Air Policy Direction

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Commissioner Policy Integration

DEEP

- Clean energy technology means to economic prosperity
- Cheap, clean power key to clean air and climate
- Green to gold–smart business decisions advantage
- Clear standards with strong enforcement
- Partnerships for solving problems

Forces Impacting EPA

- Legislative Attacks on the Clean Air Act
- Limit EPA's Authority
- Repeal EPA Programs and Regulations
- Regulatory Scrutiny
- Funding Cuts

Congressional Action

Attempts to limit EPA's Authority

- **Free Industry Act (100 cosponsors)**
  - Excludes carbon dioxide, water vapor, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride from the definition of "air pollutant."
- **Ensuring Affordable Energy Act (37 cosponsors)**
  - Prohibits EPA funds for Cap-and-Trade, GHG regulation.
- **Energy Tax Prevention Act (Rep. Upton, Sen. Inhofe)**
  - Restricts EPA authority to regulate stationary sources GHGs
  - Preempts CA and other states from regulating GHG mobile sources
  - Prohibits future fuel economy standards
  - Repeals: Endangerment finding, GHG Tailoring Rule, any stationary source regulation concerning GHGs

Congressional Action, cont'd

Oversight not limited to EPA:

- **REINS Act (115 Cosponsors)**
  - No reg with impacts greater than $100M will take effect unless both chambers of Congress approve the rule and the President signs into law
- **Congressional Review Act (existing law)**
  - Within 60 days of publication, Congress can take "up or down" vote to rescind the rule

HR1- FY11 Appropriations (adopted)

- Poe (TX)- prohibits EPA funding for GHGs
- Pompeo (KS)- cuts $8.5M from EPA GHG inventory
- Carter (TX)- prohibits reg of cement kilns
- Noem (SD)- prohibits NAAQS for coarse PM
- Cuts grants to state/locals air agencies by $100M from requested

Connecticut Legislative Activity

Legislative uncertainty is not limited to Congress.

Reorganization/ Repeal

- **H.B. 6386 –** Merge DPUC and DEP into DEEP
- **H.B. 5961 –** Repeal GWSA, Labeling and RGGI laws

Further Review/ Scrutiny

- **S.B. 661 –** Require LRRC review of all regs and recommend repeal of ineffective, burdensome or unnecessary regs
- **S.B. 741 –** Require a cost/ benefit analysis of all current and future regulations
- **H.B. 5069 –** Require tracking of any funds used for reg of GHGs

Connecticut Legislative Activity

Permitting

- **S.B. 60 –** Requires certain levels of permit staffing in the DEP
- **H.B. 5306 and H.B. 5980 –** Require streamlining in the permitting process
- **S.B. 625 –** Create a central permitting office
- **S.B. 1019** – Require business permits to be processed within 45 days

- The Air Bureau is tracking 70 bills.

The Air World

Benefits of the Clean Air Act of 1990

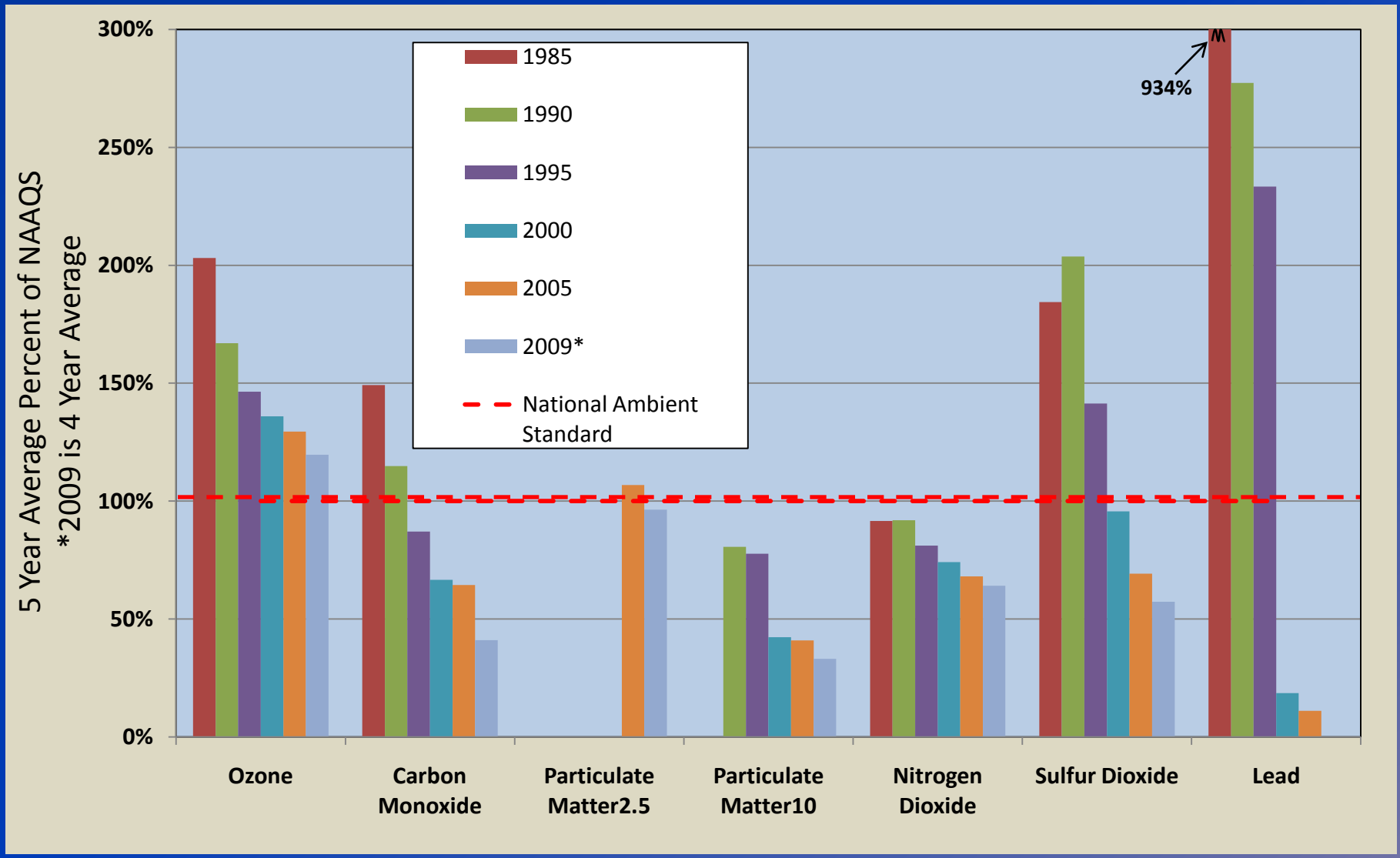
Benefits	Year 2010 (cases)	Year 2020 (cases)
Adult Mortality-particles	160,000	230,000
Infant Mortality-particles	230	280
Mortality-ozone	4,300	7,100
Chronic Bronchitis	54,000	75,000
Acute Myocardial Infection	130,000	200,000
Asthma Exacerbation	1,700,000	2,400,000
Emergency Room Visits	86,000	120,000
School Loss Days	3,200,000	5,400,000
Lost Work Days	13,000,000	17,000,000

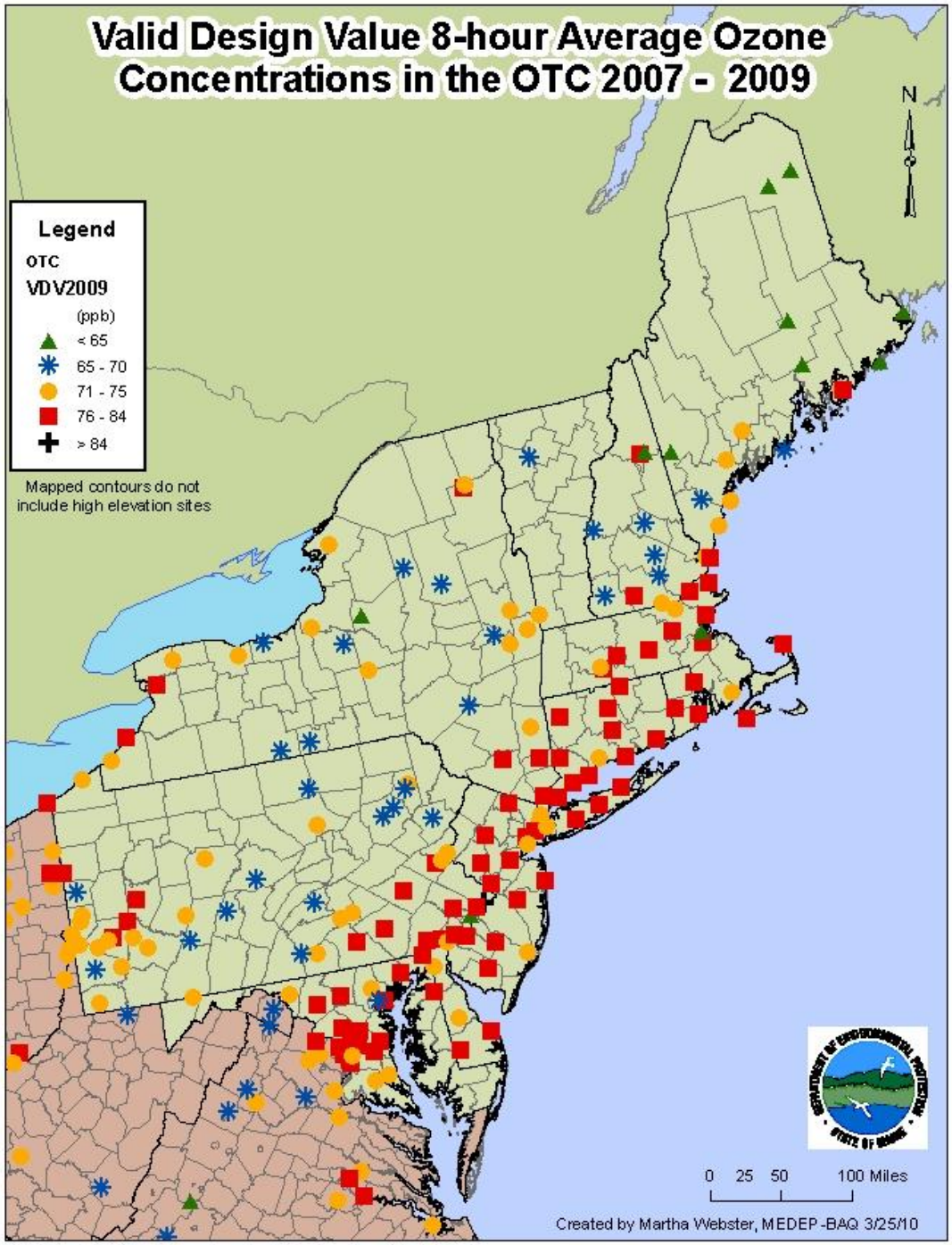
CT Air Quality Trends

- Connecticut has made tremendous progress in cleaning our air since 1970
  - Ozone and PM continue are persistent challenges
  - Secondary pollutants, influenced by transport and exacerbated by conditions on hot summer days
- As new federal standards change the definition of “clean,” we need to do more
  - A combination of national, regional and local controls shows promise as most effective approach to reduce ozone and PM levels in CT

Connecticut Air Pollution Levels as a Percent of the Most Current National Ambient Air Quality Standards

(November, 2010)

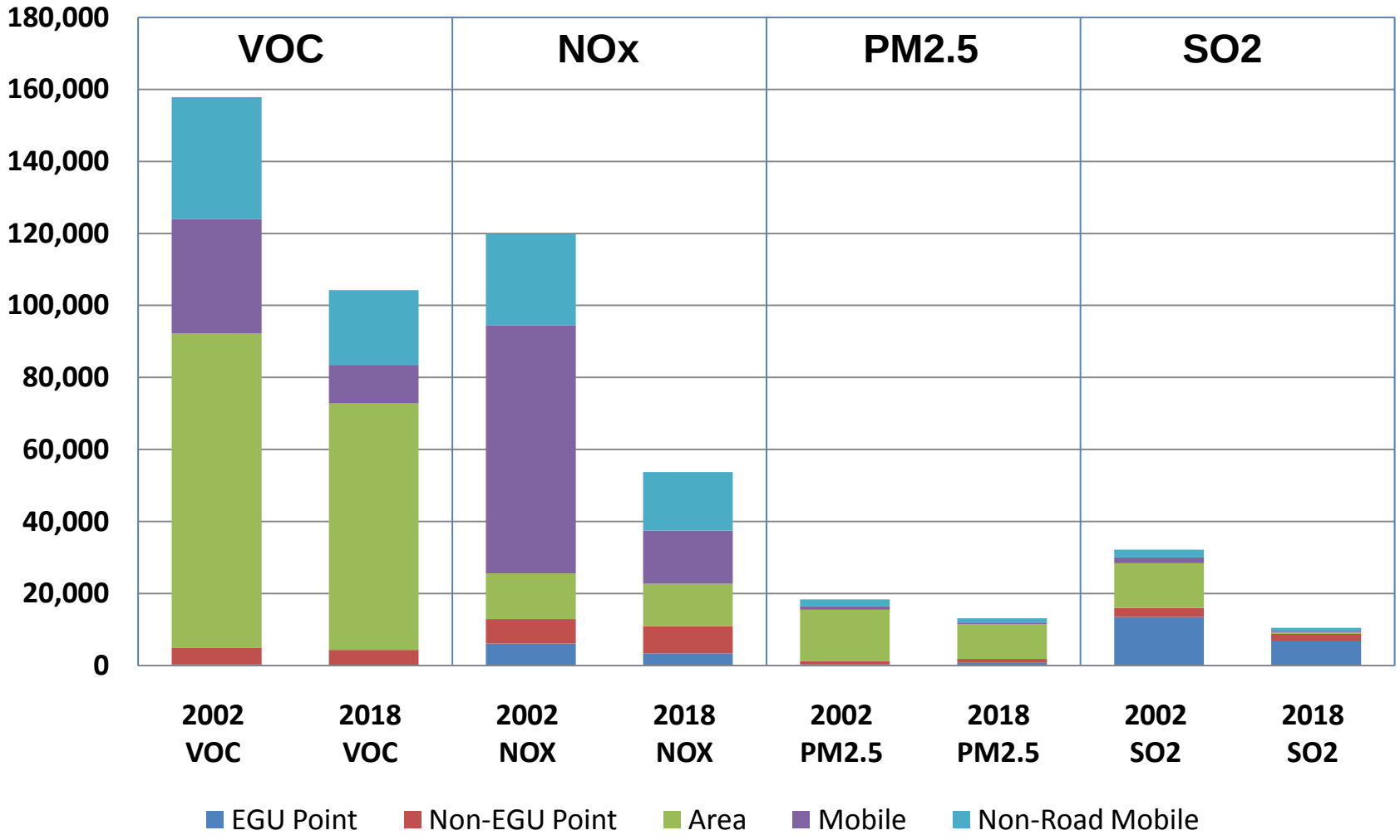


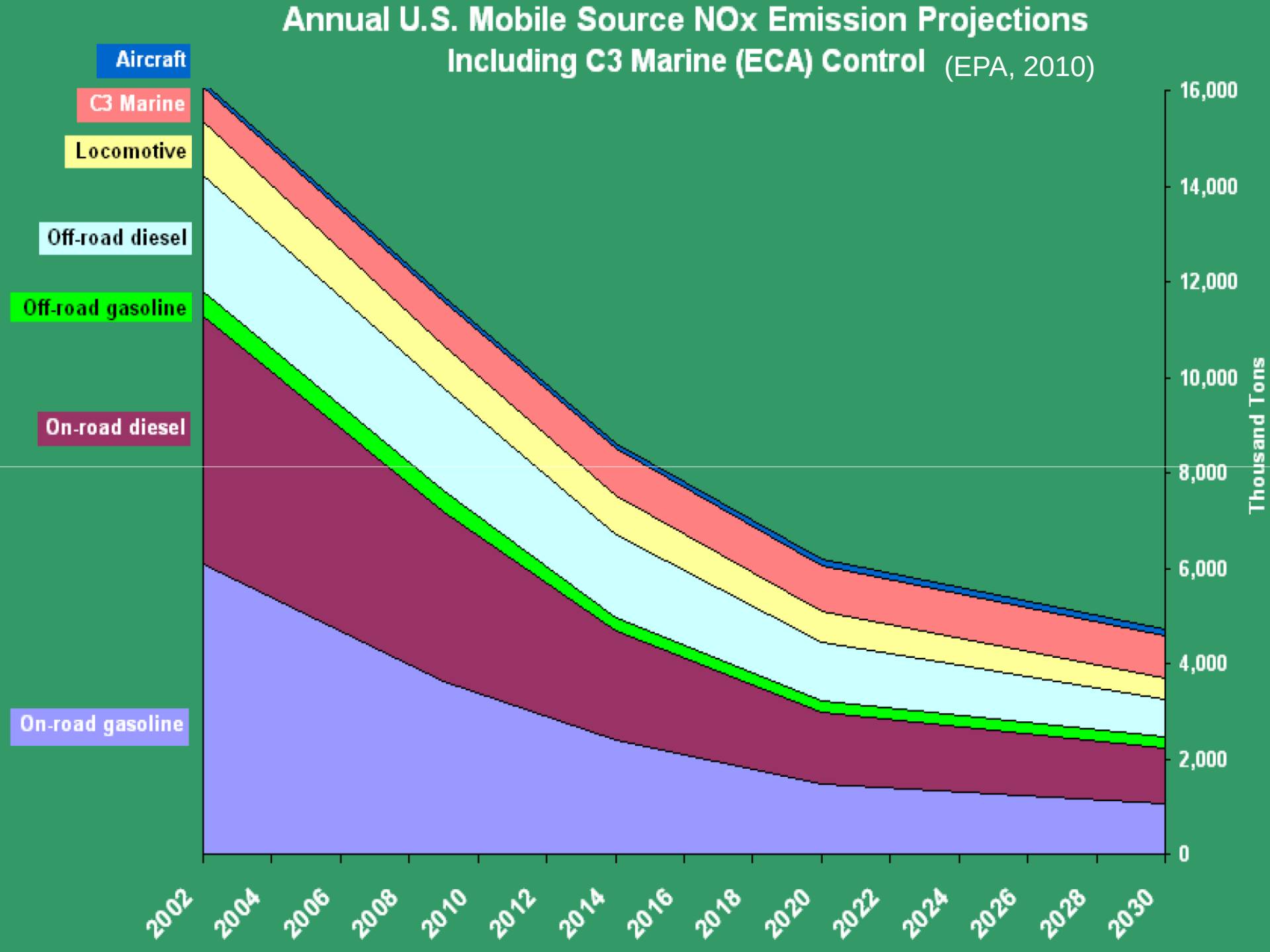

Valid Design Value 8-hour Average Ozone Concentrations in the OTC 2007 - 2009
N
Legend
OTC
VDV2009
(ppb)
≤ 65
65 - 70
71 - 75
76 - 84
> 84
Mapped contours do not include high elevation sites
0 25 50 100 Miles
Created by Martha Webster, MEDEP-BAQ 3/25/10

Projections

- CT Emissions are projected to decrease
  - 2002 levels of NOx by 42% through 2012
  - 2002 levels of VOC by 30% through 2012
  - projected inventory vs ROP to show we'll need to do more
- Federal mobile source programs (aircraft, marine, locomotive, on-road/off-road diesel and gasoline)
  - 2002 levels reduced by >30% by 2030

CT Projected Anthropogenic Emission Trends
(annual tons)

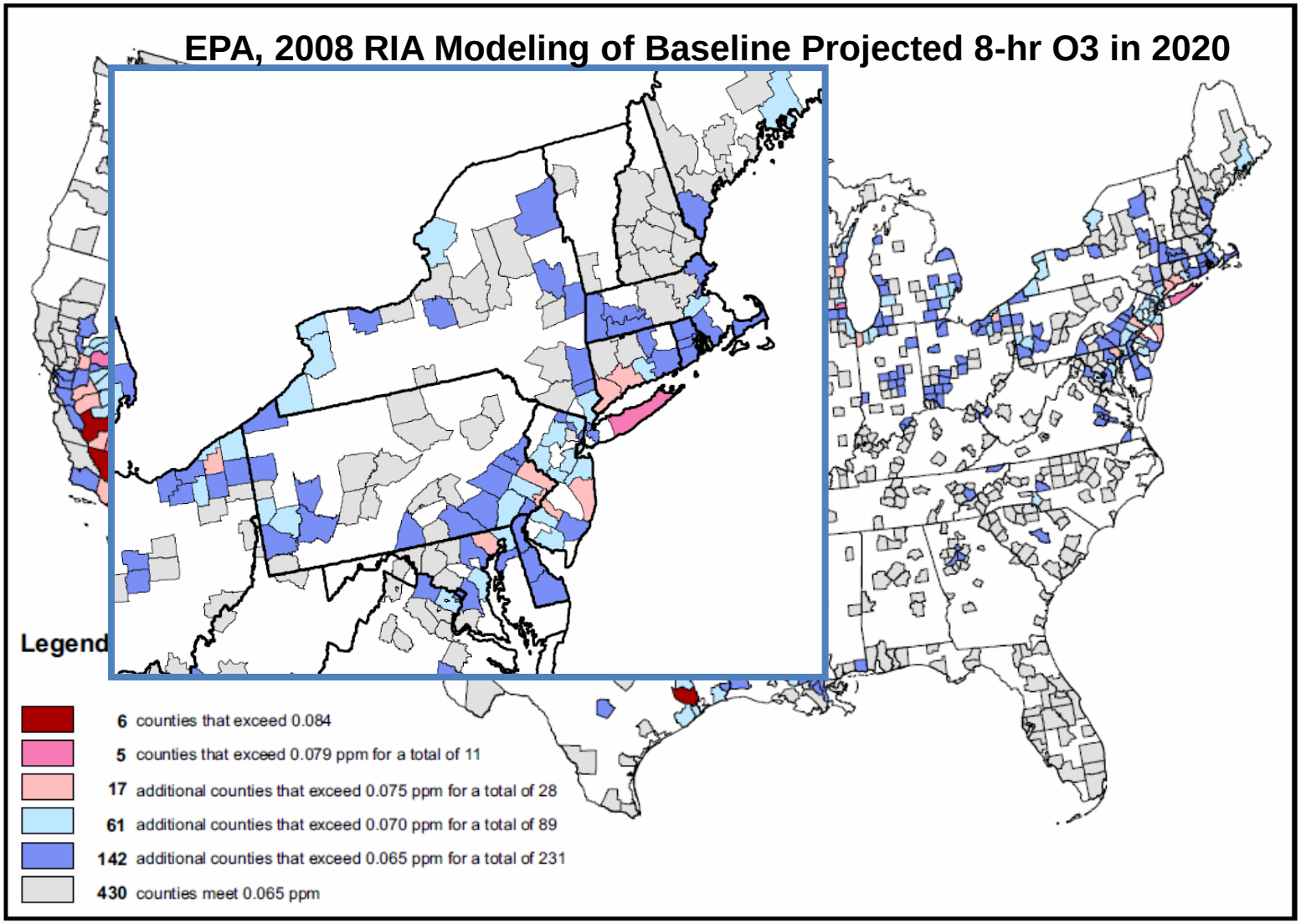



Annual U.S. Mobile Source NOx Emission Projections
Including C3 Marine (ECA) Control (EPA, 2010)
Aircraft
C3 Marine
Locomotive
Off-road diesel
Off-road gasoline
On-road diesel
On-road gasoline
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Thousand Tons
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
2028
2030

Results from Regional Strategies

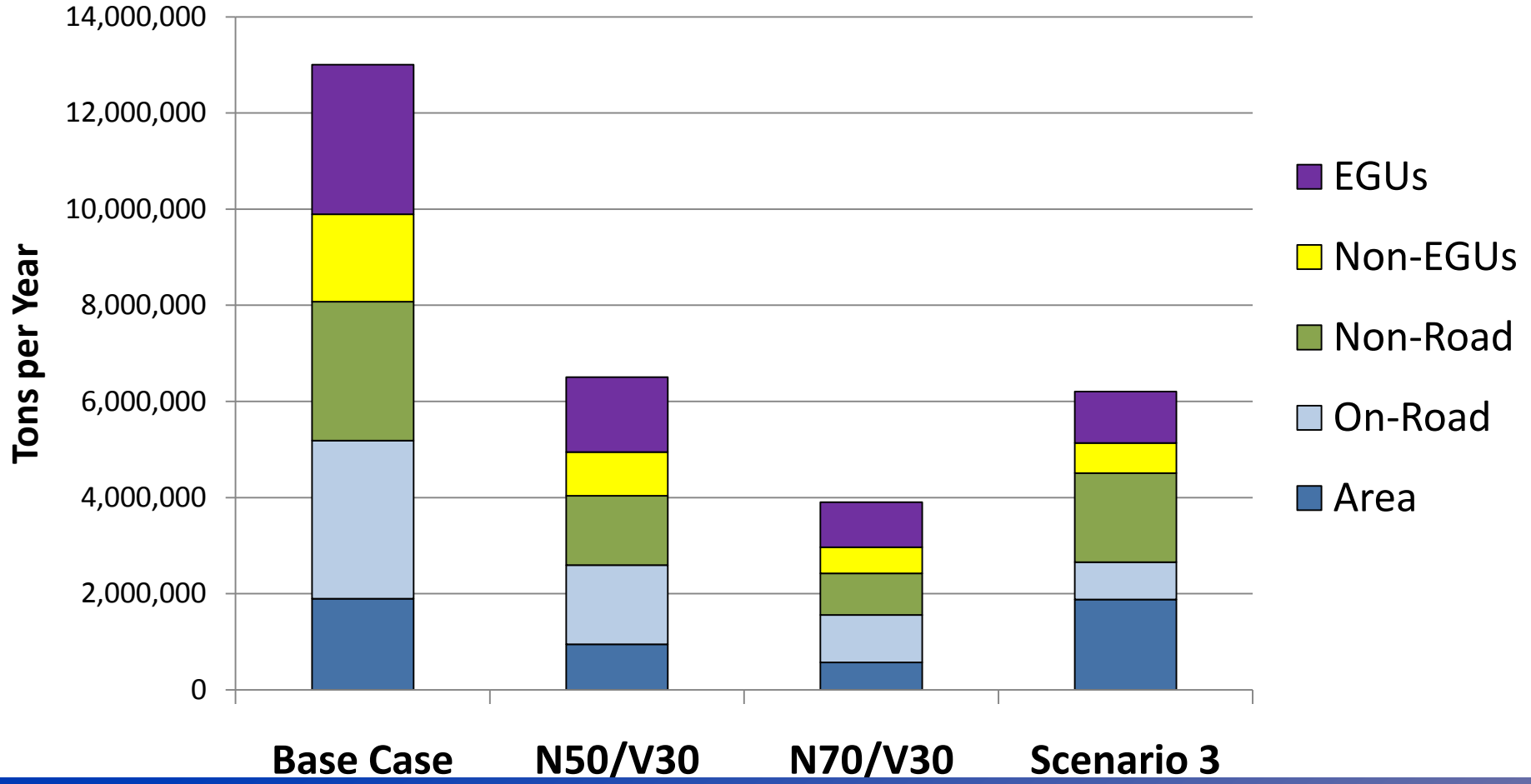
- EPA modeling for 2020 shows OTB federal/state control programs (including CAIR) sufficient to meet 1997 8-hour ozone NAAQS in Eastern US
- Greater NOx & VOC reductions will be necessary meet the July 2011 ozone NAAQS

EPA, 2008 RIA Modeling of Baseline Projected 8-hr O3 in 2020



Modeled emissions reflect the expected reductions from federal programs including the Clean Air Interstate Rule (EPA, 2005b), the Clean Air Mercury Rule (EPA, 2005c), the Clean Air Visibility Rule (EPA, 2005d), the Clean Air Nonroad Diesel Rule (EPA, 2004), the Light-Duty Vehicle Tier 2 Rule (EPA, 1999), the Heavy Duty Diesel Rule (EPA, 2000), proposed rules for Locomotive and Marine Vessels (EPA, 2007a) and for Small Spark-Ignition Engines (EPA, 2007b), and state and local level mobile and stationary source controls identified for additional reductions in emissions for the purpose of attaining the current PM 2.5 and Ozone standards.

Domain Wide NO_X Emissions by Run



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

"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

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**

CT's Significant Contribution

- While CT is greatly impacted by transport, EPA has found that CT also contributes to NY, NJ, MA and RI

Modeled O3 Transport CT to RI: Excerpts from EPA CAIR Modeling, 2005

Downwind Nonattainment Receptor		CAMX Source Apportionment Modeling Base Case: Total Number of Exceedances (grid-hours) = 134						CAMX State Zero-Out Modeling Base Case: Total Number of Exceedances (grids-days) = 18				
Kent RI	**Upwind State**	Average 3-episode % contribution	Highest daily average (ppb)	Highest daily average (%)	# reduced >= 2 ppb	% reduced >= 2 ppb	max 8-hr ppb contribution	% total ppb reduced	% pop-wgt total ppb reduced	# reduced >= 2 ppb	% reduced >= 2 ppb	max 8-hr ppb contribution
Contributions exceed screening criteria	MA	1	26	30	3	2	27	1	1	1	6	26.3
	NY	26	22	23	134	100	29	77	77	17	94	20.3
	PA	17	22	25	131	98	22	39	37	17	94	12.2
	NJ	16	14	17	131	98	18	45	41	17	94	9.8
	CT	10	8	9	125	93	15	29	35	17	94	9.7

Anticipated NAAQS Implementation Milestones

Pollutant	NAAQS Promulgation Date	Designations Effective	Attainment Demonstration Due	Attainment Date
Ozone (8-hr)	July 2011 (Proposed in FR January 19, 2010)	Dec 2013 (unless EPA expedites)	Dec 2016	Dec 2019 (Moderate) Dec 2022 (Serious)
$PM_{2.5}$ (24-hr)	Sept 2006	Dec 2009	None if EPA approves CT "clean data" request (Nov 2012 otherwise)	Dec 2014
$PM_{2.5}$ (2011)	Oct 2011	Nov 2013	Nov 2016	Nov 2018/2023
NO_2 (primary)	Jan 2010	Feb 2012 (CT likely "Unclassified")	TBD after 2015, based on near-road monitoring results	TBD after 2015, based on near-road monitoring results
SO_2 (primary)	June 2010	July 2012 (CT likely "Unclassified")	June 2013 (Source modeling with Infrastructure SIP)	Aug 2017
NO_2 /SO_2 (Secondary)	Mar 2012	Apr 2014	Oct 2015	N/A

EPA's Regulatory Agenda

- **Industrial Boilers**
- **GHG Regulations**
  - Permitting of Greenhouse Gases
  - NSPS
- **National Ambient Air Quality Standards**
  - Ozone
  - Particle Matter
- **Hazardous Air Pollutants From Utilities**

2011

GHG Permitting

Energy Policy Decisions

PA 08-98 GHG Plans & Strategies

Clean Fuels Decisions

2012

EPA's Transport Rule 2

Revised Ozone & PM Standards

2013

CT GHG Rule Agenda due

Ozone and PM 2.5 Non-attainment Designations

2014

Infrastructure SIPs

Adopt CT's Ozone & PM Strategies

Vapor Recovery SIP

2015

New Science, New Standards

Multiple Pollutants

New Opportunities to Achieve Co-Benefits

Uncertainty

- What Congress will do
- What EPA will do
  - Assume EPA will be constrained, and
  - Focus on rules where benefits clearly outweigh costs
- Litigation over everything

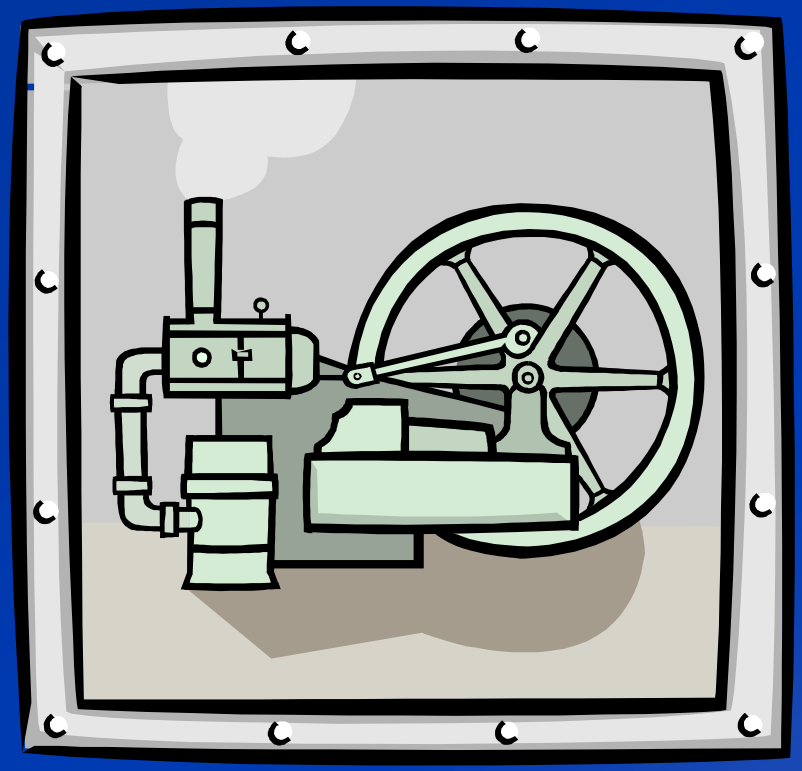
Certainty

- EPA will issue new NAAQS
  - CT will be classified nonattainment
- Clean air is necessary
  - For quality of life and our economy
- State/Federal Budget cuts
- Energy policy is critical to clean air
- Connecticut must push for solutions to transport

Air Bureau Direction

- Continue focus on protecting public health by working to improve air quality
- Add jobs and economic prosperity lens
- Strive for level playing field and most cost-effective strategies
- Support our customers– both the public in need of clean air to live and work and the regulated community
- Continue common sense decision-making
- Increase focus on stakeholder participation, economic analysis and burden reduction
- Prioritize focus on mandates/the law and AQ results

Air/Energy Synergy



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WORKING TOGETHER
FOR
CLEAN AIR

90% of all air pollution is combustion related.