

Update on EPA Rule Making

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EPA Region 1
April 10, 2014



Presentation Overview



- **Climate Change - Regulatory Initiatives**
 - GHG Reporting Rule
 - Renewable Fuel Standard Program (RFS2)
 - Carbon Pollution Standard for New Power Plants
 - Carbon Pollution Standard for Modified and Existing Power Plants
 - GHG standards for Medium- and Heavy-Duty Engines and Vehicles

- **Air Quality - Regulatory Initiatives**
 - NAAQS Review Schedule
 - Ozone Implementation
 - PM_{2.5} Implementation
 - SO₂ Implementation
 - Regional Haze
 - Sewage Sludge Incinerator Rule

GHG Reporting Rule



Recently Completed Actions

- Misc. amendments and technical corrections - See www.epa.gov/climatechange/emissions/notices.html
- Oct 23, 2013, third year of emissions data released, including information from facilities in 41 source categories.
- March 31, 2014 - Deadline for submitting 2013 annual GHG report.

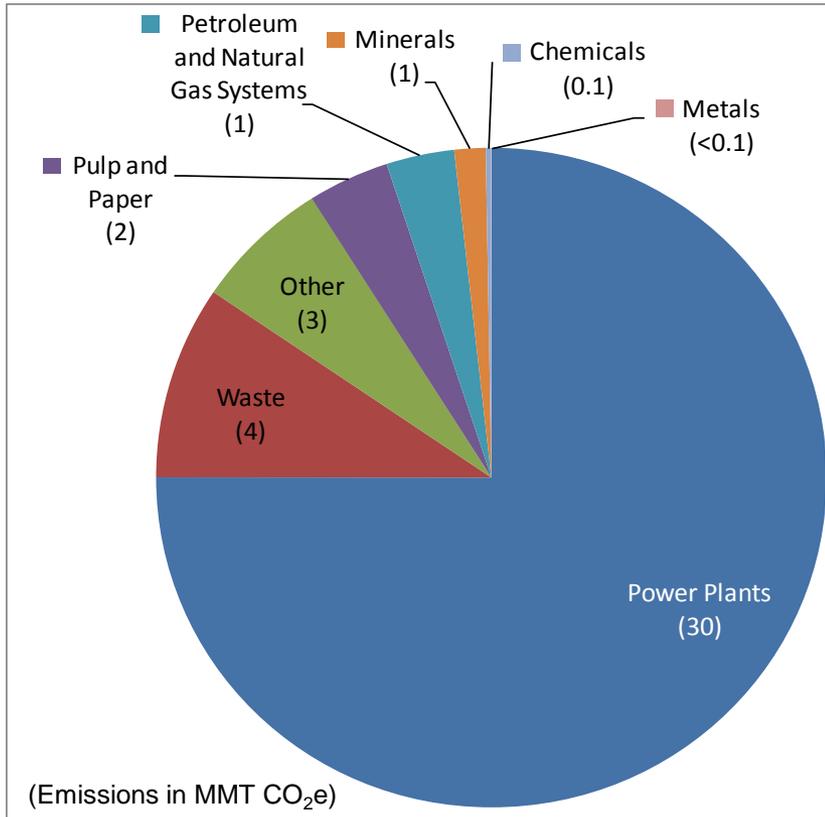
Program Overview

- 25,000 metric tons CO₂e or more per year reporting threshold for most sources
- Direct reporting to EPA electronically
- EPA verification of emissions data
- Reporting only, no control or use requirements
- Over 8,000 reporters nationwide, 224 from New England
- GHGs reported: CO₂, CH₄, N₂O, Fluorinated GHGs

More info: <http://www.epa.gov/ghgreporting/>

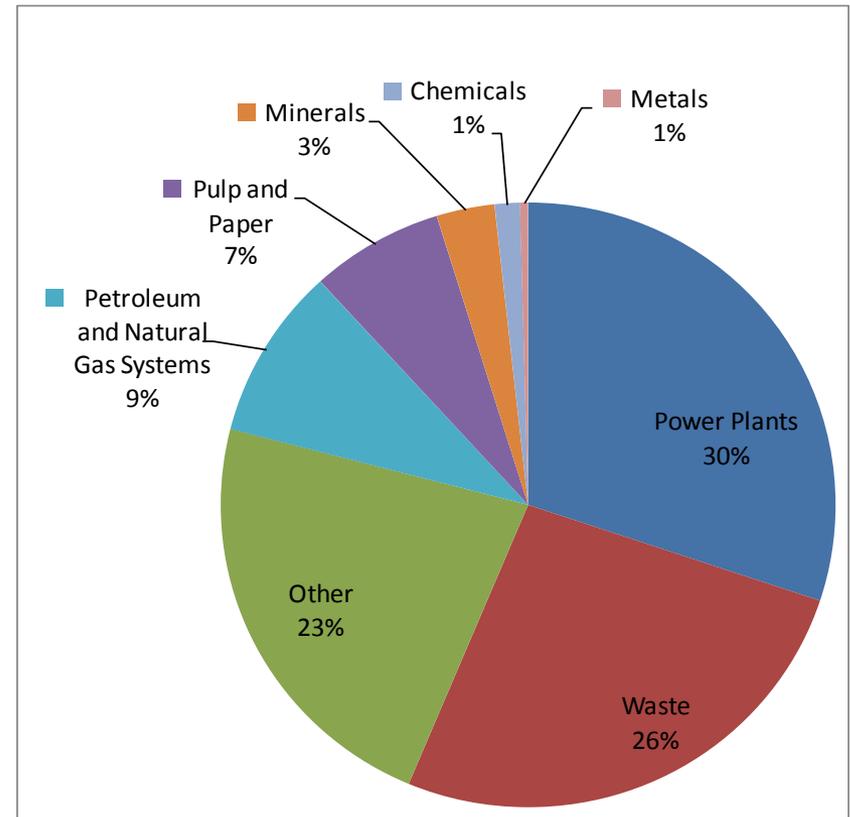
New England 2012 Emissions and Reporters

Breakout by total reported direct emissions



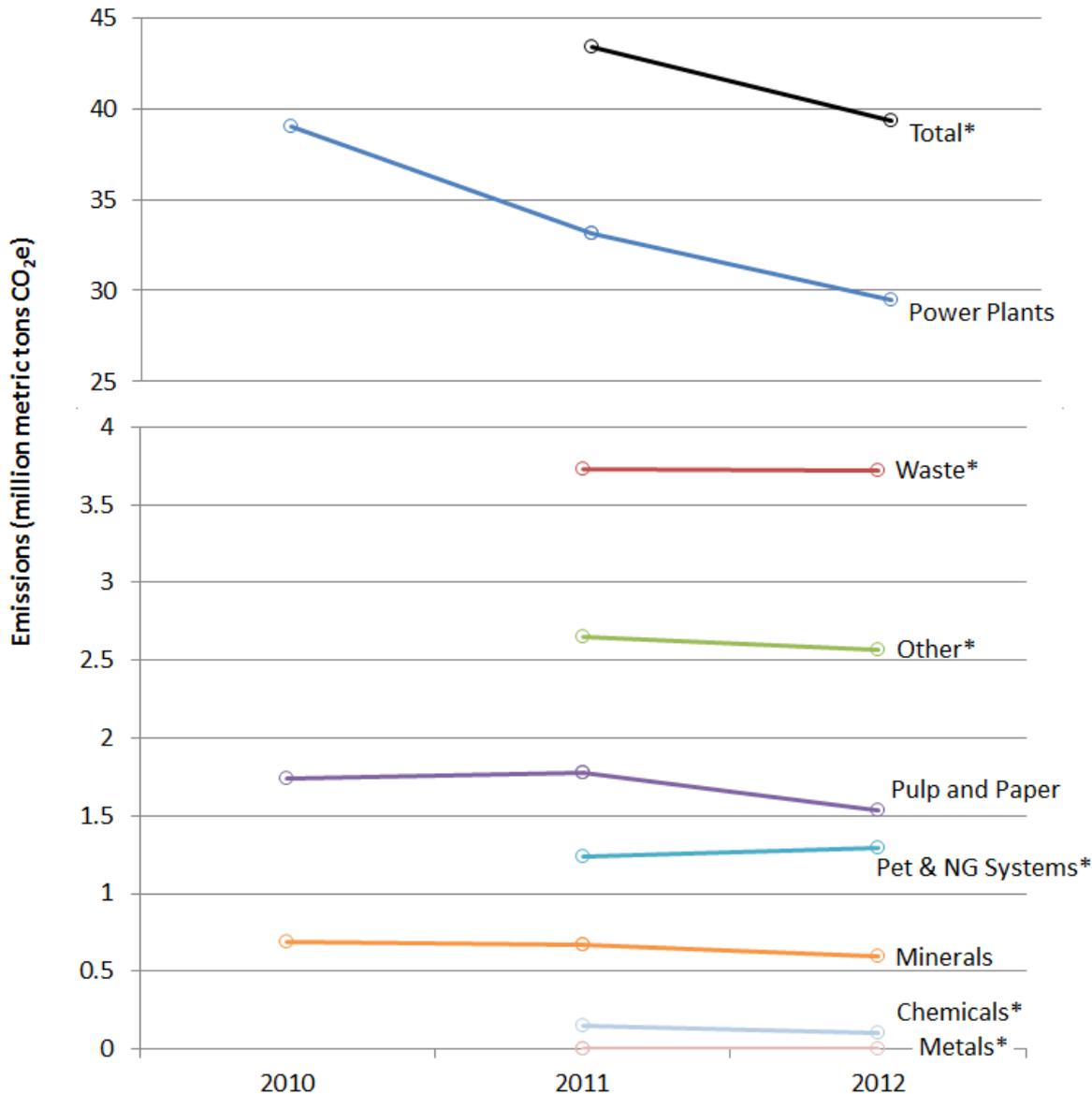
Total direct emissions =
39 MMT CO₂e
(1% of U.S. total)

Breakout by number of reporters



Total facilities reporting direct emissions = 224
(3% of U.S. total)

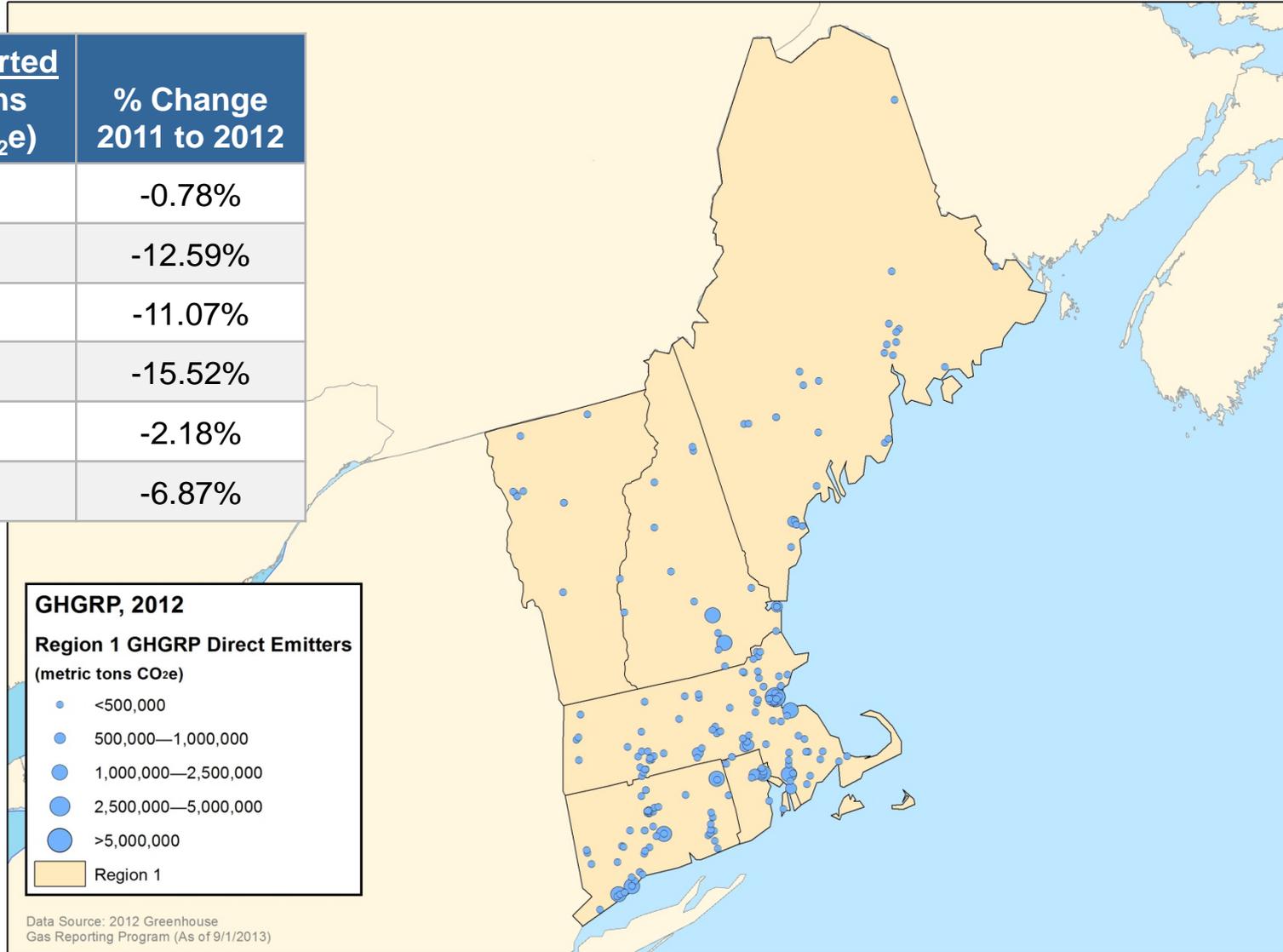
Trends in New England



* Emissions are not directly comparable between 2010 and subsequent years, because new sources began reporting in 2011.

New England Facility Total GHG Emissions

State	Total Reported Emissions (MMT CO ₂ e)	% Change 2011 to 2012
CT	8.9	-0.78%
MA	16.1	-12.59%
ME	5.1	-11.07%
NH	4.8	-15.52%
RI	3.9	-2.18%
VT	0.4	-6.87%



Data Publication Tool - FLIGHT

US EPA Facility Level GHG Em... x
ghgdata.epa.gov/ghgp/main.do

<http://ghgdata.epa.gov/ghgp/main.do>



2012 Greenhouse Gas Emissions from Large Facilities

Like 3.3k Tweet 1,038 +1 177 Share 326

Data Year: 2012
Data Type: Emitters

Filter By: Greenhouse Gas, Emission Range
Data View: [Icons]

Search Options: Find a Facility or Location, Search, Choose State

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Sector	Power Plants	Petroleum and Natural Gas Systems	Refineries	Chemicals	Other	Waste	Metals	Minerals	Pulp and Paper
2012 GHG Emissions (Million Metric Tons CO ₂ e)	2,090	217	173	170	123	100	107	107	42
# of Reporting Facilities	1,611	2,058	144	463	1,419	1,611	297	369	232

This data set does not reflect total U.S. GHG emissions. Learn more about related EPA GHG data sources. Data reported to EPA as of 09/01/2013.



Renewable Fuel Standard Program (RFS2)



- Aug 15, 2013 - Final standards published under the RFS2 program in calendar year 2013 for cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel.

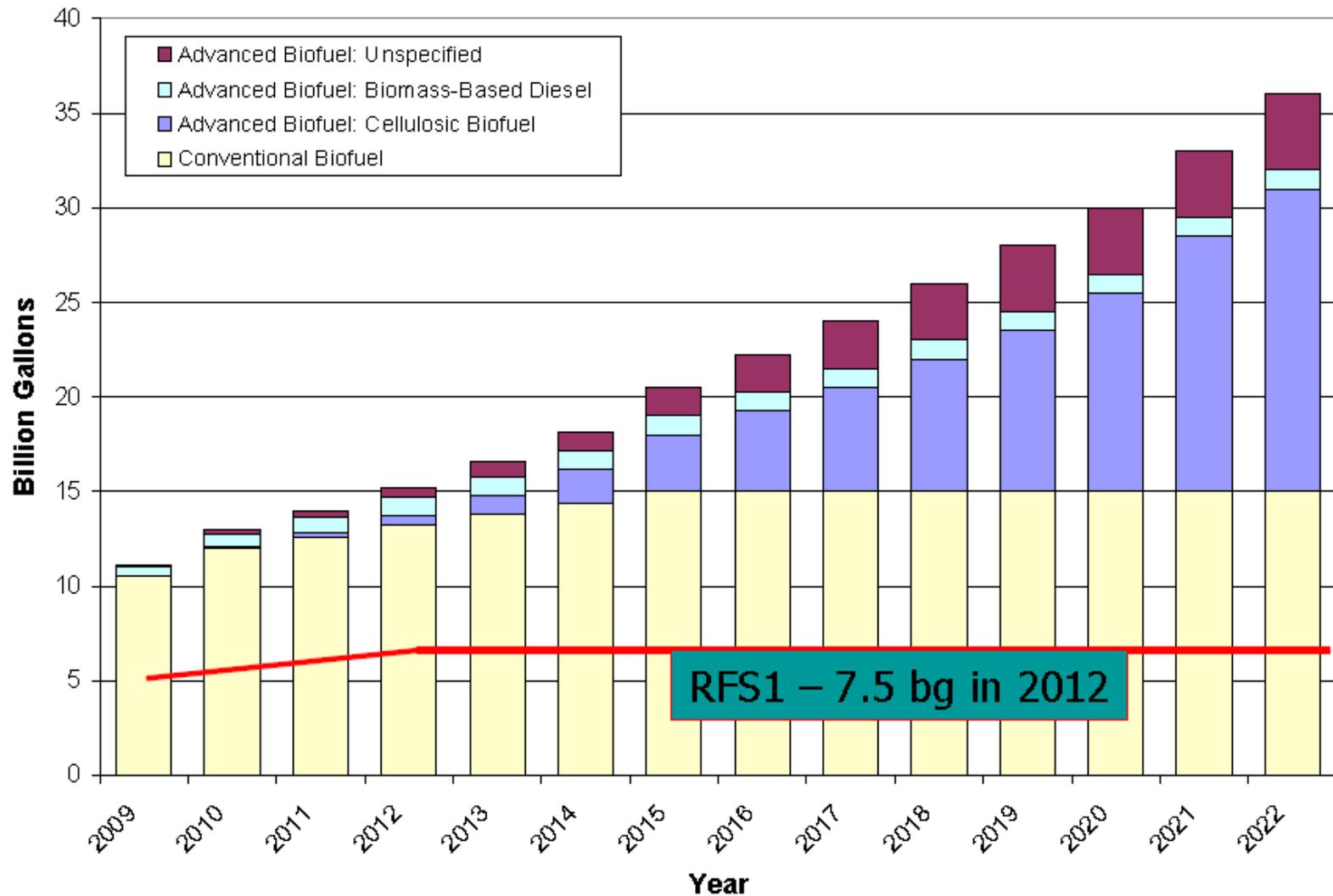
Volumes Used to Determine the Final 2013 Percentage Standards^a

Cellulosic biofuel	6 mill gal
Biomass-based diesel	1.28 bill gal
Advanced biofuel	2.75 bill gal
Renewable fuel	16.55 bill gal

^a All volumes are ethanol-equivalent, except for biomass-based diesel which is actual.

- Jan 23, 2014 - EPA grants petitions for reconsideration for the 2013 cellulosic biofuel standard.

RFS2 Volumes under EISA (Energy Independence and Security Act of 2007)



Renewable Fuel Standard Program (RFS2)



- Nov 29, 2013 - Proposed standards published for 2014 Renewable Fuel Standards, 2015 Biomass-Based Diesel Volume

Volumes Used to Determine the Proposed 2014 Percentage Standards

Category	Volume ^a	Range
Cellulosic biofuel	17 mill gal	8-30 million gallons
Biomass-based diesel	1.28 bill gal	1.28 billion gallons
Advanced biofuel	2.2 bill gal	2.0-2.51 billion gallons
Renewable fuel	15.21 bill gal	15.00-15.52 billion gallons

^a All volumes are ethanol-equivalent, except for biomass-based diesel which is actual.

- The proposal recognizes the practical limits on ethanol blending, called the ethanol “blend wall.”
- The blend wall refers to the difficulty of increasing amounts of ethanol at volumes exceeding those achieved by the sale of nearly all gasoline as E10.
- Although the production of renewable fuels has been increasing, overall gasoline consumption in the U.S. is less than anticipated when Congress established the program by law in 2007.

More info: www.epa.gov/otaq/fuels/renewablefuels/regulations.htm

Carbon Pollution Standard for New Power Plants - Proposed



Discussed at Nov 2013 SIPRAC

- EPA published a new proposal on January 8, 2014
 - Informed by the more than 2.5 million comments received on the April 2012 proposal
 - Reflects recent developments and trends in the power sector
- EPA will accept written comments until May 9, 2014
- CAA requires EPA to finalize one year after publication of proposal

Carbon Pollution Standard for Modified and Existing Power Plants



- Under the President's Climate Action Plan:
 - Using the Clean Air Act authority, EPA tasked with issue carbon pollution standards for modified and reconstructed power plants
 - Proposal: June 2014
 - Final: June 2015
 - Using the Clean Air Act authority, issue carbon pollution guidelines for existing power plants
 - Proposed guidelines: June 2014
 - Final guidelines: June 2015
 - State plans due: June 2016

Clean Air Act Section 111



How State Plans Have Worked

- States determine the combination of measures that will meet the guidelines
- State plans set standard of performance
 - Can be identical to EPA's guidelines (states adopt EPA's model rules)
 - Can differ from, but be equivalent to, EPA's guidelines
- State plans provide for implementation and enforcement
 - States have had flexibility when applying the standard of performance in their plans to take into consideration, among other factors, the remaining useful life of the source
- Timeframe to submit state plans has been set by EPA in the guidelines

Clean Air Act Section 111 (cont.)



Section 111(d) and Carbon Pollution

- In general, carbon pollution emissions differ from the pollutants that have been regulated in the past under section 111(d)
- Carbon pollution is:
 - Global
 - An order of magnitude greater than the other pollutants covered under section 111(d) in the past
 - Accumulating and remaining in the atmosphere over hundreds of years
- We have opportunities to explore various program designs and flexibilities because of
 - The broad statutory language of section 111(d)
 - The unique characteristics of carbon pollution
 - The interconnected nature of the power sector

Carbon Pollution Standards for Existing Power Plants - Stakeholder Engagement



- EPA has been conducting a robust process
 - Conducted over 200 meetings with utility, labor and environmental groups since August 2013
 - Developed [video webinar](#) about the Climate Action Plan and CAA 111(d)
 - Held 11 public listening sessions around the country
 - 3,300 people attended
 - More than 1,600 people offered oral statements
- Engagement process has given EPA several key insights and takeaways

Carbon Pollution Standards for Existing Power Plants - Stakeholder Engagement



- Several common themes emerged from stakeholder outreach
 - Opportunities exist to lower the carbon intensity of power generation through a wide range of measures
 - States need more than one year to develop and submit plans
 - More time necessary due to legislative/regulatory schedule in many states
 - Additional time would allow and promote multi-state programs and cooperation
 - Multiple opinions about how broader measures taken throughout the electric system could factor into programs
 - General support for giving states flexibility
 - Recognize existing programs and the progress achieved
 - Allow compliance options that permit the use of approaches that are outside the power plant “fence line” (e.g., demand-side management)
 - Acknowledge leadership for prior GHG activities in states

Carbon Pollution Standards for Existing Power Plants - Stakeholder Engagement



- Potential hurdles or concerns identified by stakeholders:
 - Views vary regarding form of the goal
 - Rate-based: States must stay below a tons of CO₂ per megawatt hour limit
 - Mass-based: States must stay below a total tons of CO₂ emitted per year limit
 - Many states have already achieved greenhouse gas reductions and have exceeded the President's goal
 - Some suggest that EPA can legally only base the reduction goal on measures "within the fence line"
 - This would eliminate EPA's ability to count reductions achieved away from the power plant (e.g., demand-side management programs)
 - Concerns that rulemaking will have a negative impact on jobs and ratepayers
 - Concern that ratepayers will have to pay for stranded assets
 - Concerns regarding maintaining the reliability of the electric power system

GHG standards for Medium- and Heavy-Duty Engines and Vehicles, model year 2018 and later



- On Feb 18, 2014, the President directed EPA and DOT to set the next round of fuel efficiency standards for medium- and heavy-duty vehicles.
 - Proposal: March 2015
 - Final: March 2016
- In 2010, heavy-duty vehicles represented just 4% of registered vehicles on the road, but they accounted for approximately 25 percent of U.S. on-road fuel use and GHG emissions in the transportation sector.
- The first round of standards for medium- and heavy-duty vehicles (for model years 2014 through 2018) were finalized in Sept 2011, and are projected to save 530 million barrels of oil and reduce GHG emissions by approximately 270 million metric tons, saving vehicle owners and operators an estimated \$50 billion in fuel costs over the lifetimes of the vehicles covered.

Air Quality - Regulatory Initiatives



- NAAQS Review Schedule
- Ozone Implementation
 - Interstate Pollution Transport
 - Tier 3 Vehicle Standards
- PM_{2.5} Implementation
 - Wood Heater NSPS
- SO₂ Implementation
- Regional Haze
- Sewage Sludge Incinerator (SSI) Rule

NAAQS Reviews: Status Update

(as of March 2014)



	Ozone	Lead	Primary NO ₂	Primary SO ₂	Secondary NO ₂ /SO ₂	PM	CO
Last Review Completed (final rule signed)	Mar 2008	Oct 2008	Jan 2010	Jun 2010	Mar 2012	Dec 2012	Aug 2011
Recent or Upcoming Major Milestone(s)¹	<u>Feb 2014</u> 2 nd Draft REAs 2 nd Draft PA <u>Mar 25-27, 2014</u> CASAC review meeting Proposed rule Jan 2015*	<u>Mar/Apr 2014</u> Final PA <u>2014</u> Proposed rule	<u>Nov 2013</u> 1 st Draft ISA <u>Feb 2014</u> Draft IRP <u>Mar 12-13, 2014</u> CASAC review meeting	<u>Mar 19, 2014</u> Draft IRP released <u>Apr 22, 2014</u> CASAC review meeting	<u>Mar 4-6, 2014</u> Kickoff workshop for next review <u>Summer 2014</u> Draft IRP	Kickoff workshop for next review targeted for early 2015	Kickoff workshop for next review targeted for 2015

Additional info regarding current and previous NAAQS reviews is available at: www.epa.gov/ttn/naaqs/

¹ IRP -Integrated Review Plan; ISA -Integrated Science Assessment; REA -Risk and Exposure Assessment; PA -Policy Assessment

* Final dates are subject to a deadline suit.

Current Ozone NAAQS Review



- Litigation over Current Ozone NAAQS Review
- EPA's Tentative Dates
 - Proposal date -January 15, 2015
 - Final date -November 15, 2015
- Dates Requested by Litigants
 - Proposal date -December 1, 2014
 - Final date -October 1, 2015
- Dates subject to resolution of deadline suit

Anticipated NAAQS Implementation Milestones (updated March 2014)



Pollutant	Final NAAQS Date	Infrastructure SIP Due	Designations Effective	Attainment Plans Due	Attainment Date
PM _{2.5} (2006)	Oct 2006	Oct 2009	Dec 2009	Dec 2014*	Dec 2015 (Mod) Dec 2019 (Ser)
Pb (2008)	Oct 2008	Oct 2011	Dec 2010/2011	June 2012/2013	Dec 2015/2016
NO ₂ (2010) (primary)	Jan 2010	Jan 2013	Feb 2012	N/A	N/A
SO ₂ (2010) (primary)	June 2010	June 2013	Oct 2013 ** (+2 rounds)	April 2015	Oct 2018
Ozone (2008)	Mar 2008	Mar 2011	July 2012	Mid 2015/2016	2015/2032
PM _{2.5} (2012)	Dec 2012	Dec 2015	Early 2015	Mid 2016	Dec 2021 (Mod) Dec 2025 (Ser)

* Under proposed deadline rule.

** There is ongoing litigation over the SO₂ designation dates.

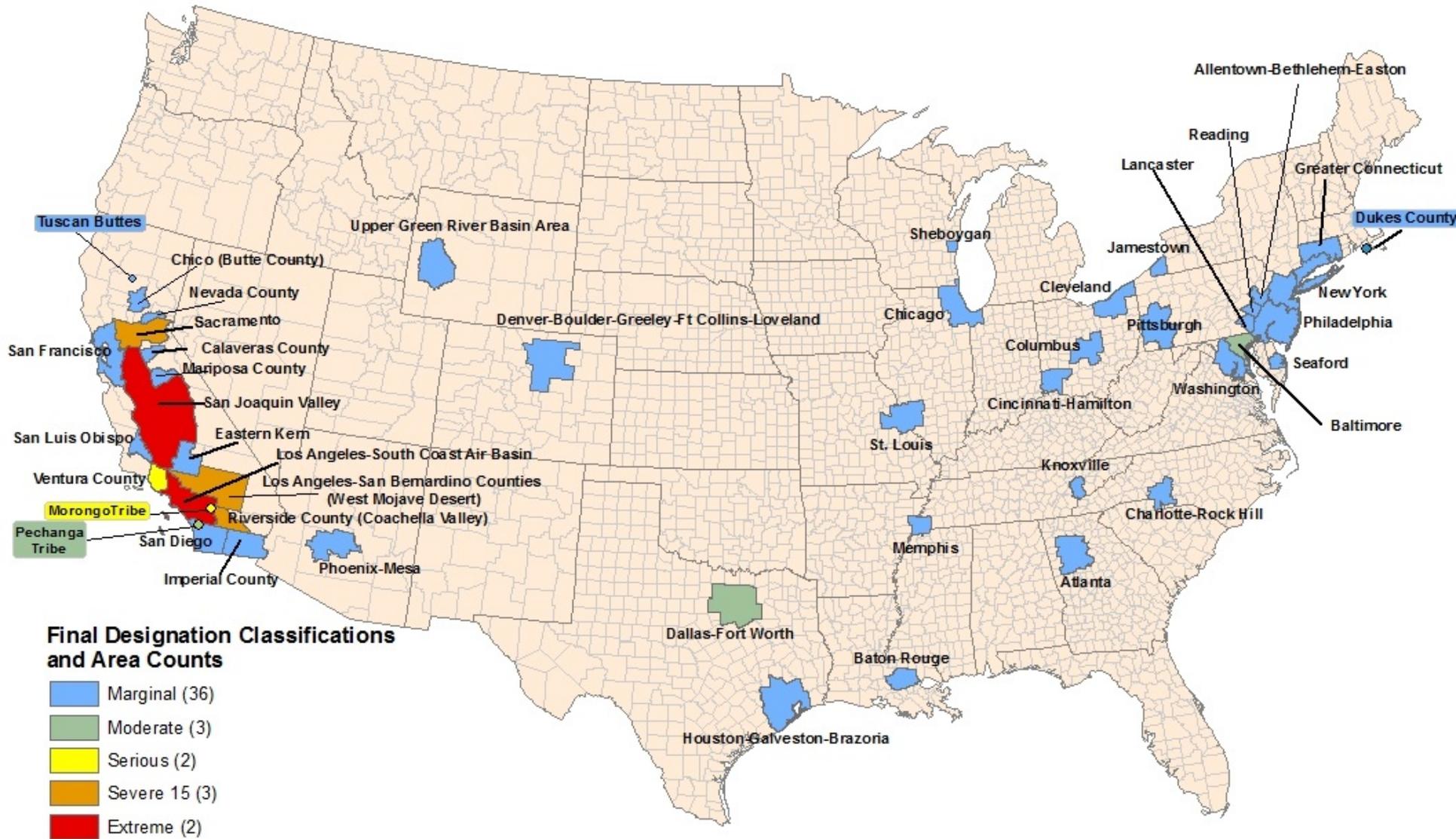
2008 Ozone NAAQS Implementation



- Revised primary 8-hr Ozone standard in 2008 (.075 ppm/8-hr)
- EPA designations for the 2008 Ozone NAAQS effective on July 20, 2012
 - 46 areas designated nonattainment including 2 separate tribal areas
 - Nov 14, 2013 petition from Earthjustice and Sierra Club asking EPA to redesignate as nonattainment 57 areas with 2012 design values violating the 2008 ozone NAAQS
 - Jan 22, 2014 notice of citizen suit concerning Nov 14 Earthjustice/Sierra Club petition
- 2008 Ozone NAAQS SIP Requirements Rule
 - Proposed May 29, 2013 (78 FR 34178)
 - Anticipate final rule in Fall 2014
 - Attainment plans and demonstrations due July 2015 (Moderate) or July 2016 (Serious and above)

Nonattainment Areas for 2008 Ozone NAAQS by Classification

(Effective July 20, 2012)

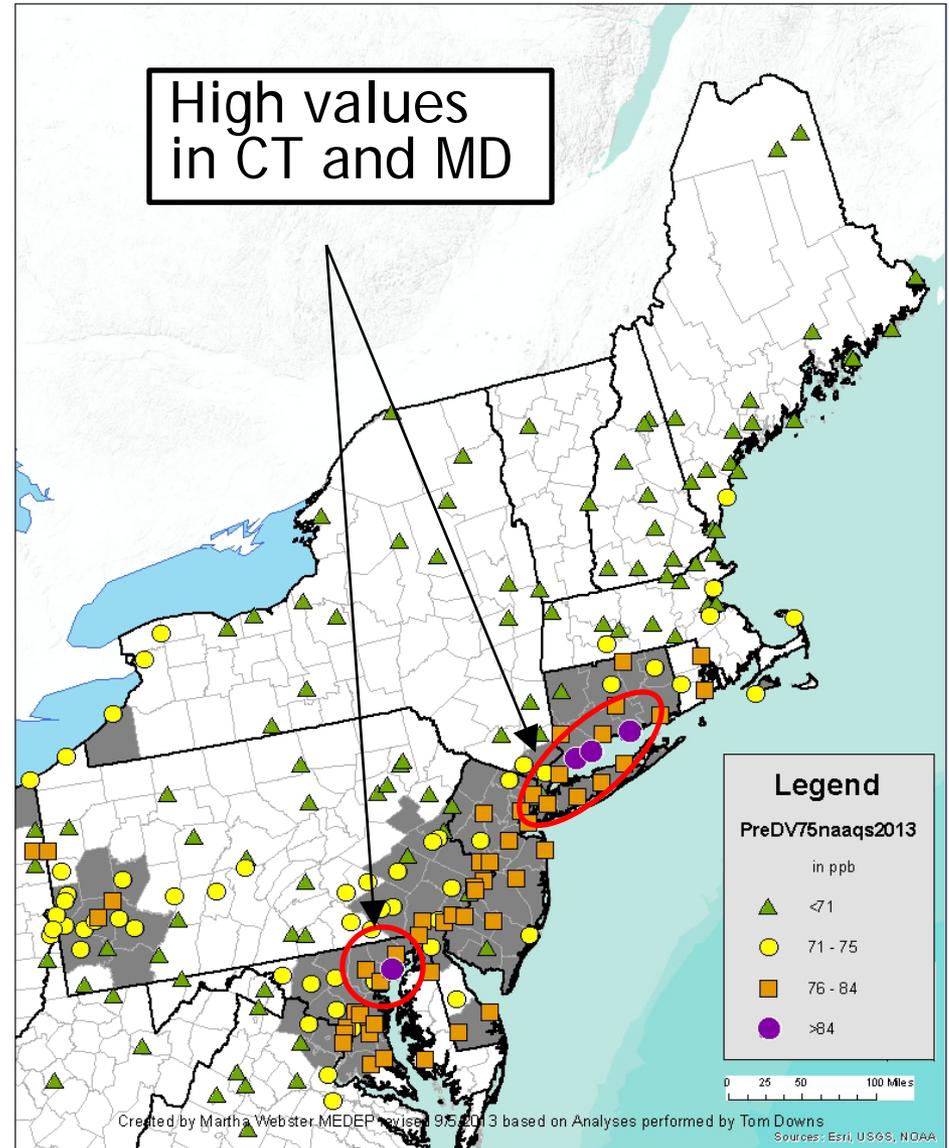
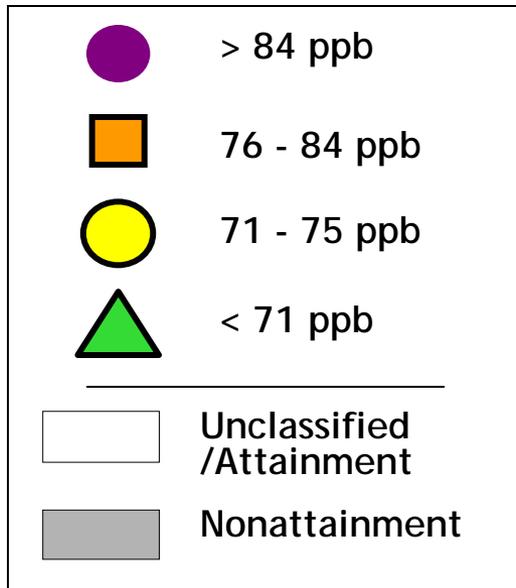


Notes:

- EPA has not designated as nonattainment any areas outside the Continental US.
- Map reflects classifications following requests for voluntary bump-up.

Preliminary 2013 Ozone Design Values

3-Year average of the 4th high concentration for 2011, 2012, 2013



Applicable Requirements in CT under Implementation Rule (Proposed)



Attainment Date

- Must attain by Dec 31, 2015. Two 1-yr extensions allowed.

Relevant Marginal Area Requirements (Proposed)

- Baseline emissions inventory due 7/20/2014, §182(a)(1)
- Periodic Inventory due every three years after baseline inventory submittal, §182(a)(3)(A)
- Transportation Conformity SIP

OTR requirements (Proposed)

- RACT SIP for VOC and NO_x due 7/20/14.

Other Ozone-related Actions



Areas violating 1997 ozone NAAQS

- On June 18, 2012 EPA issued a clean data determination (CDD) for the New York City (CT-NJ-NY) moderate ozone nonattainment area based on data from 2007-2010
- Certified ozone data for 2010-2012 now show violations of the 1997 standard. NYC area still violating in 2013.
- On Sept 9, 2013, EPA received petition from the Sierra Club to revoke CDD for NYC, Sheboygan, St. Louis and Wash D.C nonattainment areas
 - Email from Sierra Club on March 20, 2014 states that Sierra Club will be sending a notice of intent to sue to compel EPA to revoke CDDs for NYC, Wash D.C. and St Louis.
- Rescinding the CDD would require new attainment plan for 1997 ozone NAAQS
- The NYC area, however, has met its Jun 2010 attainment deadline and cannot be bump-up

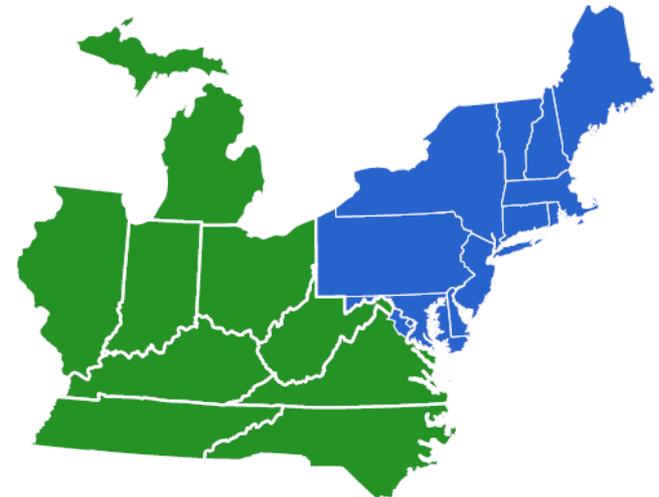
Other Ozone-related Actions



- **Section 176A petition**

- On Dec 9, 2013, Connecticut along with several other OTR states have petitioned EPA to expand the OTR
- The petition requested that IL, IN, KY, MI, NC, OH, TN, WV and the rest of VA be added to the OTR
- The CAA requires EPA to respond to the petition within 18 months

Downwind states petition EPA to add upwind states to the Ozone Transportation Region



- Current OTR States
- Potential OTR States

Interstate Pollution Transport Update



- U.S. Supreme Court granted EPA's petition for review of the D.C. Circuit's decision in *EME Homer City* which vacated the Cross State Air Pollution Rule (CSAPR)
 - Oral argument was held on December 10, 2013, and a decision is expected soon
 - Decision will impact CSAPR and other actions
- CSAPR focused on attainment and maintenance of the 1997 Ozone NAAQS, 1997 PM_{2.5} NAAQS and 2006 PM_{2.5} NAAQS
- EPA is moving forward to address transport as we await the Supreme Court's decision.
 - From an air quality and health perspective, the most pressing transport challenge appears to be ozone in the eastern half of the U.S.
 - EPA is developing a rulemaking focused on 2008 ozone NAAQS
 - EPA has developed initial 2011 and 2018 inventories, which will be the basis of ozone transport rule proposal, NATA initial modeling and ozone NAAQS proposal.

Interstate Pollution Transport Update (con't)



- EPA continues to conduct outreach to states and engage stakeholders in development of rule:
 - April 8 and 17, 2013 - EPA held meetings with States on air pollution transport.
 - Nov 19, 2013 - EPA published its 2011 base year emissions modeling platform for comment.
 - Comments on 2011 emissions were due 3/31/14
 - Jan 8, 2014 - EPA published its 2018 base year emissions modeling platform for comment.
 - Comments on 2018 emissions due 6/30/14
 - Mar 10, 2014 - Reg. 1 call w/ states to help with review.

Tier 3 Vehicle Emission and Fuel Standards (final rule signed March 3, 2014)



Vehicle standards: Phase in between 2017 and 2025

- Tighter VOC and NOx tailpipe standards (80% reduction from today's fleet average);
- Tighter PM tailpipe standard (70% reduction in per-vehicle standard);
- Evaporative emissions standard: reduced fuel vapor emissions and improved system durability;

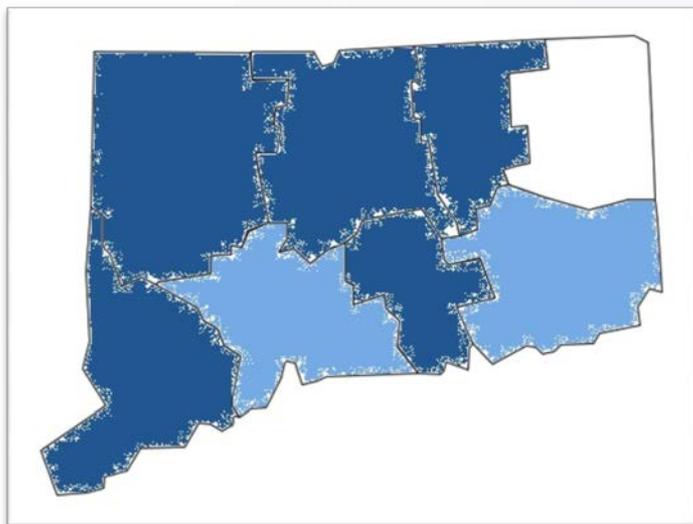
Fuel standards: Starting Jan. 1, 2017

- Lower the annual average sulfur standard from 30 to 10 ppm
- Maintain the current per-gallon sulfur caps: 80 ppm at refinery gate, 95 ppm at retail
- Tier 3 vehicle standards not possible without lower sulfur

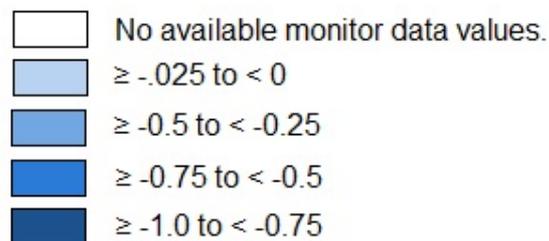
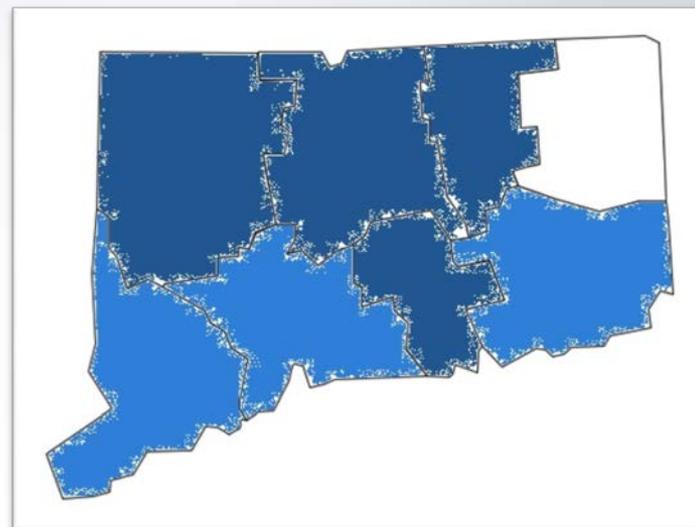
AQ Impacts - Estimated Reduction in the 8-Hour Ozone Design Value (ppb)



2018



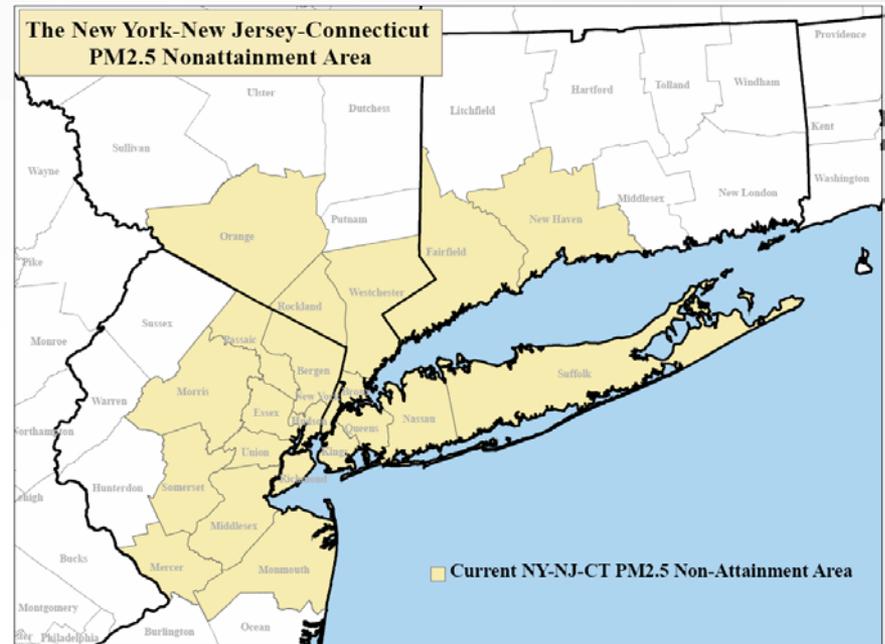
2030



Redesignation of NY-NJ-CT PM_{2.5} Nonattainment area



- EPA Region 1 finalized redesignation of CT portion of the NY-NJ-CT 1997 annual and 2006 24-hour PM_{2.5} nonattainment areas in Sept 2013 (effective date: Oct 24, 2013).
- EPA Region 2 approved redesignation of NJ portion effective Sept 4, 2013. NJ withdrew their attainment SIP shortly after.
- Final rule for NY signed by Region 2 RA on April 7, 2014. Region 2 expects letter from NY requesting withdrawal of attainment SIP after rule is published.

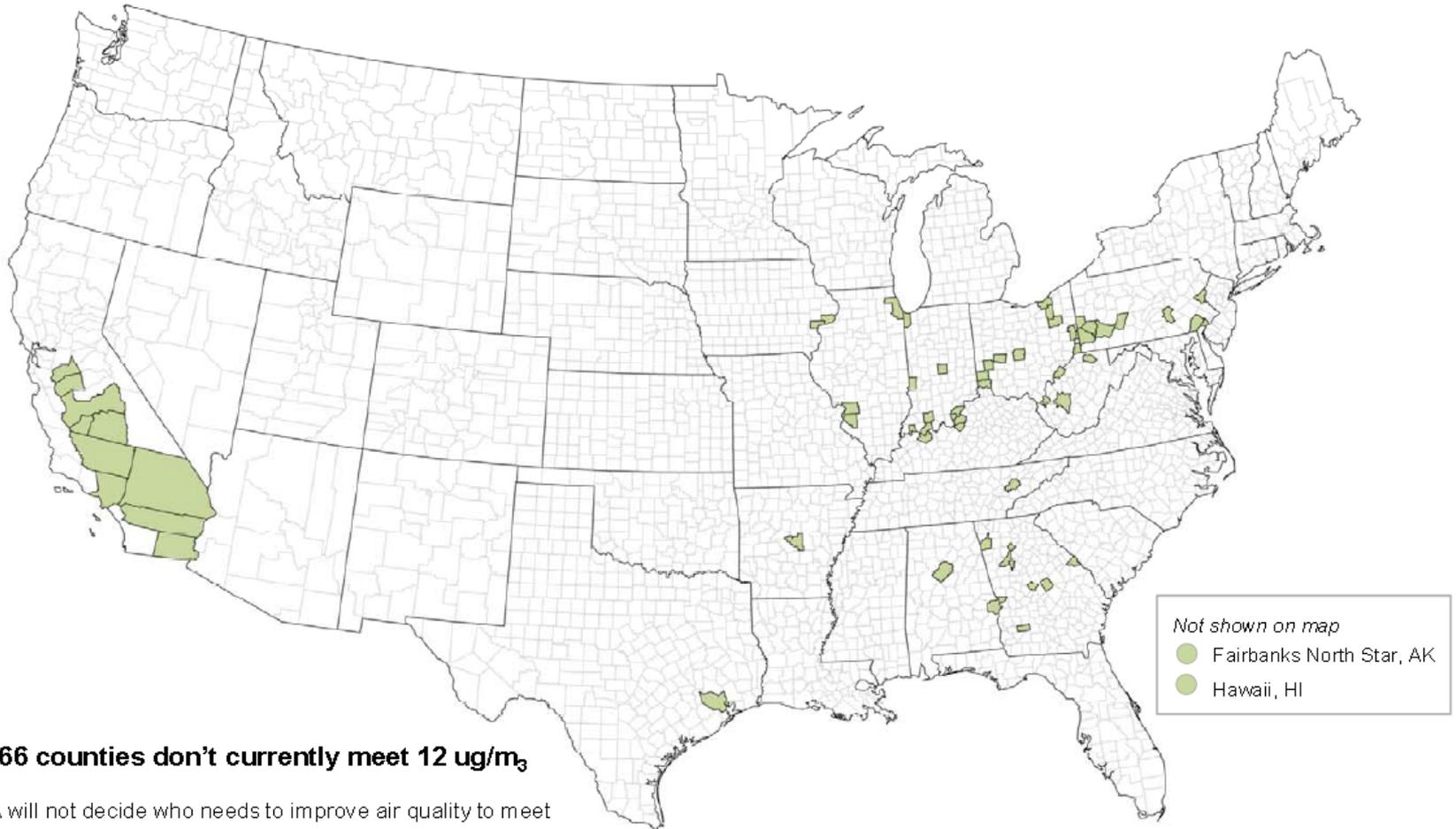


PM_{2.5} NAAQS Review



- On Dec 14, 2012, EPA revised the annual primary PM_{2.5} NAAQS to 12 µg/m³ from the previous level of 15 µg/m³.
- Retained daily PM_{2.5} standard of 35 µg/m³ set in 2006.
 - NAAQS effective date: March 18, 2013
 - Legal challenge filed by industry related to the annual primary PM_{2.5} standard, near-road monitoring, and implementation-related issues

Most of the U.S. Already Meets the Annual Fine Particle Health Standard of $12 \mu\text{g}/\text{m}^3$



EPA will not decide who needs to improve air quality to meet the standard until 2014 at the earliest. States will have until 2020-2025 to meet the standard.

Source: 2009-2011 air quality data as of July 15, 2012
For more information: www.epa.gov/pm

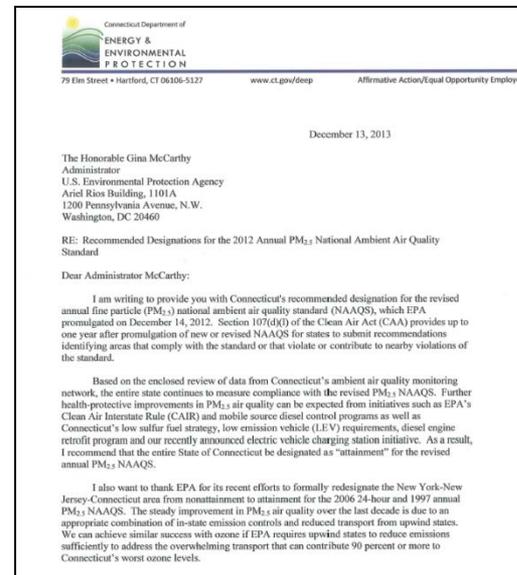
2012 PM_{2.5} NAAQS Implementation Timeline



Milestone	Date
EPA promulgates 2012 PM _{2.5} NAAQS rule	Dec 14, 2012
EPA issues designation guidance	April 16, 2013
States/Tribes recommendations for PM _{2.5} designations due	Dec 13, 2013
EPA notifies states of intended modifications to recommendations in "120-day" letters	August 2014
EPA promulgates final PM _{2.5} area designations	Dec 2014
Designations effective	Early 2015
Moderate area SIPs due (18 months from effective date of designations)	Fall 2016
Moderate area attainment date (end of 6 th calendar year after designations)	Dec 2021
Serious area attainment date (end of 10 th calendar year after designations)	Dec 2025

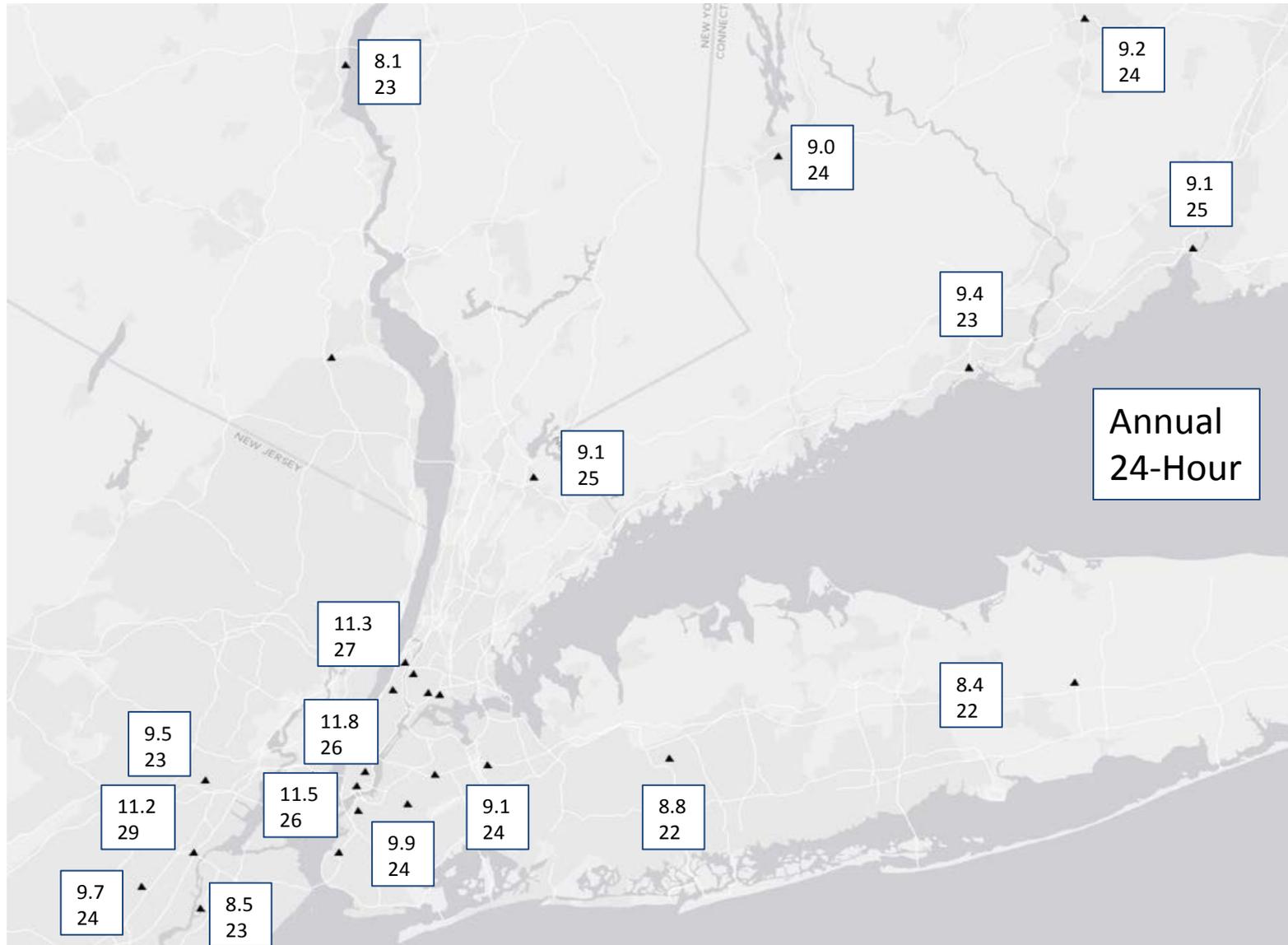
Connecticut Annual PM_{2.5} Designation Recommendation

- On Dec 13, 2013, CT DEEP Commissioner recommended entire state be designated as attainment for the revised annual PM_{2.5} NAAQS.



Site ID	County	PM2.5 Ann DV 2009-11	PM2.5 Ann DV 2010-12	Street address
90010010	Fairfield	9.4	9.4	ROOSEVELT SCH PK AVE.
90011123	Fairfield	9.3	9	TRAILER, W. CT STATE U
90013005	Fairfield	9.4	9.1	NORWALK HEALTH DEPT
90019003	Fairfield	9	8.7	SHERWOOD IS. STATE PARK
90031003	Hartford	8.2	8	MCAULIFFE PK
90032006	Hartford	9	8.8	85 HIGH ST E HARTFORD
90050005	Litchfield	5.7	5.7	ST POLICE COMP, MOHAWK MTN RD
90090027	New Haven	9.6	9.1	1JAMES STREET
90091123	New Haven	9.6	9.4	715 STATE ST
90092123	New Haven	9.5	9.2	SHED MEADOW & BANK ST
90113002	New London	8.4	8.1	22 COURT HOUSE SQ

2010- 2012 PM_{2.5} Design Values (ug/m³) for the NYC Metro Area



PM_{2.5} NAAQS Implementation



- PM_{2.5} NAAQS SIP Requirements NPRM
 - Propose rule early Fall 2014
 - Finalize as close as possible to effective date of designations for the 2012 PM_{2.5} NAAQS (in 2015)
- Proposal will clarify nonattainment implementation requirements according to subpart 4 of part D of Title I of the CAA, consistent with D.C. Circuit Court decision
- Proposal will address how subpart 4 court decision affects nonattainment NSR permitting requirements (e.g., with respect to major source threshold, precursors, etc.)

PM_{2.5} NAAQS Implementation



- Draft Guidance on PM_{2.5} PSD Modeling -public comment period ended on May 31, 2013
 - Addressed approaches to assessment of source impacts on ambient PM_{2.5}, particularly for secondary PM_{2.5}
 - Addressed recent court decision affecting the PM_{2.5} Significant Impact Levels (SILs) and Significant Monitoring Concentration (SMC) and contained interim guidance on using the SILs as part of the air quality impact analysis
 - Finalizing revisions to guidance document based on comments received and experience gained through more recent PM_{2.5} permit modeling assessments submitted for review to EPA
 - Draft guidance can be found at:
www.epa.gov/ttn/scram/guidance/guide/Draft_Guidance_for_PM25_Permit_Modeling.pdf
- Release of a revised guidance document anticipated in April 2014

PM_{2.5} NAAQS Implementation



- PM_{2.5} Emissions Inventory Guidance
 - EPA is updating the 2005 Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter NAAQS and Regional Haze Regulations
 - Draft version release is dependent on timing of the final PM_{2.5} Implementation Rule
- PM_{2.5} Attainment Demonstration Modeling Guidance for SIPs
 - Draft guidance - Late 2014 around timing for designations
 - Final version release dependent on timing of the final PM_{2.5} Implementation rule

Residential Wood Heaters NSPS



- Proposal publish Feb 3, 2014; Boston public hearing held Feb 26
 - 90-day public comment period ends May 5.
- Proposal would update 1988 NSPS to reflect today's best systems of emission reduction, considering costs. Units would be ~80% cleaner than typical older units.
- Includes adjustable burn rate stoves, single-burn rate stoves, pellet stoves, outdoor & indoor hydronic heaters, forced-air furnaces, and masonry heaters.
- Proposal would set new emission limits in 2 steps:
 - Step 1 emission limits required when rule is final (2015)
 - Step 2 limits required 5 years after the rule is final.
- Proposal and fact sheets available at:

www2.epa.gov/residential-wood-heaters

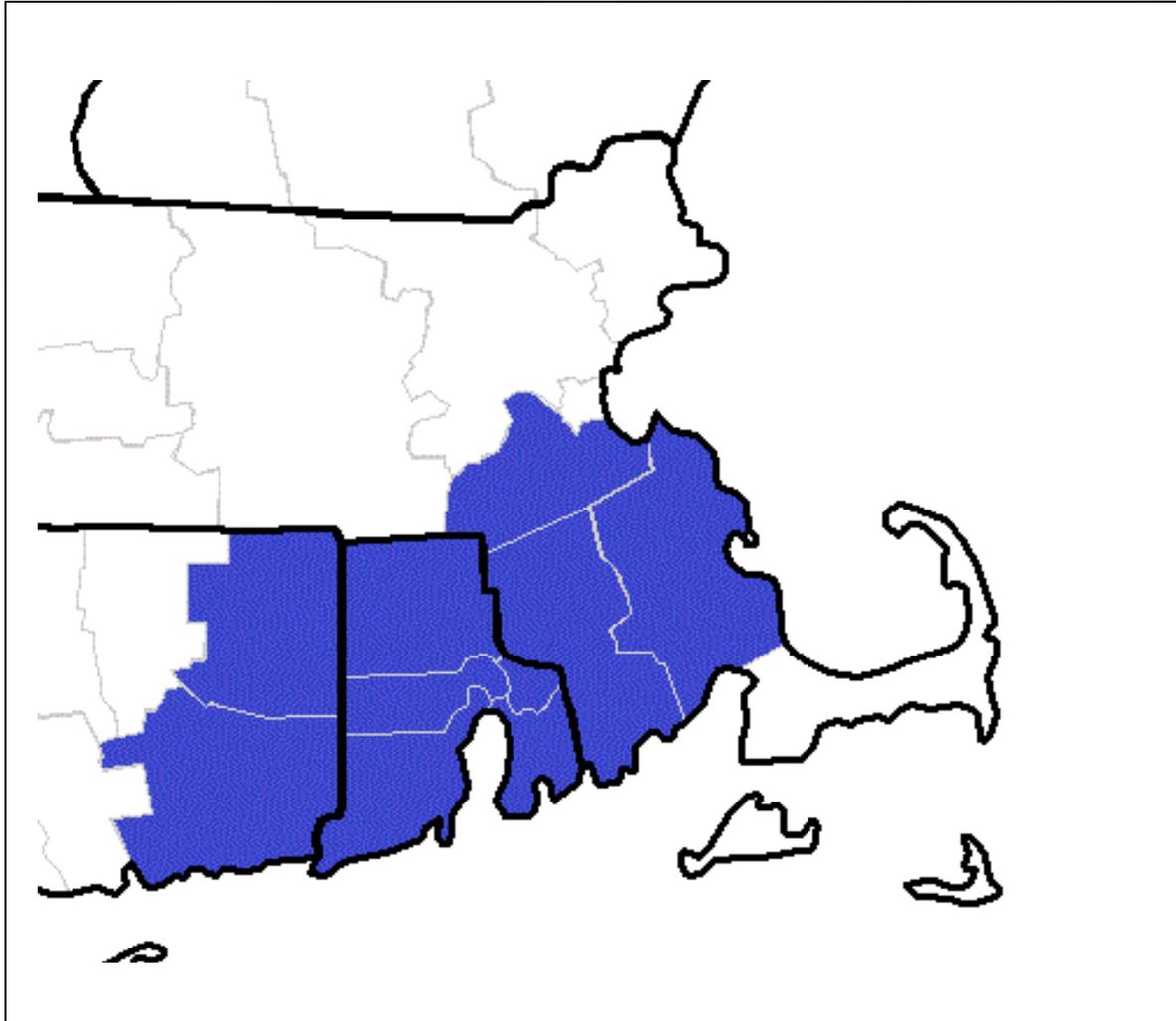
Upcoming 3-State Changeout Program



- Settlement between EPA and Dominion Energy reached for violations of Clean Air Act at power plants in IL, IN, and MA (Brayton Pt).
- \$9.75 million on environmental projects - \$2 million for changeouts in MA (Bristol, Plymouth & Norfolk Co), RI and CT (New London & Windham Co).
- Administered by ALA-NE, in association with EPA.
- \$300-\$4000 in vouchers for replacing, retrofitting, or upgrading woodstoves and hydronic heaters with emphasis on switching to natural gas. Vouchers available on 1st come, 1st served basis.
- Income-qualified people eligible for additional funds.
- Kickoff planned for May in Providence, RI.
- Once program launched, information and applications will be posted at:
www.lung.org/associations/charters/northeast/woodstove/
(Applications not accepted before kickoff)



Map of Change-out Area



Counties in Massachusetts

- Bristol
- Plymouth
- Norfolk

Counties in Rhode Island

- Bristol
- Newport
- Providence
- Kent
- Washington

Counties in Connecticut

- New London
- Windham

2010 SO₂ NAAQS Implementation



- Revised primary SO₂ standard: June 2010 (75 ppb/1-hr)
- SO₂ Area Designations and Implementation Strategy released February 2013
- Designations and Implementation Guidance and Assistance
 - Issued PSD permit modeling guidance documents applicable to the 1-hr SO₂ NAAQS on August 23, 2010 and March 1, 2011
 - Technical Assistance Documents for modeling and monitoring issued December 2013
 - For more information including strategy and guidances visit www.epa.gov/airquality/sulfurdioxide/implement.html

2010 SO₂ NAAQS Area Designations



- Initial nonattainment area designations, based on violating monitors, were effective October 4, 2013
 - 29 areas in 16 states designated (*Only NH in Region 1*)
 - Attainment plans due April 2015
 - Judicial challenges filed for three areas designated NA and regarding EPA's approach to designations in general
- Strategy includes two additional future rounds of initial designations based on modeling (2017) and monitoring (2020) data to be submitted by states
- Deadline suits filed by Sierra Club and several states requesting court to order EPA to issue final designations for all remaining areas with timeframes ranging from a couple months to 2 years from date of order

2010 SO₂ NAAQS Implementation



- SO₂ Data Requirements Rule
 - Objective is to provide information to EPA in an orderly fashion to inform initial area designations for areas not designated in 2013
 - Proposal targeted for spring 2014 and final in late 2014
- 1-hr SO₂ NAAQS Nonattainment SIP Elements Guidance
 - Objective is to provide assistance to areas developing their nonattainment area plans
 - Draft provided for air agency review in October 31, 2013
 - Expected to be issued in April 2014
- Status of Next SO₂ NAAQS Review (primary and secondary)
 - At the beginning stages of the review

Regional Haze



- Final EPA action on the Connecticut Regional Haze SIP was signed on April 26, 2013.
- The Regional Haze Rule requires States to submit, as a SIP submittal, a “5-year progress report” (40 CFR 51.308 (g) and (h)) intended to provide progress on, and, if necessary, mid-course correction to, the regional haze SIP.
- The report must include:
 - The Status of Control Strategies in the Regional Haze SIP;
 - Emissions Reductions from Regional Haze SIP Strategies;
 - Visibility Progress (States with Class I areas);
 - Emissions Progress;
 - Assessment of Changes Impeding Visibility Progress;
 - Assessment of Current Strategy;
 - Review of Visibility Monitoring Strategy (States with Class I areas); and
 - Determination of Adequacy.

5-Year Progress Report Schedule for New England States



State	Initial RH Submittal	5-Year Report Due
Rhode Island	August 7, 2009	August 7, 2014
Vermont	August 26, 2009	August 26, 2014
Connecticut	November 18, 2009	November 18, 2014
New Hampshire	January 29, 2010	January 29, 2015
Maine	December 9, 2010	December 9, 2015
Massachusetts	December 30, 2011	December 30, 2016

Sewage Sludge Incinerator (SSI) Rule



- ***Emission Guidelines for Existing SSI Units***
 - 40 CFR Part 60, Subpart M
 - Published in Federal Register March 21, 2011
 - Regulates *only* units that incinerate sewage sludge *at* wastewater treatment plants
 - Creates two subcategories
 - Multiple hearth
 - Fluidized bed
 - Establishes opacity limits and emissions limits for nine pollutants
(based on maximum achievable control technologies [MACT])
 - Mercury
 - Lead
 - Cadmium
 - Hydrogen chloride
 - Particular matter
 - Sulfur dioxide
 - Carbon monoxide
 - Dioxins/furans
 - Nitrogen oxides

Sewage Sludge Incinerator (SSI) Rule

(cont.)



- ***Emission Guidelines for Existing SSI Units***

- Emission guidelines are not self-implementing
- Enforceable mechanism must be developed by:
 - State, through a regulation and EPA-approved state plan, or
 - EPA, through a federal plan under CAA section 63
- States that do not develop state-specific regulation and subsequent state plan can opt to take delegation of EPA's federal plan
- Connecticut has expressed interest in taking delegation of federal plan

- ***Federal Plan for Existing SSI Units***

- Proposed federal plan undergoing internal review
- Expected to be signed within the next few months
- Final federal plan expected by end of 2014

- ***Compliance Deadlines***

- March 21, 2014 - Non-Title V SSI-applicable facilities were required to submit permit application to permitting authority
- March 21, 2016 - Expected initial compliance date

Sewage Sludge Incineration Units in Connecticut





Questions