

The next big reliability challenge: EPA revised ozone standard

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NARUC Winter Meeting
Clean Coal Subcommittee
Washington, DC
February 15, 2015

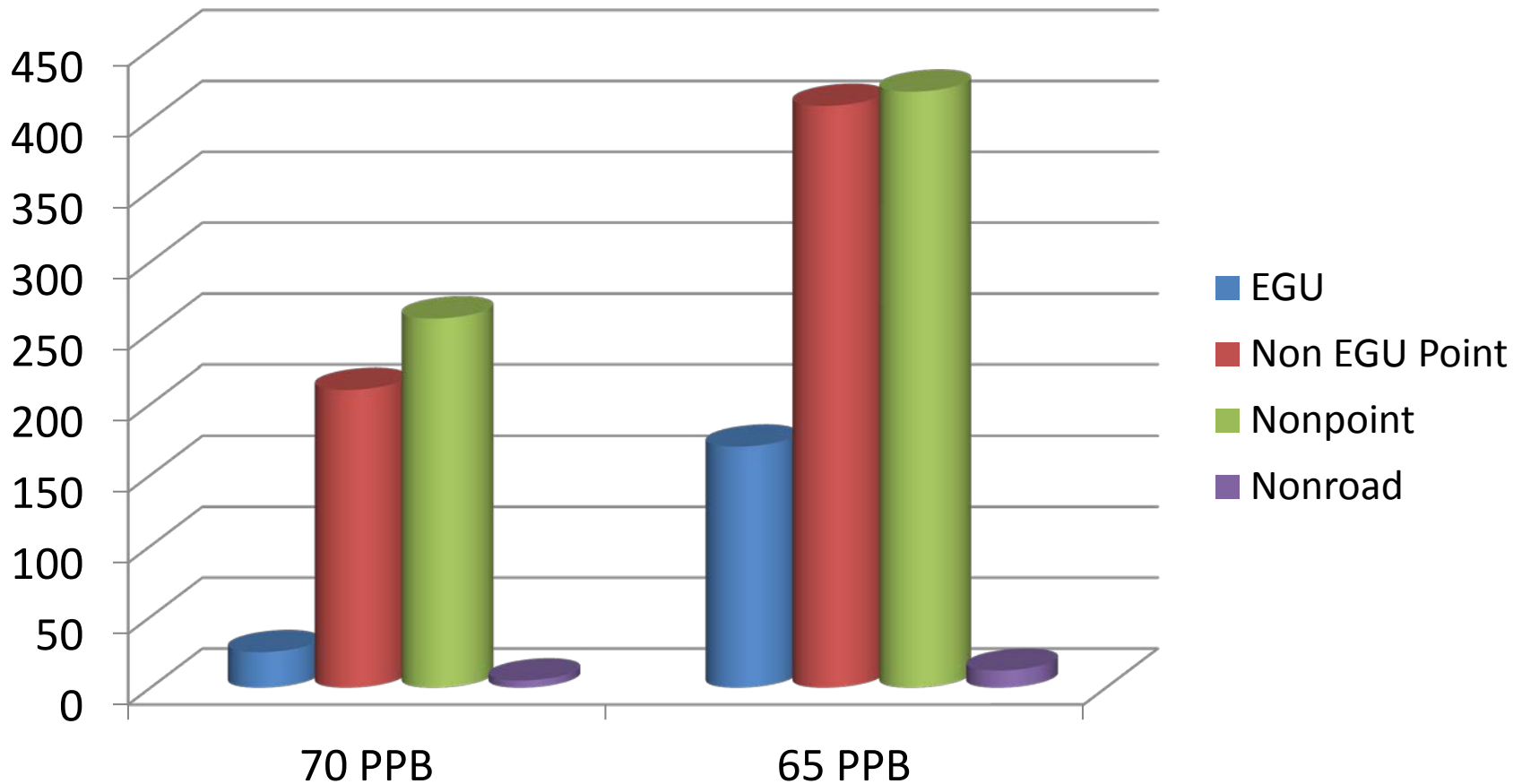
Background

- EPA is proposing to lower the current 75 ppb primary ozone standard to a level of 65 to 70 ppb, and is taking comment on a 60 ppb standard.
- EPA air quality modeling for a revised standard shows substantial areas of ozone nonattainment in 2025 at either 65 or 70 ppb, assuming full implementation of the carbon rule with State Option I, including 49 GW of coal retirements.
- A revised standard would be implemented circa 2023-25 in most areas other than California.

Reliability risks in sum: an additional 50 GW of possible coal unit retirements

- EPA projects that most NO_x reductions needed for attainment of a 65 or 70 ppb standard would come from non-EGU industrial point sources and area sources, with EGU reductions from the retrofit of 7 GW to 51 GW of SCRs on the post-CPP coal fleet (~200 GW).
- These EGU retrofit estimates may be very conservative if states are unable to attain major reductions from industrial and area sources.
- SCR retrofit requirements are likely to induce additional coal plant retirements due to the high capital and variable costs of SCRs.
- If the 49 GW of coal retirements due to the CPP are not included in EPA's modeling (carbon rule is delayed, vacated, etc.), most of this capacity likewise would be subject to SCR retrofits if a standard such as 65 ppb were promulgated.

EPA estimates of NOx emission reductions needed to meet 70 ppb and 65 ppb standards (000 tons/yr)



Note: Eastern U.S. only; assumes Clean Power Plan @ 49 GW coal retirements.

Other implications

- A revised ozone standard likely would trigger a new round of Section 126 petitions aimed at stationary sources, as well as a new EPA NO_x transport rule to replace CSAPR.
- Retrofit/shutdown pressures on coal EGUs may be substantially less at 70 ppb than at 65 ppb.
- The Clean Power Plan – assumed in EPA's air quality modeling – is a wild card for the emission reductions needed to meet any new standard.
- The post-MATS reliability equation is more complex than we may have considered to date.