ARKANSAS ENERGY FORUM

Implications of EPA 2010 Ozone NAAQS Proposal for Arkansas

In January 2010, the Environmental Protection Agency (EPA) proposed a rule to lower the primary National Ambient Air Quality Standard (NAAQS) for ozone from the current 2008 standard of 75 ppb to a level between 60 and 70 ppb. Under the Clean Air Act, areas that do not meet the new standard would then be considered "non-attainment" (NA). An NA designation can hinder economic development and limit business expansion in an already struggling economy. EPA cites no new health studies as the reason for lowering the standard, but believes the prior administration did not go far enough in 2008 when the standard was lowered from 80 ppb to 75 ppb. EPA's proposal would have the following effects in Arkansas:

- Arkansas businesses and individuals would incur control costs of up to $342 million;
- Half of Arkansas's counties with ozone monitors would exceed the new standard under baseline conditions;
- If Arkansas businesses and individuals installed all available emission controls, only 58 percent of the necessary reductions would be achieved, so EPA's proposal may not be attainable; and
- Emissions reductions from unknown controls would be required in most Arkansas counties.

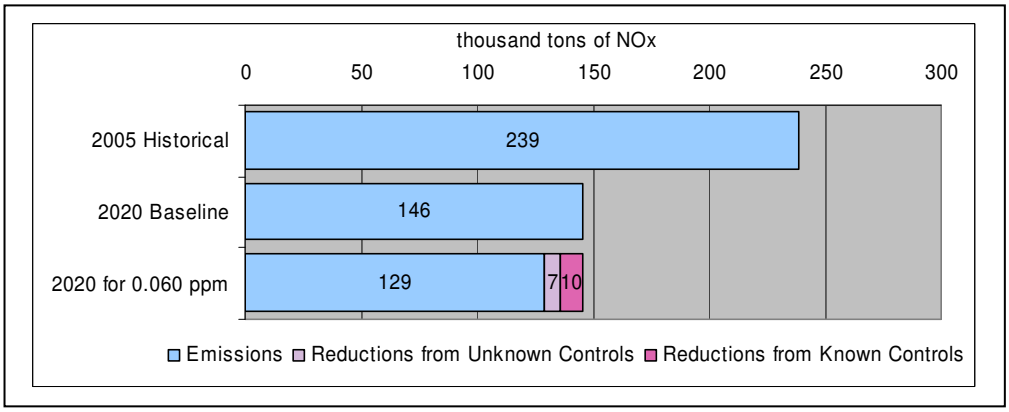
Another Burden for an Already Struggling Economy

Consequences of NA for Little Rock and other urban areas in Arkansas can include the following:

- Restrictive permit requirements that discourage companies from building major manufacturing facilities in the area. These requirements include offsetting new emissions and installing the maximum emission reduction technology without consideration of costs.
- Federal funding for highway and transit projects can be lost unless the state demonstrates that the projects will not increase emissions.
- Costly compliance will make Arkansas businesses less competitive and thus lead to direct employment losses—resulting in larger overall losses through multiplier effects.

Statewide Reduction Requirements

The figure below shows NO_x emissions in Arkansas in 2005, in 2020 under baseline conditions, and in 2020 for a new 60 ppb standard. The standard would require NO_x emissions in 2020 to be 12 percent below their projected baseline level and 46 percent below their 2005 level. Known controls achieve only 58 percent of the necessary reduction from the 2020 baseline. If unknown controls are not available to the extent assumed by EPA, some areas of the state would not be in compliance with the new standard.

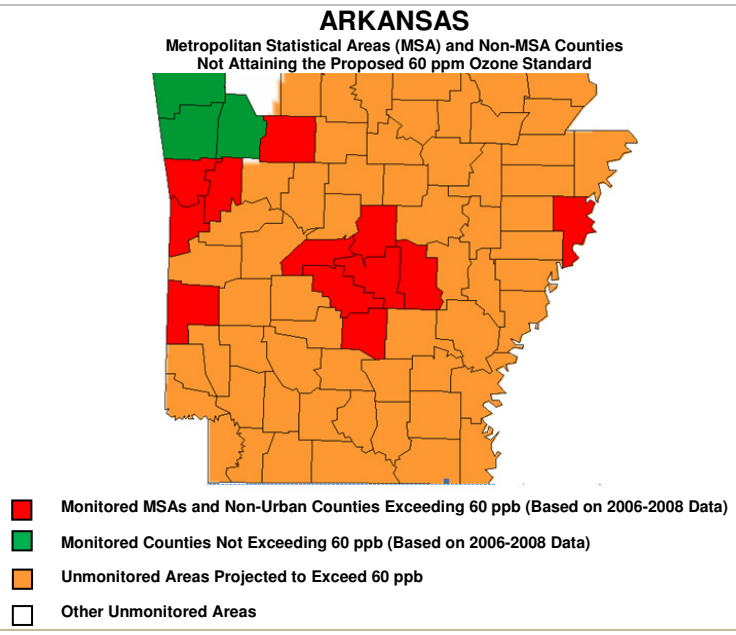


Note: Known controls include EPA's Modeled Control Strategy and supplemental controls. Sources: EPA data in ozone docket

State Impact

The map at right shows projected NA counties, shaded in ■, under a new ozone standard of 60 ppb based on EPA data. Because data are not available for many counties with ■, the actual number of NA counties could be substantially larger than those identified by EPA.

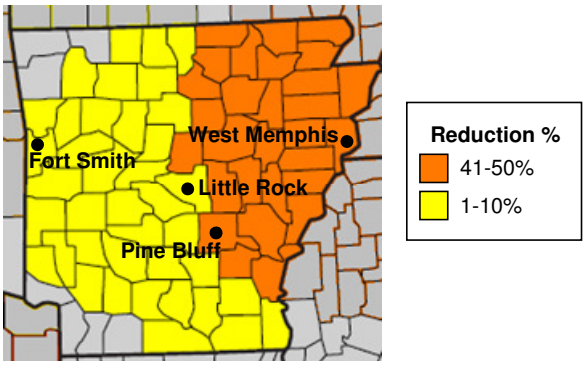
Source: EPA, *Final Ozone NAAQS Regulatory Impact Analysis* (2008), Table 3a.18



Unknown Controls

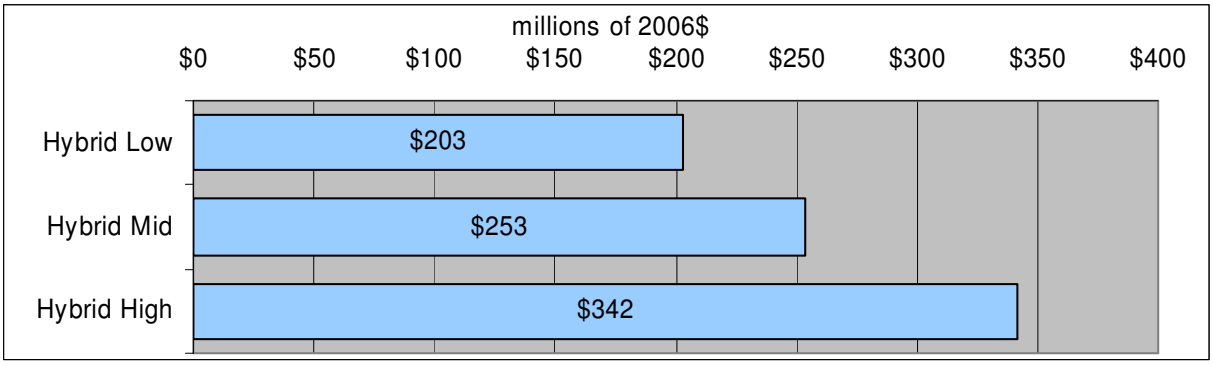
The map at right shows that emission reductions from unknown controls would be required in most Arkansas counties to meet a new 60 ppb standard. Counties in eastern Arkansas would need to reduce emissions 49 percent through unknown controls relative to their emissions in 2020.

Source: EPA, *Supplemental Ozone NAAQS Regulatory Impact Analysis* (2010), Figure S2.2



Unknown Controls, Exorbitant Costs

As demonstrated in the figure below, EPA estimates that under the new standard, emission control costs for Arkansas will range from $203 million to $342 million (assuming these controls can be achieved). The estimates assume that unknown controls become more expensive as the level of necessary emission control increases.



Notes: Cost estimates reflect known and unknown controls for NO_x emissions; Hybrid Low, Mid, and High refer to alternative techniques for estimating the costs of unknown controls assuming marginal costs increase linearly from $15,000/ton with low, mid, and high slopes

Sources: EPA data in ozone docket