

Electric Generation on High Electric Demand Days

Summary of Key Information:

- On high electric demand days, nitrogen oxide (NO_x) emissions from electrical generating units (EGUs) increase significantly
- High electric demand days correspond with ozone exceedance days
- Not all EGUs run every day
- In the New Jersey and New York City area, units which primarily operate only on high electric demand days burn gas and diesel and are primarily combustion turbines
- The source of high electric demand day NO_x emissions is different throughout the Ozone Transport Region
- While NO_x emissions from baseload EGUs are being reduced, NO_x emissions from high electric demand day EGUs are not
- Sensitivity modeling for reduced emissions from high electric demand day units shows the potential for region wide emission reductions of 1-2ppb and significantly greater localized reductions
- New Jersey has adopted a rule, which is operative 5/19/09, to reduce emissions from EGUs which primarily operate only on high electric demand days
- When determining the air quality impact of electric generation, not only do seasonal emissions of pollutants need to be addressed but the diurnal nature of emissions must be taken into account.

Recommendation:

Continue to work with the states in the Ozone Transport Region and the USEPA to address emissions from EGUs that operate primarily on high electric demand days.