

Presentation to EPA Region II

NYS Office of Climate Change

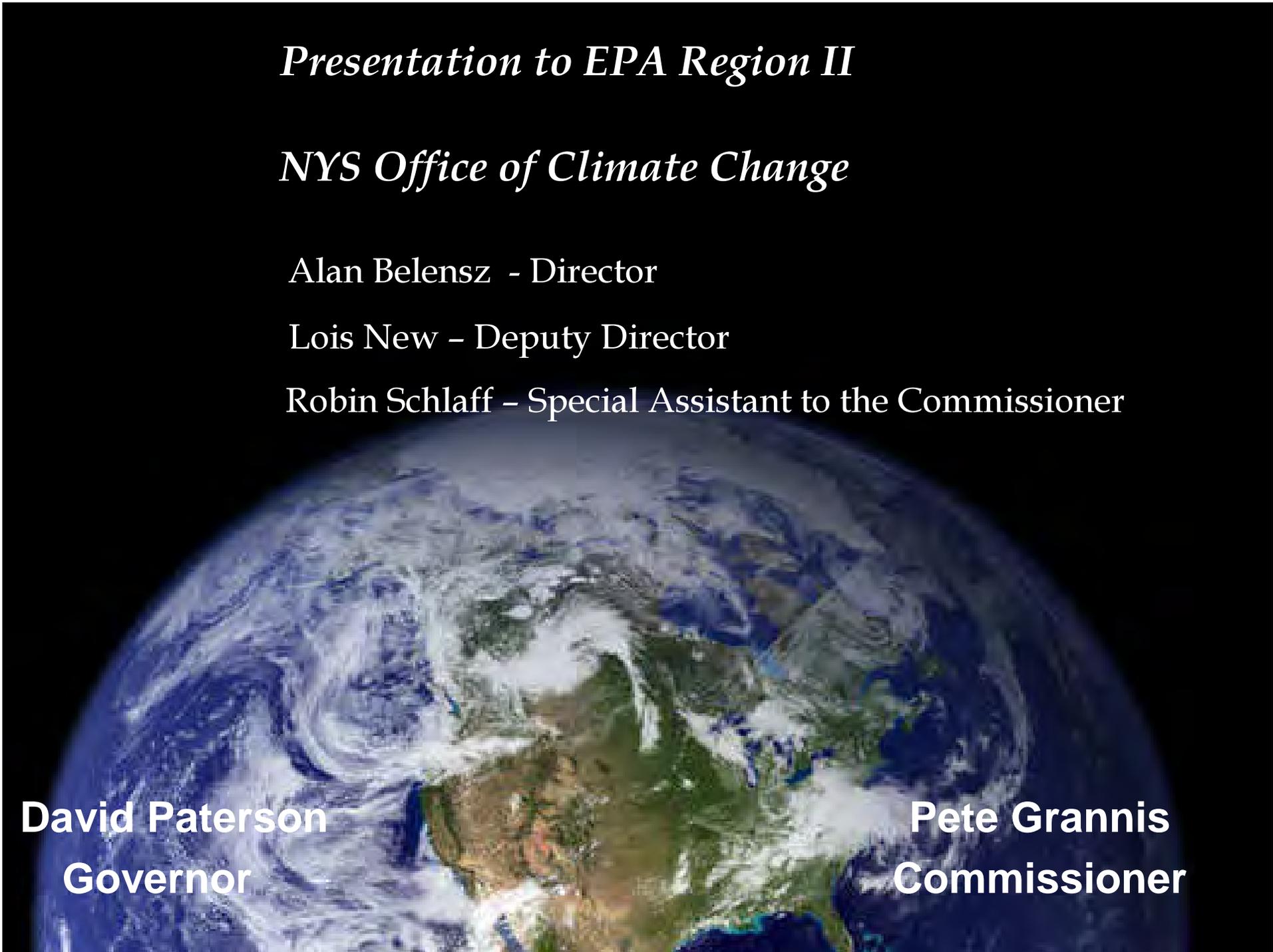
Alan Belenz - Director

Lois New - Deputy Director

Robin Schlaff - Special Assistant to the Commissioner

David Paterson
Governor

Pete Grannis
Commissioner



NYS Office of Climate Change – Mission

..leads the development, in concert with other DEC programs and state agencies, of programs and policies that mitigate greenhouse gas emissions and help New York communities and resources adapt to unavoidable climate change.

NYS Office of Climate Change – Goals

Stabilization of global atmospheric GHGs at levels that minimize harms

- reducing GHG emissions*
- maintaining and enhancing carbon sinks*
- requires local, state, regional, national and international cooperation*

Develop state and local institutional capacity to minimize impacts from future climate change

NYS Office of Climate Change – Programs

Strategic Planning

- *NYS Climate Action Plan (80X50)*
- *NYS Energy Plan*
- *The Climate Registry*

GHG Emissions Reduction Strategies

- *Regional Greenhouse Gas Initiative (RGGI)*
- *Transportation and Climate Initiative (TCI)*
- *Low Carbon Fuel Standard*
- *Biofuels Policy Development*
- *GHG vehicle emission standards*
- *SEQRA Energy Use & GHG Policy*

Climate Partnerships

- *Climate Smart Communities*
- *Regional Initiatives*
- *EPA/DOE*
- *ICAP*

Climate Change Adaptation

- *Sea Level Rise Task Force*
- *NYS Climate Adaptation Plan*
- *NYS ClimAid Study*

Climate Action Planning Process

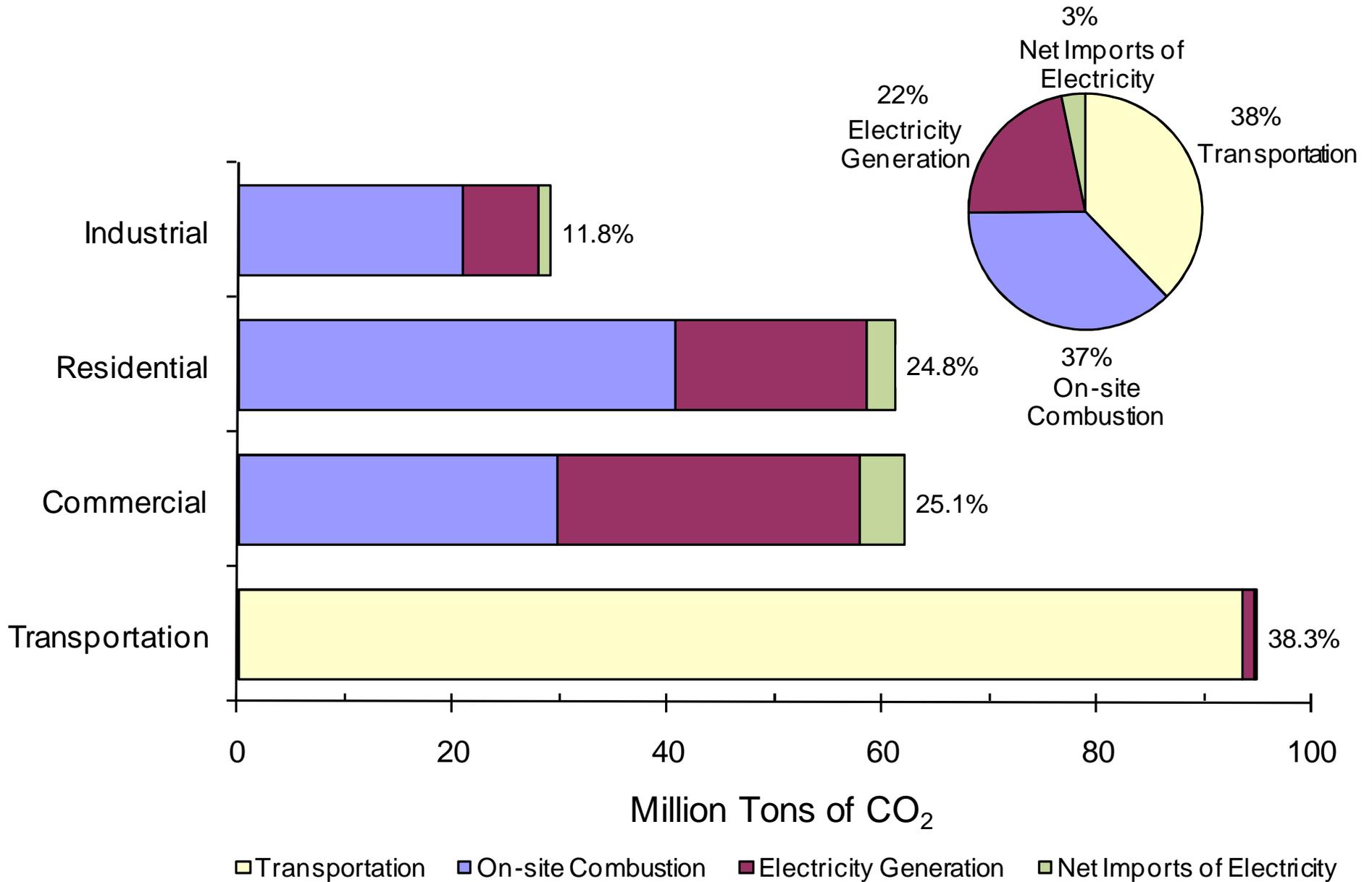
Executive Order No. 24 -- Signed August 6, 2009

Establishes the goal to reduce greenhouse gas emissions in New York State by 80 percent below the levels emitted in 1990 by the year 2050.

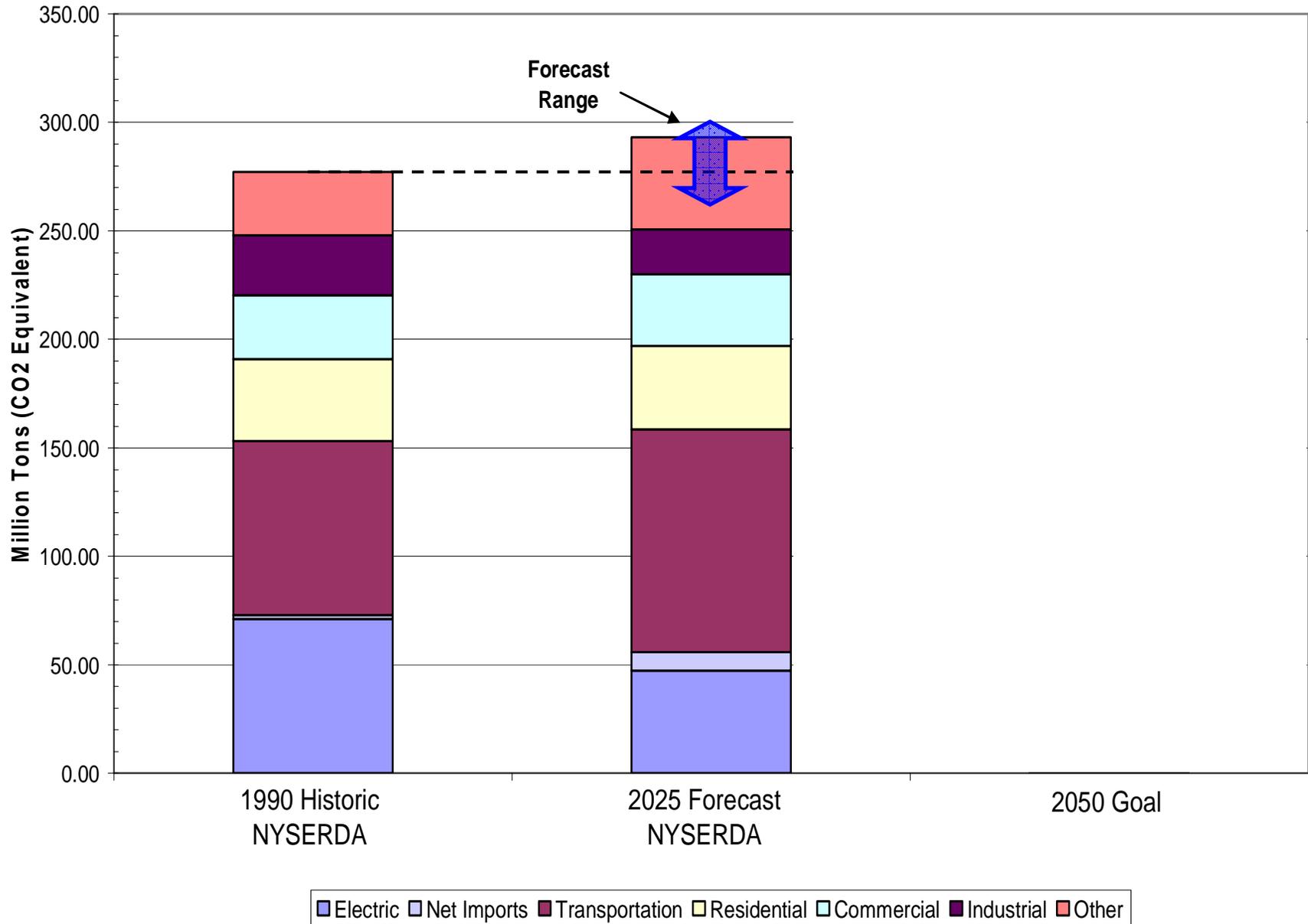
Establishes a Climate Action Council with a directive to prepare a draft Climate Action Plan by September 30, 2010.

New York State Emissions 2007

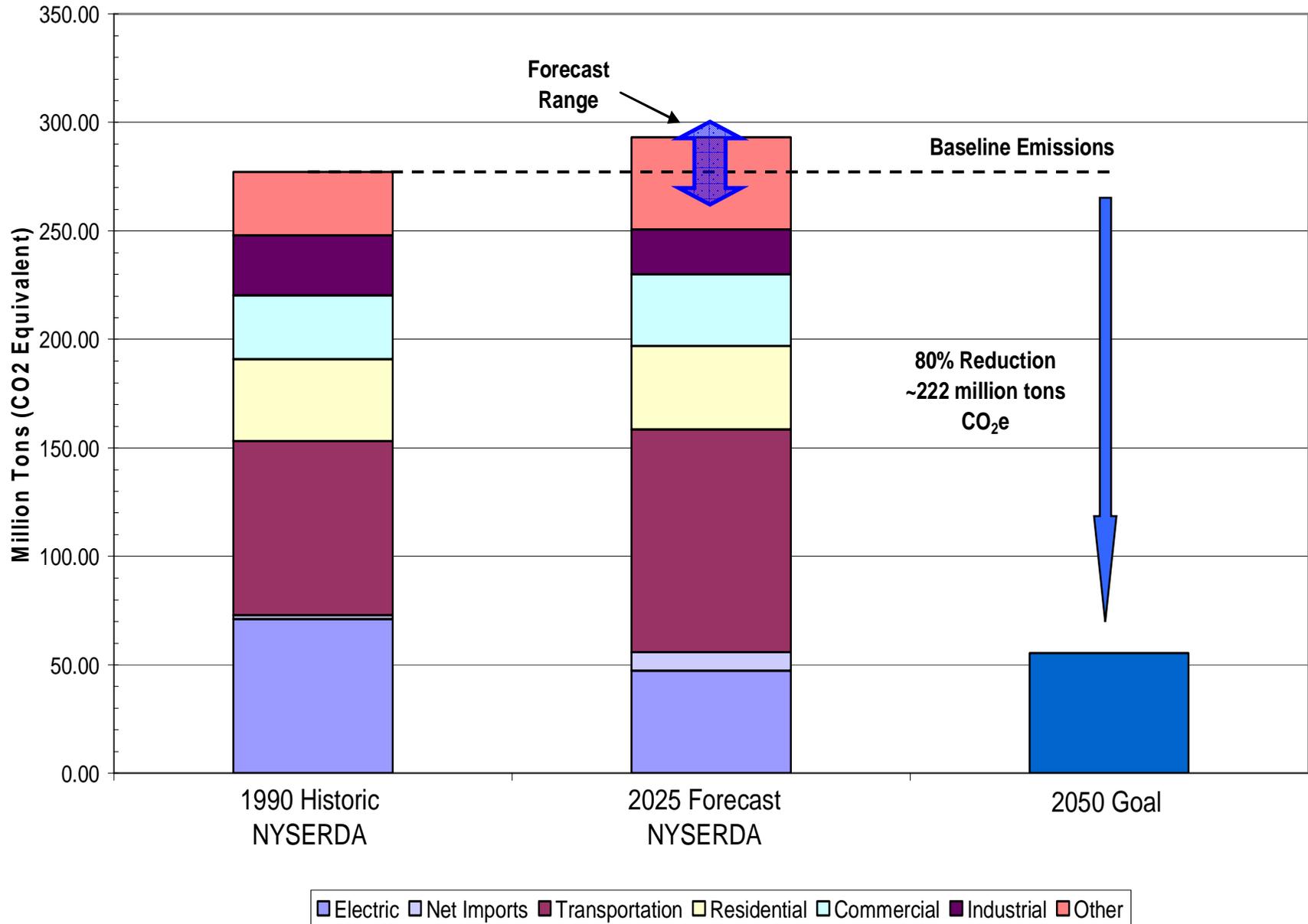
Total CO₂ from Fuel Combustion: 247 Million Tons (87% of Total GHGs)



Executive Order 24 Emission Reductions to Meet a 2050 Goal



Executive Order 24 Emission Reductions to Meet a 2050 Goal



Scenario I

- Aggressive yet “traditional” assumptions of the path to a low carbon economy.
- Buildings – Energy Star+
- Transportation
 - 10% VMT Reduction
 - 40% HEV, 60% PHEV
 - EPA Smart Moves
 - Intermodal Freighting
- Power Sector
 - Maximize Hydro/Wind
 - Solar PV remainder
 - 61,000 MW



39%



Scenario II

- **Transportation**
 - 95% Electric miles
 - E-85/Biodiesel liquid fuels
 - 30% Aviation Efficiency
 - 50% Intermodal Freighting
- **Power Supply**
 - Max out Hydro/Wind
 - 15 New Nuclear Reactors
 - NGCC with CCS
 - 9,000 MW
 - Solar PV
 - 40,000 MW
- **Buildings**
 - Full Electrification
 - On-site Solar PV
 - Distributed systems 35-40%
 - Retro-commissioning
 - 50% reduction in heating load
 - Biofuels Option
- **High GWP Gases**
 - Significant gas elimination
 - SF6 dielectric, HFC, RRR Policy, NG Line Leaks

81%



Potential Core Strategies for an 80x50 World

- Maximum energy efficiency and conservation
- Near-zero-carbon electricity generation
- “Smart” electric transmission/distribution system with energy storage
- Carbon-free energy carriers for transportation systems
- Net energy-neutral buildings
- Low-carbon liquid fuels
- Carbon sink maintenance/enhancement



Climate Action Council

Val Grey- Chair

DEC, NYSERDA, Ag & Mkts, DED, DHCR, DOT, PSC, MTA, LIPA, NYPA, DASNY, DOS, DOB, DSO & Gov's Counsel

Executive Directors: Janet Joseph (NYSERDA) & Alan Belenzs (DEC)

Vision 2050

Integration Advisory Panel

Power Supply and Delivery

Residential, Commercial and Industrial

Agriculture, Forestry and Waste

Transportation and Land Use

Adaptation



Adaptation Subgroups

1. Public Health
2. Energy
3. Water Resources
4. Transportation
5. Agriculture
6. Coastal Zones
7. Communications
8. Ecosystems



GHG Emissions Reduction Strategies

The Regional Greenhouse Gas Initiative

(RGGI) ... The nation's first cap and trade program for CO₂

- **Ten Participating States**

 - (CT, DE, MA, MD, ME, NH, NJ, NY, RI, VT)

- **Power sector emissions capped at 2000-2002 levels from 2009-2014, reduced by 2.5% per year 2015-2018 for total reduction of 10%**

- **Auction of allowances (8 auctions... \$662 B)**

- **Reinvestment in clean energy economy**

- **National and international model**

GHG Emissions Reduction Strategies

Transportation and Climate Initiative of the Northeast and Mid-Atlantic States

- RGGI states + Washington DC + Pennsylvania
- Reduce emissions from cars and trucks
- Signed a Declaration of Intent on June 15th
- Prepare a strategic plan + seek project funding:
 - electric vehicle infrastructure
 - improvements in freight systems
 - intelligent communications technology
 - community smart growth/sustainability

Climate Partnerships

NYS Climate Smart Communities

- Pass resolutions that:
 - Acknowledge the threat and commit to action
- Adopt a 10-point plan to:
 - Measure and cut emissions
 - Reduce waste, conserve energy, increase renewables
 - Evaluate and deploy adaptation measures
 - Commit to smart growth and the green economy
 - Inform and inspire the public
- Currently 79 communities
- Potential for federal grant funding

NYS Sea Level Rise Task Force

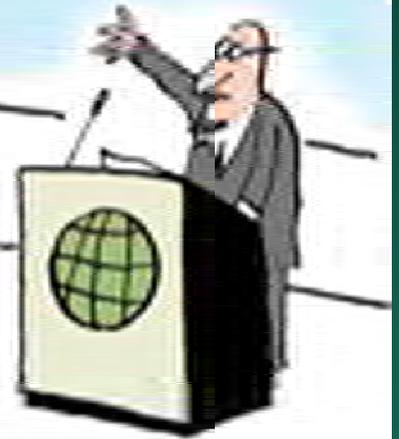
- Established 2007, 16 members
- Scope: Troy Dam to tip of Long Island
- Report due January 1, 2011:
 - assessment of anticipated impacts of sea level rise;
 - recommendations for protective standards for coastal development, wetlands protection, shoreline armoring and post-storm recovery
- Steering committee
- 5 workgroups



CLIMATE SUMMIT

WHAT IF IT'S
A BIG HOAX AND
WE CREATE A BETTER
WORLD FOR NOTHING?

- ENERGY INDEPENDENCE
- PRESERVE RAINFORESTS
- SUSTAINABILITY
- GREEN JOBS
- LIVABLE CITIES
- RENEWABLES
- CLEAN WATER, AIR
- HEALTHY CHILDREN
- etc. etc.



YOUNG
PETER
2009 USA TODAY

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Thank You



Earth's Carbon Cycle

Atmosphere Carbon Storage

