Environmental Performance Standards

The Ozone Transport Commission
Technology and Innovations Committee

September 2000

Environmental Performance Standards

Background

The OTC Technology/Innovations Committee (TIC) has been asked to develop options that States can use to encourage development and use of clean power. Such options should assist new technology, integrate energy and environmental programs and provide air quality benefits. The goal of the TIC effort is to provide the OTC with a menu of measures that can be considered by States, either individually or collectively, with an eye towards the schedule for adoption of additional control measures to attain the one hour ozone standard by October 2001.

Implementation of environmental performance standards (EPS) is one of 14 identified control measures that can help reduce ozone pre-cursors, provide a level playing field for States and provide a glide path for encouraging efficient energy production and use. EPS are output based emissions standards that are applied to each electricity product sold to a retail customer in a particular State. EPS do not apply to specific generating units or wholesale transactions. The resources generating electricity in a portfolio assembled by a supplier may originate anywhere in North America, although typically the bulk of the electricity in each product comes from resources within the same power pool that the customer resides. The NESCAUM model EPS rule serves as a template for States that are interested in adopting EPS for themselves.

Potential Reductions

EPS offer substantial opportunities to significantly reduce NOx, SOx, and other pollutant emissions in the period beyond 2003. Cross-media and HAP benefits can also be realized.

Summer 1999 OTC NOx emissions averaged 0.207 lb/Mmbtu for the eight participating States (total emissions were 174,505 tons). Assuming the 1999 heat input, the phase 3 NOx MOU will reduce emissions to 126,424 tons (48,000 ton reduction) in those eight States during the five month ozone season. During the NESCAUM workgroup process, several generating company stakeholders informed the group that they had no intention of operating their NOx controls during non-ozone season months due to high operating costs. This statement has not been completely borne out by fact. A review of CT NOx data reflects non-ozone emissions rates that are about 12% higher than those during the ozone season. Applying the conservative CT numbers to the eight States on an annual basis, an EPS at the NOx MOU rate could reduce emissions by up to 21,000 tons.[1]

Ancillary benefits will be realized for SOx, and Hg. The NESCAUM model rule anticipates periodic recalibration to reflect increases in electricity demand and changes in environmental standards (for example, Governor's of two States NY and MA have

[1] 126,424 tons over 5 months equals 176,994 tons over 7 non-ozone season months at the 0.15 lb/Mmbtu rate. This rate is approximately the same an EPS of 1.5 lb/MWh. Using the CT numbers as realistic assumptions for non-ozone season behavior, multiply 176,994 by 12% equals 21,239 tons for the eight States. Of course, as more States participate, this number would grow.

announced intentions to decrease NOx and SOx emissions from power plants. Proposed legislation in CT seeks to annualize the OTC NOx MOU numbers and decrease SOx by at least 50%).

Barriers

CT's EPS cannot be enforced until three States with a combined population of 27 million also adopt. NJ's EPS has two tests, one is a market based requiring adoption once other States within PJM with at least 40% of electricity demand also adopt. MA has no impediments to EPS adoption and enforcement. Since EPS apply to retail sales, its intent is to address and encourage clean power markets and to discourage wheeling of dirty generation from outside the effected State(s).

Options

The OTC can pursue a number of options on EPS:

Short-term, State options:
- Use NESCAUM model rule to develop EPS
- Insert EPS placeholder in State that are or soon will enact restructuring legislation
- Engage in dialogue with DPUC counterparts
- Work with respective ISO to develop information systems that promote inter-pool consistency for disclosure and EPS

Long-term, State options:
- Recognize that EPS is linked to many other issues, including disclosure, energy efficiency, systems benefits charges and distributed generation.
- Develop metrics to evaluate program success

Short-term, regional options:
- Promote clean power generation and energy efficiency
- Determine ability for SIP credit for States that adopt EPS

Long-term, regional options:
- Participate in and inform discussions on environmental disclosure
- Assuring effective coordination and communication
- Inform Federal activities

An analysis of the policy and environmental issues surrounding the NESCAUM model EPS rule development is provided at http://www.nescaum.org . The background information document and model rule are provided at and can be downloaded from this web site.