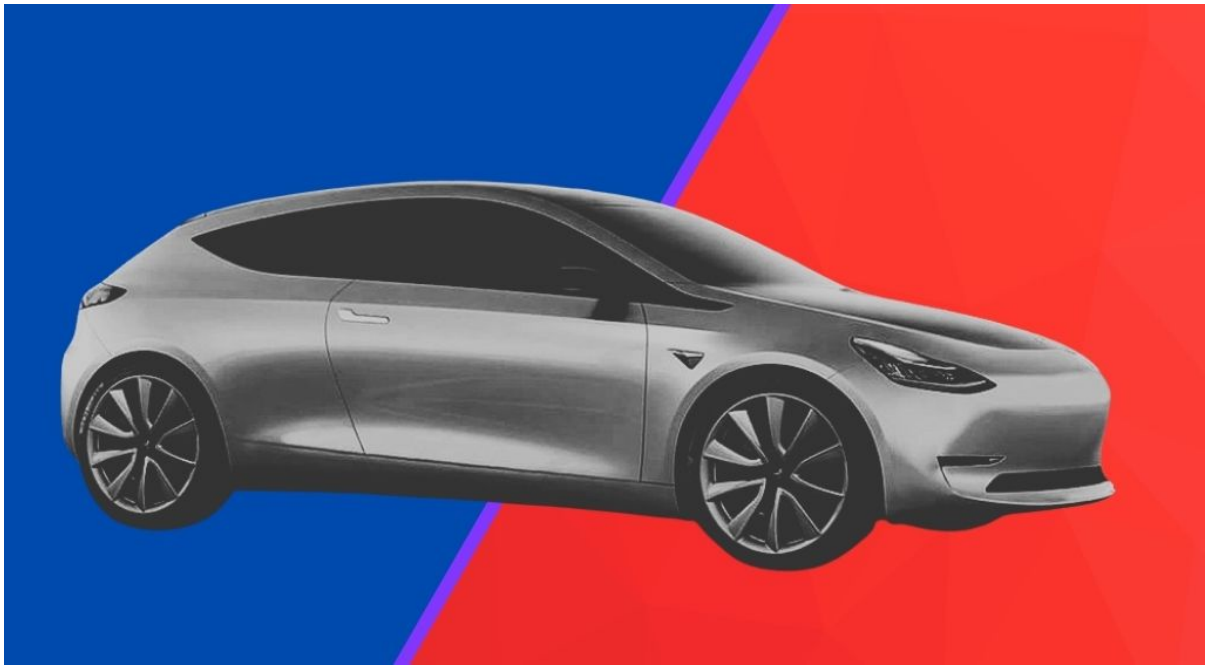

If you have somehow managed to escape the frenzied political headlines about electric vehicles, first I envy you and second, I must regrettably inform you that the EV has become an acronym of partisan rancor on par with IVF, DEI, and CRT. There's a lot of reasons for this electric car culture war: President Biden has made EVs central to his climate and economic policies. They intersect with labor politics and growing tensions with China. And cars remain a symbol of American freedom, so the idea of regulating them is an easy boogeyman for Republicans who want to exploit the rural-urban divide.

It's tempting for climate policy people to just ignore the car culture war, given the fact that electric vehicles will almost certainly, inevitably, dominate the auto market in the near future because of automakers themselves. "Sometimes when these debates happen," Transportation Secretary Pete Buttigieg said recently on Fox News, "I feel like it's the early 2000s and I'm talking to people who think we can just have landline phones forever." So true. And yet, EV misinformation is only going to increase from now until November so it's worth paying close attention to public opinion around electric cars and trying to set the record straight.

That is the thinking behind a new report on EVs by Potential Energy, a nonprofit marketing firm that works to support climate action. So, are most Americans down on electric cars? No, but the margins are tighter than you might think.

Whereas polls repeatedly show that Americans broadly support the transition to cleaner

energy in general, the support vs. opposition for EV programs specifically is a much closer call, according to Potential Energy's report. Programs that "promote American leadership in EV manufacturing and production" generate 53% support, with support outnumbering opposition 3:1. Programs that "increase access and affordability of EVs for all" generate 51% support, with a 2:1 support-to-opposition ratio."' The report is based on findings from two national message tests, a state-specific online survey, a national digital ad test, and six national focus groups. All told, responses were collected from nearly 60,000 people. The surveys were conducted between October 2023 and February 2024, so just as this car culture war was revving up.

Not surprisingly, the report finds that Democrats are more likely to support government EV programs than Republicans (68% of Democrats support programs that increase access and affordability compared to 33% of Republicans do.) The report's authors concluded that purposeful, partisan misinformation about EVs were partly to blame for that 35-point divide. More than half of Independents and three-fourths of Republicans did not believe that "EVs help tackle climate change," largely driven by concerns about the grid's energy sources (i.e., if clean cars are charging off a dirty grid, they, are just as dirty). They point to news stories that talked incorrectly about "gas car bans" as contributing to the misconceptions.

A "ban on gas cars" is not a thing. But people raised it in the focus groups that Potential Energy conducted for this survey. That's exactly what oil and gas companies want. The American Fuel & Petrochemical Manufacturers trade group just launched a major seven-figure misinformation campaign of oil industry propaganda across 7 critical states—Pennsylvania, Wisconsin, Michigan, Nevada, Arizona, Ohio, and Montana—and D.C. It's aimed at lying to Americans about the Biden administration's efforts to clean up air pollution and tailpipe emissions from gas and diesel cars by incorrectly labeling it a "ban" on these cars. The campaign's new television ads are BS and hopefully get called out as such.

The Potential Energy report concludes that the core messages that are most convincing are that EVs reduce pollution and reduce the cost of driving.

Which brings me to something dumb that J.D. Vance said on X that stumbles upon this EV messaging question. The Republican junior senator from Ohio senator tweeted that "between wear and tear on tires, road damage… mining practices, the environmental cost of EVs is radically understated." That statement is misleading, but hardly new. Senate Republicans introduced the DIRT Y CAR EV Act that would have directed federal officials to study the "total carbon footprint" of EVs with the faulty suggestion that they're worse than traditional cars.

Now, EVs are less destructive for one obvious reason: they have zero tailpipe emissions. But even cleaner cars have related emissions from the manufacturing process to the junkyard—so-called "lifecycle emissions." And EVs are more resource-intensive (and carbon-intensive) to build because they are heavier, thanks to a much larger battery. So, what evidence should be thrust at people who are mistaken that electric cars might be worse for the environment? Let's break it down with some help from a range of studies that were highlighted recently by Vox and Heated.

Is the manufacturing of EVs worse for the planet?

No, not once you drive them for a while.

Research by the Argonne National Laboratory in Illinois, cited by the US Environmental Protection Agency, suggests that manufacturing EVs produces about 60% more carbon emissions than fossil fuel cars, but those extra emissions are significantly overshadowed by the lower per-mile emissions that it takes to drive them. The point at which their emissions are canceled out—the breakeven point—is at just under 17,000 miles of driving, according to a recent study by BloombergNEF. Analysis by Reuters using Argonne National Laboratory modeling puts it less—13,500 miles for a Tesla 3 to hit the breakeven point. A study conducted by the University of Michigan for the Ford Motor Company found that the

breakeven point came after “1.4 to 1.5 years for sedans, 1.6 to 1.9 years for S.U.V.s and about 1.6 years for pickup trucks” based on the average number of vehicle miles traveled in the U.S. Yet another study by Union of Concerned Scientists calculated the breakeven point to be 21,300 miles. Taking even the most conservative calculation, it takes just two years of driving an EV to make up for the other associated emissions and to start performing better than your average gas-powered vehicle. The International Energy Agency puts it another way: “Over the lifetime of the vehicle, a gas car puts out 4.5 times more carbon pollution” than an electric car. Those 5 studies are more than enough to rebut J.D. Vance and his re-tweeted Breitbart article.

Aren’t EVs running on energy that’s just as dirty as gas?

No. When it comes to driving EVs, it’s true that they are cleaner or dirtier depending on what generates the electricity that is powering the vehicle. If your local utility relies on a heftier mix of coal and natural gas, then plugging your car in to charge does create more pollution. Even accounting for these related emissions, however, driving an EV beats out a gas engine, according to the EPA, which recommends consumers use their Beyond Tailpipe Emissions Calculator to estimate the greenhouse gas emissions associated with charging and driving an EV or a plug-in hybrid electric vehicle where you live.

Driving a Tesla 3 in my Los Angeles ZIP code is calculated to be 70 g/mi CO_2 as compared to 400 g/mi CO_2 from the average new gasoline vehicle’s emissions.

It’s important to note the electric grid is only going to get cleaner each year, with renewable energy now the second-most prevalent U.S. electricity source. EVs are also more efficient: Electric motors convert more than 85% of electrical energy into mechanical energy compared to less than 40% for a gas combustion engine, according to one study.

What about all those minerals?

To my mind, this is the thorniest environmental problem for the auto industry in coming years. As I wrote recently, an EV requires more than 6 times the mineral inputs of a conventional internal combustion car. The U.S. and other countries are in a mad dash to create new production and supply chains for critical minerals. We are cranking up mining operations for lithium, nickel, cobalt, copper, and other minerals. And there’s a lot of pressure to put speed ahead of sustainability.

How governments and corporations ultimately balance these competing tensions could determine whether we can truly say that EVs have far fewer environmental costs up and

down stream, or just create less pollution around your own neighborhood. The need for mining also provides a reminder that consumer products like an expensive new car are not inherently “good” for the planet so much as they are “less bad” for the planet—cleaner, better, but still cars. And that reduce, reuse, recycle still needs to be part of the conversation.

Going back to what Americans think about electric cars. The recent polling by Potential Energy did find some good news for the energy transition: most Americans agree the rise of the EV is inevitable, like Pete Buttigieg told Fox News about debating landline phones. The surveys found that 81% of American—including, notably, 61% of Republicans expect to buy EVs in the future.

So, if we can just get past the highly charged electric car culture war at the heart of the 2024 election, maybe then we can get onto the business of making more Americans excited about trading in their landline for something better.