

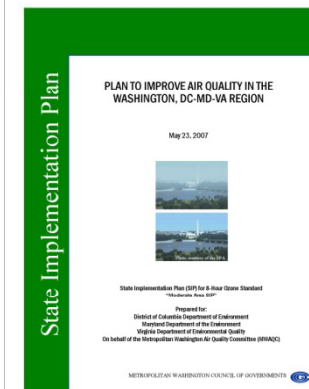
Energy Efficiency and Renewable Energy in State Implementation Plans

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Council of Governments
October 2012



Current Approach

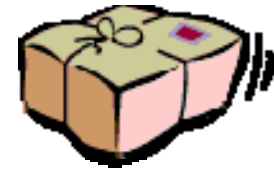
- Goal:
 - Include EERE in SIPs for the metropolitan Washington region.
- Success:
 - 1-Hour Ozone, 8-Hour Ozone and PM_{2.5} SIPs
 - Local Voluntary Initiatives
 - Weight of Evidence
- More will be needed to meet new lower standards and climate change goals.





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



Inclusion of Voluntary Bundle in the SIP

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



Moving Beyond the Voluntary Bundle



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



Maryland

- EmPower Maryland
- Maryland Climate Action Plan
- Renewable Portfolio Std

Virginia

- Virginia Energy Plan
- Virginia Electric Utility Integrated Resource Planning Law
- Virginia Climate Plan

The District

- District Sustainable Energy Utility
- DC Benchmarking Law
- Renewable Portfolio Std



Recent EPA Guidance

Pathways for inclusion of EERE in SIPs

1. Baseline emissions projection
2. Control strategy
3. Emerging/voluntary measures
4. Weight of evidence (WOE)



EERE Policy and Program Categories

- On-the-books
- Federally enforceable
- State enforceable
- On-the-way or emerging
- Local voluntary
- Plus --
- Permanent, quantifiable, enforceable, surplus



State Programs

State	2010 Net Incremental Savings (MWh)*	Emission Reductions (Avg tons NOx/day)
District of Columbia	41,685	0.1519
Maryland	330,678	1.2047
Virginia	667	0.0025

*Source: ACEEE 2012 State Energy Efficiency Scorecard



State Programs

Program	Program-to-Date Energy Savings (MWh)	Emission Reductions (Avg tons/day)
DC Sustainable Energy Utility	38,022	0.1385
EmPower Maryland	1,400,000 per year	5.1002
Dominion DSM Programs (Estimated VA reductions)	446,431	1.6264



Local EERE Programs

Program	Program-to-Date Energy Savings (MWh)	Emission Reductions (Avg tons/day)
LEAP-VA (Central VA & NOVA)	2,800	0.0102
ENERGY STAR Buildings (DC Metropolitan Area)	143,700 (2011 only)	0.5235
Arlington AIRE (Office Building Retrofits)	729	0.0027





Potential Emission Benefit

State Energy and Climate Plans Involve Significant 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

CO₂ >14 million MT CO_{2e}/year

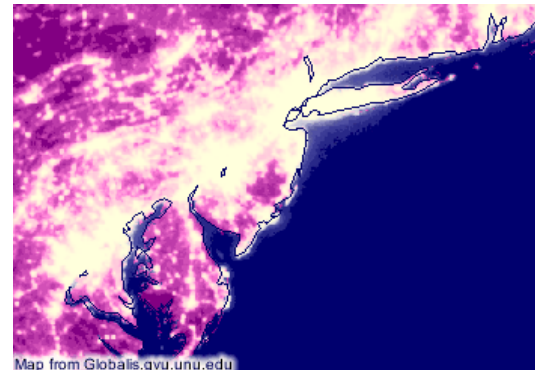
Assumes:

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



What will it Take?

- EERE Programs at Scale
- Air and Energy Office Coordination
 - Enforceability
 - Inventory and Projection Challenges
 - Current Designation and SIP Requirements
- PSC Involvement
 - Utility Program Approvals and Oversight
 - Measurement and Verification
- Protocols
 - White Tags?
 - PJM Programs?
 - Emission Quantification



For Further Information

<http://epa.gov/airquality/eere/pdfs/EEREmanual.pdf>

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