



The Path to Zero Emissions: 100% Electric Vehicles by 2030

June 17, 2020

Transportation is the single largest source of planet-disrupting greenhouse gas (GHG) pollution in the US¹ (and it's the second largest contributor of GHG emissions in Canada²). Vehicles used for ridesharing, delivery and other on-demand services are rapidly growing³ as a share of the total vehicle population in the US and around the world and are expected to grow even faster in the post-COVID "new normal."

Almost a decade ago, Lyft and other Transportation Network Companies (TNCs) led a radical transformation of the transportation system with on-demand ridesharing, bikesharing and micro-mobility services, turning excess capacity in personal cars, bike lanes and parking spaces into a seamless, more efficient and affordable transportation network. Today, TNCs have grown to become essential for millions, connecting people to ridesharing, bikesharing, micro-mobility and transit, and generating billions of dollars in income and savings for riders, drivers, and the communities they serve.

As Lyft has grown, so has our carbon footprint. Studies have shown that, while cars used in ridesharing tend to be newer and more efficient, the net effect of more people using personal cars for ridesharing has been an increase in GHG emissions.⁴ For that reason, and because we stand at a pivotal moment in the fight against climate change, we believe now is the time for Lyft to make a radical shift in our decarbonization strategy. **That is why Lyft is making the commitment to transition to 100% electric vehicles (EVs) on our platform by 2030⁵.** This shift in strategy is expected to result in:

- 16 million metric tons of GHG emission reductions⁶
- Up to \$10 billion in savings for drivers from reduced vehicle operating expenses
- 22 times the EV adoption rate (in California), compared to the California Air Resource Board's (CARB's) "business-as-usual" (BAU) scenario in 2030⁷
- 60 billion electric vehicle miles traveled (eVMT) over the next decade⁸

¹ US EPA. "[Sources of Greenhouse Gas Emissions](#)." April 2020.

² Environment and Climate Change Canada. "[Canadian Environmental Sustainability Indicators: Greenhouse Gas Emissions](#)." April 2020.

³ See California Air Resources Board (CARB). "[2018 Base-year Emissions Inventory Report](#)." December 2019.

⁴ See CARB "[2018 Base-year Emissions Inventory Report](#)" and Union of Concerned Scientists, "[Ride-Hailing's Climate Risks](#)." February 2020.

⁵ Zero emissions vehicles (ZEVs) do NOT include plug-in hybrids; only pure battery-electric vehicles (BEVs), fuel cell electric vehicles (FCEVs), and other zero-gasoline / zero-tailpipe-emission technologies. The commitment is by the end of 2030.

⁶ This is more than the total annual GHG emissions of each of [67 separate countries](#).

⁷ Measured as a percentage of total vehicle miles traveled in 2030 that are electric (eVMT). CARB finds only 4.4% of miles would be electric in California in 2030 without any additional efforts or regulations in its "Business as Usual" (BAU) scenario. See "[SB 1014 Clean Miles Standard Business-As-Usual](#)" presentation, slide 30.

⁸ This is 2,000 times the annual eVMT by TNCs in California in 2018. See CARB, "[2018 Base-year Emissions Inventory Report](#)." December 2019.

Lyft Electrification Path by Vehicle Segment

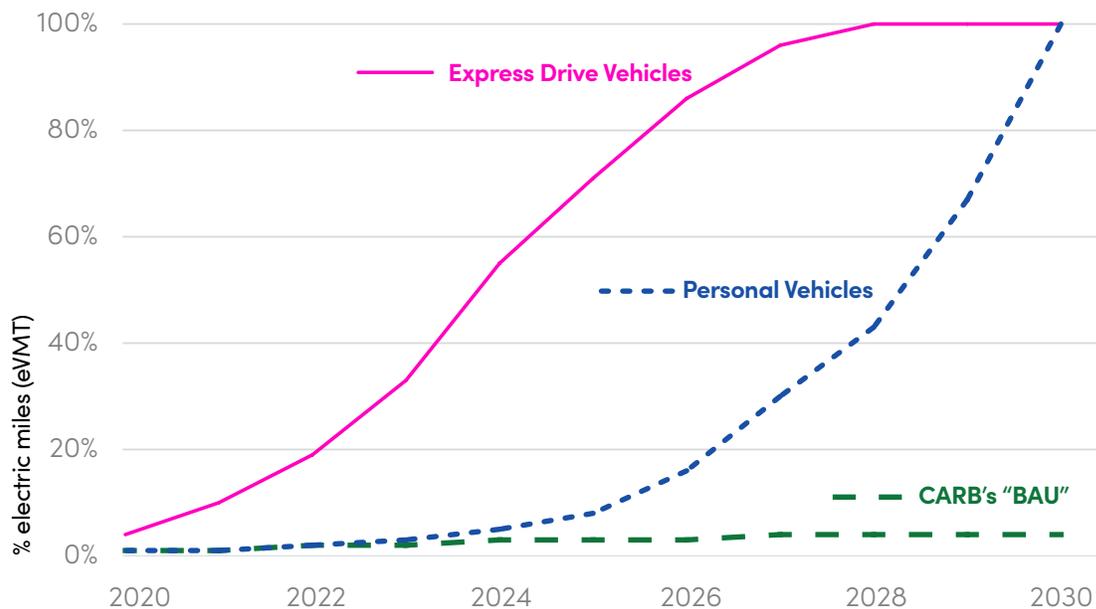


Figure 1: Percent of total miles completed on the Lyft platform in EVs and business-as-usual projection for California, [the US leader](#) in EV market share

The Path to 100% EVs

The path to 100% includes transitioning drivers' personal cars and cars that drivers rent through Lyft's "Express Drive" vehicle rental partner program (as well as cars in our consumer rental and autonomous vehicle programs) to all-electric or other zero emission technologies by 2030⁹. This won't be an easy task for us because, today, the vast majority of vehicles used on the Lyft platform are personal vehicles owned by people who drive rideshare in their spare time (less than 10 hours per week). Encouraging millions of individuals to switch their personal vehicles from gas to electric in the next ten years will require unprecedented leadership from policymakers and regulators to align market rules and incentives for businesses and consumers alike.

We expect our path to follow a 3-step plan: (1) focus on policies to accelerate EV cost-parity, (2) lead with [Express Drive](#) EV rentals to provide nearer-term EV access, and (3) build demand for EVs among millions of Lyft platform users, including rideshare drivers, riders and transportation managers. By starting with electrification of rental vehicles available through Express Drive, we plan on leveraging our purchasing power to negotiate pricing and deliver cost savings to our customers using that program. We expect to be able to electrify Express Drive rental partner vehicles sooner than drivers will shift to electric with personal vehicles because Express Drive vehicles drive more

⁹ Zero emissions vehicles include battery-electric vehicles (BEVs) and hydrogen fuel cell electric vehicles (FCEVs). While we expect BEVs to comprise the majority of ZEVs on the Lyft platform over the next decade, the use of FCEVs may also increase especially within rental car and light duty vehicle fleets.

miles per year on average than personal vehicles, and hence can recoup a higher up-front vehicle cost through faster fuel and maintenance savings that are accrued on a per-mile basis.

We expect to begin ramping up acquisition of EVs for the Express Drive rental partner program over the next five years and shift all new vehicle acquisition to 100% EV beginning in 2026. And we expect to achieve 100% electric miles driven by Express Drive vehicles in 2028. For drivers' personal vehicles, we expect the cost of EVs to continue to decrease – through more cost-effective battery and hydrogen fuel cell technology and policy support for vehicle purchasing and charging, among other things – so that drivers using personal vehicles will begin significantly ramping up adoption of EVs by 2026.

How do we get there?

1. EV technology continues to advance and EV costs continue to decline

Advances in technology have already made EVs cheaper to operate than traditional gasoline vehicles due to lower fuel and maintenance expenses. With far fewer moving parts and improving battery life cycles, our expectation is the useful life of EVs will lengthen and far exceed gasoline vehicles. However, an electric vehicle today still costs about **50%** more to purchase than a comparable gasoline vehicle. **Achieving 100% EVs requires continued progress in reducing their up-front cost, as shown in the graph below¹⁰, with an expectation that cost-parity occurs, at least in some segments, by mid-decade.**

Electric Vehicle Battery Pack Costs

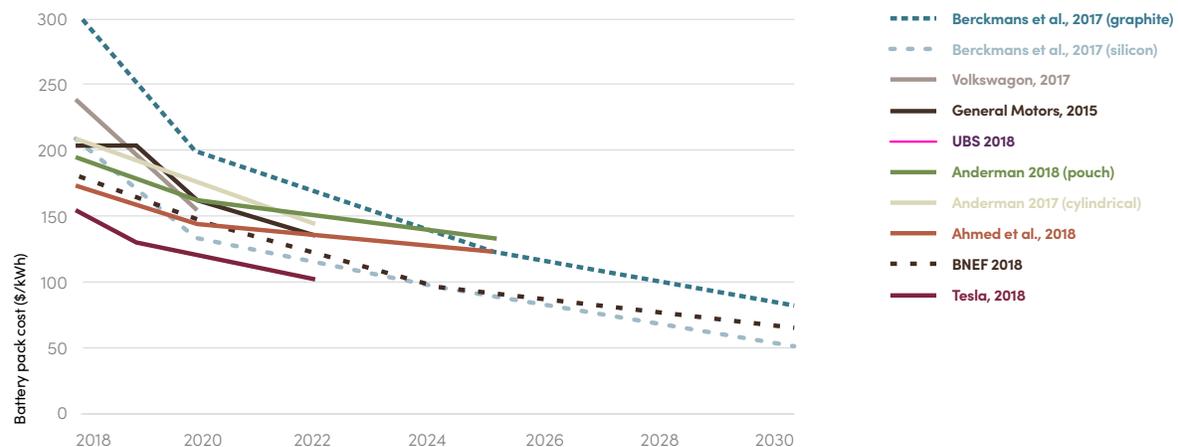


Figure 2: Electric Vehicle Battery Pack Costs From Technical Studies and Automaker Statements¹¹

¹⁰ EV battery costs are forecasted to continue coming down, reducing the up-front cost of EVs. The International Council on Clean Transportation, "[Update on electric vehicle costs in the United States through 2030.](#)" April 2, 2019.

¹¹ The International Council on Clean Transportation, "[Update on electric vehicle costs in the United States through 2030.](#)" April 2, 2019.

2. Policymakers continue to support clean vehicle standards

Continued advancement in policies and regulations that support clean vehicle standards are instrumental to achieving emission reductions in line with what the science says is necessary to fight climate change. **Achieving 100% zero emission vehicles by 2030 requires vigorous commitment to expansion of clean vehicle standards, EV incentives and programs to expand EV charging and hydrogen fueling infrastructure across federal, state and local jurisdictions:**

- **Clean vehicle standards:** We will support continued expansion of states' Zero Emissions Vehicle (ZEV) programs and increasingly ambitious federal GHG and fuel-efficiency standards.
- **Vehicle capital cost incentives:** We will work to expand access to federal, state, and local incentive programs to reduce EV capital costs, including: expanding federal ZEV tax credits, the continuation of California's Low Carbon Fuels Standard (LCFS) rebate program, and creating other programs like California's LCFS in other states.
- **Vehicle charging:** We will work with third-party providers and utilities to expand programs to support both public direct-current fast-charging (DCFC) infrastructure and Level 2 (L2) charging infrastructure across residential (single-family + multi-unit) and public use cases. For example, this could include programs to support L2 charging installation, expand L2 charging readiness across existing and new-build housing stock, incentivize DCFC charger/make-ready installation, and reform utility rate design to support DCFC operating models.

Leading with values; building from strength

We believe Lyft is uniquely capable of leading this transformation, because our users – millions of drivers and riders who use the Lyft platform – are already leaders in the generational and philosophical shift toward a sharing economy that values equitable access to clean, carbon-free solutions and shared responsibility for the future of our planet.

This plan – detailed in the 10 areas we'll be focusing on in the table below – builds on years of environmental leadership by regulators, policymakers, and climate change activists; and leverages Lyft's scale and ability to negotiate with automakers, insurance companies, utilities, and policymakers by harnessing demand among millions of potential EV customers and advocating on their behalf.

1. Vehicle Supply

What we've done so far:

Engaged **auto manufacturers** on the need for higher volumes of affordable long-range EV models.

What we will do next:

Leverage our relationship with millions of platform users over the next 10 years to organize demand-side interest in EVs and **negotiate with auto manufacturers for group discounts** for drivers using the Lyft platform.

Leverage our relationships with auto manufacturers to **increase the selection and supply of affordable long-range EVs**, and support the development of EVs tailored for ridesharing.

Aim to **ensure all drivers using Lyft can purchase or lease EVs at the same or lower total cost of ownership (TCO)¹²** as comparable gasoline vehicles by 2026.

2. Policy

What we've done so far:

Created a Sustainability Team in 2018 that has engaged with policymakers to enact **policies to accelerate the clean transportation future**, such as [successfully partnering with Colorado policymakers](#) in 2019 to allow our Express Drive rental partners' vehicles to be eligible for state tax incentives. This win-win enabled Lyft to **introduce 200 new EVs in the greater Denver area** – one of the largest deployments of EVs in the US.

[Publicly supported](#) **strong federal fuel efficiency standards**.

Supported the regulatory development of [California's Clean Miles Standard and Incentive Program](#) and [analogous legislation](#) in Washington state.

[Supported](#) an **economy-wide price on carbon, low-carbon fuel standard programs** designed to reduce the carbon intensity of fuel over time, and an **extension and expansion of incentives** for electric vehicles.

What we will do next:

Advocate for **local, state, and federal EV incentives** to expand aggressive zero-emission vehicle (ZEV) policies and reduce the net cost of EVs, and encourage other transportation network companies to do the same.¹³

Advocate for **policies that expand EV charging infrastructure**, including electricity rate design that lowers charging costs for EV customers and utility incentive programs that support widespread deployment.

Actively support:

- Adoption of federal, state and local **Zero Emission Vehicle (ZEV) mandates and EV deployment goals**.
- Adoption and expansion of state and federal **fuel efficiency and Low Carbon Fuel Standards**.
- Expansion of **federal and state tax credits, rebates, and other incentives for ZEV deployment, and policies** that align incentives across the whole industry.
- Policies that achieve **equitable deployment of EV charging infrastructure, incentives and other resources** in communities of color, low-income communities and traditionally underserved areas.
- Federal policies that support Investment in a diverse and robust **American ZEV manufacturing base**, including **critical materials and advanced batteries** and recycling strategies.

¹² EV "total cost of ownership" ("TCO") is a metric that includes capital costs and operating costs (e.g. fuel and maintenance).

¹³ Targeting rideshare vehicles for electrification is an extremely cost-effective use of incentive funding. Each full-time rideshare vehicle travels three to five times as many miles as a typical personal vehicle in a typical year. Researchers have found that electrifying one rideshare vehicle is the environmental equivalent of electrifying three personal vehicles. See University of California, Davis Institute of Transportation, "[Emissions Benefits of Electric Vehicles in Uber and Lyft Services](#)."

3. Equitable Access

What we've done so far:

Provided access to **affordable, multi-modal transportation options to communities of color and low-income communities:**

- **40% of rides** on the Lyft platform start or end in low-income areas¹⁴
- **48% of riders** have used Lyft to get to or from public transit

Through **LyftUp**, we've partnered with leading nonprofit organizations to facilitate **free and discounted car, bike, and scooter rides to individuals and families in need to [gain access to healthy food](#), [get to job interviews](#), [get to the polls](#), [connect with critical resources in the aftermath of natural disasters](#), and more.**

Lyft is **expanding our bikeshare systems to serve more low-income communities**, including growing the Divvy system to cover the entire city of Chicago, expanding our service area to cover the entire city of San Francisco, and investing \$100 Million to quadruple the size of Citibike in New York City.

What we will do next:

Expand access to **multimodal technologies and trip planning to communities of color and low-income communities**, particularly those **disproportionately** impacted by poor air quality.

Provide **focused marketing, educational and assistance materials** regarding clean transportation technologies to communities of color and low-income communities.

Support policies to create **Equity Impact Mapping** to track cumulative environmental impacts, pollution hotspots and other equity metrics.

Support policies aimed at **directing at least 40% of green investment into disadvantaged communities** utilizing data obtained through Equity Impact Mapping.

Develop **marketing, educational, and assistance programs in multiple languages with focused outreach** to the **66% of Lyft drivers who identify with a minority group** in an effort to ensure equitable access to clean transportation technologies.

Work with utilities, private sector partners and community organizations to promote programs that **combine clean technologies such as solar power and EVs** in communities of color and low income communities. Work with equity-focused organizations to **monitor and report** on outcomes from these efforts.

Grow our partnership with the YMCA to provide **free bikeshare memberships** for thousands of low-income 16–20 year olds. Seek partnerships to help **expand our income-eligible programs**, which provide unlimited bikeshare trips for \$5 a month for low-income individuals.

¹⁴ Excluding Toronto and Ottawa

4. Charging

What we've done so far:

Developed partnerships with national [charging networks](#) that offer lower charging rates for drivers using the Express Drive rental partner program.

EVs on the Lyft platform today increase the amount of time fast-charging stations are utilized, which can help **bring down the cost of fast-charging**. This works by spreading out the charging station's capital cost and utility "demand charges" over a larger amount of electricity usage, thereby decreasing the effective unit cost of electricity. We can pass along this lower cost of charging to drivers through more favorable charging rates.

What we will do next:

Expand private and public sector partnerships to **expand charging infrastructure for drivers using personal vehicles**. Working with our partners we will strive to expand charging station availability in at least 10 of our largest markets by mid-decade.

Work with our charging partners toward achieving targeted charging rates that are at least 20% lower than the equivalent cost of gasoline¹⁵ for drivers using Lyft by 2025.

Work toward achieving sufficient levels of **charging station utilization to drive down charging costs** for the public overall, not just rideshare drivers, and ensure the equitable distribution of charging infrastructure to communities of color, low income communities and traditionally underserved areas.

5. Express Drive Rentals

What we've done so far:

Launched hundreds of EVs in 2019 through our Express Drive rental partner program for drivers in [Seattle](#), [Atlanta](#), and [Denver](#).

What we will do next:

Expand weekly EV rental offering through [Express Drive](#) to new markets and within existing markets.

Through Express Drive we will strive to **make EVs available at the same or lower weekly rental price as comparable gasoline vehicles by 2023** in at least 10 of our largest markets.

6. Education

What we've done so far:

Developed driver and rider **EV education materials** for use in future EV deployments.

What we will do next:

Leverage our relationship with millions of platform users between now and 2030 and work with partners to create tools that **highlight the benefits of going electric and how to access existing incentive programs**. We will also use EV rides to **educate riders on the benefits of EVs**, thereby increasing overall EV awareness.

¹⁵ \$.08 / mile gasoline (assumes 25 miles per gallon and average gasoline price of \$2.03) versus \$.10 - \$.18 / mile DC fast charging rates (assumes 4 mile/kWh and DC fast charging rates without subscription of \$.20 - \$.35 / minute or \$.40 - \$.70 / kWh assuming 30 kW average power)

7. Driver Experience

What we've done so far:

The Lyft driver experience is **not yet optimized for EVs**. Drivers must manage lower vehicle range, fewer fueling stations and it can take 20+ times longer¹⁶ to fully fast-charge an electric vehicle versus a gasoline vehicle.

What we will do next:

Work with charging and automaker partners to **target a doubling of charging speed by 2025**¹⁷ via improvements in charger and vehicle technology.

Work with charging partners and charger site hosts to **add more driver amenities at chargers** and develop opportunities to **make charging time more productive for drivers** (e.g. charging at airports while waiting for a ride).

Advocate with utilities and local governments to **enable overnight charging access for drivers**, which can be up to 50% cheaper than fast-charging¹⁸, and can provide a better fueling experience than both fast-charging and filling up a gasoline vehicle.

Build **product features over time** that improve the EV driver experience, such as battery / range management, integration with charging solutions, and scheduling reservable charging sessions.

8. Rider Engagement

What we've done so far:

We launched **Green Mode** in Seattle and Portland in 2019 to enable riders to choose a ride with a driver using a hybrid or electric vehicle.

Green Mode has had **300K+ rides since launch**. Analysis of program results showed strong consumer support and measurable increase in driver earnings.

What we will do next:

Involve all of our users, **including millions of riders on our platform**, in transitioning to zero emission vehicles through education, marketing and development of user preference channels.

Build on the success of Green Mode to expand opportunities for riders, business customers and transportation managers to support electric and zero emission vehicles through Green Mode programs and/or similar user preference channels.

¹⁶ Assuming roughly 1.5 hours to fully charge with a fast charger versus a few minutes to fill a tank of gasoline.

¹⁷ This is in line with estimates of charging time improvements by ICCT's "Charging infrastructure requirements to support electric ride-hailing in U.S. cities" working paper, Table 4. Available at: https://theicct.org/sites/default/files/publications/Charging_infrastructure_ride_hailing_US_03242020.pdf

¹⁸ Based on analysis of residential electric vehicle charging rates (\$0.15 - \$0.20 / kWh electricity and \$0.02 - \$0.05 / kWh levelized unsubsidized cost for infrastructure hardware and make ready) versus public DC fast charging rates without volume subscription (\$0.20 - \$0.35 / minute or \$0.40 - \$0.70 / kWh assuming 30 kW average power)

9. Supporting Transit

What we've done so far:

Developed multimodal solutions with local transit agencies to close first- and last-mile gaps in regional transit coverage, provide access to late-night transportation options after buses and trains have stopped running, and create new options for getting around lower-density suburbs:

- Developed **80+ transit partnerships** that expand access to transit and address transportation barriers
- Launched **Nearby Transit**
- Launched **multimodal trip planning** connecting rideshare to, bikes, scooters and transit

Today, our **app shows real-time bus and train schedules** alongside bike, scooter, and rideshare options, which makes it easy for **riders to choose** the best way to get where they need to go and promotes transit on every local trip.

Additionally, all of our micromobility programs have **low-income membership options**, and we partner with **local community organizations to encourage sign-ups and community engagement** around the service.

Finally, we've invested in features such as **prepaid debit card payment** and our Concierge call-center platform **to ensure users without a bank account or a smartphone** can access the Lyft platform.

What we will do next:

Expand **multimodal technologies and trip planning**, combining rideshare, bikeshare, scooters and micro-transit programs at transit centers.

Expand **transit and micromobility partnerships** with local transportation agencies.

Only **advertise on transit in ways that complement or promote access** to transit.

Engage with community groups hear their perspectives and get their feedback to build a better experience for diverse communities

Make information available in multiple languages.

Ensure **bikes and scooters are placed in communities of color and low-income communities**, helping all communities connect to high-capacity transit.

Support policies to **increase the share of federal funding for transit to 50% of transportation funds**.

Support the work of **NUMO, Transportation for America and others** to prioritize projects that will **improve transportation systems that connect people to jobs and services**.

10. Supporting the Power Grid

What we've done so far:

Initial rideshare EV deployments have **demonstrated** inherent **support of a more efficient power grid** due to the coincidence of rideshare EV charging and excess solar electricity production.

What we will do next:

Work with regulators and grid planners to **integrate mass deployment of EV charging stations into utility resource management plans**.

Work with regulators, utilities and drivers to promote **electricity rate design** that supports **lower EV charging costs**.

Work with regulators, utilities and drivers to promote **vehicle-to-grid integration programs**, including **technology incentives** for installation of EV charging infrastructure, **optimized fleet charging**, and utility **demand response** programs that **allow drivers to earn money for managing electricity consumption while charging**.

Forward-Looking Statements

Certain statements contained in this plan are “forward-looking statements” within the meaning of the securities laws, including statements about Lyft’s strategies, commitment to electric vehicles, plans to implement such commitment, Lyft’s efforts with respect to policymaking and its ability to work with policy makers and other third parties. Such statements, which are not of historical fact, involve estimates, assumptions, judgments and uncertainties. There are a number of factors that could cause actual results or outcomes to differ materially from those addressed in the forward-looking statements. Such factors are detailed in Lyft’s filings with the Securities and Exchange Commission. We do not undertake an obligation to update our forward-looking statements to reflect future events, except as required by applicable law.