

POLICY PRIMER: ELECTRIFYING VEHICLES

American
Cities Climate
Challenge

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Even with the reduction in commuting and travel during the pandemic, transportation remains one of the largest sources of greenhouse gas emissions in the United States, and much of that pollution comes from the exhausts of gas-guzzling cars and trucks. But there's good news: The electric vehicle (EV) revolution is upon us! A rapidly growing market for EVs—combined with rapid adoption of renewable energy and efforts to improve EV affordability—means that a carbon-free commute is in reach for everyone. As part of the Bloomberg Philanthropies American Cities Climate Challenge, 25 cities are working to reduce traffic and put more clean cars on the road—all while cutting planet-warming emissions and improving public health.

What steps are Climate Challenge cities taking?

Electrifying fleets first. Cities should focus on converting any segment of their vehicle fleets while ideally prioritizing those that cover the most mileage and emit the most pollution, like garbage trucks, police, and emergency vehicles. Cities can use strategies like organizing the bulk purchase of EVs, so as to get discounted rates from manufacturers; offering tax credits to private businesses that opt for clean cars; and revving up the EV market by setting goals and policies to electrify city-owned transit and school bus fleets first.

Building out charging networks. EV charging stations need to be as common as gas stations—and in all neighborhoods—in order for drivers to feel confident in going electric. Cities can help build that robust charging network by, say, requiring new buildings to be “EV-ready,” streamlining the permitting process for charging stations, and installing chargers in municipal parking lots. Cities should also work with community groups directly to identify needs and ensure that charging stations are distributed across neighborhoods equitably.

Instituting EV car-sharing programs. Not all residents can afford to buy an EV or even need to buy a new car at all. City-supported EV car-sharing and ride-sharing programs are a smart solution that allows infrequent drivers to go electric for one-off trips—while also educating and exposing potential future adopters. While ridership may be down due to COVID-19, essential workers can benefit

from having an additional safe and cost-effective transportation option, and cities can get the infrastructure in place to roll out ride-sharing programs once it's safe to do so.

Ensuring equitable electrification. While EV prices are declining, not all residents can afford an EV or even a new vehicle. Cities are working to center equity by partnering with communities to understand their mobility needs, designing pilot projects that specifically serve low-income households, and pursuing programs that offer fair financing and other incentives to increase access to used EVs and home-charging stations.



A ribbon-cutting ceremony for the first public DC fast-charging station for electric vehicles in Columbus, Ohio, on January 14, 2019. Photo: Andrew Spear for NRDC.

What are the benefits of electrifying vehicles?



Electric car charging in a downtown city center. Photo: Andrew Roberts

Social and environmental justice. Centering the needs of low-income drivers in adopting EVs will set a precedent for future policies to do the same. It will also keep these communities from being the least able to adopt new and cleaner technologies, as is often the case.

Health. Air quality markedly improves when we take gas-guzzling cars off the road, especially for communities near highways and with high truck traffic—such as industrial, port, and landfill areas—that have been historically burdened with higher pollution levels. This is particularly critical as air pollution has been shown to worsen the outcomes for those infected with COVID-19.

Money. No need to go to the pump! Drivers can fuel up at home or while visiting destinations with public charging stations, like their grocery store or workplace. Electric car owners save money on fuel and on maintenance like oil changes. While the price of electricity is already more stable than gas, experts predict electricity will have reached cost parity with gas by the middle of this decade. Clean cars can also aid in the recovery of local economies in the wake of the pandemic by supporting local renewable energy.

Environment. Fewer cars burning fossil fuels mean less planet-warming pollution—a win against climate change. Reduced reliance on fossil fuel infrastructure also reduces the risk of environmental hazards like oil spills from pipelines.



Charging stations for the first public DC fast-charging station for electric vehicles in Columbus, Ohio, lit up at night on January 14, 2019. The chargers are significantly faster and more convenient than conventional Level 1 or 2 chargers. The new charging station is a joint effort between Smart Columbus, the Columbus College of Art & Design (CCAD), the Columbus Foundation and Greenspot. CCAD students built a fiber-optic shroud to house the new chargers. Photo: Andrew Spear for NRDC