

**COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD**

**OZONE ADVANCE ACTION PLAN
HAMPTON ROADS, VIRGINIA**

**Annual Report
April 30, 2014**

Hampton Roads Ozone Advance Action Plan - Annual Report

Control Program	Stakeholders	Time Frame	Milestones	Feedback & Comments
Virginia Port Authority				
GO Program	VPA	On going DERA2 funds received for 2013	<ul style="list-style-type: none"> Vehicles retrofitted or repowered 	<ul style="list-style-type: none"> Program is ongoing
Maersk Low Sulfur Fuel Terminal Operations	VPA	2012-2015	<ul style="list-style-type: none"> Program report 	<ul style="list-style-type: none"> Program is ongoing
	VPA	On going	<ul style="list-style-type: none"> Program Report 	<ul style="list-style-type: none"> Program is ongoing
Metropolitan Planning Organizations				
I-64 Express/Inter-Terminal Barge Service	VPA, RAMPO, HRTPO	On going	<ul style="list-style-type: none"> TEUs transported annually 	<ul style="list-style-type: none"> In 2013, 7,965 containers moved by the barge service.
TRAFFIX	TRAFFIX	On going	<ul style="list-style-type: none"> VMT avoided annually Trips avoided annually 	<ul style="list-style-type: none"> Increase in GoPass365 ridership 9,900,000 VMT reduced through NuRide See FY2013 TRAFFIX Annual Report – final.pdf
The Tide	HRTPO	On going	<ul style="list-style-type: none"> Program Report 	<ul style="list-style-type: none"> Program is on going http://www.gohrt.com/services/the-tide/
DMME-Division of Energy				
VEMP	DMME	On going	<ul style="list-style-type: none"> SF of public buildings retrofitted? Private capital deployed? Energy savings? 	<ul style="list-style-type: none"> Total value of contracts through FY 2012 is nearly \$537 million. More information for FY2013 is being collected from contractors, including building square footage and quantification of avoided energy units. http://www.dmme.virginia.gov/DE/PerformanceContractingSupportSupport.shtml See VEMP-All ESCOs and Contract totals Through FY12.xlsx
Energize Virginia	DMME	2011-2016	<ul style="list-style-type: none"> Funds awarded? Programs to be implemented? 	<ul style="list-style-type: none"> More than \$10M awarded. Projects include energy performance contracts, and a solar thermal system. See DMME-Performance Measures FY14Q1.xlsx, tab RLF 1.01.03

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<i>Dominion Virginia Power</i>				
Energy Conservation Programs	Dominion	On going	Program ongoing?	<ul style="list-style-type: none"> Company currently offers several energy conservation programs to its residential and non-residential utility customers in Virginia and continues to evaluate opportunities to redesign current and develop new demand-side management initiatives. https://www.dom.com/dominion-virginia-power/customer-service/energy-conservation/ec-programs.jsp
Generating unit retrofits, fuel conversions, and retirements	Dominion	2012-2016	<ul style="list-style-type: none"> Retrofits installed? Units where fuels have been successfully changed? Units retired 	<ul style="list-style-type: none"> Permits received for Hopewell, Altavista, and Southampton fuel switch from coal to biomass. Units have begun burning biomass and no longer burn coal. Installation of SO₂ scrubbers has been completed for all coal units at the Chesterfield Power Station near Richmond, VA.
Solar Partnership Program	Dominion	2013-2018	<ul style="list-style-type: none"> Program ongoing? MW owned/installed? 	<ul style="list-style-type: none"> Dominion announced 12/9/2013 the installation of more than 2,000 solar panels on the rooftop of Canon Virginia Inc, in Gloucester County, VA. The panels will generate more than 500 kw of electricity. https://www.dom.com/about/media-downloads.jsp See Dominion Solar Roof Top.pdf. Company has begun installation of 600 rooftop solar panels on the campus of Old Dominion University in Norfolk, VA that are expected to be operational in Spring 2014 and will generate 132 kW of electricity.
Renewable Generation Tariffs	Dominion	Currently pending approval	<ul style="list-style-type: none"> Program approval received? 	<ul style="list-style-type: none"> Company received approval of program from SCC in December 2012. Company began accepting applications in June 2013. https://www.dom.com/about/stations/renewable/solar/solar-purchase-program.jsp
Alternative Vehicles and Fuels Program	Dominion	Ongoing	<ul style="list-style-type: none"> % of fleet powered by alternative fuels? 	<ul style="list-style-type: none"> Vehicles powered by alternative fuels (AVFs) now make up about 28% of Company's on-road fleet of about 5,700 cars and trucks.

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<i>Virginia Clean Cities</i>				
Virginia Get Ready	VCC	On going	<ul style="list-style-type: none"> Program ongoing? 	<ul style="list-style-type: none"> Deployed two EV planning docs in 2013 as well as tools for advancing electric vehicles and infrastructure. See http://www.virginiaev.org/ VA registrations of electric vehicles increased from 729 in 2012 to 1,257 in 2013. VA public charging stations increased in number from 140 in 2012 to 212 in 2013. See va_electric+hybrid_vehicles_and_stations_2008-2013.xlsx Program concluded in 2013. Converted 117 vehicles to autogas in VA Alternative fuel vehicles estimated to reduce NO_x emissions 273 tons annually in VA See VCCC-2013report-NOxCalculations.xlsx
Propane Autogas Program	VCC	On going	<ul style="list-style-type: none"> Program ongoing? 	<ul style="list-style-type: none"> Program continues to be funded and operating
<i>Virginia Department of Environmental Quality – Ozone Forecasting</i>				
Ozone Forecasting	VDEQ	Ongoing	<ul style="list-style-type: none"> Program funded? 	<ul style="list-style-type: none"> Program continues to be funded and operating
<i>Regional Reductions</i>				
Invista Powerhouse Project	DEQ	2013-2014	<ul style="list-style-type: none"> Construction begun? New units operational? Coal units retired? 	<ul style="list-style-type: none"> New boilers started operation in January of 2014. Shutdown request for existing boilers 1 and 2 effective January 9, 2014. Shutdown request for existing boiler 3 expected summer of 2014.
Celco Powerhouse Project	DEQ	2015	<ul style="list-style-type: none"> Construction begun? New units operational? Coal units retired? 	<ul style="list-style-type: none"> The facility informed VDEQ that construction commenced for the six natural gas boilers on 7/16/2013.
Honeywell SCR Installation	DEQ	12/2012 through 06/2019	<ul style="list-style-type: none"> # of SCR installed? Annual emissions of NO_x? 	<ul style="list-style-type: none"> Two SCR commenced operation December of 2012. Two additional SCR under construction.

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Dominion-Bremo Power Station Conversion to Natural Gas	Dominion	2013-2014	<ul style="list-style-type: none"> • Permit received? • Construction commenced? • Coal pile removed? 	<ul style="list-style-type: none"> • Bremo Bluff permit for gas conversion finalized 5/24/2013. Station ceased burning coal in fall of 2013. Outage and work commenced for unit fuel switch this winter. Project is expected to be completed in the next few months. • See Title V permit for Bremo Bluff.pdf
Other				
Ocean-going Vessel Hybridization & Fuel Switching Demo Project	HRTP0, VPA	Ongoing	n/a	<ul style="list-style-type: none"> • Two commercial container vessels entering the Port of Virginia will be hybridized with either FlexGen Energy Management System or to use alternative fuels • 50-100 containerships will be incentivized to use ultra-low sulfur marine diesel fuel (0.1%) while at berth.
Virginia Offshore Wind Technology Advancement Project	Dominion	2017-2018	n/a	<ul style="list-style-type: none"> • Dominion is planning an offshore wind technology testing facility, which will consist of two offshore wind turbines with a combined capacity of approximately 12 MW. https://www.dom.com/about/stations/renewable/vowtap.jsp • On September 4, 2013, Dominion bid \$1.6 million to win the lease for 112,800 acres off the Virginia coast to develop an off-shore wind farm capable of generating up to 2,000 MW of electricity, and is actively developing this large-scale commercial off-shore wind project. https://www.dom.com/about/stations/renewable/commercial-offshore-wind-development-project.jsp • See Dominion Wind Power.pdf
Hybrid Shuttle Carrier Demonstration Project	VPA	2014-2016	n/a	<ul style="list-style-type: none"> • In February of 2014 the VPA submitted a DERA proposal for a hybrid shuttle carrier demonstration project. The project will replace eight straddle carriers equipped with Tier 1 engines. The replacement equipment will have Tier 4 hybrid engines. VPA is providing \$7.1M in funding, and requested \$2M from DERA. This equipment will save over 32,000 gallons of fuel per year and will reduce NO_x emissions by nearly 6 tons annually.
National Parks	VCC, NPS	On going		<ul style="list-style-type: none"> • NPS is adding 12 prone lawn mowers and 2 electric vehicles to fleet, along with a public EV charging station and 2 private EV charging stations.

