Overview of OTC's Fall Meeting Held on November 10, 2010

December 9, 2010

CT DEP SIPRAC Meeting

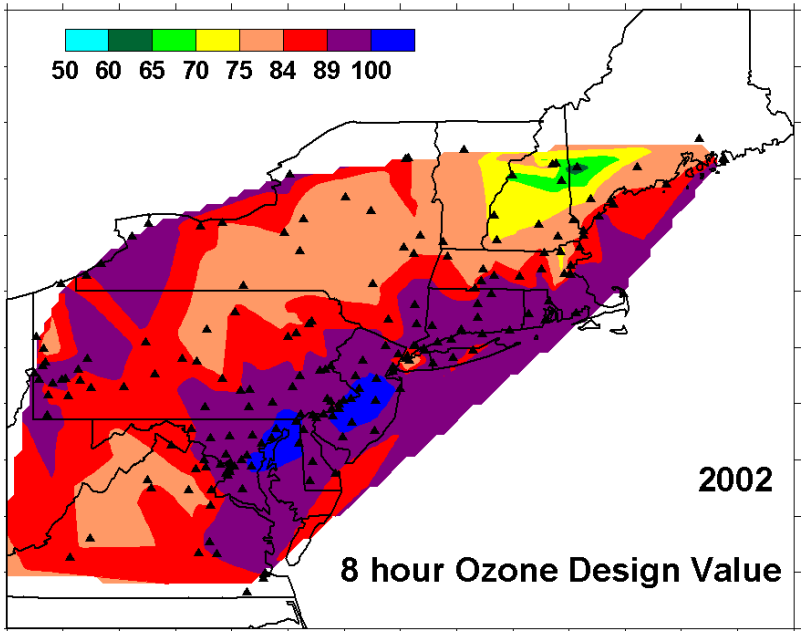
Overview

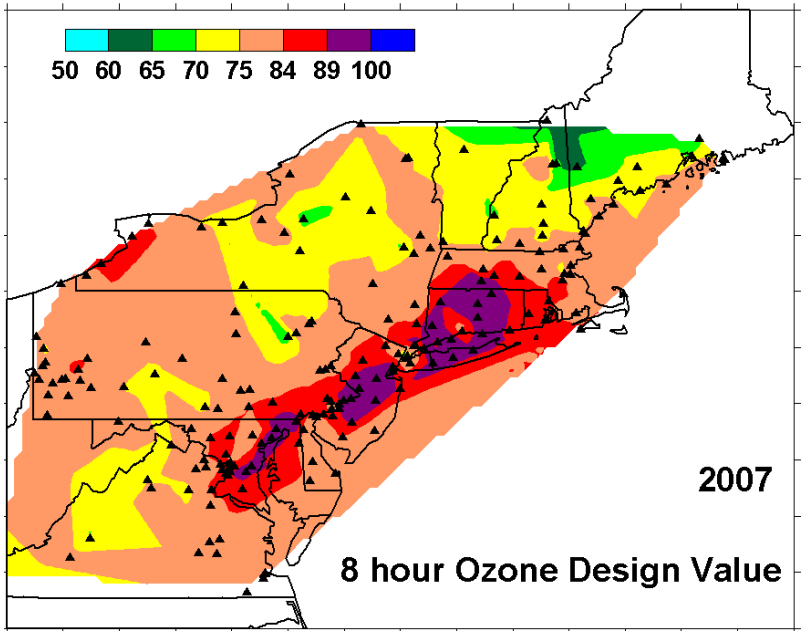
- What we know
  - New Ozone NAAQS ***"on the way"*** and is likely around 65ppb (60-70ppb range considered)
  - Additional upwind, regional and local measures will be needed to meet the new standard & improve CT's air
  - Attainment beats nonattainment for CT businesses
- What we don't know
  - Standards, timeframes & benefits of national measures
- What we need
  - Certainty for CT's regulated community and a plan for CT to move forward

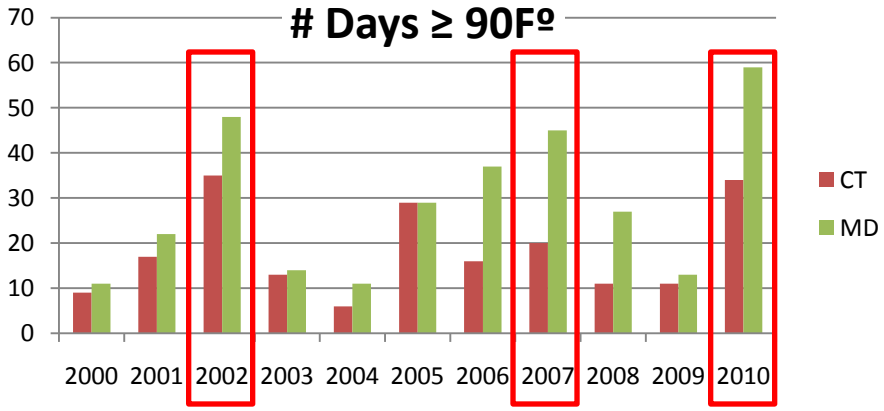
Key OTC actions at Nov Meeting

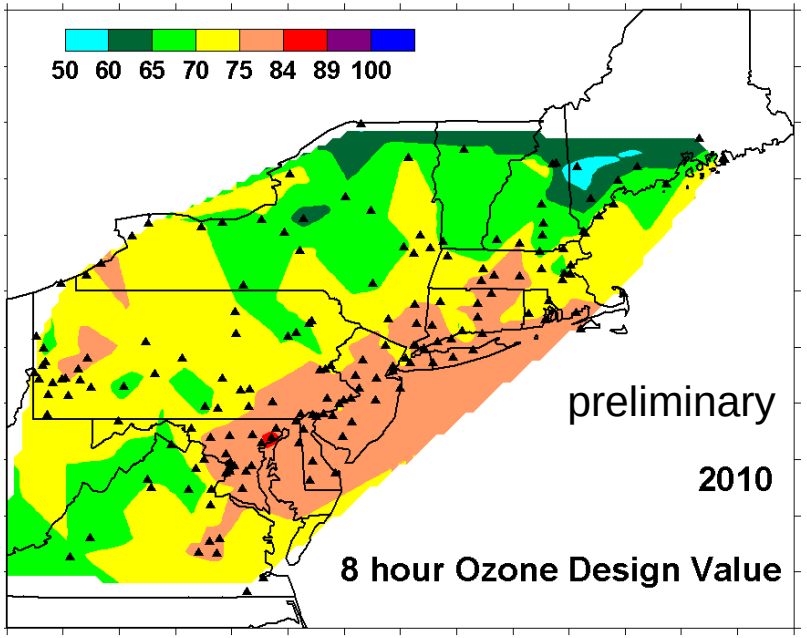
- Screening modeling and SAS/Mobile source committee updates
  - See www.otcair.org for all presentations
- MOU on 2 new regional control measures
- Charge to SAS/Mobile source Committees to continue work on 11 regional measures and develop an MOU for June 2011 OTC Meeting
- Statement on ozone NAAQS/Transport Rule(s)
- Statement calling for EPA to adopt Tier 3 LDV emission and fuel standards

8-hour O_3 Monitored Design Value









2002 – SIP base year for 1997 8-hour O_3 Standard
2007 – SIP base year for next round of O_3 Standard
2010 – the latest Ozone season

An Important Caveat!

1997 O3 & 2006 PM NAAQS Still Apply!

- Transport cuts both ways
  - CT is largely influenced by transport (1% of NAAQS)
  - Nonetheless, under TR1 CT impacts downwind states
- CT must address our impact on other states to comply with CAA sec. 110(a)(2)(D)
- Where possible, we must also think in terms of multi-pollutant strategies & co-benefits

For example:

- **An 8-hr Ozone NAAQS of 70 ppb means significant transport threshold would be 0.7ppb!**

Examples of CT contributions if 70 ppb NAAQS* (courtesy of NESCAUM)

State / site	*CT contribution (ppb)*
CT / Hartford	**15.6**
ME / Acadia NP	**1.6**
MA / Chicopee	**11.9**
NH / Miller SP	**5.0**
NJ / Monmouth	**1.4**
NY / Mt. Ninham	**3.7**
RI / Providence	**8.9**

***Revised 8-hr primary NAAQS to be in 60-70 ppb range. Contributions from proposed EPA transport rule.**

Some CT O3 Contributions @ 70ppb NAAQS

State/Site	CT Contribution (ppb)
CT / Hartford	15.6
ME / Acadia NP	1.6
MA / Chicopee	11.9
NH / Miller SP	5
NJ / Monmouth	1.4
RI / Providence	8.9
NY / Mt Ninham	3.7

Revised 8-hr primary NAAQS to be in 60-70 ppb range.
Contributions from proposed EPA transport rule. Courtesy of NESCAUM

Ozone Standard Timelines

• 75 ppb Standard Final	03/2008
• Proposed New Standard	01/2010
• Final New Standard	~12/31/2010
• Proposed Implementation Rule	~12/31/2010
• State Recommendations	05/2011 – 12/2011
• Final New Designation	12/2011 – 12/2012
• 75 ppb Standard Date SIPs Due	03/2013
• New Date SIPs Due	04/2014 – 12/2015

Potential Attainment Timeline for New Std.

Status	Clean data years	Show attainment by
Marginal	2012-2014	12/2014
Moderate	2015-2017	12/2017
Serious	2018-2020	12/2020
Severe	2024-2026	12/2026

OTC Screening Modeling

- Two simulations with domain-wide reductions on all man-made sectors:

N50/V30	• 50% NO_X reductions • 30% VOC reductions
N70/V30	• 70% NO_X reductions • 30% VOC reductions

Performed for April 1 – October 31, 2007

“Scenario 3” Run

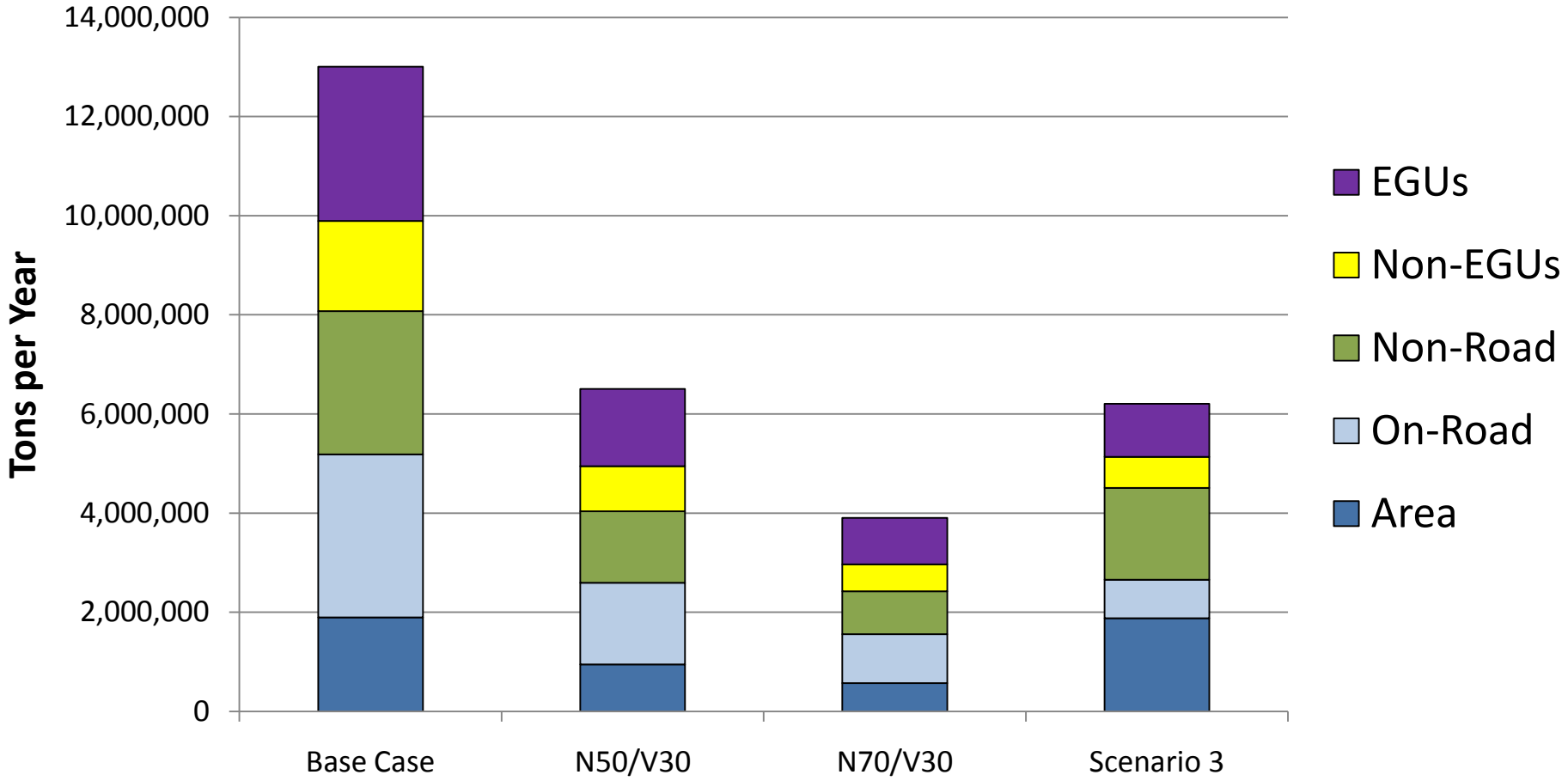
- Approximates OTC’s recommendation for critical national & OTR measures

NO_X Domain-wide	• Point: 65% reduction
	  • Reductions from ICI boilers/cement kilns
	  • 900,000 ton regional trading cap on EGUs
	• On-road: 75% reduction
	  • Approximates a 2020 national LEV 3
	• Non-road: 35% reduction
	  • Reductions from marine/locomotive engines

NO_X in OTR States	• Additional 5% reduction across all sectors in the OTR
VOC	• 30% reduction for man-made sectors across entire domain

Performed for May 15 – August 31

Domain Wide NO_X Emissions by Run



- "Scenario 3" approximates an overall 55% NO_X reduction
- Includes MOVES adjustments to MOBILE6 emissions

Screening Modeling Results

Results for Potential Nonattainment Levels Inside the OTR

Monitors Above Potential Levels of the New Standard

	Base Case		N50/V30		N70/V30		"Scenario 3"	
.084 ppm	34	(18%)	0	(0%)	0	(0%)	0	(0%)
.070 ppm	167	(86%)	16	(8%)	1	(0%)	1	(0%)
.065 ppm	186	(96%)	55	(29%)	4	(2%)	12	(6%)
.060 ppm	191	(98%)	101	(53%)	15	(8%)	29	(15%)
Monitors in OTR	194		190		190		190	

Screening Modeling Results

Results for Potential Nonattainment Levels In CT and the NYC Urban Area

Monitors Above Potential Levels of the New Standard

NAAQS Level	Base Case		N50/V30		N70/V30		"Scenario 3"	
	CT	**Rest of NYC Area**	**CT**	**Rest of NYC Area**	**CT**	**Rest of NYC Area**	**CT**	**Rest of NYC Area**
.084 ppm	9	9	0	0	0	0	0	0
.070 ppm	11	15	2	8	0	1	0	1
.065 ppm	11	15	9	15	0	4	1	9
.060 ppm	11	15	11	15	1	10	5	12
Total Monitors	**11**	**15**	**11**	**15**	**11**	**15**	**11**	**15**

MOU on 2 OTC Control Measures

- Stationary Generators
  - Applicability level of 10 – 100Kw contemplated and allows for continued use of emergency demand response in CT
  - Applicability level is below CT's inventory level, thus significant inventory effort likely needed
  - MOU provides CT flexibility to adopt controls as "necessary and appropriate" to meet our needs
- HEDD Turbines
  - Applicability level of 5-15MW
  - The lower applicability level is below CT's inventory threshold
  - Impact of alternative compliance path in model rule not clear
  - MOU provides CT flexibility to adopt controls as "necessary and appropriate" to meet our needs
  - Many factors external to potential DEP regulation will impact future operation of HEDD Turbines

OTC Charge to SAS and Mobile Committees

- **OTC instructed committees to work on:**
  - Vapor controls at gasoline services stations
  - Coal-fired boilers serving EGUs
  - Lightering
  - Non-road idling
  - Freight transportation and ports
  - Solvent degreasers
  - Muni-waste incinerators
  - Other HEDD units
  - Natural gas compressor facilities
  - ICI Boilers
  - Additional transportation strategies
- Several categories best approached through national rules
- Committees charged to develop an MOU for June 2011 OTC meeting

OTC's Path Forward

- OTC understands the science of ozone better than ever
- The problem will require a two-part strategy
  - Local (inside the OTR) controls are still critical
    - Can help reduce about 1/3 of the ozone problem in most OTC cities
  - National/super-regional controls are now essential
    - Incoming ozone is already measured at levels above a 60-70 ppb standard
    - Regional contribution represents approximately 2/3 of the ozone problem in most OTC cities

CT's Path Forward

- Involve stakeholders as early as possible
  - Real world experience counts
  - Practical solutions needed
  - No unintended consequences
- Identify sources/emissions that matter
  - Requires data
- Identify costs and benefits
  - Multi-p and future needs too
- Establish and implement a plan to address multiple challenges
  - Its not just about the NAAQS
- All possibilities are on the table

A Framework for CT

- Robust stakeholder processes to assess issues/impacts
  - Seeking stakeholder input as early as possible
- Critical information will help prioritize efforts
- Three-phase stakeholder process
  - Sharing information
  - Analyzing options – emissions, control costs, jobs impacts, multi-p benefits
  - Developing workable, common sense programs that must work for everyone