

# **Appendix G**

## **Supplemental Measures Documentation**



OFFICE OF THE COUNTY EXECUTIVE  
ROCKVILLE MARYLAND 20850

Isiah Leggett  
County Executive

December 10, 2007

Ms. Shari T. Wilson, Secretary  
Maryland Department of the Environment  
1800 Washington Boulevard  
Baltimore, Maryland 21230

Dear Secretary Wilson:

The Metropolitan Washington region faces a challenge in protecting public health from exposure to fine particulate matter (PM<sub>2.5</sub>). Montgomery County believes that meeting the federal air quality standard for PM<sub>2.5</sub> is a high priority. In a letter dated February 7, 2007, Montgomery County committed to a set of measures to improve air quality in the metropolitan Washington region. I am pleased to inform you that Montgomery County hereby extends those commitments (as incorporated in the 8-hour ozone State Implementation Plan dated May 23, 2007) to improve air quality as an integral part of the control strategy for the PM<sub>2.5</sub> State Implementation Plan (SIP). The commitments include:

- Purchase of Wind Energy
- Diesel Vehicle Retrofits
- Low-Emission Vehicle Purchases
- LED Traffic Signal Replacements
- Enhanced Enforcement
- Clean Energy Rewards
- Energy Efficiency Programs
- Urban Heat Island Mitigation/Tree Canopy Programs
- Green Building Initiatives

In addition to these existing commitments, Montgomery County also commits to the following programs:

- Voluntary Use of Low-Sulfur Diesel Fuel for Non-Road Applications

These programs represent a permanent commitment to emissions-reducing behavior, and are to be included in the PM<sub>2.5</sub> SIP as supplemental controls without emissions credits. Details of Montgomery County's commitment to these programs are provided in the 8-hour ozone SIP dated May 23, 2007.

Ms. Shari T. Wilson  
December 10, 2007  
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If you have any questions or require additional information regarding this commitment, please contact Stan Edwards at 240-777-7748.

Sincerely,

A handwritten signature in black ink, appearing to read "Isiah Leggett", with a long horizontal flourish extending to the right.

Isiah Leggett  
County Executive

cc: Nancy Floreen, Chair, Metropolitan Washington Air Quality Committee  
Timothy Firestine, Chief Administrative Officer, Offices of the County Executive  
Fariba Kassiri, Acting Director, Department of Environmental Protection  
Arthur Holmes, Director, Department of Public Works and Transportation  
Tad Aburn, Director, Maryland Department of the Environment  
Joan Rohlf, Chief, Air Quality Planning, Council of Governments



GERALD E. CONNOLLY  
CHAIRMAN

COMMONWEALTH OF VIRGINIA  
**COUNTY OF FAIRFAX**  
BOARD OF SUPERVISORS  
FAIRFAX, VIRGINIA 22035

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December 3, 2007

David K. Paylor, Director  
Virginia Department of Environmental Quality  
629 East Main Street  
Richmond, VA 23219

RE: Voluntary Control Measures for the State Implementation Plan for Fine Particulate Matter  
(PM<sub>2.5</sub>) Standard

Dear Mr. Paylor:

The Metropolitan Washington region faces a challenge in meeting the federal health standard for fine particulate matter (PM<sub>2.5</sub>) by the 2010 deadline. Although the air quality in the metropolitan region has improved, it still does not meet the National Ambient Air Quality Standards and more local measures are needed to achieve that goal. The region's current air quality still poses a health risk, especially for children and adults with respiratory and heart sensitivity.

The elected leaders of the metropolitan Washington region are developing proposals to improve air quality. These proposals require action by Fairfax County, not only in the role of a local government responsible for implementing public programs to reduce air pollution, but also as a large public entity whose actions will impact improvements in air quality. Fairfax County takes these responsibilities very seriously. We believe that meeting the federal air quality standard for fine particulate matter is a high priority. Though we are taking action in conjunction with the regional efforts being undertaken by the Metropolitan Washington Air Quality Committee, we must also lead the way for others to follow.

As a result I am pleased to inform you that on December 3, 2007 the Fairfax County Board of Supervisors committed to implementing the following programs to be included in the State Implementation Plan for fine particulate matter:

- Purchase of 5.8 million kWh of wind energy, April 2005 – March 2008
- Purchase of 7.25 million kWh of wind energy, April 2008 – March 2009
- Purchase of 11.6 million kWh of wind energy, April 2009 – March 2010
- Use ultra-low sulfur fuel for all off-road and stationary diesel applications, 2007
- Lighting upgrades in county buildings, 9,501,223 kWh energy savings, Completed 2005-2006
- Tree Canopy Requirements and Tree Planting Initiatives, numerous projects, 2006 – 2012
- Green Building Initiatives, numerous projects, 2005 – 2009
- Participate as a Clean Air Partner, 2005 – 2010

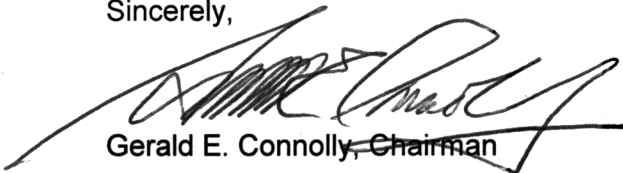
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David K. Paylor, Director  
Virginia Department of Environmental Quality  
December 3, 2007  
Page 2

These programs represent a permanent commitment to emissions reducing behavior. By adding these new commitments to the ones previously made by the Board in 2003 and March 2007, Fairfax County continues its pledge to protect and enhance our environment. Fairfax County also commits to provide an annual accounting of the implementation of these measures to enable validation of the credit taken for these voluntary measures in the metropolitan Washington region's State Implementation Plan. In addition to the above commitments, Fairfax County encourages its eligible employees to participate in the Telework Program. At the close of 2005, the county surpassed the regional goal of having 20 percent of its eligible work force teleworking and, since reaching that milestone, the county continues to increase its number of teleworkers.

If you have any questions or require additional information regarding this commitment, please contact Barbara Hardy, Air Quality Program Manager, at (703) 246-8495 or [barbara.hardy@fairfaxcounty.gov](mailto:barbara.hardy@fairfaxcounty.gov).

Sincerely,



Gerald E. Connolly, Chairman

cc: Members, Board of Supervisors  
James E. Sydnor, Director, Air Division, Virginia Dept. of Environmental Quality  
Nancy Floreen, Chair, Metropolitan Washington Air Quality Committee  
Joan Rohlf, Chief of Air Quality Planning, Council of Governments  
Anthony H. Griffin, County Executive  
Verdia L. Haywood, Deputy County Executive  
Robert A. Stalzer, Deputy County Executive  
Gloria Addo-Ayensu, MD, MPH, Director of Health  
Kambiz Agazi, Environmental Coordinator  
Thomas Crow, Director, Environmental Health  
Barbara Hardy, Air Quality Program Manager



**OZONE  
TRANSPORT  
COMMISSION**

**Memorandum of Understanding Among the States of the Ozone  
Transport Commission Concerning the Incorporation of High Electrical  
Demand Day Emission Reduction Strategies into Ozone Attainment State  
Implementation Planning**

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Connecticut

Delaware

District of Columbia

Maine

Maryland

Massachusetts

New Hampshire

New Jersey

New York

Pennsylvania

Rhode Island

Vermont

Virginia

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Christopher Recchia  
Executive Director

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444 N. Capitol St. NW  
Suite 638  
Washington, DC 20001  
(202) 508-3840  
FAX (202) 508-3841  
Email: ozone@otcair.org

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**Whereas** the Ozone Transport Commission (OTC) was established under Sections 176A and 184 of the federal Clean Air Act (CAA) to ensure the development and implementation of regional strategies to reduce ground-level ozone to healthful levels; and

**Whereas** the adverse health effects of ground-level ozone are well documented, and in spite of significant reductions of ozone precursor emissions achieved to date as a result of our NO<sub>x</sub> MOU of 1994, the US Environmental Protection Agency (EPA) NO<sub>x</sub> SIP call effective in 2003, and expected reductions to be further achieved by federal and state programs over the next decade, a significant portion of the ozone problem continues to be caused by nitrogen oxides (NO<sub>x</sub>) transported into and generated within our region by electrical generating units (EGUs); and

**Whereas**, high electrical demand day (HEDD) operation of EGUs generally have not been addressed under existing air quality control requirements, and these units are called into services on the very hot days of summer when air pollution levels are highest, and

**Whereas**, HEDD unit operations are a significant contributor to NO<sub>x</sub> emissions on high ozone days; and

**Whereas**, the NO<sub>x</sub> cap and trade program, although effective generally has, by its very nature, had limited success in reducing emissions from HEDD units on HEDDs; and

**Whereas**, OTC staff, state environmental and utility regulators, EPA staff, EGU owners and operators and the independent regional systems operators have been meeting to assess emissions associated with HEDD during the ozone season and to address excess NO<sub>x</sub> emissions on HEDDs, and

**Whereas**, OTC is guided by its precepts to seek reductions in the most comprehensive, cost effective manner possible in order to maximize public health, environmental and economic benefits while ensuring an adequate electrical capacity and reliability for the region; and

**Whereas**, our investigations have found that NOx emissions are much higher on a high electrical demand day than on a typical summer day and there is the potential to reduce HEDD emissions by approximately 25% in the short term through the application of known control technologies to HEDD combustion turbine, coal and residual oil burning units; and

**Whereas**, installing typically used NOx control technologies may not be available to, or be the most cost effective method of, controlling HEDD NOx emissions from specific units; and

**Whereas**, energy efficiency is the most cost effective method to reduce HEDD NOx emissions, but cannot alone, nor in the short term, achieve sufficient emission reductions to achieve attainment of the ozone standard in many areas; and

**Whereas**, demand response programs can be a very cost effective mechanism to reduce emissions if they result in clean behind the meter generation and are supported by appropriate market devices, including but not limited to dynamic pricing; and

**Whereas**, any strategy to address HEDD emissions must recognize and address the issue of high emitting behind the meter units; and

**Whereas**, EPA and State workgroups estimate that using a cap and trade mechanism alone to provide sufficient financial incentives to cause the clean up of HEDD units would need an 18:1 retirement ratio and such a strategy would consume 74% of all available CAIR allowances for 12 HEDD days;

**Therefore**, be it **RESOLVED** that

The OTC States identified in the following table commit to pursue the following reductions in NOx emissions associated with HEDD units on high electrical demand days during the ozone season; such reductions to be achieved beginning with the 2009 ozone season or as soon as feasible thereafter, but no later than 2012:

State	NOx (tons per day)	Percent Reduction from HEDD Units
CT	11.7	25%
DE	7.3	20%
MD	23.5	32%
NJ	19.8	28%
NY	50.8	27%
PA	21.8	32%
<b>Total</b>	134.9	

**Furthermore**, that such reduction commitment will be included in each of the several states' 8-hour ozone attainment State Implementation Plan submissions to EPA due in June 2007; and

**Furthermore**, that each state shall select the strategy or combination of strategies that provides both maximum certainty and appropriate flexibility for that state and its electric generators. Such mechanisms for achieving the reductions may include but are not limited to:

- regulatory caps for emissions from HEDD units on HEDDs;
- performance standards;
- State/generator HEDD partnership agreements;
- energy efficiency programs;
- demand response programs, provided that such programs reduce and/or preclude the installation or use of distributed generation with unacceptably high emissions;
- regulatory standards or controls for behind-the-meter generators;
- effective adjustment of the NOx retirement ratio to provide reductions on HEDDs; and

**Furthermore**, the undersigned states for whom no state-specific target emission reduction is specified above sign this MOU in support and appreciation of the listed states making this commitment, will continue to evaluate the HEDD issue in their state and, as necessary and appropriate, may choose to pursue additional emission reductions from the HEDD sector in their state.

Be it **FURTHER RESOLVED** that the OTC states will continue their work to establish long-term standards and programs to address emissions on HEDDs, such programs and standards to include:

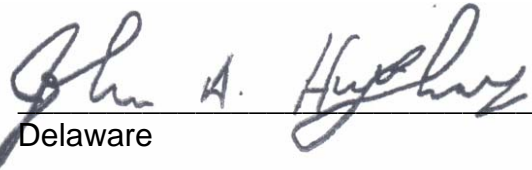
- continued work with state energy and utility regulators as well as the regional transmission operators regarding energy efficiency, dynamic pricing and other market oriented incentives toward significant demand reduction and clean new or repowered supply



- development of long-term performance standards that will ensure reliable, clean future generation.
- development of emissions portfolio standards applicable to load serving entities, distribution companies, “aggregators” and generators, according to the structure of the energy supply market

Executed by the undersigned States this 2<sup>nd</sup> day of March, 2007:

  
 Connecticut

  
 Delaware

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 District of Columbia

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 Maine

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 Maryland

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 Massachusetts

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 New Hampshire

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 New Jersey

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 New York

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 Pennsylvania

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 Rhode Island

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 Vermont

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 Virginia

### **City of Alexandria's Voluntary Commitments to Improve Air Quality**

The Metropolitan Washington region faces a challenge in protecting public health from exposure to fine particulate matter (PM<sub>2.5</sub>). The City of Alexandria believes that meeting the federal air quality standard for PM<sub>2.5</sub> is a high priority. In a letter dated March 14, 2007, the City of Alexandria committed to a set of measures to improve air quality in the metropolitan Washington region. The City of Alexandria hereby extends those commitments (as incorporated in the 8-hour ozone State Implementation Plan (SIP) dated May 23, 2007) to improve air quality as an integral part of the control strategy for the PM<sub>2.5</sub> State Implementation Plan (SIP). The commitments include:

- LED Traffic Signal Retrofits
- Green Building Initiatives
- Energy Efficiency Programs
- Episodic Emission Reduction Programs
- Purchase of Low-Emission Vehicles

In addition to these existing commitments, the City of Alexandria also commits to the following:

- Voluntary Use of Low-Sulfur Diesel Fuel for Non-Road Applications
- Dust Suppression for Construction and Roadways
- Enhanced Idling Enforcement
- Prohibit the installation of wood-fired fireplaces in all newly constructed single-family and multi-family homes.
- Require the use of energy-star labeled appliances in all newly constructed multi-family homes.

These programs represent a commitment to emissions-reducing behavior, and are to be included in the PM<sub>2.5</sub> SIP as supplemental controls without emissions credits. Details of the City of Alexandria's commitment to these programs are provided in the 8-hour ozone SIP dated May 23, 2007.