New USEPA Regulations and their Implications for Back-Up Generation

Office of Air and Radiation
U.S. Environmental Protection Agency

Friday, June 8

Overview

- Mercury and Air Toxics Standards (MATS)
- Reciprocating Internal Combustion Engines (RICE) Rules
- Distributed Clean Energy and Clean Air

Mercury and Air Toxics Standards (MATS)

MATS: Background

- Finalized December 16, 2011
- First national standards to reduce emissions of mercury and other toxic air pollutants from new and existing coal- and oil-fired power plants
- Standards will reduce emissions of:
  - Metals, including mercury, arsenic, chromium, and nickel
  - Acid gases, including hydrogen chloride (HCl) and hydrogen fluoride (HF)
  - Particulate matter
- Vital health protections that benefit the most vulnerable—children and older Americans
  - $9 in health benefits for every $1 spent to comply with the rule
  - Annual benefits $37-90 billion
- Ends 20 years of industry uncertainty, leveling the playing field for power plants, and ensuring that modern, proven and widely available pollution controls are installed.

MATS: Cost-Effectiveness, Flexibility, Reliability

- Standards rely on cost-effective and commercially available technology.
  - EPA projects that sources will use a range of controls to meet the standards
- EPA increased flexibilities, including control installation timelines.
  - 4th year provided by the CAA as needed to complete installation of control technologies
  - Pathway for units critical for electric reliability to obtain an additional year
- EPA and DOE analyses show that plants across the country will be able to meet these standards on time, while maintaining more than enough electricity generating capacity to meet our nation's energy needs.
- Price changes for retail electricity will be very small.
  - Will not cause prices to rise even to 1990 levels
  - Rates within the range of normal fluctuations—below 2009 levels

MATS: Implementation and Next Steps

- Federal government working with wide variety of stakeholders to promote early, coordinated and orderly planning
  - Ensuring that the Presidential Memorandum issued with the final MATS rule is implemented
  - Working directly with power plant owners and operators to share information on flexibilities and compliance timelines
- 20 petitions for reconsideration; 30 petitions for judicial review
  - Too soon to say how we'll respond, but we are thoroughly reviewing those that have been submitted.

Proposed Amendments to the Emission Standards for Reciprocating Internal Combustion Engines (RICE)

Stationary RICE Background

- National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)
- New Source Performance Standards (NSPS) for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE)
- NSPS for Stationary Spark Ignition (SI) ICE

Current Standards for Stationary RICE

- RICE NESHAP currently allows most emergency engines to operate without meeting numeric emission limits for:
  - 100 hours per year for maintenance checks and readiness testing, and
  - 15 hours per year for emergency demand response when RTO/ISO determines that a blackout is imminent.

- ICE NSPS currently specifies that engines used under a financial arrangement with another entity (including demand response and peak shaving) are not considered to be emergency engines.

RICE Proposal

- EPA proposes to allow emergency engines to operate for 100 hours per year without meeting numeric emission limits for the following purposes:
  - maintenance and readiness testing,
  - demand response for Energy Emergency Alert Level 2 situations, and
  - responding to situations when there is at least a five percent or more change in voltage.
- EPA proposes a temporary allowance of 50 hours of operation per year for peak shaving, until April 2017, for certain emergency engines.
  - Counts as part of the 100 hours allowed for maintenance and readiness testing, demand response, and voltage change situations.
  - Applies to units at area sources of hazardous air pollutants installed before June 12, 2006.
- Proposed amendments restate that engines can run for any amount of time in a true emergency.

RICE Proposal

- EPA will accept comment on the proposed amendments until July 23, 2012.
- Docket number is EPA-HQ-OAR-2008-0708.
- Final rule anticipated in December 2012.

Distributed Clean Energy and Clean Air

Distributed Clean Energy & Clean Air

- Distributed clean energy resources offers multiple benefits
  - Lowers costs of clean air rule compliance
  - Supports reliability
  - Reduces multiple pollutants, including GHGs
  - Supports local economies, creating new job and local business opportunities
- EPA is recognizing clean energy in air rules
  - Employing output-based standard or alternatives [including credit for the multiple outputs of combined heat and power (CHP)]
  - Offering a roadmap for capturing clean energy in state implementation plans (SIPs) for meeting national air quality standards
- EPA partnership programs also support clean air implementation
  - Supporting markets for energy efficiency, CHP, and renewables
  - Offering objective measurement, guidance, tools and recognition
  - Proposing “connected” functionality in some ENERGY STAR products

Thank You!

- *Joseph Goffman, Senior Counsel to the Assistant Administrator for Air and Radiation, U.S. Environmental Protection Agency*
- *Kevin Culligan, U.S. Environmental Protection Agency*
- *Melanie King, U.S. Environmental Protection Agency*
- *Stacy Angel, U.S. Environmental Protection Agency*