New York State
Planning for Climate Action

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NYSERDA

NESEA Building Energy 11
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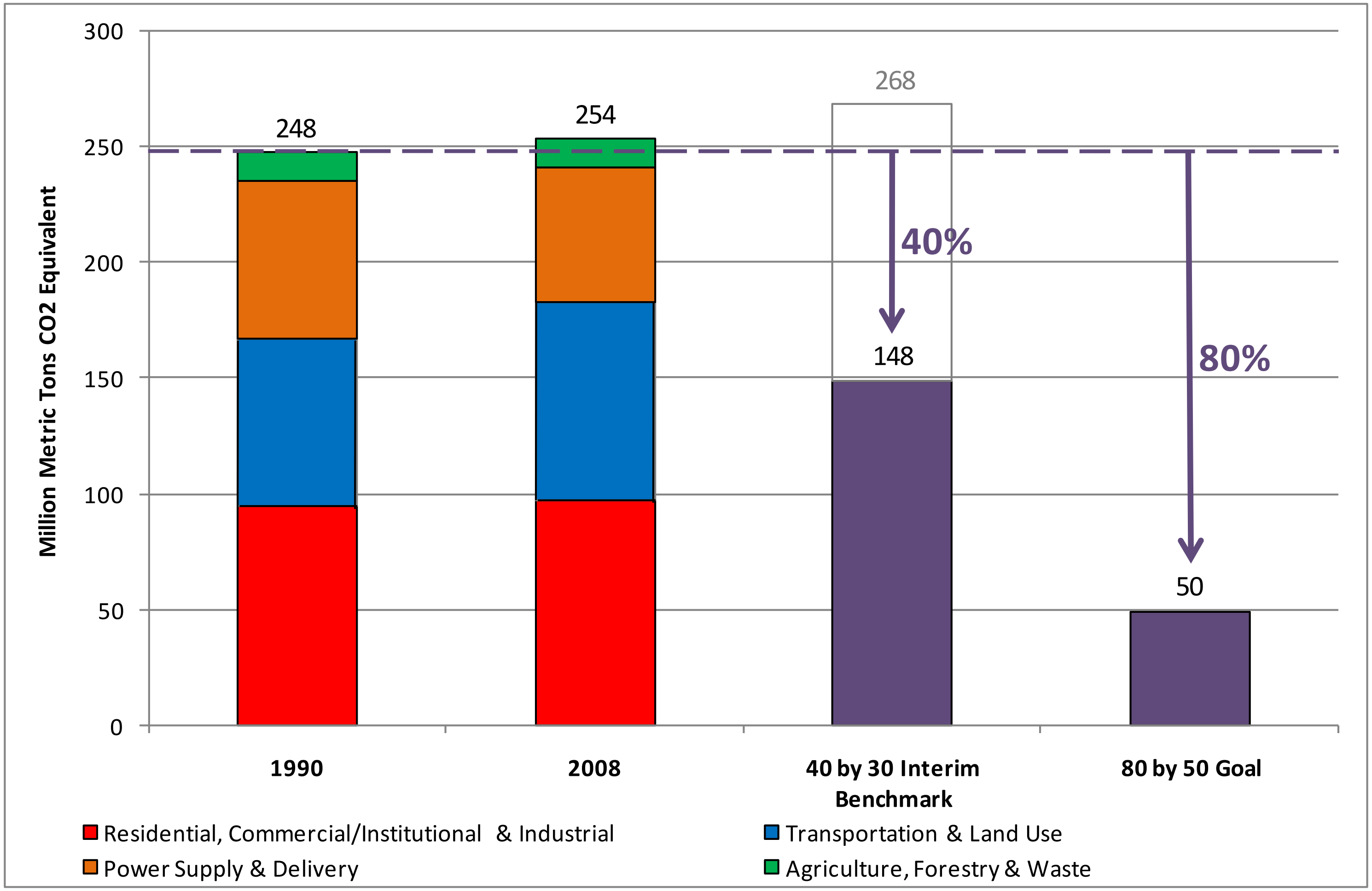
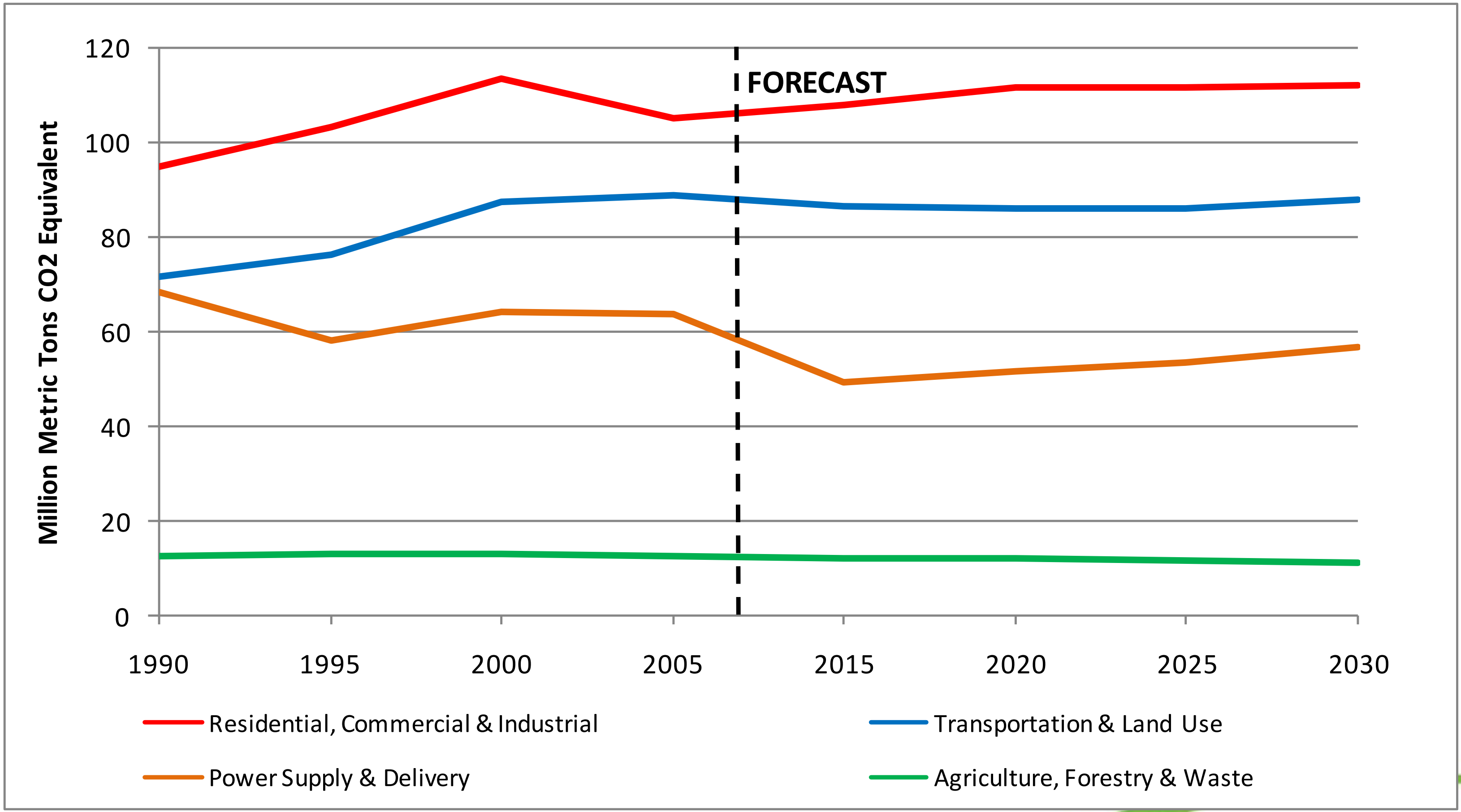
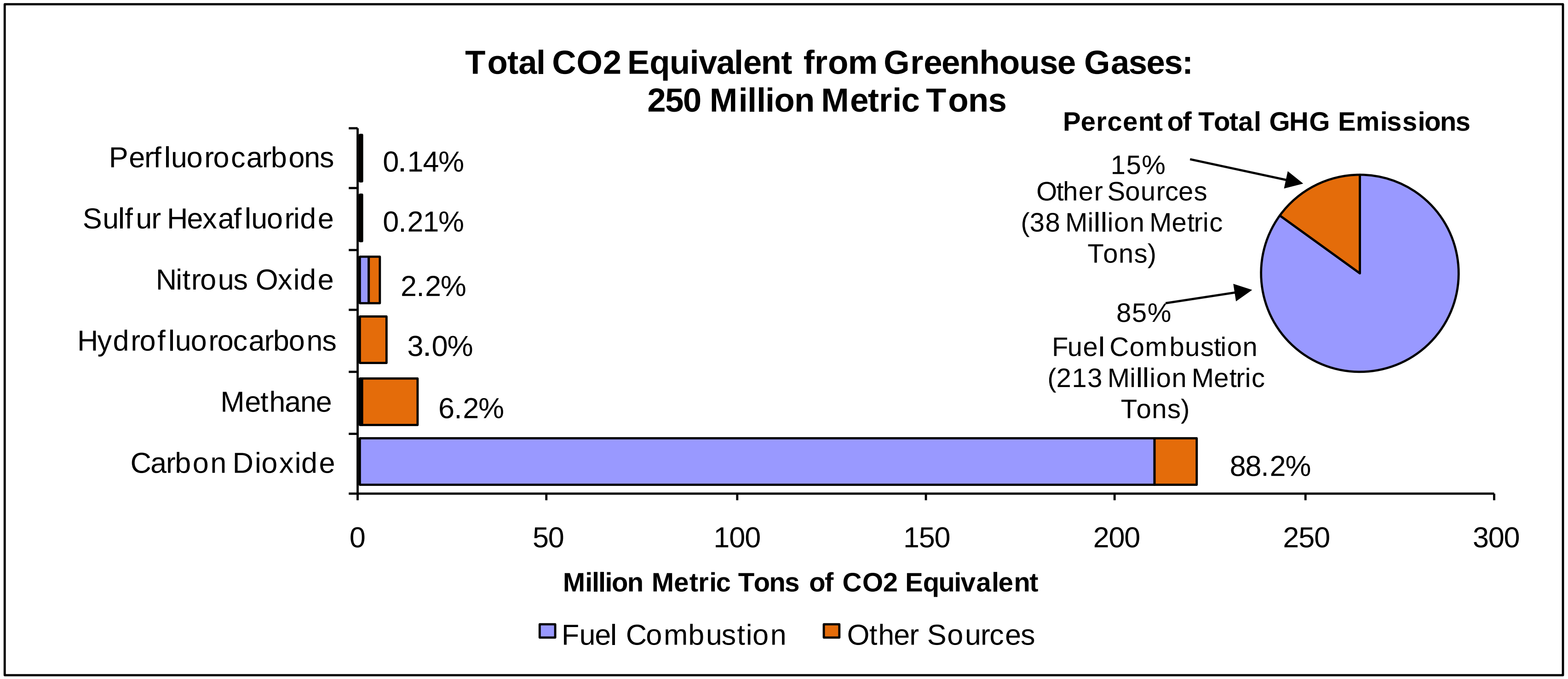
New York State Climate Action Plan Goal



New York State Greenhouse Gas Inventory and Forecast



Total Greenhouse Gas Emissions for New York, 2008



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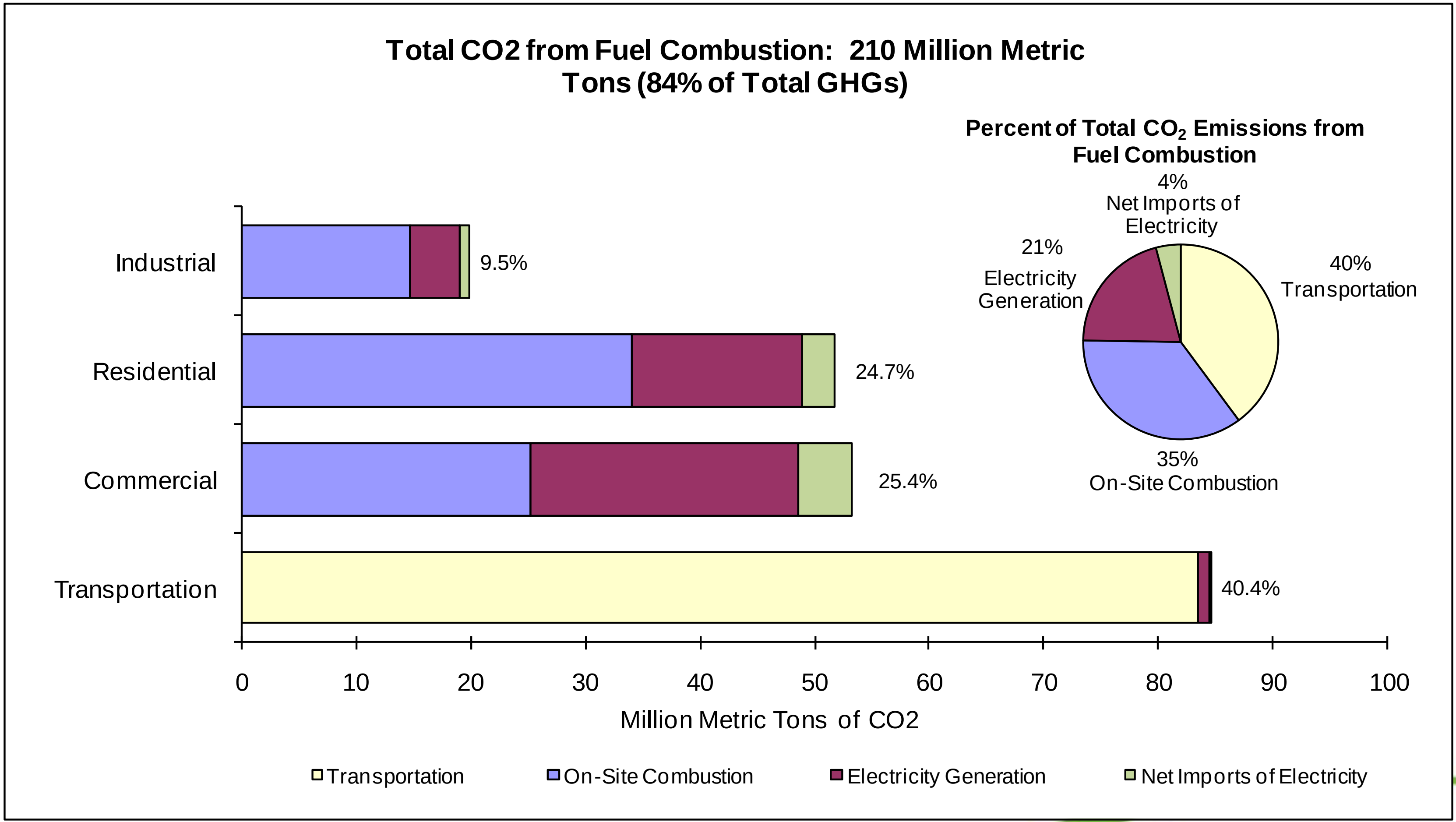
CO_2 from Fuel Combustion by End Use Sector for New York, 2008



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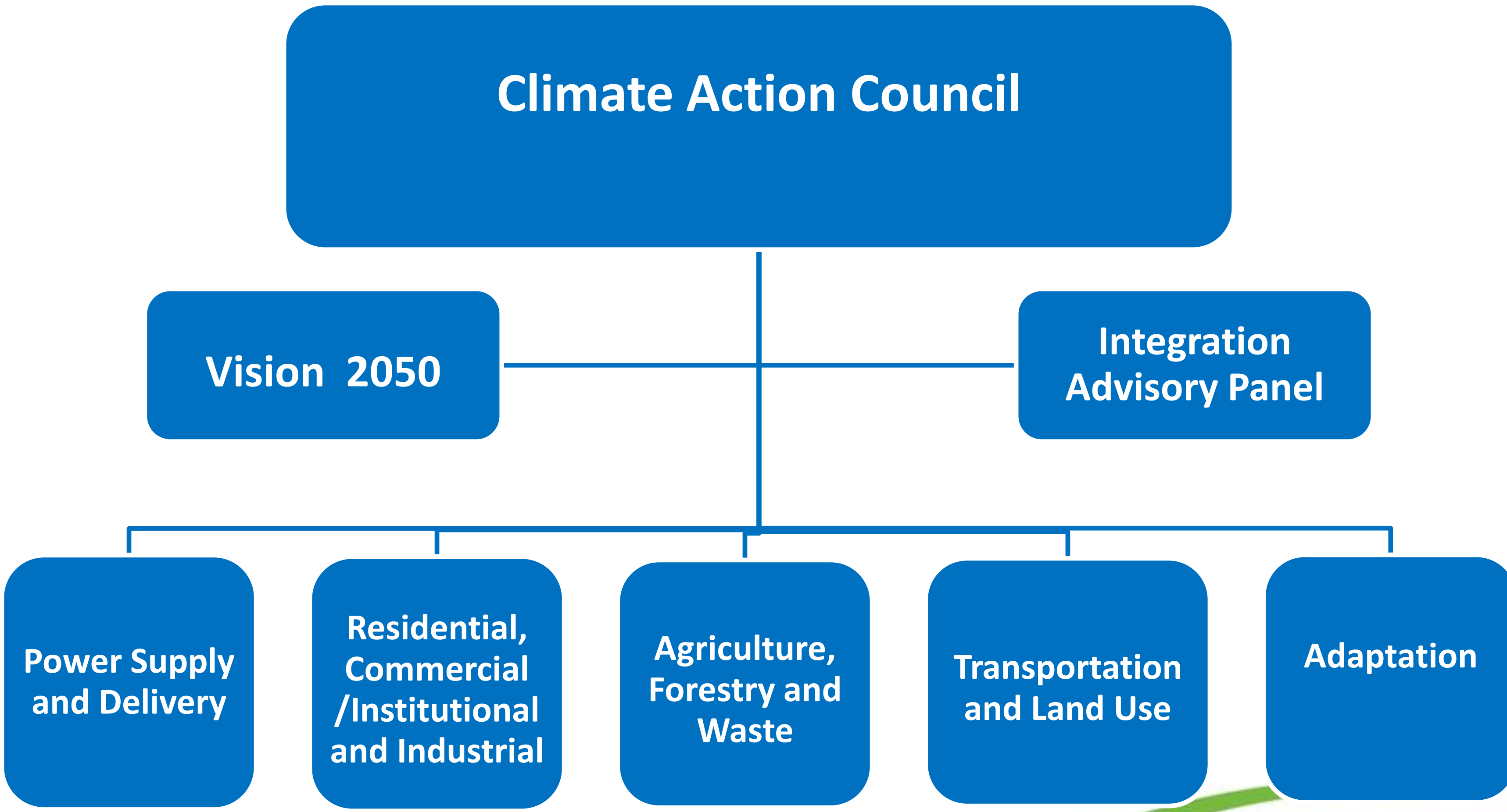
New York State Climate Action Plan Process



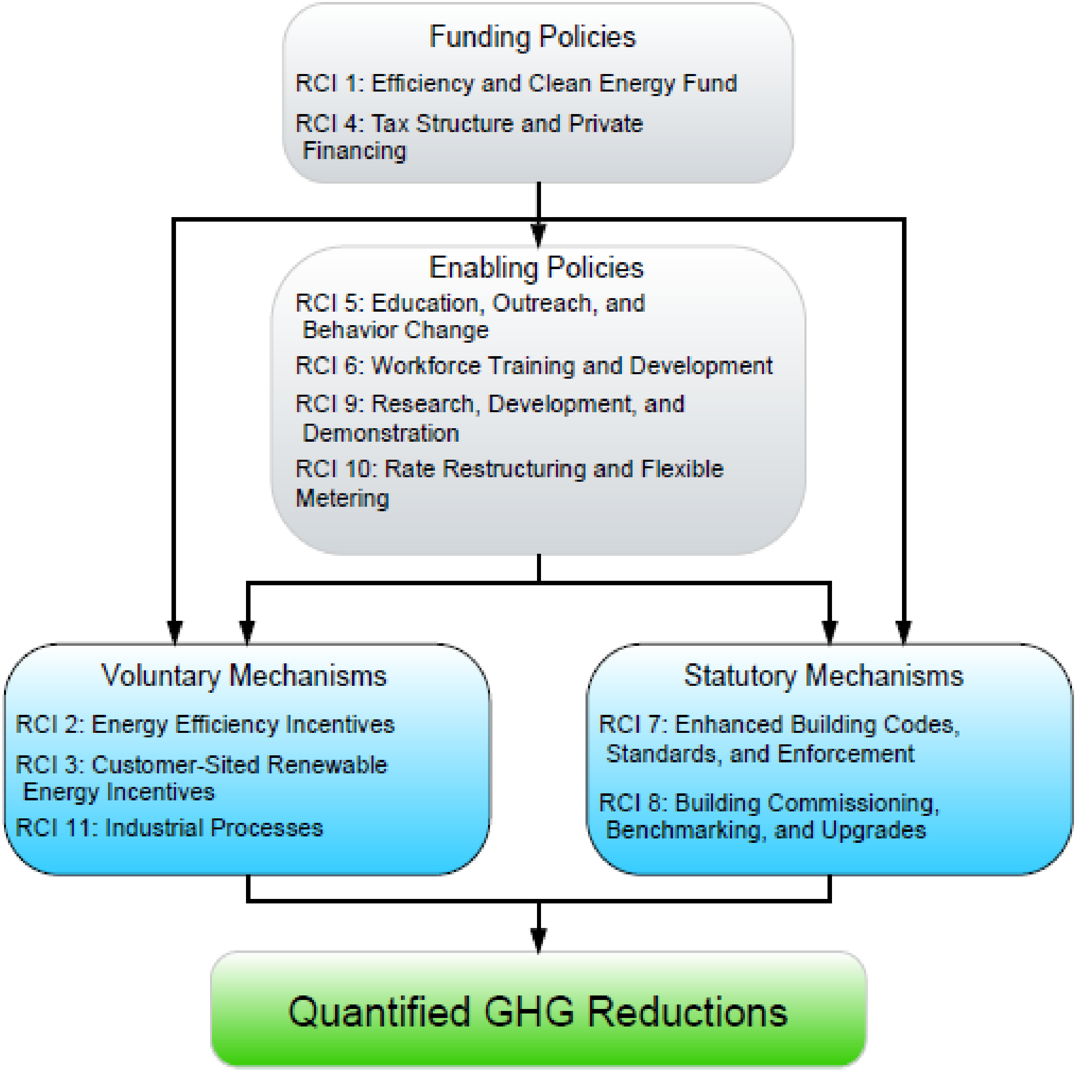
New York State Climate Action Plan Interim Report

Mitigation Policy Summary

- No single solution: a portfolio is needed
- Comprehensive / multi-sector planning
- Regional and National coordination is essential

New York State Climate Action Plan Interim Report

RCI Policy Conceptual Framework



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RCI Policy Options and Descriptions

- **Building Codes, Appliance Standards, and Enforcement (RCI-7)**
  - Establish more aggressive codes regarding energy use
  - Provide a statewide "stretch code" that encourages municipalities to achieve additional savings and informs the building sector of planned future changes.
  - Continue to establish and update energy efficiency performance standards for products that are not federally preempted, and advocate to increase performance standards for those appliances with federal preemption.

RCI Policy Options and Descriptions (cont)

- **Building Commissioning, Benchmarking, and Upgrades (RCI- 8)**
  - Measure and provide information about buildings' energy use, increasing incentive to reduce energy consumption.
  - Require regular energy audits and cost-effective energy efficiency measures.

- **Energy Efficiency Incentives (RCI-2)**
  - Provide incentives and resources for greater energy efficiency in new buildings and better energy performance in existing buildings. Employ whole-building integrated analysis and design to identify high performance efficiency measures.

RCI Policy Options and Descriptions (cont)

- **Customer-Sited Renewable Energy Incentives (RCI-3)**
  - Provide incentives and resources for greater penetration of solar electricity, solar thermal, and low-carbon bioenergy solutions.
- **Industrial Process Incentives (RCI-11)**
  - Assess and reduce industrial process energy use. Provide funding and resources to reduce GHG emissions per unit of industrial production.
- **Workforce Training and Development (RCI-6)**
  - Assess and develop workforce capabilities in New York to meet the needs of a low-carbon future.

RCI Policy Options and Descriptions (cont)

- **Education, Outreach, and Behavior Change (RCI-5)**
  - Change energy use patterns by affecting retail purchase patterns, education in schools, increasing New York State government lead-by-example, and providing information and resources to New York State communities and individuals.

- **Rate Restructuring and Flexible Metering (RCI-10)**
  - Examine electric rates that vary by time-of-use for electricity users and expand installation of meters that provide real-time electric cost/use information.

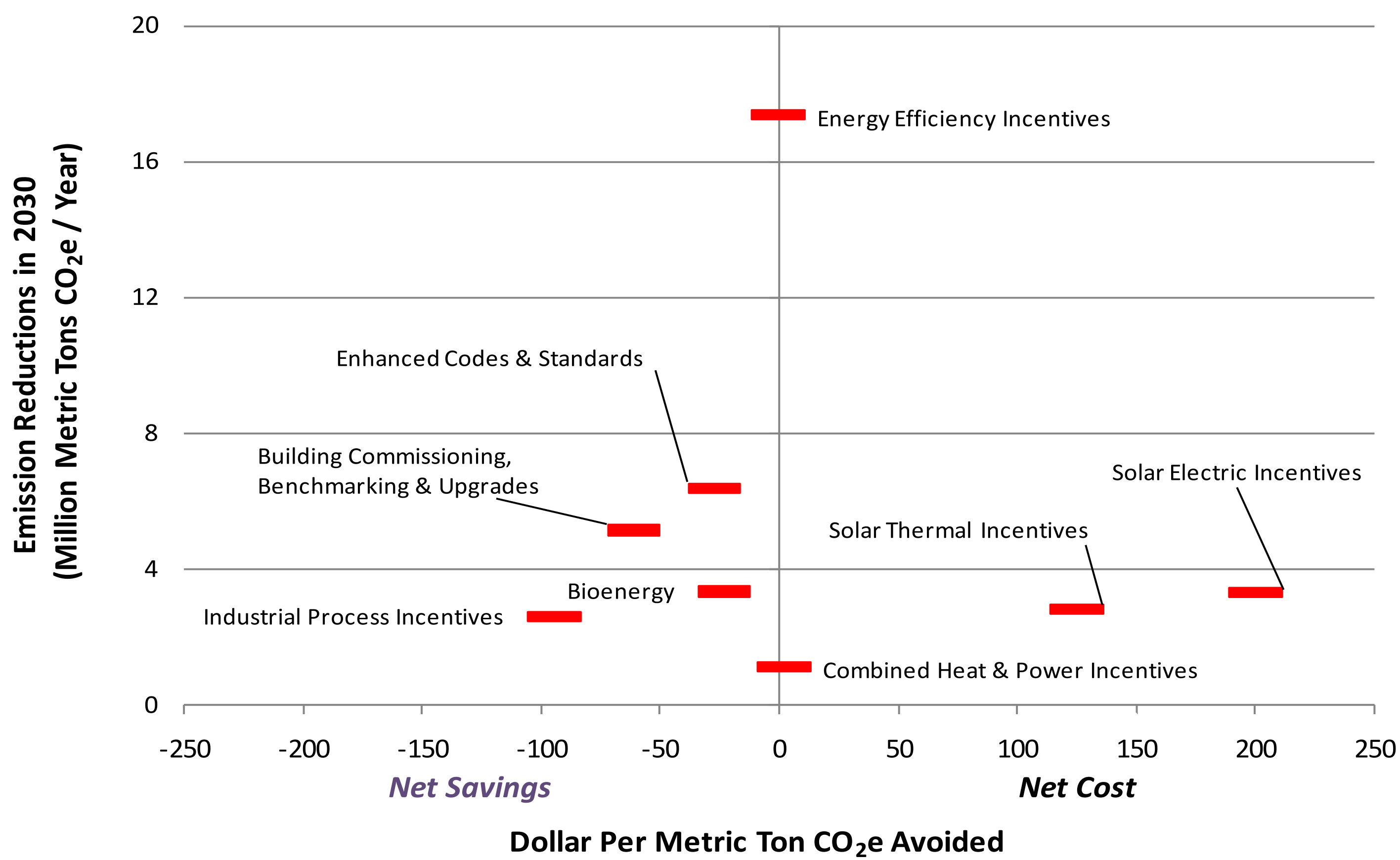
- **Research, Development, and Demonstration (RCI-9)**
  - Invest in next-generation technologies that will produce lower cost solutions to achieve climate/energy goals in the RCI sector and advance a clean energy economy in New York State.

RCI Policy Options and Descriptions (cont)

- **Efficiency and Clean Energy Fund (RCI-1)**
  – Fund efficiency and clean energy programs that reduce GHG emissions; build on existing funding sources and explore expanding to include all fuels.

- **Tax Structure and Private Financing (RCI-4)**
  – Conduct a two-phase comprehensive financing and tax policy review that will indentify changes needed to support GHG emission reduction and encourage both public and private investment in low-carbon energy.

New York State Climate Action Plan Interim Report



NOTE: Scenario results are not additive as synergies and overlap have not been estimated.
Additional economic analyses need to be conducted to assess macroeconomic impacts and co-benefits.

New York State Clean Energy Policy

"45 by 15" Goal

- 15 x15 - Reduce electricity consumption 15% below projected by 2015
- 30 x 15 - Thirty percent of electricity sold in NYS will come from qualifying renewable energy sources by 2015

- <u>Translates to:</u>
  - New EEPS program
  - Expanded RPS program; expanded CST
  - Refocused SBC program

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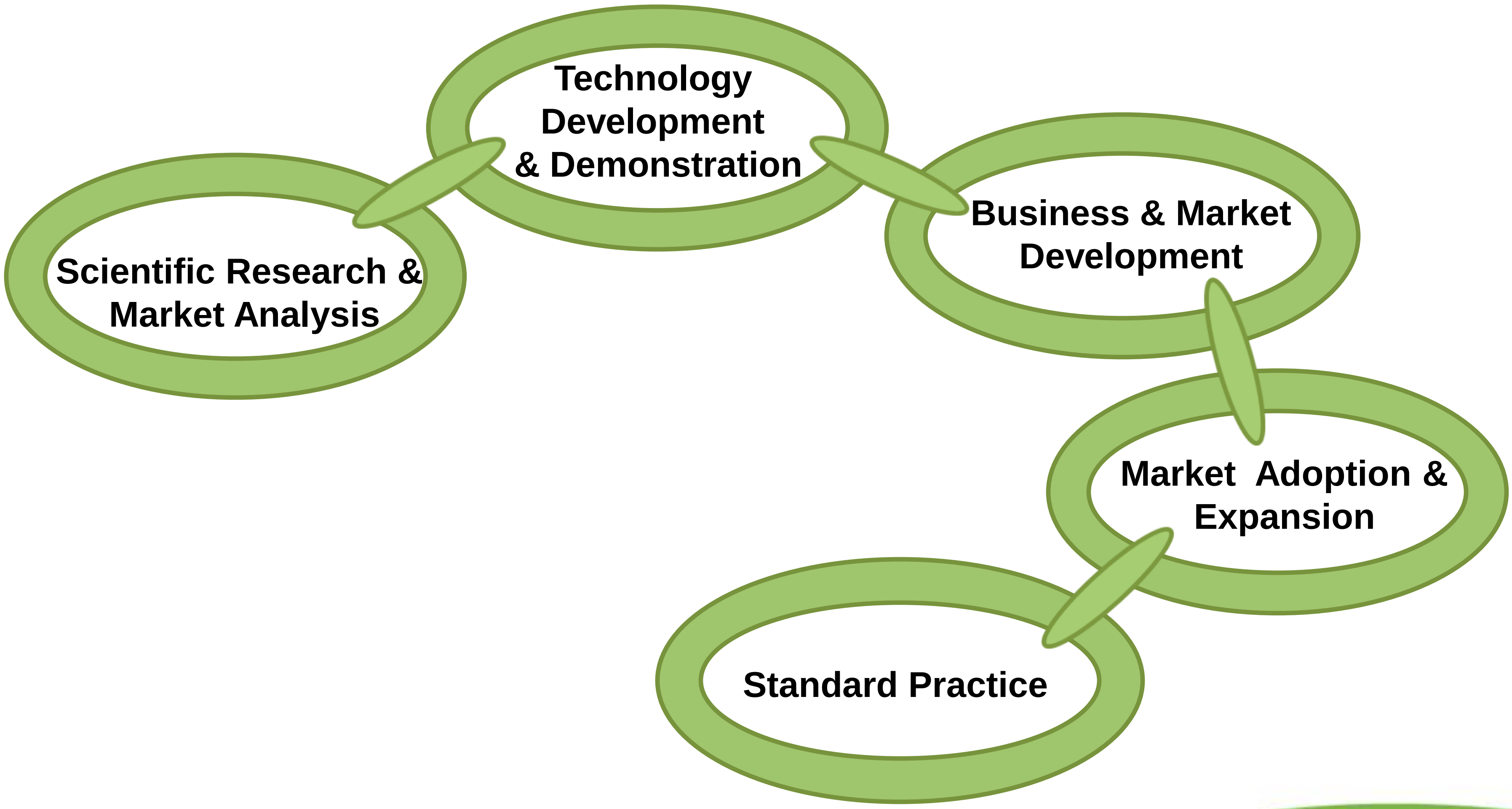
New York State Greenhouse Gas Emission Reduction Policy

Regional Greenhouse Gas Initiative

- 10-state cooperative program to reduce GHG emissions from electric power plants
- Creates "cap and invest" program
- Expands NYS program opportunities
  - All fuels / all sectors
  - Fill funding gaps not met by existing programs
  - Portfolio of near-term and long-term investments
  - Innovative Programs:
    - Climate Smart Communities
    - Green Jobs / Green NY
    - Advanced Building Systems

Energy Innovation Chain



2013 New York State Energy Plan

- **Energy Law Article 6 (Chapter 433, Laws of 2009)**
- **New Energy Planning Board, chaired by NYSERDA President**
  - 14 Agency/Appointee Members + Non-voting Members
  - Agency staff shall provide services as requested by Board
- **The Board shall…be guided by the goals of:**
  - Improving the reliability of the State's energy systems
  - Insulating consumers from volatility in market prices
  - Reducing the overall cost of energy in the State
  - Minimizing public health and environmental impacts, in particular, environmental impacts related to climate change
  - Additional charge: Maximize cost-effective energy
  - efficiency to meet projected demand growth

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2013 New York State Energy Plan

- 4-year Plan Cycles; No sunset provision
- State Agency Identification for Policy/Program Implementation
  - Annual Report to Board on Progress
  - Biennial Reports on Agency Progress, or recommended policy change
- SEP "shall provide guidance" to public and private sectors
  - Any energy-related decision by an agency "shall be reasonably consistent" with SEP
  - If not consistent, agency action to include statement explaining a finding why SEP is no longer reasonable
- Draft State Energy Plan September 1, 2012
- Final State Energy Plan March 15, 2013

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Closing Comments

- **80% GHG reduction requires a radical transformation of our energy systems**
- **Even to attain 40% by 2030 will require innovation in:**
  - Policy and Programs
  - Technology
  - Finance
  - Public-Private Partnerships
- **Requires state-federal partnership**

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