

# New York State Energy Planning Board

## Completing the Draft State Energy Plan

August 29, 2013

# Background

- New Considerations
  - Energy Highway
  - Irene/Lee/Sandy Lessons Learned and Commissions Recommendations
- New Initiatives
  - Green Bank
  - NY-Sun

# Background cont.

- The Draft Plan will take these new considerations into account, while meeting statutory goals:
  - Improving reliability
  - Costs to consumers
    - Including overall cost and price volatility
  - Minimizing public health and environmental impacts
  - Maximizing cost-effective energy efficiency

# New York State Draft Energy Plan

## Volume 1: Vision

Jill Anderson

New York Power Authority

# Vision

1. Articulate the vision for the energy system in New York, 20 to 25 years forward
2. Describe current context of the energy system
  - Recent achievements
  - Current challenges
  - Drivers that will shape the future
3. Outline strategies to move NY toward its vision
  - Near-term action items
  - Long-term policy goals
  - Meaningful metrics

# Vision cont.

## *Attributes:*

- Reliable and safe
- Flexible and adaptable
- Clean and sustainable
- Affordable and competitive

# Vision cont.

## *Current themes:*

- Empowering customers and communities
- Stimulating private sector investment
- Improving system efficiency
- Enabling markets and market participants
- Investing in strategic infrastructure
- Protecting the environment and public health
- Capturing economic opportunity

# Vision cont.

## *Examples of proposed metrics:*

- CO<sub>2</sub> emissions per energy
- Economic productivity per BTU consumed
- Energy rates and total bill costs
- Energy consumption and peak demand
- Number of customers relying on oil for heat
- Alternate vehicles registered
- Number of alternate fueling and charging stations
- Direct and net jobs created and retained
- Air quality standards met state-wide



# New York State Draft Energy Plan

## Volume 2: End-Uses

John Williams

New York State Energy Research and  
Development Authority

# Energy End-Use Chapter

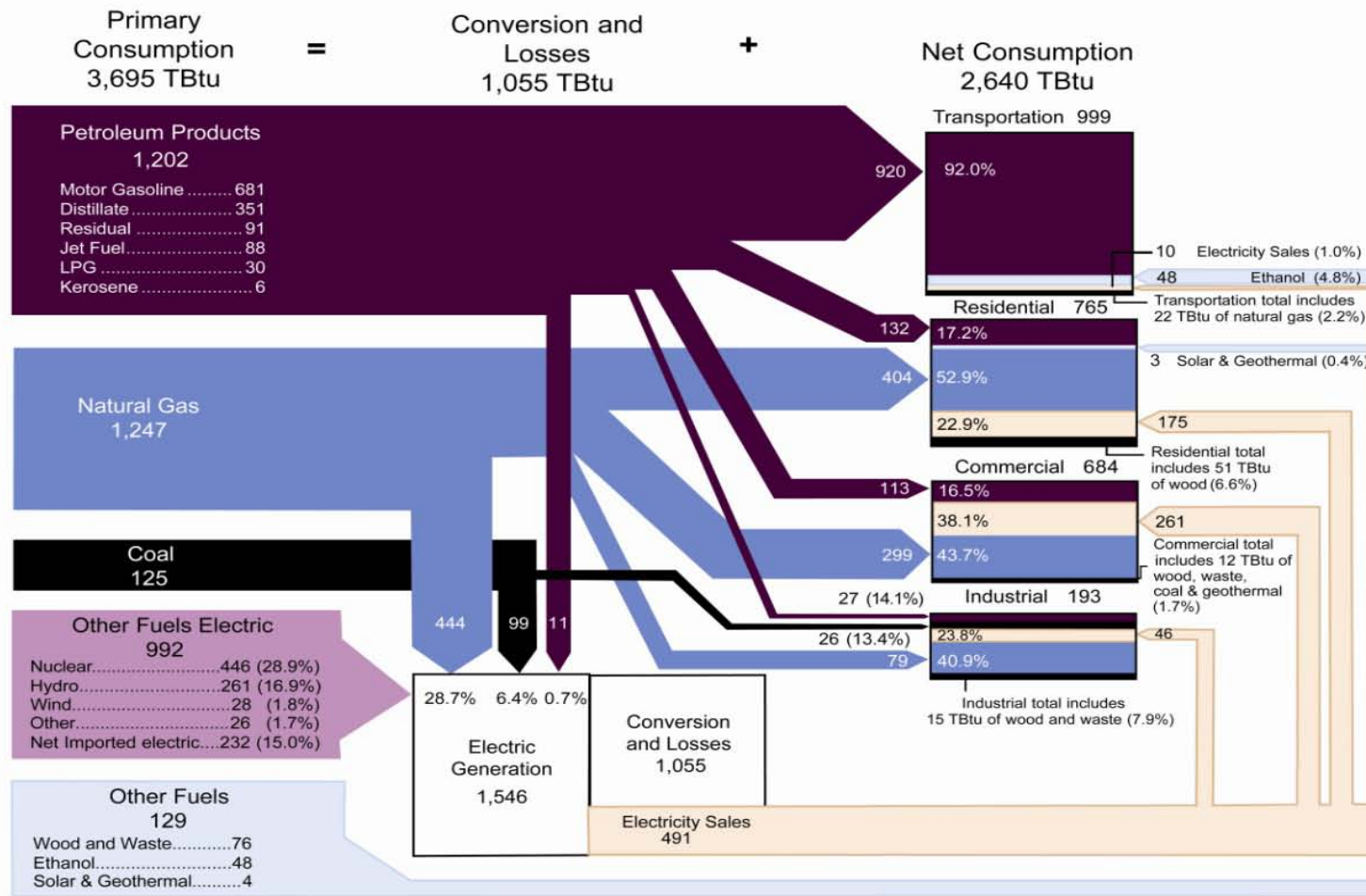
- Sections:
  - Energy Use and Cost
  - Building and Industry Energy Efficiency
  - Transportation
  - Growing the Clean Energy Economy

# Energy End-Use Chapter: Energy Use and Cost

- Historical and forecasted energy use by sector and fuel type
- Historical energy expenditures by sector and fuel type
- Fuel price forecasts for selected fuels

# Energy End-Use Chapter: Energy Use and Cost

## 2011 NEW YORK STATE ENERGY FLOW (TBtu)



# Energy End-Use Chapter: Building and Industry Energy Efficiency

- Update on energy efficiency programs and achievements
- Building codes and standards
- Potential for additional energy savings

# Energy End-Use Chapter: Transportation

- Transportation energy use and costs
  - Demographic trends
  - Costs to Consumers and Petroleum Price Volatility
  - Fiscal Crisis with system funding
- Transportation efficiency and alt. fuels
  - Mode shifts
  - Information Technologies
  - Alternate fuel vehicle opportunities

# Energy End-Use Chapter: Growing the Clean Energy Economy

- Comprehensive Initiatives that support the clean energy economy across the business lifecycle
- Building on New York's clean energy assets
- Innovation and R&D
  - Technology Transfer and Capital Creation
- Workforce

# New York State Draft Energy Plan

## Volume 2: Sources

Jeff Cohen

New York State

Department of Public Service



# Sources Chapter

- Sections:
  - Electricity
  - Natural Gas
  - Petroleum Products
  - Renewable Resources

# Sources Chapter: Electricity

- Industry Overview
- Capacity and Generation by Fuel Type
- T&D Systems & Planning
- Markets and Prices

# Sources Chapter: Natural Gas

- Production and Supply
- North American and NY Demand
- Infrastructure Siting and Expansion
- Production Costs and Prices

# Sources Chapter: Petroleum Products

- Historic and Current Demand
- Infrastructure and Distribution Networks
- Distillate / Residual / Propane / Gasoline

# Sources Chapter: Renewable Resources

- Value and Contribution of Renewable Resources
- Potential of Renewable Energy
- Technology Assessments
- RPS Program

# New York State Draft Energy Plan

## Volume 2: Impacts

Jared Snyder

New York State

Department of Environmental Conservation

# Impacts and Considerations Chapter

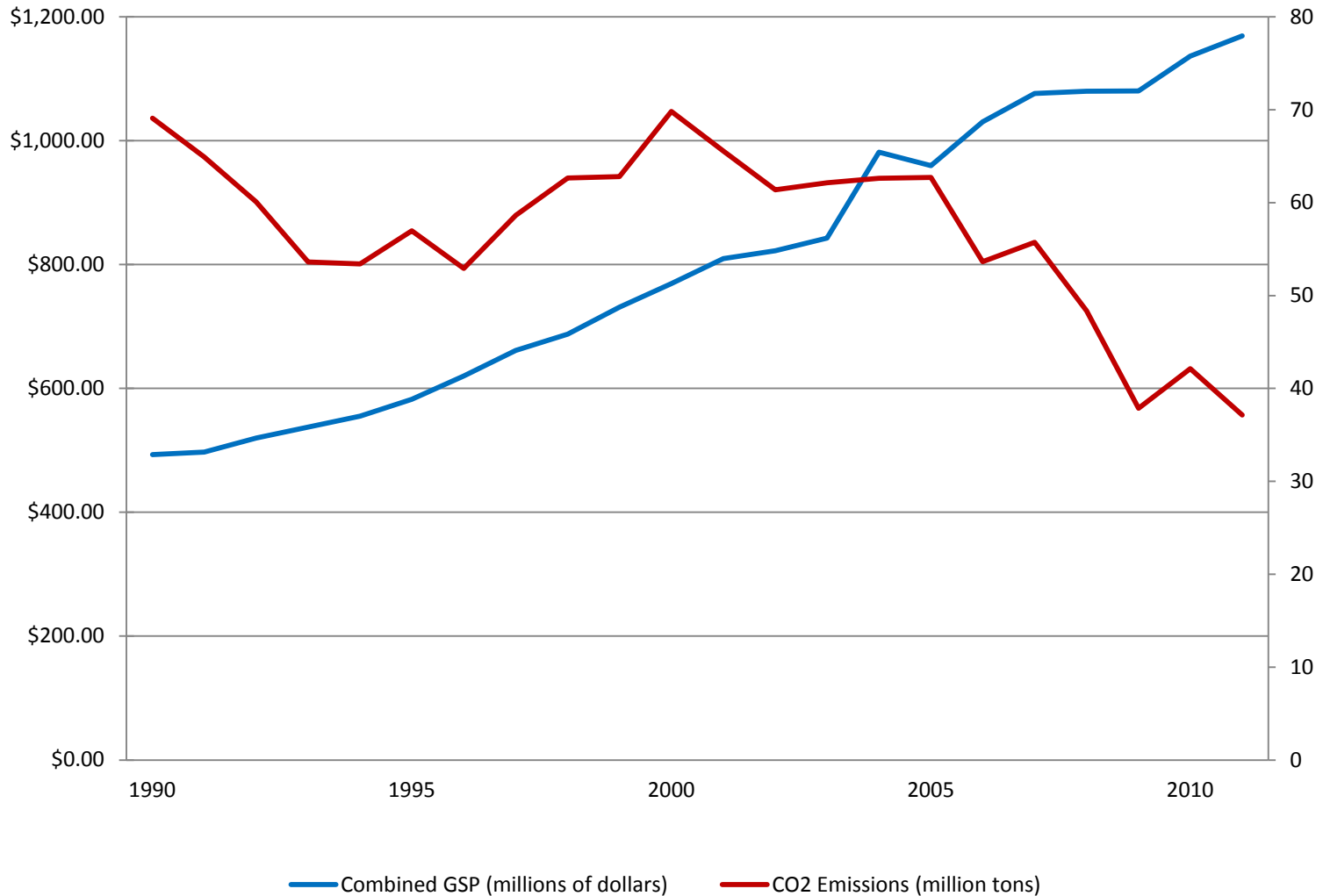
- Sections:
  - Climate Change and Environmental Impacts
  - Public Health
  - Environmental Justice
  - Smart Growth
  - Security and Resiliency

# Impacts and Considerations Chapter: Climate Change

- Greenhouse Gas (GHG) Emissions Inventory
  - Projected Impacts of Climate Change
    - Sea Level Rise, Extreme Weather, More Frequent and Intense Precipitation, Flooding
  - Evaluating the Costs of Climate Change
  - Key GHG-Related Policies and Programs
    - RGGI/CO<sub>2</sub> Performance Standard
    - Cleaner Greener Communities
    - GHG Emission Standards
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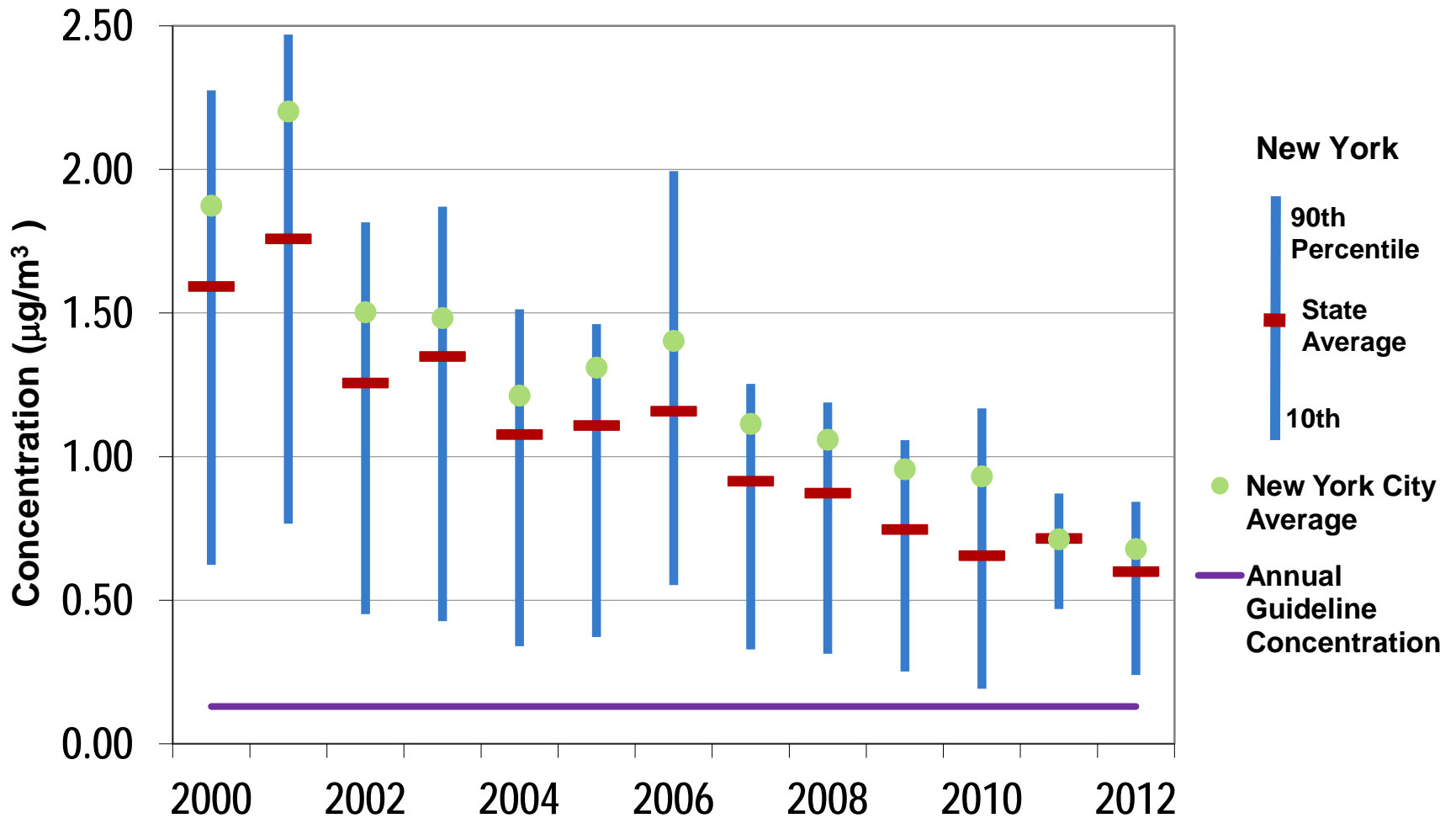
# Decoupling Economic Output from Power Sector Emissions



# Impacts and Considerations Chapter: Environmental Resources

- Impacts on Resources from Electricity Generation, Transportation, Stationary Uses and Energy Distribution
  - Air
  - Water
  - Natural resources and wildlife
- Air Related Policies and Programs

# Benzene Ambient Air Concentration (2000 to 2012)



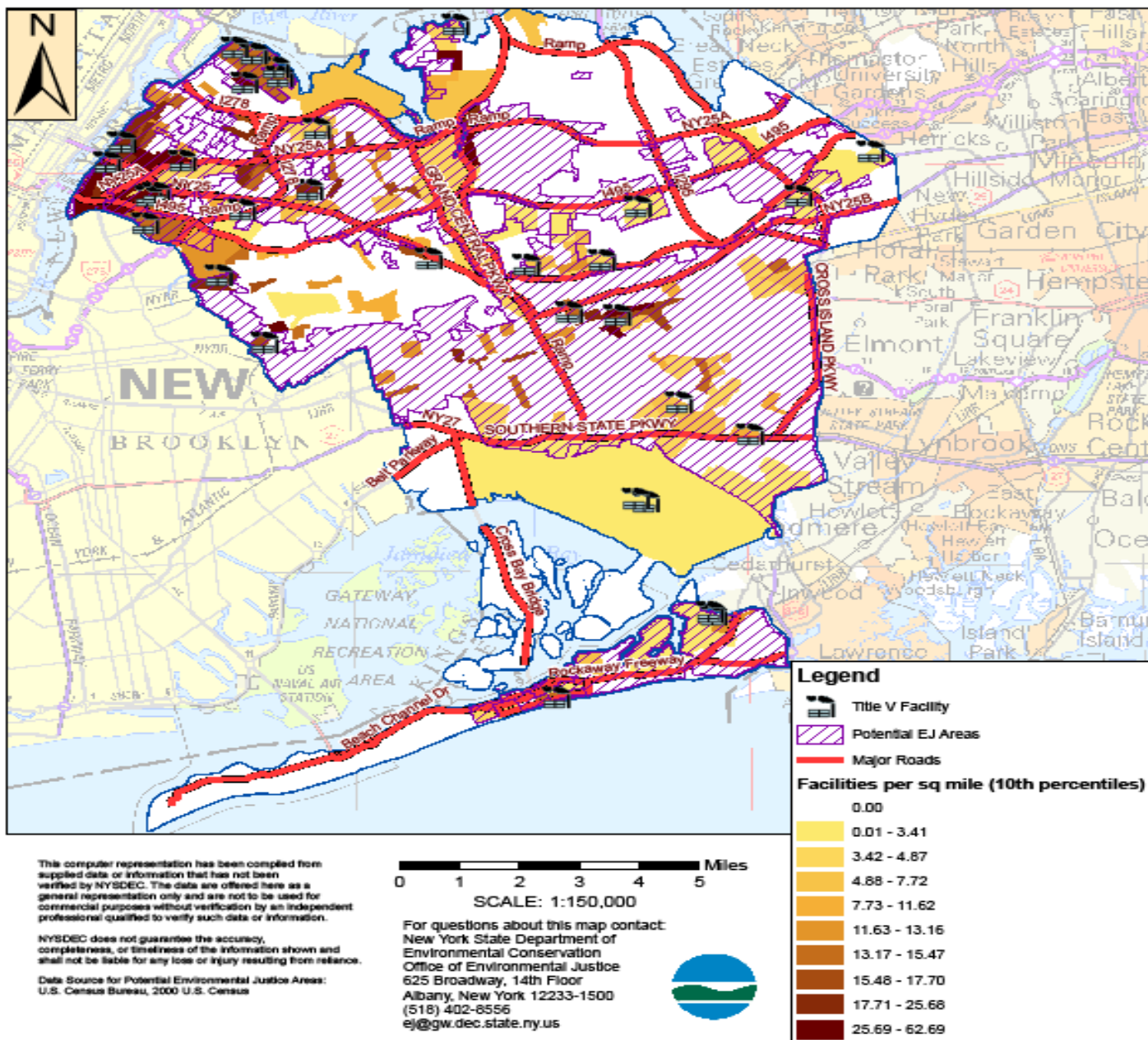
# Impacts and Considerations Chapter: Public Health

- New York State Health Status
- Health Effects Associated with Carbon-based Fuels
- Health Concerns by Energy Sector
  - Electricity: fossil fuels, nuclear, wind, reliability
  - Transportation: fossil fuels, transportation options
  - Buildings: fossil fuels, biomass, efficiency
- Considering Health in Energy Planning

# Impacts and Considerations Chapter: Environmental Justice

- Burdens Affecting EJ Communities
    - Energy Costs and Economic Impacts
    - Facility and Transportation Emissions
      - Health Disparities
    - Climate Change
    - Community Impacts
  - Consideration of EJ in Permitting
    - 6NYCRR Part 487
    - Commissioner's Policy 29
  - EJ Policies and Programs
-

# Queens County Map of Potential EJ Areas and Density of Facilities



# Impacts and Considerations Chapter: Smart Growth

- Impact of Land Use and Development Patterns on Energy Use in Transportation and Buildings
- Smart Growth Programs and Practices
  - Regional Planning Initiatives
  - Smart Growth Public Infrastructure Act
  - Transportation and Climate Initiative (TCI)
  - Transit-Oriented Development (TOD)
  - Complete Streets

# Impacts and Considerations Chapter: Security and Resiliency

- Vulnerabilities of the Energy System
  - Risks from Climate Change
  - Hazards and Threats Affecting Security
- Building Energy System Resiliency



# Process

- Formed core team to draft chapters
  - Agency outreach on substantive issues
- External outreach to update vision
- Engaged Arch Street for graphic design

## Process cont.

- Draft Plan to be presented to Board, issued to public - Fall 2013
- Written Public Comment Period
- Minimum 6 Public Comment Hearings  
3 “Upstate” and 3 “Downstate”
- Final Plan to be presented to Board for adoption – Target: Spring 2014

# Board Discussion

Questions or Comments?