

Background / Recent Developments with Electric Vehicles and Oil Refiners

On January 28, General Motors (GM) made a splash with its [aspirational aim](#) to sell only “zero-emission” vehicles by 2035. This announcement came just a day after President Biden signed an [executive order](#) directing federal officials to devise a plan for converting government vehicle fleets to “clean and zero-emission vehicles.” Shortly after, Reuters ran an [exclusive story](#) about oil refiners trying to get ag and ethanol groups to help them fight electric vehicles (EVs).

While ACE has concerns about the EV bias that exists in the public domain, we strongly caution you against doing oil’s dirty work for them. Instead, we are arming you with the following background explaining how increasing the use of ethanol and EVs will be necessary to address pressing climate concerns.

Take a Deep Breath. GM’s EV Goal is Aspirational and Depends Upon Others to Step Up

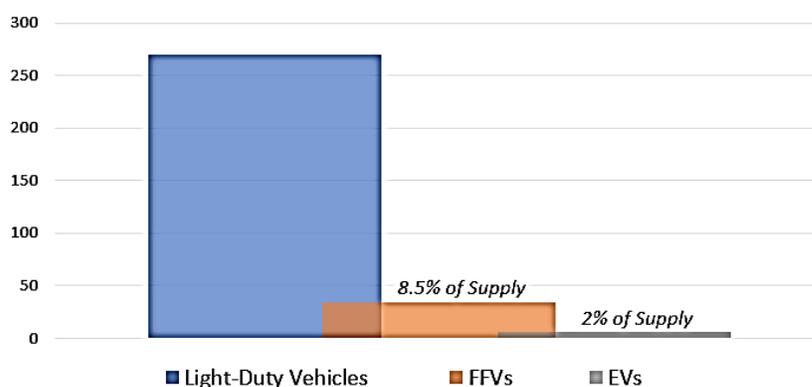
Despite the hype surrounding GM’s EV plan, the company admits it is an aspirational goal and hinges upon the government and others to step up to help them fulfill it. For example, it depends upon continued government tax incentives to try and entice consumers to keep buying EVs, massive public-private investment in charging stations and improvements to the electric grid, not to mention steps automakers need to take relative to extending the driving range for EVs.

Recall that in 2006 GM aired a [“Live Green, Go Yellow”](#) Super Bowl ad, following enactment of the RFS in Congress. GM was looking to seize on the popularity of ethanol at that time by pledging its allegiance to Flexible Fuel Vehicles (FFVs). While GM and other automakers did ramp up FFV production, most did not make good on the lofty promises they made. This time around, GM is backpedaling from previously siding with former President Trump’s rollback of CAFE-GHG standards and stripping California of its ability to have its own standards, in the hopes of improving its public image and appealing to President Biden. GM’s 2021 [Super Bowl ad](#) touts the company will make available 30 new EV models by 2025 to get “EVERybodyIn” on their vision for an all-electric future.

Perspective: EV Sales Vs Supply

Media reports tend to hype EV sales projections, but do not provide sober analysis to distinguish between EV sales and on-the-road supply. In 2019, 17 million light-duty vehicles were sold in the U.S., but just 730,000 were EVs, accounting for about 4% of sales. Currently there are 270 million light-duty vehicles in the U.S., 23 million are FFVs, and only 6 million are EVs. FFVs are 8.5% of supply, EVs are just 2% of supply, and 95% of U.S. vehicles can legally use E15. It’s also worth noting 87% of EVs are hybrids which also use liquid fuel. In fact, electric only vehicles are 0.3% of total light duty vehicles, meaning even after a decade of dramatic increases in the sales of EVs, 99.7% of all U.S. light duty vehicles still use liquid fuels. Of the 1 billion light-duty vehicles on the road across the globe, 8 million are EVs, accounting for 0.8% of worldwide supply.

Light-Duty Vehicles in the US Today - Share of EVs, FFVs
(Millions)



While EV numbers will increase in the future, it is safe to say ethanol will also be needed through this century to power the millions upon millions of vehicles with internal combustion engines (ICEs) that will remain on the roads.

[Both Ethanol and EVs are Required to Reach Net-Zero Emissions by 2050](#)

Congress and the Biden administration are laser-focused on how to achieve net-zero carbon emissions in the U.S. by 2050, leaving ethanol producers and farmers with a choice: Do we stand on the sidelines and let others engage on climate policy? Do we join forces with the oil refiners to attack EVs, essentially doing oil's dirty work for them? Or do we join the discussion about how to meet the decarbonization goal?

Standing on the sidelines, or worse yet, doing oil's dirty work to protect the status-quo liquid fuel market, puts us on defense and gives environmental advocates reason to label ethanol as part of the climate problem. The smarter choice is to resist temptations to attack EVs, and instead go on offense to position ethanol as part of the climate solution.

Last week the Rhodium Group released a compelling [report](#) indicating even under most aggressive sales projections, EVs alone will not accomplish the goal of Biden and Congress to reach net-zero emissions by 2050. Rhodium explained that increased reliance of clean fuels (and efficiency standards) will be needed to close the emissions gap. This was followed by an equally compelling [report](#) by Harvard, validating what ACE been saying all-along; corn ethanol GHG emissions are 50% cleaner than gasoline.

Rather than playing defense to protect the status-quo market with oil refiners, ACE believes our path forward involves joining forces with proponents of EVs to pursue new, technology-neutral policies to decarbonize fuel and grow our market. We need to break out from the status-quo, not embrace it. ACE's vision is to ensure ethanol secures a larger percentage of the liquid fuel supply; even as overall fuel use shrinks.

[Addressing EV Bias is Fair Game, But We Caution Against Attacking EVs for Oil Refiners](#)

While meeting decarbonization goals requires more EVs on the road and increased use of higher ethanol blends, it is fair game to point out certain biases that exist in how regulators and media treat each low carbon technology.

For example, many EVs today are powered by electricity generated from coal or natural gas (especially in the Midwest and the Southeast). These vehicles are not "zero-emission." Since fossil fuels still account for 63% of all U.S. electricity generation, the use of ethanol achieves more meaningful greenhouse gas (GHG) reductions than EVs in certain cases. As a matter of fact, in an analysis ACE and others did to model possible carbon intensity reductions for fuel in Midwest states, blends such as E15, E30 and E85 delivered quicker and lower cost GHG reductions than EVs.

Furthermore, it is fair to insist upon apples-to-apples comparisons with respect to the lifecycle greenhouse gas emissions from ethanol and EVs. For example, if land use change penalties are going to apply against corn ethanol's carbon intensity, similar indirect effects should be charged for mining lithium and other minerals/materials used to make batteries for EVs.

Addressing EV bias is fair game, but we strongly caution against attacking EVs on behalf of oil refiners. Through the decarbonization lens, ethanol and EVs have much more in common than ethanol and oil. The sooner we get comfortable with this political and scientific reality the better.