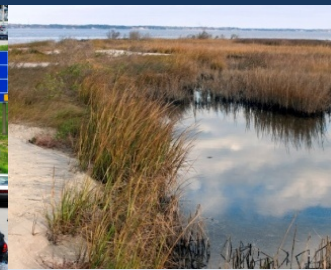


OTC Committee Meeting  
September 10, 2015  
Hall of States  
Washington, D.C.

Ali Mirzakhali, P.E.  
Stationary and Area Source Committee  
Update



# Outline

- Update on Committee efforts
  - Largest Contributor Analysis
  - ICI Boilers
  - HEDD (DG & EDR)
  - Consumer Products
  - AIM
  - RACT
  - Vapor Recovery
- Moving Forward- Next steps for the SAS Committee



# Largest Contributor Analysis

- On January 22, 2015 EPA released a memo: Information on the Interstate Transport “Good Neighbor” provision for the 2008 Ozone NAAQS
  - <http://www.epa.gov/airtransport/GoodNeighborProvision2008NAAQS.pdf>
- EPA provided an updated memo on July 23, 2015, and inviting comments through October 23, 2015.
  - [http://www.epa.gov/airtransport/pdfs/FR\\_Versi on Transport NODA.pdf](http://www.epa.gov/airtransport/pdfs/FR_Versi on Transport NODA.pdf)

# Largest Contributor Analysis

OTC is currently reviewing the memo. Initial questions are:

- How to project to a future year with no “locked-in” commitments from states?
- EPA’s underlying assumptions in this memo?
- What will be the effect of the MATS ruling on future year projections?

# Largest Contributor Cost Analysis

- Largest Contributor Workgroup is looking into both the capital cost and the operating and maintenance cost of pollution control devices.
- Preliminary SCR and SNCR control costs were reproduced using the Sargent & Lundy control cost methodology developed for EPA's IPM Model v.5.13
- S&L SCR control cost methodology includes 2004 to 2006 industry cost estimates, additional 2010 cost estimates prepared by consultants for UARG, and S&L in-house data for recent SCR Projects (2007-2012). Data converted to 2012 dollars based on Chemical Engineering Plant Index (CEPI) data
- S&L SNCR control cost methodology includes S&L in-house data from recent quotes (2009 to 2012) for lump sum contracts
- Detailed examples of the SCR and SNCR control cost spreadsheet analyses can be found at:

[http://www.epa.gov/airmarkets/progsregs/epa-ipm/docs/v513/attachment5\\_3.pdf](http://www.epa.gov/airmarkets/progsregs/epa-ipm/docs/v513/attachment5_3.pdf) &

[http://www.epa.gov/airmarkets/progsregs/epa-ipm/docs/v513/attachment5\\_4.pdf](http://www.epa.gov/airmarkets/progsregs/epa-ipm/docs/v513/attachment5_4.pdf)



# Sargent and Lundy vs. Modified Sargent and Lundy

Sargent and Lundy	Modified Sargent and Lundy
Reagent use and Unit costs (VOMR)	Reagent use and Unit costs (VOMR)
Catalyst replacement and disposal costs (VOMW)	Catalyst replacement and disposal costs (VOMW)
Additional power required and unit power cost (VOMP)	Additional power required and unit power cost (VOMP)
Steam required and unit steam cost (VOMM)	Steam required and unit steam cost (VOMM)
“Base” Year = 2011	“Base” Year = 2011
Uncontrolled NOx Emission Rate	Uncontrolled NOx Emission Rate
NOx Removal Efficiency	NOx Removal Efficiency
<b>Electric Generator Heat Input Capacity</b> (Name Plate Rating x Heat Rate)	<b>Steam Generator Heat Input Capacity</b>

# CSAPR Allowances vs. Cost of Running Controls

Unit	S&L Variable O&M (\$/ton)	S&L Modified Variable O&M	CSAPR Allowance (per short ton)*
Unit 1 (151MW)	\$748-\$1,985	\$439- \$1598	Annual: \$170 Seasonal: \$275
Unit 2 (403MW)	\$744- \$2,118	\$440- \$1,785	Annual: \$170 Seasonal: \$275
Unit 3 (958MW)	\$529- \$1,755	\$439- \$1,680	Annual: \$170 Seasonal: \$275

Annual price- up from \$125 as of Annual meeting  
Seasonal price- up from \$125 as of Annual Meeting



\* Air Daily: Issue 22-166, August 28, 2015

# CSAPR Allowances vs. Cost of Running Controls

- Cost Whitepaper released at Annual meeting for public comment
- OTC revised Cost Whitepaper and updated version posted on OTC website
  - <http://www.otcair.org/>



# CSAPR Update

- On July 28, 2015 - U.S. Court of Appeals for the District of Columbia Circuit issued an opinion on remand from the U.S. Supreme Court
- Court held that the 2014 ozone-season NO<sub>x</sub> budgets for Florida, Maryland, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Texas, Virginia and West Virginia are invalid
- Court remanded to EPA without vacatur for it to reconsider those emissions budgets

# ICI Boiler Workgroup

- Using EMF evaluate how ICI Boiler Emissions changed from 2007 and 2011, and estimate how emissions will change in 2018;
- Do ICI boilers warrant additional analysis based on their impact on total emissions;
- ICI Boiler Whitepaper posted on OTC website for stakeholder comment, comments due by October 12, 2015

# ICI Boiler Workgroup

## •Preliminary conclusions:

- NO<sub>x</sub> and SO<sub>2</sub> for the Northeast states plus VA region decreased by 22% and 40% respectively between 2007 and 2011
- Modest NO<sub>x</sub> decreases are expected between 2011 and 2018; ranging from 5% for the Northeast states to 11% for the Southeast states.
- For 2011 total annual ICI boiler emissions:
  - NO<sub>x</sub> ranged from 6 to 7% of the total from all sectors for the NE, MW, & SE regions
  - NO<sub>x</sub> for the CONUS was 5% of the total from all sectors
- For 2018 total annual ICI boiler emissions:
  - NO<sub>x</sub> ranges from 9 to 10% of the total from all sectors for the NE, MW, & SE regions
  - NO<sub>x</sub> for the CONUS is 7% of the total from all sectors

# 100 Hour Emergency Demand Response Allowance

- **May 1, 2015** - U.S. Court of Appeals for the D.C. Circuit vacated 100 hr. emergency demand response allowance from RICE NESHAP and NSPS.
- The Court found EPA's action to be arbitrary and capricious on multiple grounds:
  - EPA failed to properly respond to comments that the rule would threaten the efficiency and reliability of the energy market;
  - EPA failed to adequately respond to comments suggesting that the evidence upon which the 100hr limit was based was faulty;
  - EPA did not consider the alternative of limiting the exemption to portions of the country not served by organized capacity markets; and
  - EPA did not obtain the views of FERC or NERC on the reliability considerations upon which EPA based the exemption
- Vacatur of the 100-hour per year allowances means that engines operating for purposes of emergency demand response, maintenance and testing, or to address voltage or frequency deviations no longer qualify as “emergency engines” under EPA's regulations, absent further action by EPA on remand.

# 100 Hour Emergency Demand Response Allowance (Cont'd.)

- **June 30, 2015** - EPA filed a motion for voluntary remand without vacatur of EPA's final decision on the reconsideration of the conditions in 40 CFR 60.4211(f)(3)(i), 60.4243(d)(3)(i) and 63.6640(f)(4)(ii) for operation for up to 50 hours per calendar year in non-emergency situations as part of a financial arrangement with another entity (79 FR 48072, August 15, 2014)
- **July 1, 2015** - Court suspended the briefing schedule pending Court's further order
- **July 15, 2015** - EPA filed an opposed motion for a stay of the U.S. Court of Appeals for the D.C. Circuit's mandate until May 1, 2016.
- **July 15, 2015** - EPA also filed an unopposed petition for panel rehearing of the vacatur of the 100 hours for maintenance checks and readiness testing.

# 100 Hour Emergency Demand Response Allowance (Cont'd.)

- **July 21, 2015** - Court ruling clarifies that the vacatur applies only to engines used in an emergency demand response program and that other portions of the rule remain in force, including those allowing the exemption for emergency engines being used for maintenance checks and readiness tests
- **August 2015** – Court granted EPA’s motion to stay the 100 hour emergency Demand Response Allowance provision for one year until May 1, 2016

# Distributed and Emergency Generator Inventory

- Workgroup formed and in the process of developing bounding emissions for sensitivity run. Questions to be answered are:
  1. What quantity of emissions should be added to the model run to represent HEDD units?
  2. Where in the modeling domain should these emissions be added?
  3. During what time periods should these emissions be added?

# Distributed and Emergency Generator Inventory

## Initial thoughts:

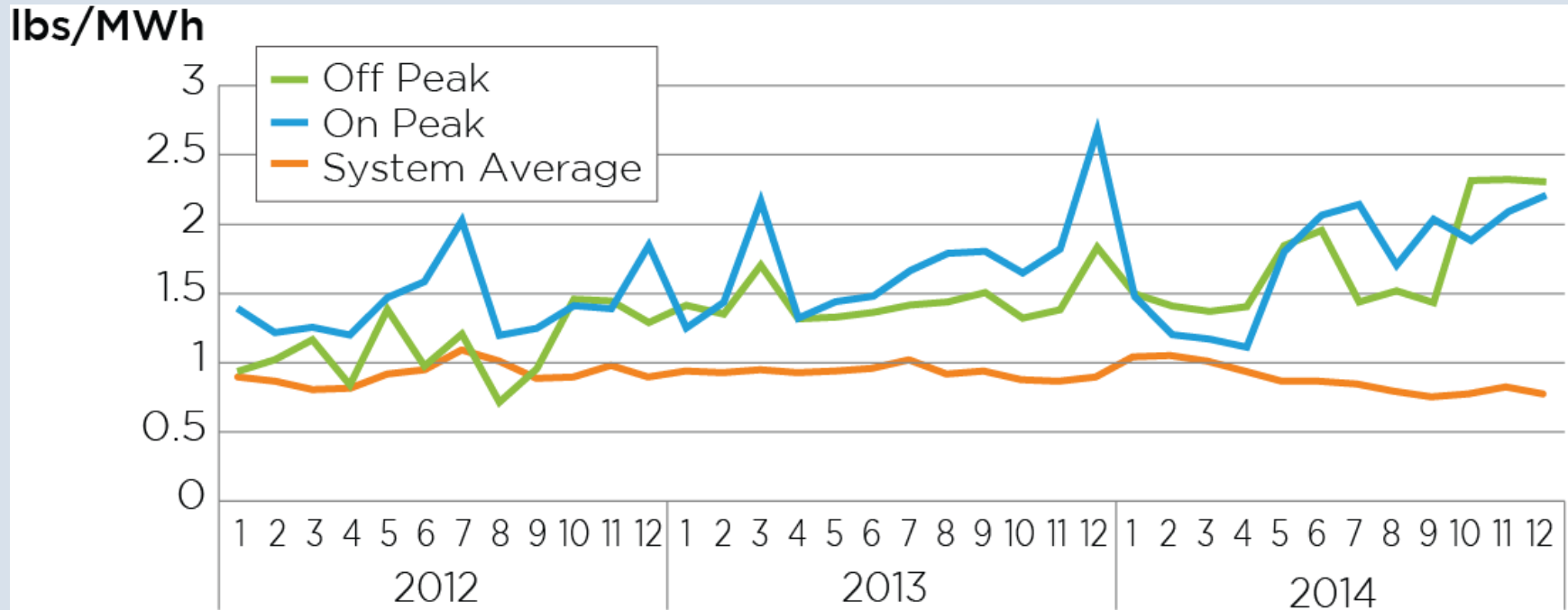
- Look at smaller units that are in CAMD database- Less than 25 MW (emissions and location are known and in the inventory) and behind the meter units ( emission and locations may not be known and may not be in the inventory)
- Look at units that participate in the PJM, ISO-NE, and NY-ISO region
- Look at adding emissions to times of day that these units run- typically late afternoon to early evening



# Distributed and Emergency Generator Inventory

## Figure 7. Marginal NOx Emission Rate

2012 -2014 CO<sub>2</sub>, SO<sub>2</sub> & NOx Emission Rates - PJM Report (8/21/15)



Peak periods are all non-holiday weekdays from 7 a.m. until 11 p.m., and off-peak periods are all other hours.

# Consumer Products/AIM update

- At the 2015 Annual Meeting, OTC asked EPA to update its AIM rule using the OTC Model Rule as a starting point
  - <http://www.otcair.org/upload/Documents/Formal%20Actions/Statement%20to%20EPA%20on%20AIM012.pdf>
- At the 2013 Annual Meeting, OTC requested EPA to adopt the OTC Model Rules for AIM and Consumer Products as National Rules.
  - [http://www.otcair.org/upload/Documents/Formal%20Actions/Statement\\_AIM.pdf](http://www.otcair.org/upload/Documents/Formal%20Actions/Statement_AIM.pdf)

# Consumer Products/AIM update

- While national rules are the preferred option to achieve the benefits of these Model Rules, OTC is working to establish a voluntary program which would include states, EPA, and industry.
- OTC has reached out to industry stakeholders and discussed the voluntary program.

# Consumer Products/AIM update

- Currently, States have limited mechanisms to claim SIP credit for consumer product and AIM emission reductions
- State by State rulemaking involves a large amount of resources and creates a patchwork of regulations ( industry has indicated a preference for uniform regulations)

# Consumer Products/AIM update

- OTC's Voluntary program proposes to allow states to claim credits, and create uniform standards
- The goal is to create a voluntary program by which manufacturers certify specific quantity of compliant products are being distributed in a particular state.
- These compliant products would be accompanied by a labeling program for identification

# Consumer Products/AIM update

- Identify the stakeholders and participants by August 1, 2015.
- Hold one organizational call and one group call in August.
- Meet as a group at the OTC's stakeholders meeting in September 2015.
- Develop an outline for OTC's November 2015 meeting.
- Finalize a framework for presentation at the OTC's annual meeting in June 2016.

# Other SAS Committee Updates

## RACT Workgroup

- Compiling and evaluating each states NO<sub>x</sub> and VOC limits for source categories, as well as reviewing CTG's

## Vapor Recovery

- Delaware and Maryland have proposed regulation for the Stage II program
- Continue to look at ways to improve Stage I

# Questions

