Environmental Regulatory Update

Environmental Advisory Group

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SENIOR ANALYST
Major Regulatory Actions Impacting Electric Generators

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Sources: EPA; RGGI; MJBA
CHANGES IN FEDERAL ENVIRONMENTAL REGULATORY POLICY
Executive & Legislative Actions May Potentially Affect Electric Power Sector

Greenhouse Gases (GHG)
- Clean Power Plan under review
- New Source Standard under review

Criteria Pollutants
- Ozone ($\text{O}_3$) 8-Hour Standards implementation (2008 & 2015)
- Sulfur Dioxide ($\text{SO}_2$) 1-Hour Standard implementation (2010)
- Regional Haze

Water
- Disapproval of Waters of the United States Rule
- Petition of reconsideration for power plant wastewater limits

Clean Power Plan and New Source Rule

- Directs EPA to immediately take all steps necessary review and to suspend, revise, or rescind the following:
- Directs *EPA to review and suspend, revise, or rescind any guidance and memoranda published in conjunction with the CPP*

Prior Administration Climate Guidance and Executive Orders

- Revokes several executive orders and presidential memorandum issued during the Obama Administration relating to climate change
- Directs agencies to suspend, revise, or rescind (or propose rulemakings to take such actions) any agency actions specified in the rescinded executive orders and presidential memorandum

Social Cost of Carbon

- Disbands the Interagency Working Group on the Social Cost of Carbon and withdraws its various reports and technical updates going back to 2010
- Instead, directs whenever government action requires monetizing the value of changes in greenhouse gas emissions, agencies will rely on an earlier OMB Circular A-4 (September 17, 2003)
Domestic Energy Resources

- Directs agencies to review all rules, guidance, or policies that “burden” the development of domestic energy resources (burden is defined as: “unnecessarily obstruct, delay, curtail, or otherwise impose significant cost on the siting, permitting, production, utilization, transmission, or delivery”)
- Agencies are to submit a draft plan within 45 days (May 12, 2017) to OMB and others, submit a draft final report with recommendations for removing “burdens” within 120 days (June 26, 2017) with a final report due in 180 days (September 28, 2017)

Oil and Gas Extraction Rules

Federal Lands Coal Leasing Moratorium
Proposed Fiscal Year 2018 EPA Budget

*Actual Budget May Differ Dramatically from Proposed*

**EPA Budget Proposal Impacted by Changes in Federal Policy**

- **March 16, 2017:** Administration announced 2018 Budget request for EPA proposes a 31% reduction from $8.2 billion (FY 2017) to $5.7 billion (FY 2018)

- Direct grants to State & Local Air Quality Agencies would decline from $227.8 million (FY 2017) to $159.5 million (FY 2018 proposed)

- In New England several air quality agencies already at lower staffing levels despite expanded regulatory obligations (GHG in particular)
  - Any federal grant reductions to state agencies risk aggravating permitting delays and oversight

*Source: EPA*
Federal funding ranges between 17%-42% varying by year and State agency budget

Source: ECOS
REGIONAL POWER GENERATION ENVIRONMENTAL METRICS
New England Summer Capacity (%) by Fuel Type & Operating Year (2017)

Source: EIA
New England Monthly Generation (GWh) & CO₂ Emissions (Million Short Tons)

Sources: ISO-NE; EPA
Air Emissions Contribution to Energy Costs by Fossil Fuel Type
MERCURY & AIR TOXICS STANDARDS
EPA Review of Appropriate & Necessary Finding

- **April 18, 2017**: EPA asks D.C. Circuit to delay upcoming oral arguments, citing review of April 2016 finding that MATS was appropriate and necessary
- April 2016 appropriate and necessary finding responded to the June 2016 Supreme Court decision finding cost had not been properly considered in the final MATS rule

MATS Litigation

- **May 18, 2017**: oral arguments scheduled on April 2016 finding before D.C. Circuit
  - *Murray Energy Corp. v. EPA*, (No. 16-1127)

Affected MATS Regulations

- Supplemental Finding That It Is Appropriate and Necessary to Regulate Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units, 81 FR 24420 (April 25, 2016)
- National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Steam Generating Units and Standards of Performance, 77 FR 9303 (February 16, 2012)

Sources: EPA: SNL Energy
EPA: Preliminary 24-Month Block Average for MATS Affected Oil-fired Generators in New England

All oil-fired generators appear below MATS 8% capacity factor limit. Emissions data indicates some are co-firing natural gas, which doesn’t factor into MATS compliance.

Source: EPA
CRITERIA AIR POLLUTANTS REGULATORY DEVELOPMENTS
OZONE REGULATORY UPDATE
Ozone Trends in Connecticut

Days Exceeding 8-Hour Ozone Standard

* 2016 Data Preliminary and Subject to Change

Source: EPA
Attainment Planning: 2008 Ozone Standard (75 ppb)

EPA Actions

- **April 11, 2016**: EPA reclassified CT’s two areas from Marginal to Moderate on; requires submission of attainment and RFP plans by Jan 1, 2017; new attainment date July 2018
- **Jan 17, 2017**: Findings of failure to submit Nonattainment NSR rules issued to CT. *Started sanctions clock.*

State Submittals

- **March 9, 2016**: Emission Inventory – *submitted*
- **Jan 24, 2017**: RACT SIP – *submitted July 17, 2014; Sept 16, 2016; March 9, 2017*: Nonattainment NSR certification – *submitted*
- **Jan 17, 2017**: Attainment Plan: Greater CT Area – *submitted; MVEBs deemed adequate Mar 20; plan currently under review*

Source: EPA
Preliminary 2014-2016 Ozone Design Values for the Northeast (8-hour)
2015 Ozone NAAQS Designations Timeline

- **2015**: New Ozone (70 ppb)
- **2016**: States and Tribes suggest ozone nonattainment areas
- **June 2017**: EPA notifies states and tribes of any intended modifications to ozone nonattainment areas
- **June 2017**: EPA proposed ozone nonattainment areas, starts 30-day public comment period
- **July 2017**: End of 30-day public comment period
- **August 2017**: States and tribes submit data information on any modification of areas
- **October 2017**: EPA promulgates final ozone area designations

Source: EPA
Connecticut 2008 Ozone Nonattainment Areas

Both Originally Marginal (lowest category)
Connecticut Suggested 2015 Ozone Greater New York City Nonattainment Area Boundaries
New Jersey Suggested 2015 Ozone Greater New York City Nonattainment Area Boundaries

Source: EPA
New Jersey Suggested 2015 Ozone Greater New York City Nonattainment Area Boundaries
EPA Proposes Denial of Petition to Add Upwind States to Ozone Transport Region (82 FR 6509)

EPA Proposes Response to December 2013 Petition

- **April 13, 2017**: public hearing on EPA’s proposed denial of petition expanding Ozone Transport region (OTR)
  - Member states are required to adopt certain rules for emissions sources to address the interstate transport of ozone pollution

- **January 19, 2017**: EPA proposes to deny petition to expand the Ozone Transport Region (OTR) to include 9 additional States (82 FR 6509)
  - Upwind States (Illinois, Indiana, Kentucky, Michigan, North Carolina, Ohio, Tennessee, West Virginia and Virginia)

EPA Cites Other Interstate Transport Rules in Denial

- April Petitioning States submitted analyses intended to demonstrate the 9 upwind States significantly contribute to violations of the 2008 ozone standard
  - (Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island and Vermont)

- EPA indicates that interstate ozone transport rules (including CSAPR) will address issue

Source: EPA
SULFUR DIOXIDE STANDARDS UPDATE
2010 SO₂ Nonattainment Area Designations

Regional Impact Muted Based on Emissions Data

Round 1 Designations

• based on violating monitors, effective Oct 4, 2013
• 29 areas in 16 states designated (Only NH in Region 1)
• Jan 31, 2017: NH submitted its plan on, EPA reviewing

Round 2 Designations

• 61 areas in 24 states (none in Region 1)

Source: EPA
Aug 2015 Data Requirements Rule (DRR)

*States must monitor or model SO₂ levels near Sources*

**EPA Requires SO₂ Data**
- DRR requires air agencies to monitor or model ambient SO₂ levels in areas with largest SO₂ sources

**Affected Sources**
- 375 sources emitting ≥ 2,000 tons per year nationwide
- 4 sources in New England

**Affected States**
- Connecticut, New Hampshire & Maine

**State Submittals**
- Modeling submitted for:
  - Bridgeport Harbor (CT)
  - Newington (NH)
  - Schiller (NH)
  - Wyman (ME)

Source: EPA
REGIONAL HAZE
Regional Haze Northeast Update

Mid-Atlantic/Northeast Visibility Union (MANE-VU)

EPA Actions

• **January 10, 2017**: EPA revised Regional Haze Rule for 2018-2028 planning period (82 FR 3078)
• **June 2016**: EPA proposes draft guidance for 2018-2028 planning period

State Submittals

• **July 31, 2021**: submittal deadline pushed back, New England States, working through MANE-VU, may still submit by original July 2018 deadline
• **2007**: Initial states plans submitted for 2008-2018 planning period

Source: EPA
Areas Requiring Visibility Protection in Northeast Under Regional Haze Rule
MANE-VU April 2017 Update Conclusions

- MANE-VU analysis indicates significant improvements in power plant visibility impact since 2002, particularly since 2011.

- Under certain conditions, power plants as far away as Texas can have detectable visibility impacts in Class I areas.
  - Weather variability can play a large role in mix of power plants affecting areas.

- Nearby power plants have a greater impact due to proximity, even when well controlled.
  - Level of controls and dispatch frequency should be considered in future analyses.

Sources: OTC, MANE-VU
WASTEWATER DISCHARGE REGULATION
Effluent Limitations for Steam Electric Power Generation (40 CFR Part 423)

Review of Discharge Limits May Affect Renewal of Water Permits

EPA Announces Review of Discharge Limits

- **April 12, 2017**: EPA accepts petition for review and stays upcoming compliance deadlines

Petition for Review

- **March 25, 2017**: petition for reconsideration of effluent limits for power plant waste water and for an administrative stay (80 FR 67838 (November 3, 2015))

Request to hold Litigation in Abeyance

- **April 12, 2017**: EPA also announces motion to hold litigation pending review
  - *Southwestern Electric Power Co., et al v. EPA*, No. 15-60821 (5th Cir.)

New Unit Discharge Limits

- EPA announces rulemaking and stay of compliance deadline for new units
Questions