



Control Strategy Development Process and Status

Presented by

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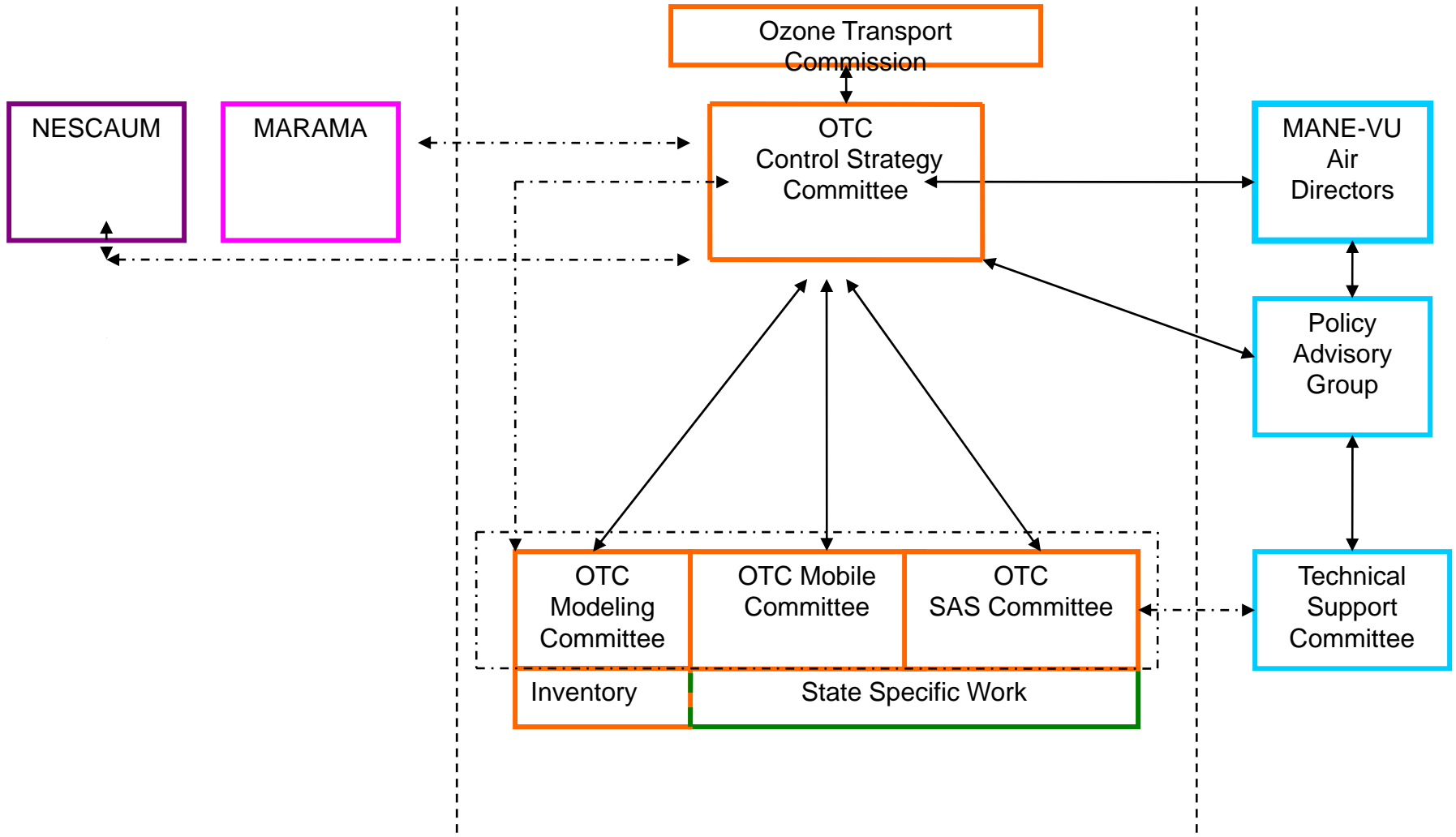
Acknowledgements – Key Control Strategy Work

- **Control Strategy Committee**
 - Tad Aburn, MD
 - Jeff Crawford, ME
 - Tonalee Key, NJ
- **Stationary and Area Source Committee**
 - Control Measures Workgroup
 - Ali Mirzakhali, DE - Chair
 - RACT Workgroup
 - Rob Sliwinski, NY – Chair
 - Multi-P Workgroup
 - Tad Aburn, MD - Chair
- **Mobile Source Committee**
 - Dave Shaw, NY – Chair
- **Modeling Committee**
 - Barbara Kwetz, MA – Chair
 - Gopal Sistla, NY – CMAQ Modeling
- **Inventory - MARAMA**

Co-Chairs



Organization and Coordination





OTC Control Strategy Work

- Multi-Pollutant Program Development
 - EGU and ICI Boilers
 - Intra- and Inter-Regional Coordination
- Control Measure Analysis and Development
 - RACT Update - 10 Plus fruitful categories
 - RACT Benchmark – Most Stringent in Region
 - Identification of New Measures
- Corridor Approach to Diesel Emissions



Ongoing State and Regional Work

- Multiple State Initiatives
 - NJ Workshop
 - Other State Activities
 - Intra and Inter-Regional Coordination
- MARAMA RACT Update
- STAPPA Menu of Options
- NESCAUM and MARAMA Diesel Collaboratives



Most Promising Areas to Examine

Based on 2002 Inventory and 2009 Projections

- Point Sources including:
 - Industrial, Commercial and Institutional Boilers
 - Cement Kilns
 - Lime Kilns
 - Glass Furnaces
 - Municipal Waste Combustion
 - Petroleum Refining
 - EGU Peaking Units
 - Small Diesel Generation



Most Promising Areas to Examine

Based on 2002 Inventory and 2009 Projections

- Area Sources

including:

- Residential Oil, Coal
- Residential Wood
- Open Burning
- Cutback Asphalt
- Architectural, Traffic Markings, Industrial Maintenance Coatings
- Consumer Products
- POTWs
- Degreasing
- Printing and Graphic Arts
- Metal Production
- Stage 1 Vapor Recovery
- Adhesives
- Auto Refinishing



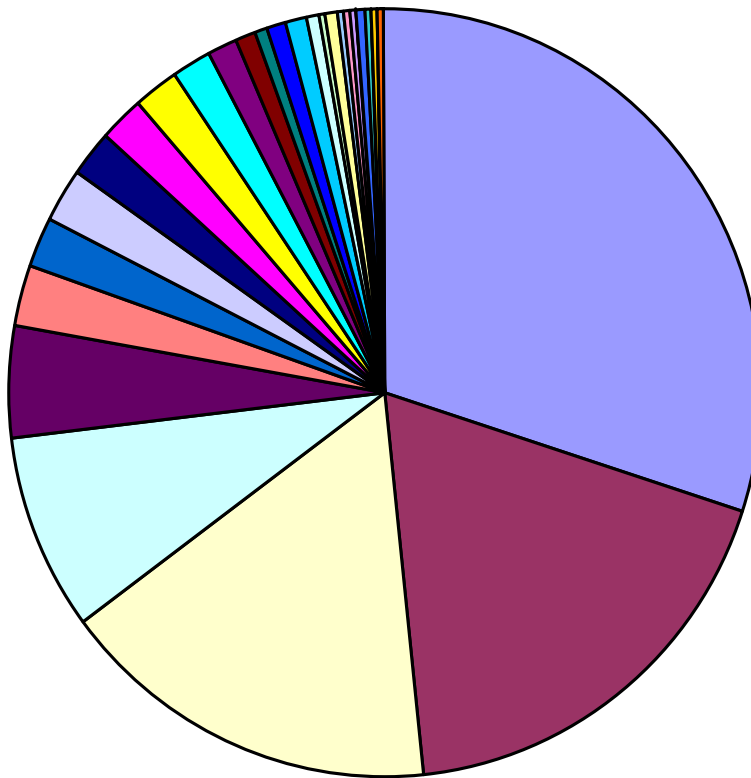
Most Promising Areas to Examine

Based on 2002 Inventory and 2009 Projections

- Mobile Sources including:
 - Onroad Gasoline Vehicles
 - Onroad Heavy Duty Diesel Vehicles
 - Onroad Heavy Duty Diesel Buses
 - Off Highway Diesel Vehicles
 - Nonroad Gasoline Equipment
 - Marine and Locomotive
 - Airport Passenger and Aircraft Service Equipment
 - Off Highway LPG

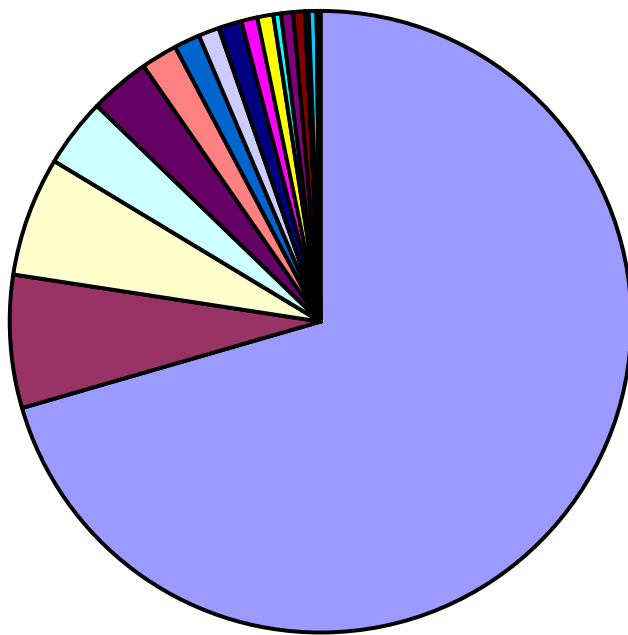


Summary of Annual NOx Emissions (2002, MANE-VU)



- Mobile Sources-Highway Vehicles-Gasoline
- Mobile Sources-Highway Vehicles-Diesel
- External Combustion Boilers-Electric Generation
- Mobile Sources-Off-highway Vehicle Diesel
- Stationary Source Fuel Combustion-Residential
- Stationary Source Fuel Combustion-Commercial/Institutional
- Industrial Processes-Mineral Products
- External Combustion Boilers-Industrial
- Mobile Sources-Railroad Equipment
- Mobile Sources-LPG
- Mobile Sources-Marine Vessels, Commercial
- Stationary Source Fuel Combustion-Industrial

Summary of Annual SO₂ Emissions (2002, MANE-VU)



- External Combustion Boilers-Electric Generation
- External Combustion Boilers-Industrial
- Stationary Source Fuel Combustion-Residential
- Stationary Source Fuel Combustion-Commercial/Institutional
- Stationary Source Fuel Combustion-Industrial
- Industrial Processes-Mineral Products
- Mobile Sources-Off-highway Vehicle Diesel
- Mobile Sources-Highway Vehicles-Gasoline
- Mobile Sources-Marine Vessels,

2002 MARAMA + NESCAUM Total Annual VOC Emissions by State

