

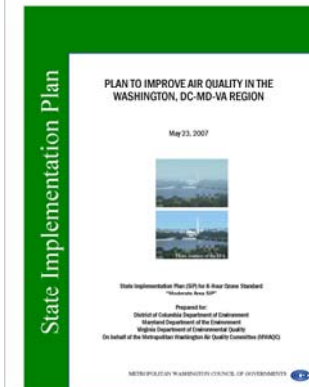
Energy Efficiency and Renewable Energy in State Implementation Plans

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Metropolitan Washington
Council of Governments
September 2008



Current Approach

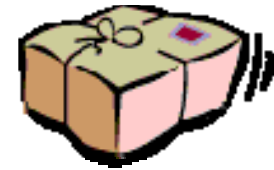
- Goal:
 - Include EERE in SIPs for the metropolitan Washington region.
- Success:
 - 1-Hour Ozone, 8-Hour Ozone and PM_{2.5} SIPs
 - Local Voluntary Initiatives
 - Weight of Evidence
- More will be needed to meet new lower standards and climate change goals.





EERE Local Initiatives (“Bundle”)

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



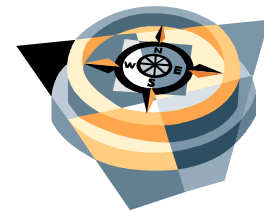
Success Factors

- State and Local Leadership
- Enabling Regulations and Guidance
 - NOx SIP Call
 - Clean Air Interstate Rule (CAIR)
 - EPA Voluntary Measures Guidance
- Commitment to Tracking and Reporting
- DOE/NREL: Funding and Technical Assistance
- NOx Calculator



Inclusion of Voluntary Bundle in the SIP

- Emission Benefits (2009)
 - 0.30 tpd NO_x
- Annual Reporting Requirement
- Periodic True-up Evaluation



Moving Beyond the Voluntary Bundle



New State Energy and Climate Plans Involve Significant New Energy Efficiency Initiatives



Maryland

- EmPower Maryland
- Maryland Climate Action Plan
- RGGI

The District

- District Sustainable Energy Utility
- DC Climate Plan (pending)

Virginia

- Virginia Energy Plan
- Virginia Electric Utility Integrated Resource Planning Law
- Virginia Climate Plan (pending)



The Importance of the PSC, Utilities, and State Energy Office

- State Mandates Impact PSC and Utility Actions
 - New EE Plans Required
 - Renewable Portfolio Standards (RPS) Targets Rising
- Public Service Commission Review and Approval of Utility EE Plans
 - Within Next Year
 - Plans Include EM&V and Reporting Components
 - Opportunity for Consistency
 - Opportunity to Streamline Data Tracking and Reporting



Key Players



Mid-Atlantic Regional
Air Management
Association

- Maryland
 - Public Service Commission (PSC), Maryland Energy Administration (MEA), Maryland Department of the Environment (MDE)
 - Pepco, Baltimore Gas and Electric (BGE)
- District
 - Public Service Commission (PSC), Department of Environment (Energy and Air Offices)
 - Pepco
- Virginia
 - Department of Mines Minerals and Energy (DMME), State Corporation Commission (SCC), Department of Environmental Quality (DEQ)
 - Dominion





Significant New Private Sector Actions

ENERGY EFFICIENCY PARTNERSHIP OF GREATER WASHINGTON

- Energy Efficiency Partnership of Greater Washington/Virginia Tech
 - Energy performance contracting
- Pepco Energy Services
 - Energy performance contracting
- Greater Washington Board of Trade, COG, Clinton Foundation
 - Regional street light efficiency project
- Curtailment Service Providers (CSP)
- PJM DR/EE as Eligible Capacity Resource





Potential Emission Benefit

New State Energy and Climate Plans Involve Significant New Energy Efficiency Initiatives

Total Electric Consumption	181,290,808 MWh (2006)
Total Energy Savings	27,193,621 MWh
Emission Reductions	
NO _x	33 tons/day
CO ₂	>14 million MT CO _{2e} /year

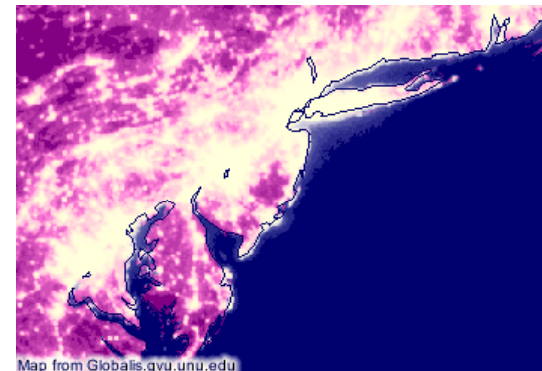
Assumes:

- Assume 15% Reduction
- 8-hour ozone SIP NO_x emission factor
- DOE CO₂ regional emission factor



How it Could Work

- Utilities Implement Programs and Conduct Evaluation/Measurement/Verification (EM&V)
- Utilities Report Program Impact Data (kWh saved) Annually to Public Service Commissions
- States Report Emission Benefits in Upcoming SIPs. Options:
 - Baseline Projections
 - Mandatory Control Measure
 - Voluntary Bundle Measure
 - Weight of Evidence



Mid-Atlantic and New England Efforts to Develop Consistent Protocols

- Northeast Energy Efficiency Partnerships (NEEP) EM&V Forum
 - MACRUC Resolution (pending)
 - Committees/Workgroups Being Formed Now
- COG MD-DC-VA Protocol Project
 - 2-Year DOE-Funded Project
 - Ongoing Control Measures Workgroup
 - Develop Protocol for Inclusion of EERE in SIPs



COG Protocol Development Efforts

- Members
 - State and local air and energy officials (MD-DC-VA)
- Actions to date
 - Local government protocol recommendation
 - Programs to Track (building efficiency, lighting, HVAC, etc)
 - EPA NAPEE and IPMVP
 - Agreement with local governments to report
 - Comment to Maryland PSC on Utility EE Plan Submissions
 - Annual Reporting by Measure Type
 - Include County-level Breakout
 - Discussions with State Air Agencies on Integration of State-Funded EERE with Future SIPs



Next Steps with COG Protocol Development

- Coordinate with Local Governments, State Energy and Air Offices, Utilities, and PSCs
 - Consistent Protocols, Tracking/Reporting, SIP Options
- Collect and Analyze EERE kWh Savings Program Data
 - Circulate Protocol Data Forms
 - Update NO_x and CO₂ Emission Calculator
- Estimate the NO_x and CO₂ Benefits for Potential Use in SIPS and State/Regional Climate Plan Implementation Efforts



For Further Information

- Please see the following websites:

http://www.mwcog.org/committee/committee/documents.asp?COMMITTEE_ID=234

http://www.neep.org/policy_and_outreach/EMV.html

<http://www.pjm.com/committees/working-groups/rpmwg/rpmwg.html>

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