



Item #6 Rev.

# Gold Book

State and Local Clean Air Measures

Presentation to: MWAQC TAC March 11, 2014







# Long History of Delivering Clean Air



Air Pollution Control Act 1968

"They truly can be proud of the efforts they have made and the achievements that have resulted."

Remarks on signing the Clean Air Act, President Lyndon Johnson, December 1963





No Code Red Days 2005



## Regulatory Mandates & Local Voluntary Initiatives



State Implementation Plans: Federal and State Control Measures Permanent and Federally Enforceable



COG Clean Air Rally - 1963



& Important

Local Measures: Voluntary



Wet Scrubber Installed at the Morgantown Coal Plant - 2009

## State and Federal Measures

Federal and State Measures Provide Significant Air Quality Benefits to the Region



- Power Plant Emission Limits
- Vehicle Emission Standards
- Fuel Sulfur Standards
- Fuel Efficiency Standards Light Duty, Heavy Duty Trucks
- Non-road Locomotive Standards
- Product Formulations





## Delivering Clean Air – A Legacy of Local Leadership

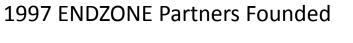
1970 COG begins issuing daily air quality readings
 1974 COG's Commuter Club Formed
 1985 Commuter Club Becomes RideFinders Network
 1990 COG Adopts Million Tree Planting Resolution



1991 MWAQC Founded

1996 RideFinders Becomes Commuter Connections

1996 Ozone Action Days Program Begins



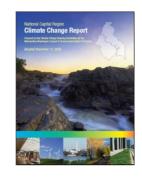
1997 Guaranteed Ride Home Launched







2000 20% Telework Goal Established with Board of Trade
2001 Bike To Work Day Program Launched
2008 Car Free Day Program Launched
2008 COG Climate Report Adopted





# **Voluntary Bundle Measures**



- Wind Energy Purchases
- Clean Energy Rewards Programs
- LED Traffic Signal Retrofits
- Renewable Portfolio Standards
- Building Efficiency/Green Buildings
- High Electricity Demand Day (HEDD) Initiative











#### The Gold Book

 Compendium of state and local actions that improve air quality

(but are not easily quantifiable or are not being credited in the SIP)



Revised 2009 & 2014



- Description
- Progress/status
- Benefits
- Opportunity for Expansion







## 2009 vs. 2014



#### 2009 Gold Book

- Existing Programs
- Existing but Available for Expansion
- Potential Future Initiatives

#### 2014 Gold Book

- Climate, Energy & Sustainability Plans
- Regional Partnerships
- Green Power & Grid Modernization
- Energy Efficiency
- Transportation Demand Reduction
- Transportation Options
- Vehicle Emission Reduction
- New & Additional Ideas



# Climate, Energy & Sustainability Plans

• State plans:

DC, Maryland &

Virginia



- Local Jurisdictions' Climate Action Plans
- Local Jurisdictions' Air Quality Programs
- Energy Security & Assurance Plans















# Regional Partnerships

- Clean Air Partners Program
- Cooperative Green Purchasing
- Urban Heat Island Mitigation
- Public-Private Partnerships
   Airports

Colleges & Universities









# Local Jurisdictions' Air Quality Programs

- Transportation Options, Reducing Congestion
- Alternative fueled vehicles
- VOC measures

Low-VOC Paint & Pesticides

Gas Can Replacement Program

Deferred Refueling, Striping & Pesticide Application

Episodic Measures

Lawn Mowing Deferred

High Electricity Demand Day Initiative

Tree Canopy & Green Space







### Green Power & Grid Modernization

- Renewable Portfolio Standards
- Government Renewable Energy Purchasing

Green Power Partners & Communities

DC Renewable Energy Goals, MCDGS Solar RFP



Private Sector Renewable Purchasing
 Cooperative Solar Procurement, Community



- MD Game Changers Program
- Rooftop Solar Challenge





# **Energy Efficiency**

Energy Efficiency Financing

PACE, On-bill-repayment, Green Banks

**Energy Performance Contracting** 



Government & Private Building Requirements
Building Codes, Green Leasing

DC Sustainable Energy Utility











# Land Use & Transportation Coordination

Smart Growth Development
 Regional Activity Centers
 Strategic Investment Plan

Transit-Oriented Development

Regional Transportation Priorities Plan

Transportation-Land Use Connections Program

**Bonus Densities** 





Regional Activity Centers Map



## Transportation Demand Reduction

- Commuter Connections
- Telecommuting
- Safe Routes to Schools



 Incident Management & Communication MATOC













## **Transportation Options**

- Public Transit
- Bus Rapid Transit
- Commuter Rail
- Bicycle & Pedestrian Programs
   Capital Bike Share
   Safety & Infrastructure Improvements
- Vehicle Share Programs

Car2Go, Enterprise, ZipCar

Value Pricing (HOT Lanes)
 I495 & I95 Express Lanes, ICC







#### Vehicle Emission Reduction

Low Emission Vehicles & Fleets

Plug-In Hybrids

**Electric Vehicles** 

Compressed Natural Gas Vehicles



- Enhanced Idling Enforcement
- Virginia Remote Sensing Program
- Diesel Retrofits
- Traffic Signal Optimization





### **Additional Ideas**

- Microgrids
- Combined Heat & Power
- Waste-to-gas & Cogeneration
- Regulate Diesel Generators







#### Additional Ideas

- Usage-based insurance
- Eco-driving Programs



- Parking management / impact fees
- Hoteling



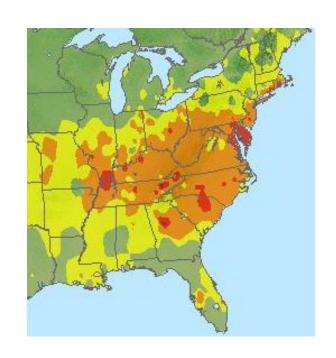




# New Challenges and Opportunities for MWAQC, State, and Local Leadership

- New Lower NAAQS? 75  $\rightarrow$  60-70 by 2015-2020
- Use of Generators on High Electric Demand Days
- Use of Controls on Power Plants

- Low-Level NOx + Transported Pollution
- Addressing Mobile, Area, and Non-road Emissions





## What's Next?

Comments on <u>draft</u> due by March 31

Framework, Content, Format

How can we make this a useful tool for local

governments?

- Awareness
- Implementation



#### What's Next?

- Areas of Possible Focus
  - EV & CNG fleets, Fueling Infrastructure



- Smart Growth & Green Infrastructure
- Clean Distributed Generation/Intelligent Grid
- Transport Behaviors: telework, bicycling, eco-driving, usage-based insurance

## Schedule:

#### **MWAQC TAC:**

Approve Framework & List of Measures - January 7
Review and Comment - February/March 11

## **MWAQC**

Briefing, Review, Comment - February 26

Approve for Release – May 28







#### For more information

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Draft: http://www.mwcog.org/uploads/committee-documents/ZV1ZW1tW20140225162014.pdf

