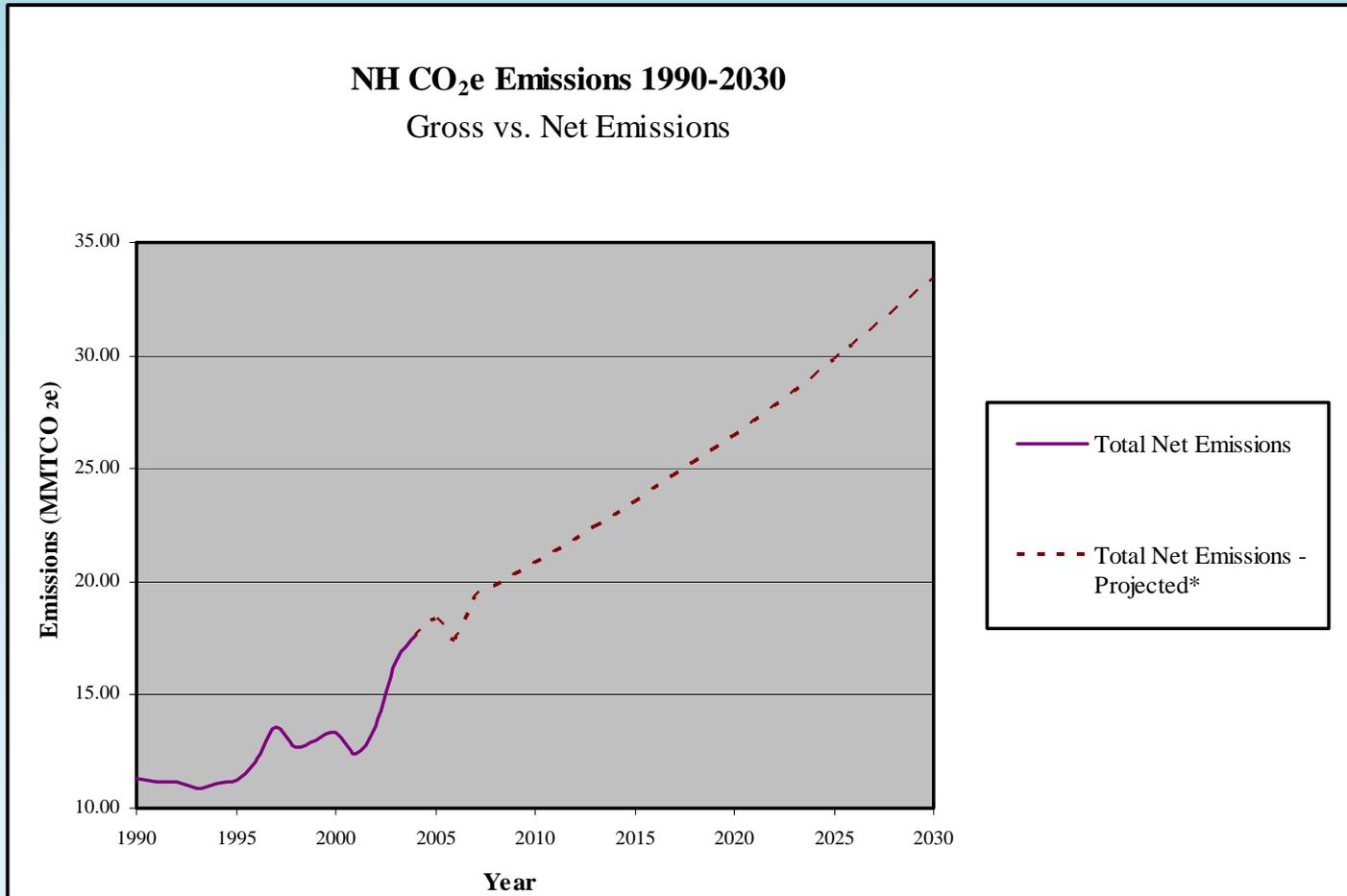


Greenhouse Gas Projections

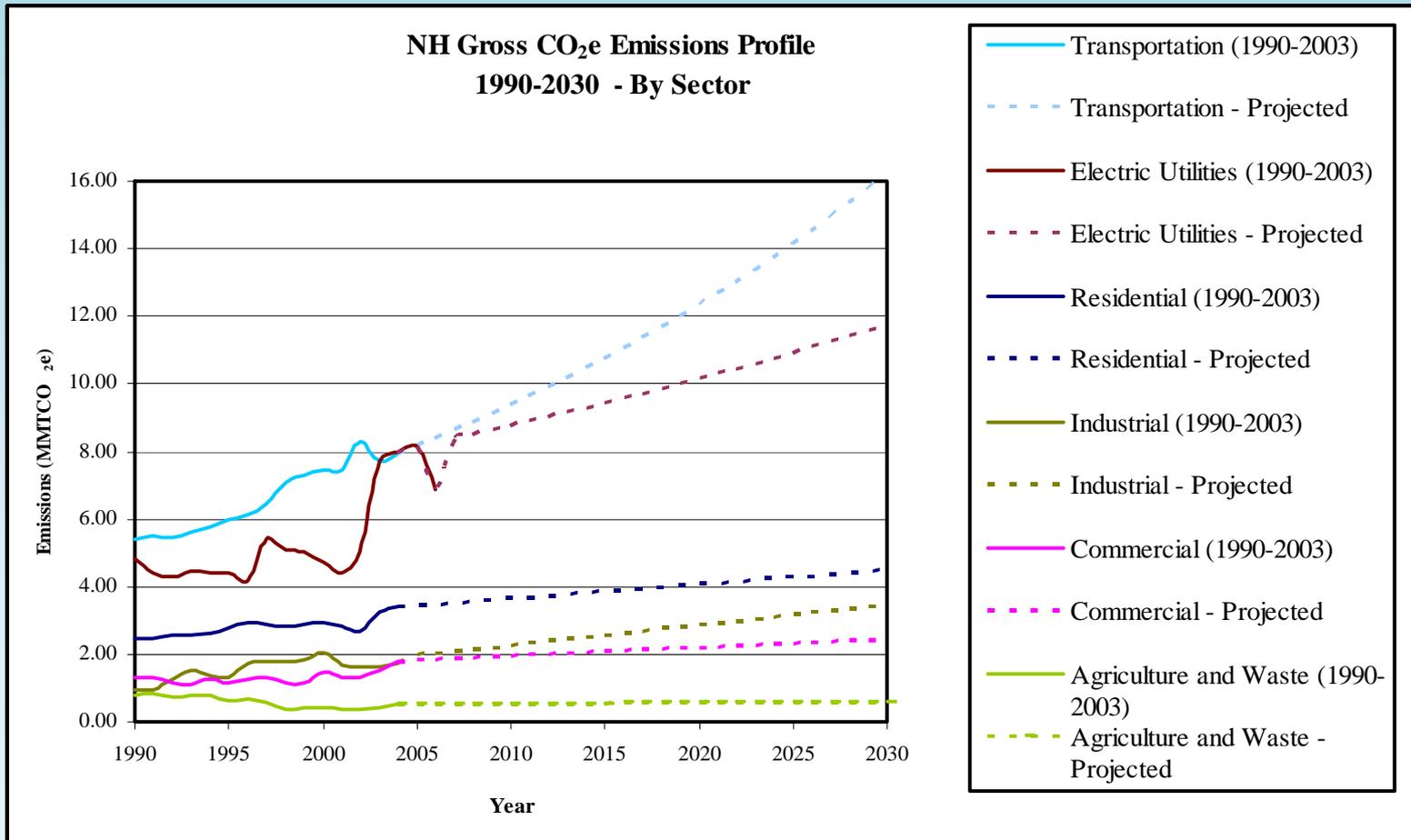
- Initial inventory used to develop greenhouse gas emission projections to 2030
- Projections assume “business-as-usual” scenario with no major changes from current trends
- Projections are considered to be mid-range estimates of future emissions



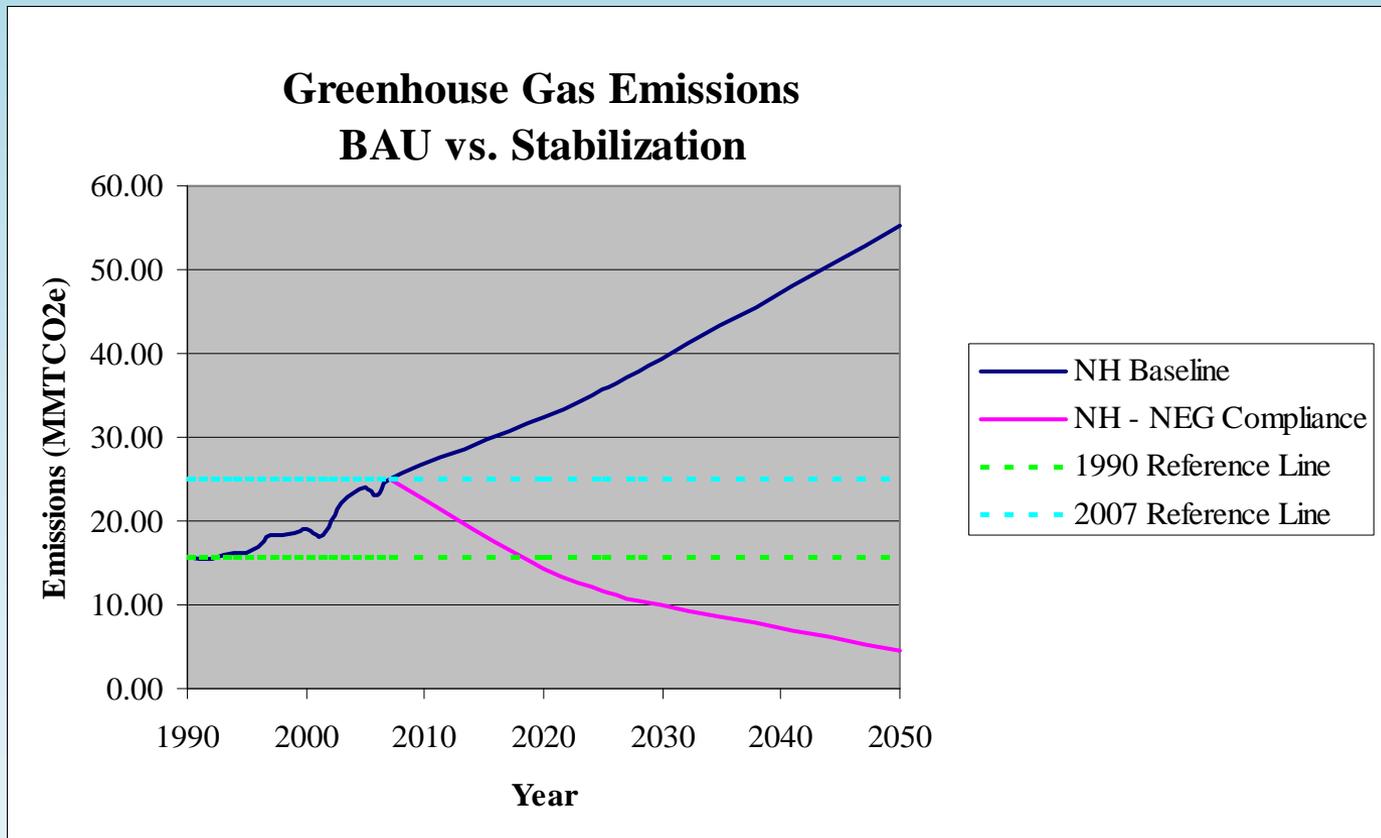
Greenhouse Gas Projections



Greenhouse Gas Projections



Climate Change Emissions Multiple Paths



Technical and Policy Working Groups

Working Groups developing specific recommendations for six different sectors:

- Electric Generation and Usage
- Transportation and Land Use
- Residential, Commercial, and Industrial
- Agriculture, Forestry, and Waste
- Government Action/Leadership
- Adaptation



Technical and Policy Working Groups

- Identify, analyze, and prioritize sector options
- Provide recommendations to Task Force
- Prepare recommendations consistent with purpose and charge
- Document level of consensus



Climate Change Action Plan Options Analysis

- Working Groups amend and refine draft options list
- Select set of options for further analysis
- Develop “straw policy” design
 - What
 - How
 - Timeframe
- Submit to CSNE and DES for quantitative analysis



Department of Environmental Services

- Lead agency for coordination and support
- Direct technical consultants
- Liaison with outside technical support
- Conduct public meetings and media briefings



Public Involvement

- All meetings open
- Public participation as time allows
- Public listening session in the initial phase
- Public hearing on the draft plan



Climate Change Action Plan Draft Options

- Catalogue of Options
 - Compiled a list of 220 potential options
 - Options fall into all sectors
 - Address Drivers (Mitigation)
 - Address Impacts (Adaptation)





Climate Change Action Plan Draft Options

Mitigation options compiled into sectors based on emission *source and related activities*

- Electric Generation and Usage
- Transportation and Land Use
- Residential, Commercial and Industrial
- Agriculture, Forestry and Waste
- Government, Leadership and Action





Climate Change Action Plan Draft Options

Mitigation options reduce the state's gross and net greenhouse gas emissions by:

- Decrease emissions per unit of energy produced
- Reducing energy demand
- Increasing carbon storage
- Avoiding the release of stored carbon



Climate Change Action Plan Draft Options

Electric Generation and Usage

- Options target source and demand-side reduction
- Option **Categories**
 - Emission Control
 - Renewable and Non-Emitting Generation
 - Demand Response
 - Energy Efficiency
 - Transmission and Distribution



Climate Change Action Plan Draft Options

Transportation and Land Use

- Recognizes that transportation networks and settlement patterns influence each other
- Option **Categories**
 - Vehicle Design
 - Low Greenhouse Gas/Black Carbon Fuels
 - Fuel Efficiency
 - Vehicle Miles Traveled (VMT) Reduction
 - Smart Growth



Climate Change Action Plan Draft Options

Residential, Commercial and Industrial (RCI)

- Recognizes the similar potential for energy efficiency and conservation within these three sectors
- Option **Categories**
 - Heat and Hot Water
 - Building Design
 - Energy Efficiency and Conservation
 - Industry



Climate Change Action Plan Draft Options

Agriculture, Forestry and Waste (AFW)

- Biologically mediated
- Potential for sequestration
- Options categories
 - Carbon Sequestration
 - Nutrient Management
 - Recycling and Source Reduction
 - Regional, State and Local Food Supply



Climate Change Action Plan Draft Options

Government Leadership and Action (GLA)

- Opportunities to lead by example
- Option Categories
 - Building Efficiency and Conservation
 - Promotion of Renewable Energy
 - Transportation



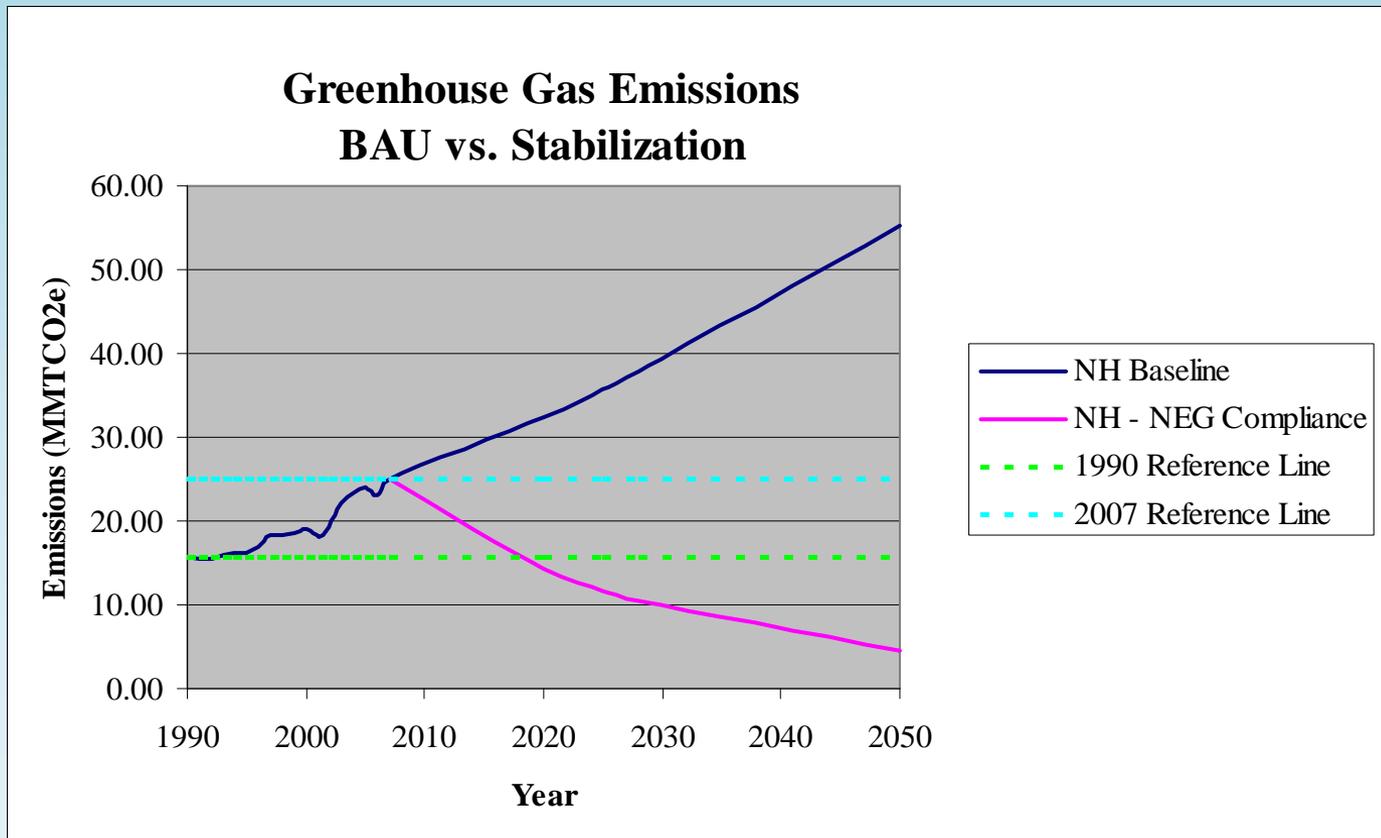
Climate Change Action Plan Draft Options

Adaptation (ADP)

- Identify actions to mitigate the effect of projected impacts on our environment
- Option **Categories**
 - Protecting at risk populations
 - Updating that we need



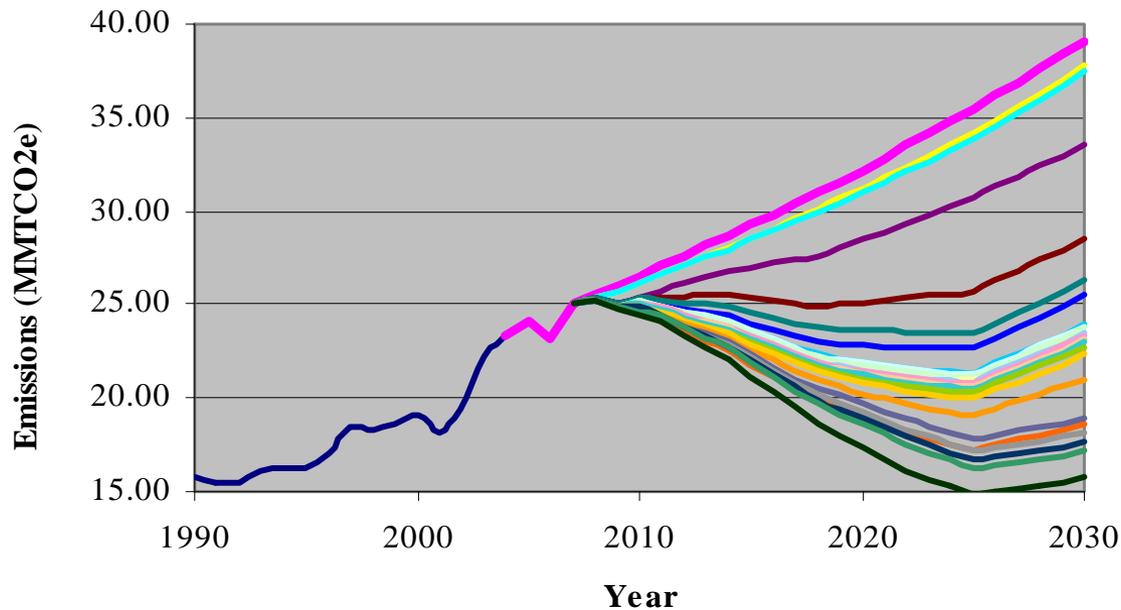
Climate Change Emissions Multiple Paths



Climate Change Action Plan

Multiple Options

Greenhouse Gas Emissions Options Impact



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