



TRANSPORTATION ELECTRIFICATION

In Austin, our transportation system is already the primary source of local air pollution and will soon become the largest emitter of greenhouse gases. As of 2018, our community-wide emissions were down by 7.2%, while our transportation emissions have increased by 13.5% since 2010. The vast majority of these transportation-related emissions are caused by private cars and trucks. This means that to meet our emissions reduction targets, we will need to have fewer people driving alone. The remaining vehicles on the road need to be electrified and powered by renewable energy.

The good news is that two technical breakthroughs have occurred that could help rapidly accelerate the transition to electric vehicles (EVs). First, EVs now have a more extended range and are more affordable. Second, the electricity used to charge EVs is getting cleaner through Austin Energy's transition to renewable energy. EVs also offer the additional benefits of lower ownership costs for customers, improved local air quality, and potential grid services for Austin Energy.

There has been a lot of progress made to electrify transportation in Austin. There are now more than 10,000 EVs in the greater Austin area, and public entities like Capital Metro and the City of Austin are committed to transitioning their fleets to electric. Austin Energy also manages the Plug-In EVerywhere network, consisting of over 1,000 level 2 charging ports and 30 DC fast-charging stations throughout the city.

Despite the progress made in EV adoption, EVs have only been widely accessible to homeowners and people who are primarily high-income and white. To make EV ownership truly accessible, we need to adjust our strategies on pricing, information, and where charging stations are located. We want EV ownership to be racially, geographically, and economically diverse, which means we need to build out the charging network in areas that have been systematically excluded and structure our incentives to be accessible for all.

Community Feedback

Community Climate Ambassadors found that residents are concerned with air pollution, which comes from cars and trucks on the road. Overall, their feedback on transportation focused on getting people out of cars and into fast, cheap, and reliable public transportation. Currently, there is interest in low-cost cars, but the perception and reality are that new electric vehicles are expensive and not accessible.

If all the transportation electrification goals and strategies were implemented, we could reduce our current community-wide greenhouse gas emissions 18% or 2.3 million metric tons by 2030.

Austin City Council EV Resolution:

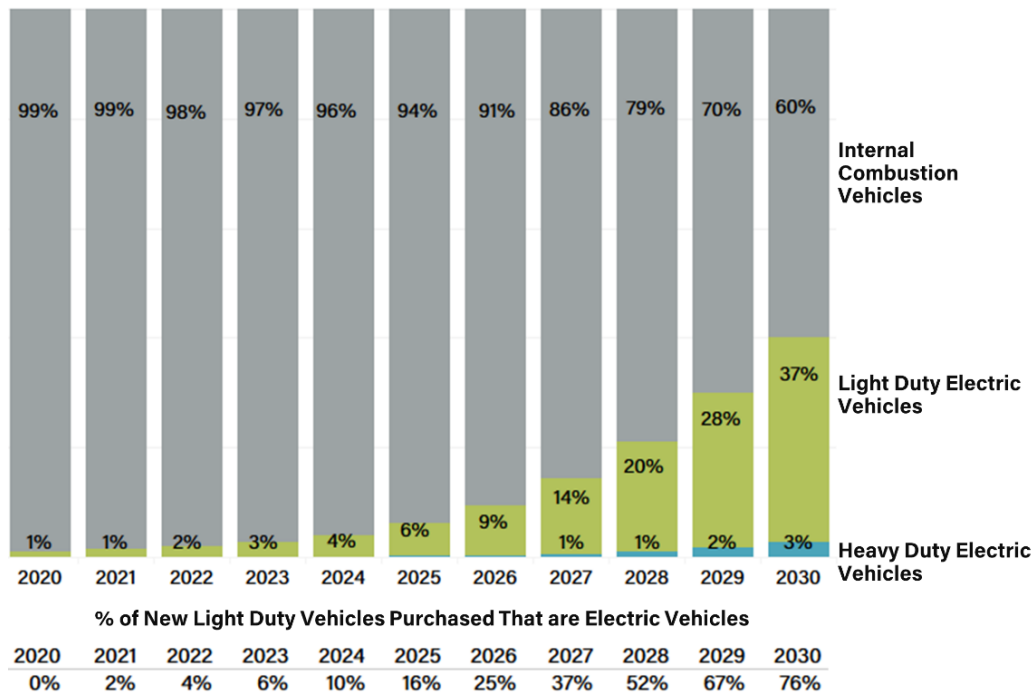
In May 2019, The Austin City Council passed [Resolution 20190509-020](#), directing the City Manager to include an analysis of transportation electrification in the Austin Community Climate Plan revision. Specific requests were made to analyze scenarios, goals, and a plan to address charging infrastructure, vehicle adoption, partnerships, and grid integration.



GOAL 1:

By 2030, 40% of total vehicle miles traveled in Austin are electrified, and electric vehicle ownership is culturally, geographically, and economically diverse. This translates to approximately 460,000 electric vehicles on the road.

Austin On-road Vehicle Target



To reach our EV target, light duty electric vehicles must drastically increase over the next decade. Data Source: Texas Transportation Institute

Strategy 1: Conduct an EV Community Needs Assessment

Complete an Electric Vehicle Community Needs Assessment to identify the intersections of mobility challenges, transportation electrification, and racial and economic justice. The assessment will inform an EV adoption growth plan that will be supported by enhanced communications efforts and incentives.

How we'll get there:

- Work with local community partners, grassroots organizations, and connection points like the Austin Energy Customer Assistance Program and the City's affordable housing programs.
- Hire residents in the communities we aim to serve to help conduct the needs assessment.
- Host community input sessions to build ongoing inclusive relationships that will inform focused outreach to low-income communities and communities of color.

Strategy 2: Create equitable incentives for buying and leasing EVs

Collaborate with community partners to create inclusive and easily accessible incentives for buying or leasing electric vehicles. This strategy would supplement existing state and federal programs, prioritize low-income communities and communities of color, and focus on geographic areas with limited or no access to transit.

Strategy 3: Reduce tolls for EVs in the Eastern Crescent

Partner with highway and regional mobility authorities to offer a reduced or eliminated toll rate for low-income communities and communities of color who drive EVs on toll roads from the Eastern Crescent to central Austin.

Strategy 4: Launch an e-bike and electric car-sharing program

Create an electric bike and car-sharing program centered on low-income communities and communities of color to support functional, low-cost, zero-emissions mobility.

How we'll get there:

- Be intentional and equity-focused when considering where to install car-sharing locations, what types of vehicles to include, and how to accept payment.
- Create an income threshold to ensure that low-income residents can access the program and plan specific actions to address displacement.

Strategy 5: Electrify public sector fleet vehicles

Encourage vehicle fleets from public sector agencies in the Austin-Round Rock-San Marcos MSA, such as cities, counties, Capital Metro, and school districts, to commit to buying 100% electric vehicles when they are available, cost-competitive, and meet operational needs.

How we'll get there:

- Partner with Austin-area public fleets to participate in the [Climate Mayors Electric Vehicle Purchasing Collaborative](#) to lower the up-front costs of new EVs.
- Consider early retirement of older fleet vehicles where new EV alternatives are economical and offer retired vehicles for sale locally.

- Prioritize fleets that operate in the Eastern Crescent. Work on AISD and Travis County commitments first, then replicate at surrounding cities, counties, and school districts.



Strategy 6: Electrify private sector fleet vehicles

By 2030, transition 100% of the gig, rideshare, public health, and delivery vehicle fleets to electric. Starting with private fleets in the Eastern Crescent, establish pilots, technical support, regulation, incentives, and education to support rapid electrification.

How we'll get there:

- Study how the transition to electrified delivery is already happening to determine which policies, incentives, and infrastructure are needed to accelerate the transition.
- Prioritize working with local rideshare cooperatives and nonprofits serving low-income communities and communities of color.

GOAL 2:



By 2030, Austin has a compelling and equitably distributed mix of level 1, 2, and DC fast charging infrastructure to accommodate 40% of total vehicle miles traveled in the city. This translates to 226 megawatts of electrical load and could mean more than 37,000 charging ports.

Strategy 1: Create a network with more low-cost, accessible charging stations

Continue to incentivize the installation of EV charging infrastructure by the City, businesses, auto manufacturers, and third-party charging companies to create a compelling (convenient, reliable, and low-cost) network accessible to all.

How we'll get there:

- Prioritize areas that have been systematically excluded, such as existing multi-family properties, parks, community centers, libraries, geographically under-represented areas, and low-income communities and communities of color, while mitigating displacement. Work with diverse and representative community partners to continuously improve plans.
- Fill in gaps by installing EV charging on publicly owned land in systematically excluded areas, and address maintenance and ongoing support for charging stations.

Strategy 2: Incentivize internet-connected smart charging

By 2030, the City will have a network of intelligent charging that supports grid reliability and resilience, maximized efficiency, reduced emissions, accessibility for all, and lower costs for all residents. Incentivize internet-connected charging infrastructure with the ability to manage the start and end time and charge rate across 24 hours while still meeting the driver's needs.

How we'll get there:

- Ensure charging stations are internet-connected, as this is essential to ensure the availability, reliability, and timely repairs for charging stations.
- Use internet connectivity to advance real-time pricing information to customers and intelligent charging for longer charge sessions.

“Three years of electric car ownership has convinced me that we are entering an exciting new era.”

–Nhat Ho, local EV driver

Strategy 3: Adopt new energy and building codes

Adopt new energy and building codes that address future EV charging needs and enable a more equitable approach by simplifying the charging network and lowering barriers to entry for installing EV charging.

How we'll get there:

- Consider streamlining the permitting and electrical plan review process, upsizing the electrical requirements for future EV growth, requiring EV chargers at commercial and multi-family properties, and requiring single-family homes to be EV charger-ready.
- Create mechanisms to address the additional costs that drive displacement, such as offsetting costs in areas that have been systematically excluded.

Strategy 4: Expand outreach to systematically excluded groups

Expand outreach to community groups, professional organizations, unions, and property managers using culturally competent information about EV charging incentives and installation. Collaborate with and learn from existing community and City partnerships.

How we'll get there:

- Focus on clarifying the EV charging process, raise awareness about available incentives, and increase community involvement.
- Engage EV industry groups in this strategy to expand the impact beyond our local area.

GOAL 3:



The Austin-Round Rock-San Marcos area is a leader in transportation electrification by adopting policies and technologies that maximize economic and health benefits while supporting the growth of this emerging industry.

Strategy 1: Create a regional coalition to support EVs

The City will take the lead in creating a regional coalition to support EV adoption within the five-county MSA. The coalition will consist of an inclusive group of government, business, and community stakeholders.

How we'll get there:

- Policies will include strategies that utilize EVs to provide ancillary services for the grid, support community resilience, maximize air quality benefits, and support clean and green economic growth.
- Potentially tie into bulk purchasing power to support more rapid adoption.

Strategy 2: Pilot and adopt new technology

Austin will continue to pilot and be an early adopter of emerging technologies for transportation electrification and ensure that low-income communities and communities of color can access the benefits first.

How we'll get there:

- Pursue grant funding opportunities to test new technologies and take successful pilots into more widespread applications.
- Increase engagement with governmental agencies, research institutions, etc.

Strategy 3: Prioritize a just transition

Austin will be a leader in the just transition to an electrified regional transportation system by collaborating with community and workforce leadership groups like labor unions, grassroots organizations, and businesses. We will ensure that low-income communities and communities of color are positioned to benefit from the switch to electric transportation.

How we'll get there:

- Facilitate training and support for our local workforce, focusing on contractors, electricians, first responders, mechanics, gig workers, rideshare drivers, delivery drivers, and battery recyclers.
- Focus job training on systematically excluded groups like women, people of color, people with disabilities, and small businesses.

Strategy 4: Expand the EV-related business ecosystem

Create a robust electric transportation economic cluster in Central Texas by supporting economic development for new and existing local companies focused on the EV supply chain, including battery technology, vehicle manufacturing, and software.

How we'll get there:

- Focus on policies that enable diverse local business ownership, access to capital, and investment.
- Prioritize high-paying jobs for low-income communities and communities of color.



Photo: Austin Energy