

## Electric transport a focus point in multilateral climate policy and global energy shortages

### The case for electric transport

Vehicles support every sector of modern life, both at the local scale of a daily commute to work and the global scale of shipping food on a trans-Atlantic voyage. Transport powers the world, but how do we power transport?

Vehicles with an [internal combustion engine](#) are responsible for ten gigatons of climate pollution per year. Transport that runs on gas and diesel will contribute \$6 trillion in climate-related damages over the next 40 years, leading to premature asthma and extreme weather events such as flooding.

Electric vehicles (EVs) are a sustainable alternative, bringing cleaner air to communities and a healthier future for the planet. A key step to their widespread adoption is meaningful legislation on a global scale. Even the [World Bank](#) agrees.

One [Department of Energy](#) study found that EVs create 7,000 fewer pounds of CO<sub>2</sub> equivalent per year. Their footprint further reduces in places like Norway, a country that uses hydropower to produce most of its energy.

Let's talk [batteries](#). Though EVs with lithium-ion batteries are more [carbon-intensive](#) to manufacture than gas cars, battery-electric cars create [far fewer emissions](#) over their lifetime. Electric vehicles (EVs) are greener forms of transport than the polluting tailpipe, especially when one looks at their lifetime emissions.

### Background on electric vehicles

Vehicle emissions contribute to the decades-long issue with smog in California. The rise of diesel engines led Georgia to rise to the top of global [air pollution charts](#). But the issue transcends one state or even one country, as [99% of global citizens](#) breathe in air pollution levels that exceed limits set by the World Health Organization.

Gas-powered vehicles fill our skies with carbon dioxide and nitrous oxide, two gaseous substances with no borders. Harmful emissions from vehicle exhaust account for 230,000 premature deaths per year in communities worldwide.

Electric cars, vans, and buses remove the polluting tailpipe from the equation and offer locals a more secure energy grid. They are gaining popularity in emerging markets, with retailers in Thailand selling [electric tuk-tuks](#) and Honda releasing its first [electric moped in India](#) next year.

Electric vehicles are essentially batteries on wheels. Just as owners can charge their vehicles by connecting the car to an electricity source, the car can offer its charge back to the system through bidirectional or [vehicle-to-grid \(V2G\) charging](#).

Owners who sell their electric vehicle electricity during a peak load—say, millions of homes running their air conditioning on a 100°F day—help to prevent rolling blackouts. And the battery capacity is impressive: a Ford F-150 Lightning can [power a home for three days](#).

### **Why EVs matter – and why they matter now**

Recent energy shortages forced leaders to reevaluate how they provide energy to citizens. Canada faces worries about a [country-wide energy shortage](#), and [Polish homeowners](#) lined up for days to receive coal.

Most of Europe relies on the Nord Stream pipelines from Russia to fuel their cars, stoves, and heaters. In September 2022, an [incident at one pipeline](#) released an incredibly large amount of methane and left leaders looking for a viable energy alternative in the face of growing conflict.

A month later, the European Parliament signed an ambitious climate proposal, [Fit for 55](#). This set of climate laws will reduce EU emissions by 55% or more by 2030, such as greener fuels for shipping and ending market sales of cars with internal combustion engines in 2035.

The timeline mirrors the one at [Drive Electric](#), an ambitious global campaign to electrify all road vehicles by 2050. The coalition looks to advance smart government policies, with Fit for 55 as just one of many examples to transition to a clean transportation future.

For consumers, electric vehicles offer an alternative to expensive gas prices. For workers, the rapidly expanding field of clean energy offers skilled jobs in manufacturing and technology. For countries, scaling up the number of EVs on the road helps meet [ambitious climate targets](#).

All these individual and corporate actors are supported by philanthropy. After all, markets follow policies. A national policy to make electric vehicles a cornerstone of a [green economy](#) relies on private and public partnerships to fund a smooth transition.

### **Story ideas**

#### *Inflation*

- High gas prices are the talk of the town, but current solutions provide little relief to drivers. What are rebate programs for electric vehicles in your area?
- What policies could make EVs more affordable to benefit all socioeconomic classes?

#### *Economy*

- How can electric vehicles provide skilled green energy jobs in your area? Look into local manufacturing and production centers, using the [Tesla Gigafactory](#) as one example.

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- If your area's economy is based on mines and extractive resources, how can clean energy and fuel replace this dependency?

#### *Health*

- Find the rates of asthma and respiratory disease in your local area. How can electric transport alleviate these conditions?
- How will lower vehicle emissions keep residents in better long-term health?

#### *Environment*

- How can the green benefits of EVs help your city/state meet its climate goals?
- Do you have a history of high strain on the [energy grid](#) in times of extreme weather? How can EVs provide a sustainable solution to rolling blackouts or [power outages](#)?
- How will new cross-national policies drive [battery sustainability](#) in EVs?
- Why are better data collection of batteries and [due diligence](#) beneficial both to the environment and to [human rights](#)?

#### *Policy*

- What is the role of transportation in filling in gaps between nationally determined contributions and Paris Agreement goals, especially looking ahead to COP28?
- In light of the [European Commission's](#) revision of truck CO2 emissions standards, how can EV policy contribute to your nation's commitment to sustainable development goals?
- (U.S.) Up to three-quarters of emissions reductions may come from the [electricity and transport sectors](#). How can local policy influence and align with national targets?
- (U.S.) Has your state signed the [memorandum of understanding](#) to expand the market for electric medium- and heavy-duty vehicles?
- (EU) How is your country participating in Fit for 55 under the European Green Deal?

## **Reporting resources**

### *National - United States*

- [State policies](#) that promote hybrid and electric vehicles. If you live in any of [these states](#), rebate programs exist.
- A [national list](#) of public utility commissions by state and [more information](#) on those commissions. You can also search for [your local utility](#) information.
- Trends, overall numbers, and subject areas of [green jobs in the U.S.](#)
- [Asthma data](#) and [chronic respiratory disease data](#) by state, both from the Centers for Disease Control and Prevention (CDC).
- National [air quality data](#) from the Environmental Protection Agency (EPA) and [general info about smog](#) from National Geographic.
- The [Clean Transportation Program](#) at the Union of Concerned Scientists.
- An interactive map on negative health impacts of [diesel emissions](#) in U.S. regions.
- And finally, a [list of every electric vehicle](#) for sale in the U.S.

### *Global*

- The [International Council on Clean Transportation](#) (ICCT) provides open-access scientific research for climate mitigation, including transport.
- The [Global EV Alliance](#) (GEVA) is a network of national electric drivers' associations from around the globe.

- Major companies pledged to [EV100](#), helping to drive (pun intended) the EV transition in their operations by 2030.
- The UN Climate Change Champion supports the global transport program [Race to Zero](#).
- [Drive to Zero](#) accelerates the growth of zero-emission commercial vehicles.
- C40 is a network of global mayors that includes a [Zero Emission Vehicles Network](#) and a pledge to transition to [Green and Healthy Streets](#).