

Electric car benefits? Just myths

Bjørn Lomborg 11:14 a.m. EST February 19, 2015

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It is time to stop our green worship of the electric car. It costs us a fortune, cuts little CO2 and surprisingly kills almost twice the number of people compared with regular gasoline cars.



(Photo: Thomas B. Shea, AP)

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Electric cars' global-warming benefits are small. It is [advertised](#) as a zero-emissions car, but in reality it only shifts emissions to electricity production, with [most coming from fossil fuels](#). As green venture capitalist Vinod Khosla likes to point out, "[Electric cars are coal-powered cars](#)."

The [most popular electric car](#), a Nissan Leaf, over a 90,000-mile lifetime will emit 31 metric tons of CO2, [based on emissions](#) from its production, its electricity consumption at average U.S. fuel mix and its ultimate scrapping. A comparable diesel [Mercedes CDI A160](#) over a similar lifetime will emit 3 tons more across its production, diesel consumption and ultimate scrapping.

The [results are similar](#) for the [top-line Tesla car](#), emitting about 44 tons, about 5 tons less than a similar [Audi A7 Quattro](#).

Subsidies vs. savings

Yes, in both cases the electric car is better, but only by a tiny bit. Avoiding 3 tons of CO2 would cost less than \$27 on [Europe's emissions trading market](#). The annual benefit is about the cost of a cup of coffee. Yet U.S. taxpayers [spend up to \\$7,500 in tax breaks](#) for less than \$27 of climate benefits. That's a bad deal.

The other main benefit from electric cars was supposed to be [lower air pollution](#). Yes, it might be powered by coal, but unlike the regular car, coal emissions are far away from the city centers where more people live and where damage from air pollution [hits hardest](#).

However, new research in [Proceedings of the National Academy of Sciences found](#) that while gasoline cars pollute closer to home, coal-fired power pollutes a lot more.

The researchers estimate that if the U.S. has 10% more gasoline cars in 2020, 870 more people will die each year in the U.S. from air pollution. Hybrids, because they are cleaner, will kill just 610 people. But 10% more electric vehicles powered on the average U.S. electricity mix will kill 1,617 more people every year, mostly from coal pollution. The electric car kills almost three times as many as a hybrid.

Of course, electric car proponents would venture that the perceived rapid ramp-up of renewables will make future electric cars much cleaner. This, however, is mostly wishful thinking. Today, [the U.S. gets 14%](#) of its electric power from renewables. In 25 years, Obama's Energy Information Administration estimates this will have gone up [just 3 percentage points to 17%](#).

Similarly, fossil fuels generate 65% of U.S. electricity today, and will generate 64% in 2040, although natural gas will gain four percentage points and lead to slightly cleaner power.

Instead of focusing on electric cars, we should focus on making coal-fired power cleaner.

What proponents say

Proponents could also argue that the more mileage an electric car logs, the more its carbon footprint is reduced because the battery production is a significant part of their total emissions.

Yet, it hardly matters. The added mileage saves little in the way of emissions, and the electric car's extended use might mean it would have to [replace](#) its [batteries](#), entirely blowing the climate benefit.

Moreover, because the Nissan gives you only [84 miles on a charge](#), most people [buy it as a second car](#) for shorter trips. If such a second car goes only 50,000 miles, it will actually end up emitting more CO₂.

In the public conversation, electric cars are seen as the new uber-green. But they're nothing of the sort. If we had 25 million extra electric cars rather than gasoline cars on the road in 2020, they would over their lifetime avoid 75 million tons of CO₂ at a [market value](#) of more than half a billion dollars.

However, at present-day subsidies, they would cost a [phenomenal \\$188 billion](#) while [creating more pollution](#) than gasoline cars, costing about [\\$35 billion in lives](#) cut short by poor air quality. For every dollar of cost, the electric car does less than half a cent of good.

For the next decades, hybrids are the way to go, while we innovate cheaper green energy that hopefully over some decades will make the electric car worthwhile.

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