

What Could New Ozone Regulations Cost Colorado?



\$18 Billion Gross State Product Loss from 2017 to 2040

24,739 Lost Jobs or Job Equivalents per Year

\$11 Billion in Total Compliance Costs

\$810 Drop in Average Household Consumption per Year

\$1 Billion More for Residents to Own/Operate Their Vehicles Statewide (2017 to 2040)

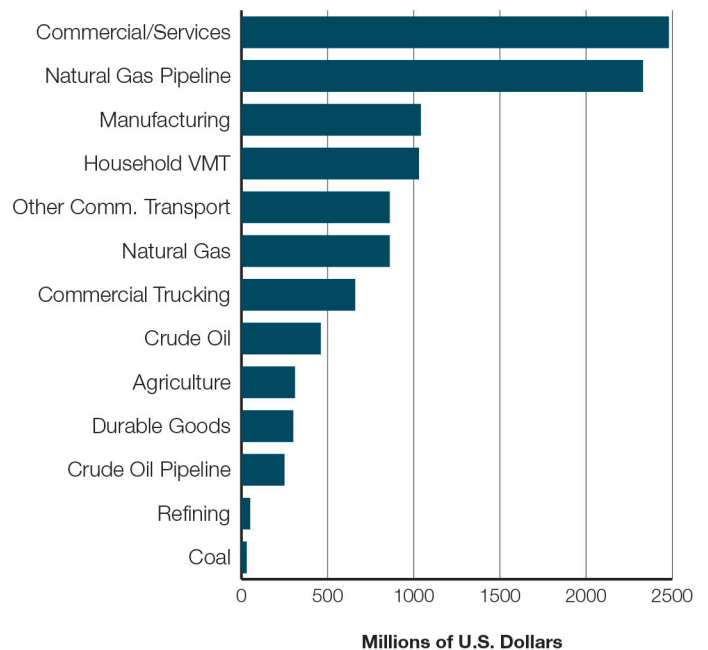
Up to a **15 Percent Increase** in Residential Electricity Prices (National Average)

Up to a **32 Percent Increase** in Residential Natural Gas Prices (National Average)

Expensive New Ozone Regulation Will Put the Squeeze on Colorado

The Environmental Protection Agency's (EPA) new ozone regulation could be the most expensive ever issued on the American public, costing the nation \$270 billion to \$360 billion annually. This regulation would hurt manufacturers and could increase costs for households in Colorado while reducing workers' incomes by the equivalent of 24,739 lost jobs,¹ according to a new study by NERA Economic Consulting and commissioned by the National Association of Manufacturers.² Cities, towns and rural areas across the United States would see reduced economic growth as unachievable permitting requirements prevent businesses from expanding or opening up new operations. Local and state governments would have to revisit vehicle inspection programs. Manufacturers would need to make technical and formula changes to their products and pay for replacement equipment.

Figure 1: Total Compliance Costs by Sector to Meet a 60 ppb Ozone Standard



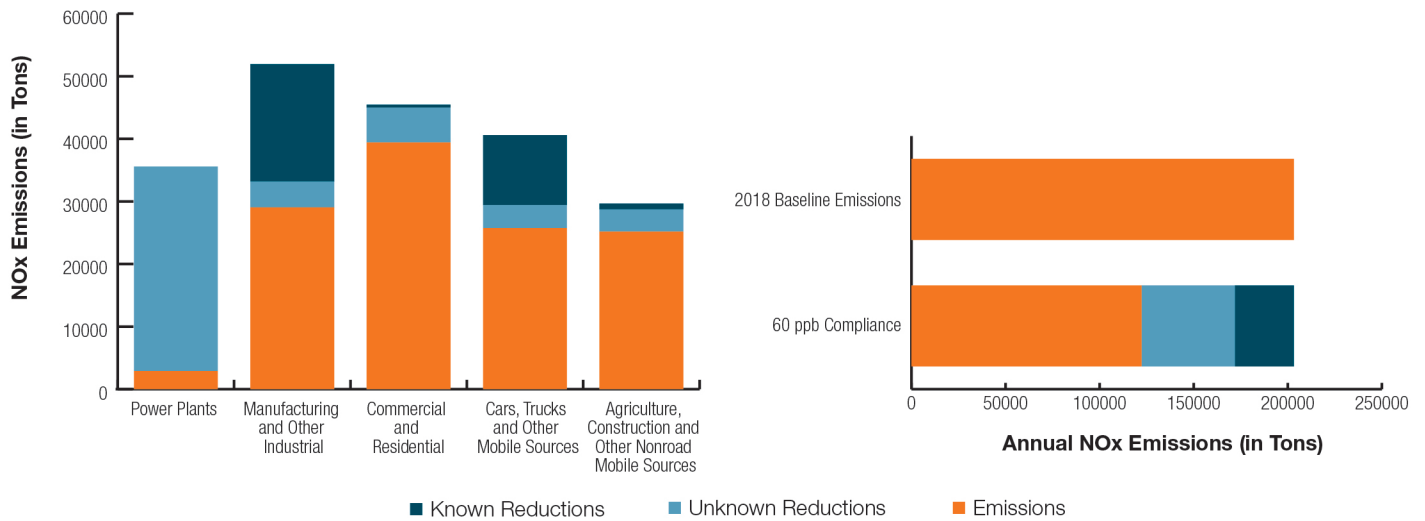
¹ Total job equivalents equal total labor income change divided by the average annual income per job. Job impact estimates represent the average annual impact from 2017 through 2040.

² NERA Economic Consulting analyzed the economic impact of tightening the National Ambient Air Quality Standard (NAAQS) for ground-level ozone to 60 parts per billion (ppb). In its Second Draft Policy Assessment for the Review of the Ozone NAAQS, the EPA indicated it is considering lowering the standard to 60 ppb.

Are These Regulations Even Attainable?

New ozone regulations could cost Colorado tens of billions of dollars to reduce emissions to federally required levels. The EPA has identified only **39 percent** of the controls needed to meet the standard. The remaining **61 percent** of reductions would have to be met with unknown controls that the EPA has not yet identified but which would likely have to include early shutdowns and scrapping of existing facilities, equipment and vehicles.

Figure 2: Colorado Nitrogen Oxide (NOx) Emissions and Known and Unknown Control Measures Necessary to Achieve a 60 ppb Ozone Standard



Early retirement and scrapping of power plants, industrial facilities, heavy-duty trucks and equipment and automobiles would be much more costly ways to remove each additional ton of emissions than the controls the EPA has identified. As a result, while unknown controls are responsible for a significant portion of the necessary reductions, they account for the vast majority of the total costs, as shown in the pie chart below. This reality helps explain the exorbitant costs that would come with a stricter ozone standard.

A Moving Regulatory Target

Air quality continues to improve, and NOx emissions are already down nearly 60 percent nationwide since 1980, which, after adjusting for economic growth, implies a 90 percent reduction in emission rates from the relatively uncontrolled 1990 rates for NOx-emitting sources. Meanwhile, the existing ozone standard that was tightened in 2008 hasn't even been implemented yet. With all the progress we've made and the further investments that will take place without new ozone regulations, now is not the time to move the regulatory target—not at these costs.

Figure 3: Total Colorado Compliance Costs: \$11 Billion

