

# Electric Vehicles: Are They Really Green?

Electric vehicles (EVs) are all the rage these days. Everywhere you look, there's a new ad or news story about how they're helping the environment. They're cleaner, they're quieter, and they're supposed to reduce harmful emissions. But, as more and more people get on board with EVs, I've started to wonder: Are they really as green as we think? So, I decided to dig deeper into their environmental impact, from how they're made to what happens when we're done with them. At first glance, EVs seem pretty straightforward. The idea is simple — if we swap gas cars for electric ones, we cut down on tailpipe emissions, meaning cleaner air and less pollution. EVs are also way more energy-efficient. About 90% of the energy from the battery is used to move the car, while a traditional gas car only uses about 30%. Plus, if we charge EVs with renewable energy sources like solar or wind, the environmental benefits are even greater. All of that sounds awesome, right? So basically it would make all of us think that it's the ultimate solution, but is that the case? Like anything else, there's more to the story. Even though EVs have some major benefits, they aren't exactly perfect since obviously nothing is perfect. The environmental costs aren't always obvious, especially when you consider how these cars are made and what happens to the batteries once they're worn out.

## *Why Electric Cars Are Good for the Environment*

It's clear that EVs are a step in the right direction when it comes to protecting the environment. One of their biggest advantages is that they don't produce any tailpipe emissions. For cities suffering from pollution, like Los Angeles or New Delhi, switching to electric cars could significantly improve air quality and people's health. Another reason why EVs are seen as eco-friendly is that they're much more energy-efficient. When you drive an electric car, about 90% of the energy in the battery goes into making the car move. Gas cars, on the other hand, waste most of that energy. This means electric cars use less energy to get the same job done, which helps reduce overall energy consumption. And if we power these EVs with renewable energy, like wind or solar, the environmental benefits just keep stacking up. It's a great way to transition away from fossil fuels and cut back on pollution.

## *The Hidden Environmental Costs of EVs*

But as with anything, there's a catch. While electric vehicles have some serious environmental perks, they also have their downsides. One of the biggest issues is the batteries that power these cars. To make them, we need materials like lithium, cobalt, and nickel, and

mining these materials can be really damaging to the environment. In many cases, it leads to deforestation, water pollution, and the destruction and hindering the local ecosystems. On top of that, the workers involved in mining these materials often face terrible working conditions and low wages, especially in countries where these materials are sourced also are in danger of having health issues. Making the batteries is also very energy-intensive. Depending on where the energy comes from, manufacturing the battery can still cause carbon emissions. For instance, if the electricity used to create the battery comes from burning coal, the car's environmental benefits start to drop.

### *What Happens to EV Batteries When They're No Longer Useful?*

Another issue we have to think about is what happens to the batteries once they're no longer usable. As more people switch to electric cars, there's going to be an increase in the number of old batteries we need to deal with. Right now, battery recycling is not as effective as it should be. If these batteries aren't disposed of properly, they could leak harmful chemicals into the environment, affecting everything from water quality to local wildlife. The good news is, there's a lot of research being done to improve battery recycling. But until that gets better, we still have a long way to go before we can say EVs are fully sustainable.

### *Are EVs Better Than Gas Cars?*

When we compare electric vehicles to traditional gas-powered cars, there's no denying that EVs are much better for the environment. They have fewer emissions and are more energy-efficient. But, we have to look at the bigger picture. Even though EVs are cleaner when it comes to driving, the process of making and disposing of their batteries still has a significant environmental impact.

### *What Can We Do to Make EVs Truly Green?*

We can work on better battery technologies (sustainable battery options) that will make recycling easier, use renewable energy for charging and find better and efficient ways to recycle old EV batteries so that it doesn't harm the environment. Since the more we can recycle, the less waste and fewer toxic chemicals end up in landfills.

While electric cars are a huge step in the right direction, they're not the only solution. We also need to look at reducing the number of cars on the road overall, whether that means

investing in public transportation, building better cycling infrastructure, or encouraging more people to share rides.

### *Conclusion: Are EVs Really Green?*

In the end, electric vehicles are definitely a step in the right direction when it comes to protecting the environment. They're better than traditional gas-powered cars, no doubt about it. But they're not perfect. The biggest challenges still lie in battery production and disposal.

For EVs to be truly green, we need to keep improving battery technology, ensure they're powered by clean energy, and find better ways to recycle used batteries. In the future, EVs will likely become even more sustainable as technology improves. But we also need to take a step back and think about the bigger picture, how we can make transportation as a whole more sustainable, not just focus on the cars themselves.

Electric cars are part of the solution, but we need to keep pushing forward with new ideas, better recycling, and cleaner energy. That's the only way we'll be able to create a truly sustainable future.

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