

Written Testimony

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Environment Subcommittee of the House Committee on Oversight and Reform

Trump's Wrong Turn on Clean Cars: The Effects of Fuel Efficiency and Greenhouse Gas Emission
Standard Rollbacks on the Climate, Car Companies, and California

Rayburn House Office Building Room 2154

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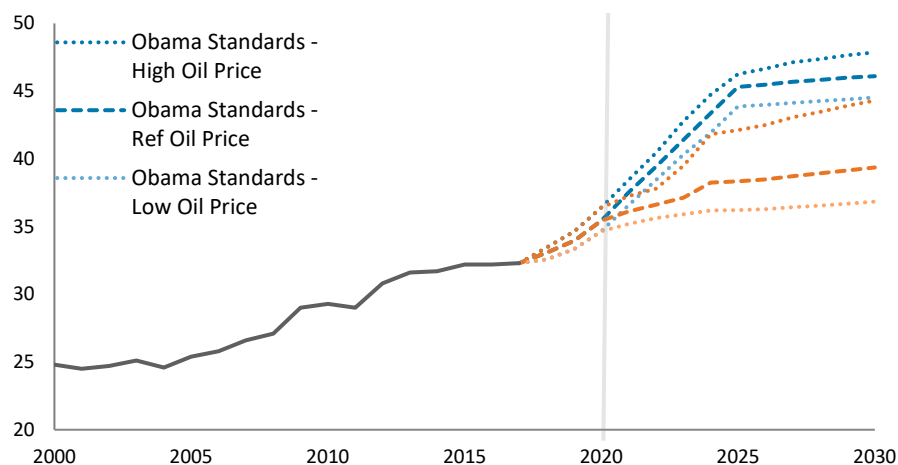
Thank you Chair, Ranking Member, and distinguished members of the subcommittee. My name is Emily Wimberger, and I am an economist at Rhodium Group, an independent firm whose research supports decision-makers in the public, financial services, corporate, and non-profit sectors. Prior to joining Rhodium, I was the Chief Economist at the California Air Resources Board. I want to thank you for convening this hearing today and allowing me to provide some thoughts on the impact of revoking the California waiver.

Impact of CAFE Rollback

In May of 2018, Rhodium Group modeled the impact of the EPA proposal to weaken the Clean Car Standards and the National Highway Traffic Safety Administration (NHTSA) proposal to weaken the Corporate Average Fuel Economy (CAFE) standards for cars and light trucks, which had been harmonized under the Obama Administration, by freezing both standards at 2020 levels through 2025. The analysis was based on Rhodium's annual Taking Stock report, an independent assessment of US greenhouse gas (GHG) emissions and progress made towards achieving the country's climate goals. The analysis finds that the impact of the proposed CAFE and GHG Emission Standards rollback largely depends on which types of cars and trucks people buy—which depends on gas prices at the pump. Higher fuel prices push consumers towards vehicles with smaller footprints, increasing fleetwide average fuel economy and lowering emissions. When prices are low, as they are today, Americans buy bigger cars and the fleetwide average declines and emissions increase. We modeled the potential effect of the proposed rollback under low, mid-range or reference, and high oil prices (from \$32 a barrel to \$258 a barrel for West Texas Intermediate Crude Oil in 2017 dollars) and assumed that California and other states would be prevented from implementing their own, more stringent emission standards (Figure 1).

Figure 1: Impact of rollbacks on fleetwide fuel economy

Miles per gallon, new passenger vehicle fleet average (cars and light trucks), AEO2018 oil price scenarios

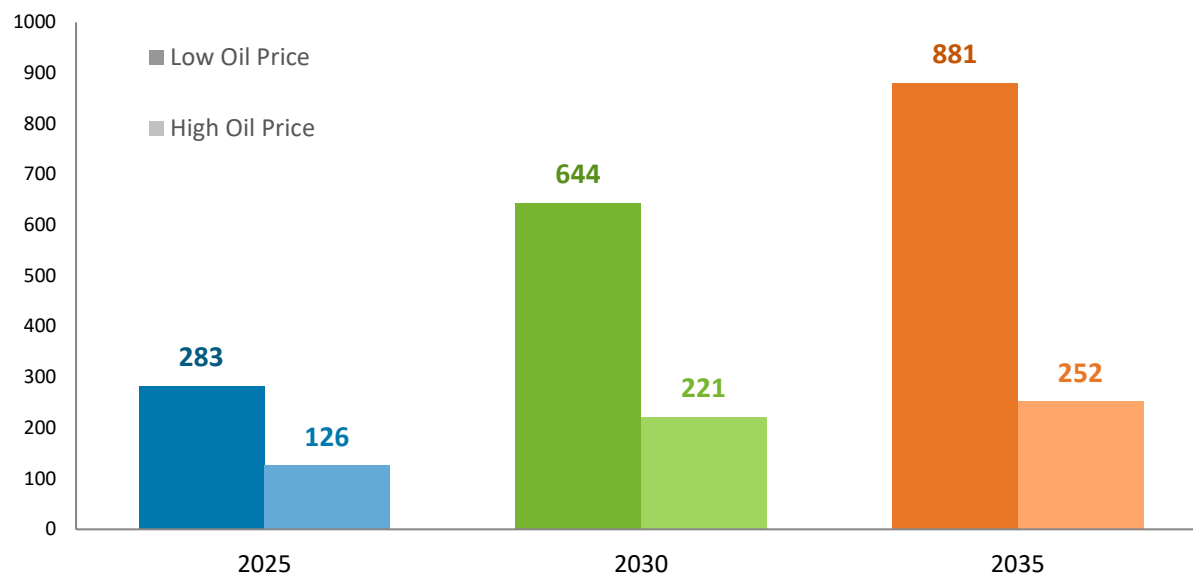


Source: EIA, NHTSA, Rhodium US Climate Service

The Rhodium analysis found that freezing standards at 2020 levels would increase US oil consumption by 126,000 to 283,000 barrels per day in 2025 depending on oil prices. By 2035, the impact grows to 252,000 to 881,000 barrels—assuming no change in post-2025 standards. Purchasing this oil would cost drivers an additional \$193 to \$246 billion between 2018 and 2035, depending on oil prices (Figure 2).

Figure 2: Increase in annual US oil demand from freezing standards at 2020 levels

Thousand barrels per day



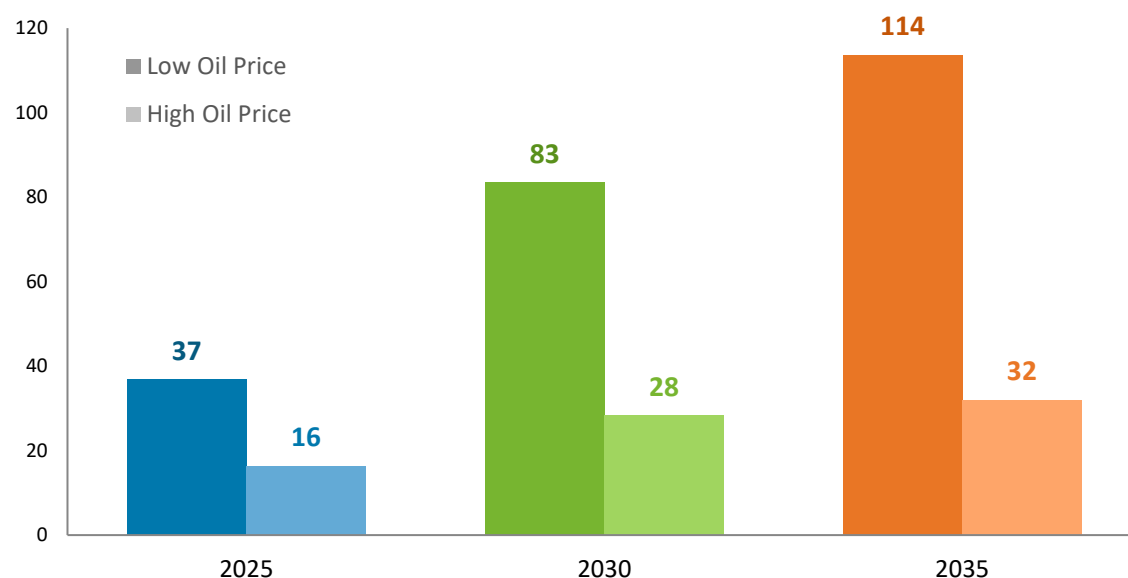
Source: Rhodium US Climate Service

This increase in oil consumption has relatively smaller GHG emissions implications over the near term but grows over time. By 2035, US energy-related carbon emissions will be 32 to 114 million metric tons higher if CAFE and GHG emission standards are frozen at 2020 levels (Figure

3). For context, this represents approximately 2% to 6% of total 2018 US GHG emissions from transportation.

Figure 3: Increase in annual emissions from freezing Greenhouse Gas and CAFE standards at 2020 levels

Carbon Dioxide emissions in million metric tons (MMt)



Source: Rhodium US Climate Service

The California waiver

In September 2019, the Trump administration announced that it was revoking California’s waiver, a move the president [claimed](#) would “produce far less expensive cars for the consumer, while at the same time making the cars substantially SAFER.”

The California waiver allows the state to set its own emission standards for new motor vehicles and was first established through the Air Quality Act of 1967. This unique authority was based on California’s demonstrated leadership in curbing the nation’s vehicle emissions (prior to federal action) and the extraordinary and compelling air pollution problems faced by the state. California’s authority was affirmed in Section 209 of the Clean Air Act of 1970.

Since 1970, the federal government has granted California more than 100 waivers across a wide range of applications with proven air quality and climate benefits, from catalytic converters to Low-Emission Vehicle Standards to the Check Engine Light. California waivers do not expire but may be superseded by new waivers, and no waiver has ever been revoked.

The specific waiver now under fire was issued by EPA in 2013 to cover California’s Advanced Clean Car regulation. It outlined GHG standards for 2017-2025 model year vehicles and

amendments to the regulation that requires auto manufacturers to offer a specific number of zero emissions vehicles (ZEV), including full battery-electric, hydrogen fuel cell, and plug-in hybrid vehicles for sale.

After California obtains a waiver for specified emission standards, Section 177 of the Clean Air Act allows other states that currently or previously have been noncompliant with federal ambient air quality standards to adopt California's standards as their own. To date, 13 states and the District of Columbia—home to roughly 30% of US vehicle sales—have adopted all or part of California's regulations.

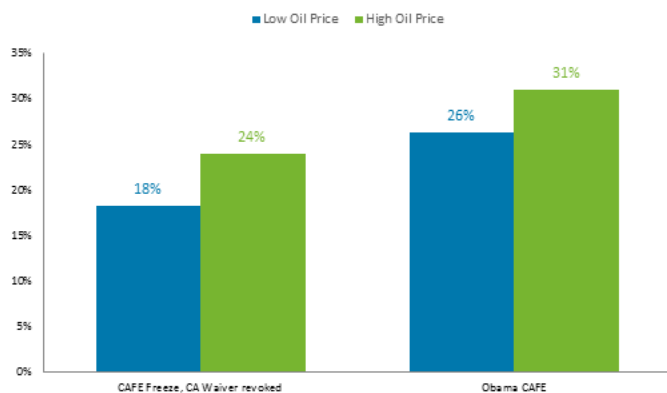
Impact of Revoking the California Waiver

To understand the potential impact of revoking California's waiver, earlier this month, [Rhodium Group updated](#) the [May 2018](#) analysis to capture the impact of ending California and other participating states' authority to set ZEV sales requirements for automakers.

Relative to the existing Obama administration's harmonized GHG emission and CAFE standards, we estimate that revoking the California waiver and freezing fuel efficiency standards at 2020 levels will reduce ZEV sales by 7 to 8 percentage points in 2035, depending on the projected price of oil (Figure 4). This translates to about 12 to 14 million fewer ZEVs on the road by that year. In our modeling, roughly three-quarters of the ZEV sales lost can be attributed to weaker fuel economy and GHG emission standards nationwide, while the other quarter is due to the rollback of ZEV programs that would have boosted sales in California and the other participating states.

Figure 4: ZEV sales share in 2035

Percent of total US vehicle sales

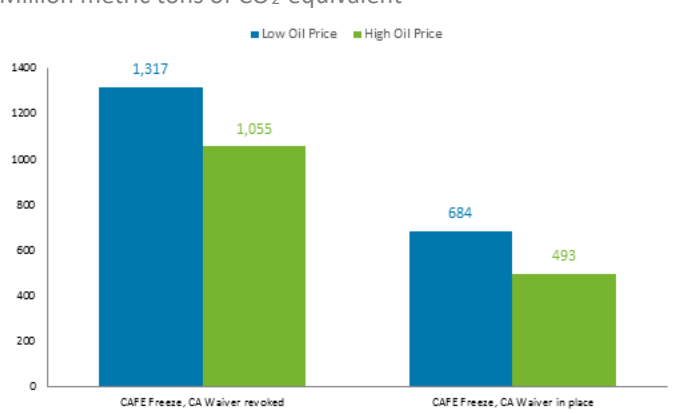


Source: Rhodium US Climate Service. The results reflect potential ZEV sales under a range of likely oil prices and central electric vehicle battery cost assumptions from Rhodium’s Taking Stock 2019 report.

Our estimates also show that revoking the California waiver will increase GHG emissions. From 2020 to 2035, we estimate that rolling back the GHG emission and CAFE standards and the California waiver could increase emissions by 1,055 to 1,317 million metric tons cumulatively relative to Obama-era rules (Figure 5). If instead the waiver holds and California and Section 177 states maintain their own Obama-era GHG standards and keep their ZEV program in place, emissions rise by less than half as much over the same time frame. For comparison, total US GHG emissions from transportation were roughly 1,900 million metric tons in 2018.

Figure 5: Cumulative emissions impact of freezing GHG emission standards and CAFE and revoking waiver, 2020-2035

Million metric tons of CO₂ equivalent



Source: Rhodium US Climate Service. Ranges reflect potential transportation GHG emissions under a range of likely oil prices and central electric vehicle battery cost assumptions from Taking Stock 2019.

Conclusion

Revoking the California waiver creates uncertainty for automakers, as to which GHG standards will be in force in the coming years. In September, along with 22 other states, Washington DC, Los Angeles, and New York City, California filed a federal lawsuit against the Trump administration challenging the decision to revoke the waiver. And just yesterday, another group of automakers further escalated this fight, siding with the Trump administration. This is expected to be a lengthy legal battle. EPA and NHTSA are expected to finalize the rollback of the federal standards later this year, which will presumably also lead to protracted litigation. At the same time, California is embroiled with the EPA and Justice department over the state's [discussions with automakers about voluntary actions](#) that could circumvent the proposed rollback of the GHG emission and CAFÉ standards.

Revoking the California waiver could have a meaningful impact on the US's ability to reduce GHG emissions in line with the goals of the Paris Agreement. Rolling back national fuel economy and GHG emission standards and revoking California's waiver could reduce the share of ZEVs sold in 2035 by up to 8 percentage points nationwide, which could mean up to 14 million fewer ZEVs on the road by that year. The rollbacks could also boost GHG emissions by more than a gigaton from 2020 to 2035.

Revoking the California waiver will also adversely impact air quality in areas of the country that do not currently meet federal health-based standards. In California, the waiver is a critical component to the state's ability to meet federal air quality standards. California has the only two "extreme non-attainment" areas in the country for ozone, the Los Angeles and the San Joaquin Valley air basins. Nearly 20 million Californians live in these extreme non-attainment areas and suffer from high rates of asthma and cardiopulmonary disease. Revoking the California waiver will jeopardize California's ability to meet existing ambient ozone air quality standards in 2031 in the Los Angeles basin—potentially impacting the health of 12 million people in a region that is not currently [meeting federal standards](#) at a time when increasing impacts of climate change will only exacerbate air quality challenges.

Thank you again for the opportunity to testify today.