OTC Fall Meeting
November 15, 2012
Washington, D.C.
Madison Hotel

Stationary and Area Source Committee Update





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Outline

- Update on Committee efforts
- Update on completing 2012 Annual Meeting Charge
- Moving Forward- Next steps for the SAS Committee

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Committee Focus

- Research and data collection
- Economic analysis
- Stakeholder outreach
- Collaboration with other states on issues
- Completing action on remaining measures
- Revisiting and updating adopted measures
- Analyzing EPA proposals
- Discussing adoption and implementation issues
- Identifying new candidate measures

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June 2012-Charge to the Committee

Charge	Completed	Still in Development
Coal Fired Boilers Serving EGU's		✓
Industrial, Commercial, and Institutional (ICI)Boilers		✓
Demand Response		✓
Municipal Waste Incinerators		✓
Vapor Controls at Gasoline Service Stations		✓
Energy Efficiency Strategies	✓	

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Completed Measures

Energy Efficiency White Paper

- Energy efficiency has the potential to reduce 39,000 tons of NOx emissions per year
- Excellent reference for practical energy efficiency strategies and programs already in place

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Measures Still Under Development

Industrial, Commercial and Institutional (ICI) Boilers

- Not much progress to report.

Coal Fired Boilers Serving EGUs

- Evaluating CSAPR and the impacts of the court ruling;
- Need to focus on NOx.

Demand Response

- Submitted comments to EPA concerning the proposed amendment to the RICE NESHAP;
- Next steps: to determine the extent of distributed generation in the member states and upwind states.

Municipal Waste Incinerators

- Goal was to coordinate with EPA action;
- EPA MACT delayed

Vapor Controls from Gas Stations

- Reviewed, discussed and commented on EPA's draft rule for widespread use and Stage II waiver, now final;
- Reviewed, discussed and commented on EPA's Guidance document on removing Stage II from SIP's, now final

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Next Steps for the Committee

Largest Contributor Analysis

Using the most recent available data, identify the largest individual and grouping of emitters of NOx and VOC's within the OTR and in areas that contribute to air quality in the OTR by at least 1% of the level of the 2008 NAAQS standard of 75ppb, to set appropriate means to reduce the emissions from these sources.

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Next Steps for the Committee

High Short-Term Emission Analysis

Using the above mentioned data, identify individual emissions sources with the highest short-term emissions of NOx and VOC, and consider the coincidence between the high emission rates and high ozone season. The Committee should develop additional strategies, if necessary beyond current actions, to reduce the peak emissions from such units.

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Next Steps for the Committee

Review and evaluate EGU operating emissions

Review available data to evaluate the real world achievable NOx emission rates across various conditions including load ranges, utilization of installed controls, and variations due to fuels. Then utilize the data to adjust long and short term expectations for emissions reductions.

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Next Steps for the Committee

Distributed and Emergency Generator Inventory

Obtain information from the regional system operators concerning the location, operations, and emissions of all generation units that participate and that are projected to participate in the demand response and emergency demand response programs. Analyze the collected data to understand the air quality impact of these units and make recommendations for a path forward to the Commission.

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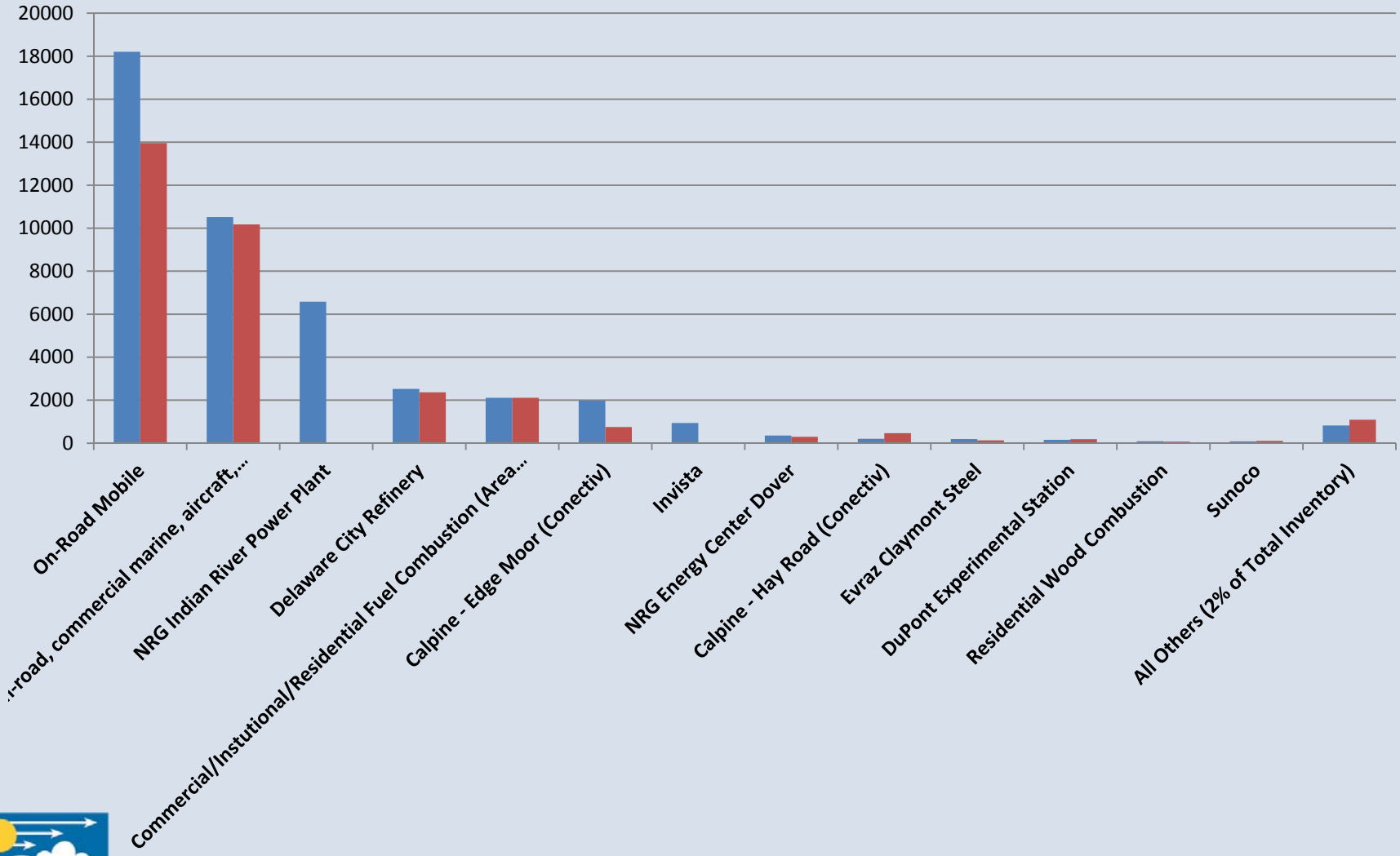
Region X 2011 PEI vs Projected 20XX NOx Emissions



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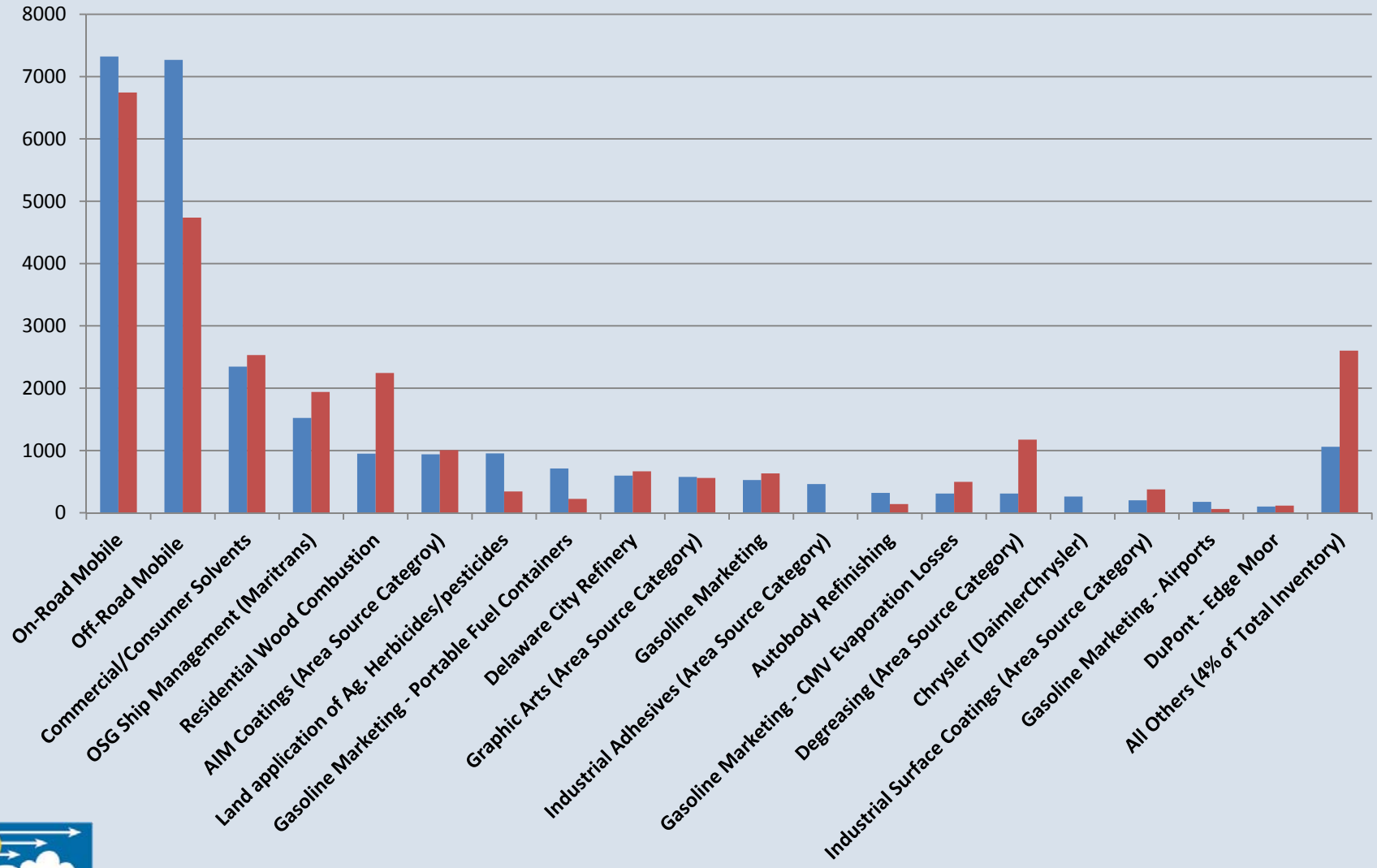
Region X 2011 PEI vs Projected 20XX VOC Emissions



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FACILITY NAME / Source Category	2011 Periodic emission Inventory		20XX Projected Inventory		Description of Control Measures in Region X's SIP	Potential Additional Control Measures
	NOx (TPY)	VOC (TPY)	NOx (TPY)	VOC (TPY)		
On- Road Mobile 41% of 2008 NOx Inventory 27% of 2008 VOC Inventory	18206	7322	13959	6744	•New vehicles must meet California vehicle emission standards (CA LEV 2) under 7 DE Admin. Code 1140. •New and existing vehicles must be maintained under Delaware's vehicle Inspection and Maintenance program, 7 DE Admin. Code 1126 and 1131. •Extended idling of heavy duty vehicles is prohibited under 7 DE Admin Code 1145. •Overall on-road mobile emissions are capped in each of Delaware's three counties by ozone SIP budgets, which are managed under 7 DE Admin. Code 1132, transportation conformity.	•Delaware has no authority under the CAA to further regulate tailpipe emissions. •The next level of control would be to upgrade Sussex County's Basic I/M program to the Low Enhanced I/M program that is implemented in Kent and New Castle County. Delaware estimates this could reduce NOx emission by up to 292 TPY and VOC by up to 255 TPY, at a cost of 5,317 $/ton. •Aside from I/M program upgrades, all other identified measures are in the form of transportation control measures (TCMs), which generally gain small incremental reductions (i.e., on the order of tons per year, not hundreds of tons per year), and that have a $/ton cost of $50,000 to over $1 million.

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	NOx (TPY)	VOC (TPY)	NOx (TPY)	VOC (TPY)		
Commercial/ Institutional/ Residential Fuel Combustion (Area Source Category) 5% of 2011 Nox Inventory	2113	95	2109	105	• The commercial/institutional fuel combustion category includes small boilers, furnaces, heaters, and other heating units too small to be considered point sources and are defined by SIC codes 50-99. The fuel types included in this source category are coal, distillate oil residual oil, natural gas, and liquefied petroleum gas • Emissions in this category are from many small units throughout the State, where facility-wide VOC and NOx emissions are generally less 5 TPY and 25 TPY, respectively (i.e., those not covered in the point source inventory). • 7 DE Admin Code 1112 requires the control of NOx emissions from fuel burning equipment. Under 1112, units with maximum rated heat input capacities equal to or larger than 50 MMBtu/hr must be controlled by installation of either low excess air and low NO_x burner technology or flue gas recirculation technology. Units between 15 and 50 MMBtu/hr must receive an annual tune up performed by qualified personnel to minimize NOx emissions.	• 1112 could be revised such that it is applicable to combustion units at facilities with the potential to emit less than major thresholds; and the low-end exemption of 1112 could be revised from 15MMBTU/hr to 5MMBTU/hr. Covered units would be predominately small units subject to annual tune-ups, and a NOx reduction of about 5% from each subject unit. This measure is estimated to have the potential to reduce 2012 NOx emissions by up to 60 TPY, at a cost of over $36,701/ton. • 1112 could be revised to require boilers in the 25 MMBTU/hr – 50 MMBTU/hr size range to install either low excess air and low NO_x burner technology or flue gas recirculation technology. This would reduce NOx by up to 50% for each subject unit. This measure has the potential to reduce 2012 NOx emissions by up to 600 TPY, at a cost of more than $30,577/ton. • Given the high control costs, and the large number of very small sources in this category, this category is best regulated through turnover of equipment.

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Questions?

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