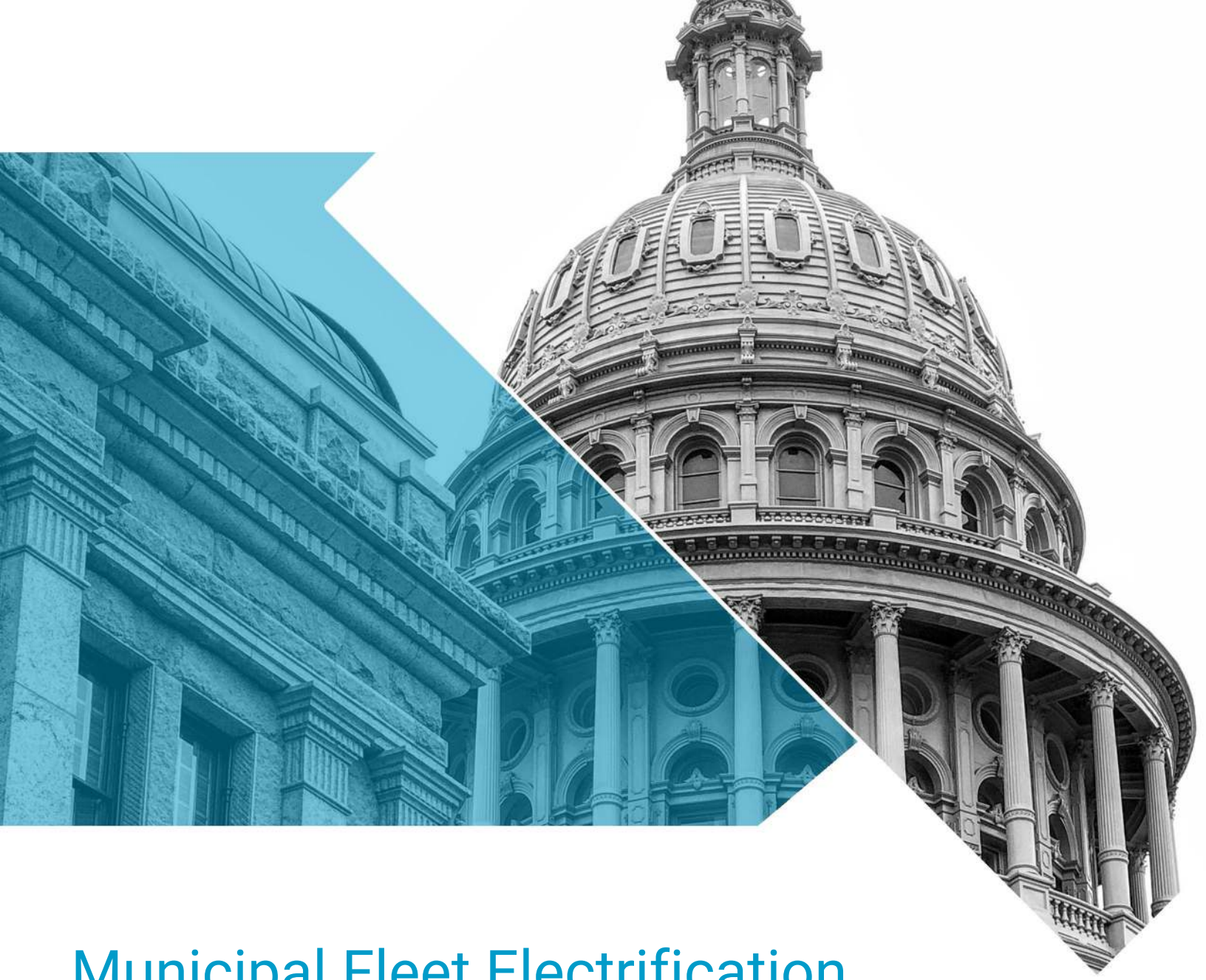

Municipal Fleet Electrification

A Case Study of Austin, TX

September 2020

CLIMATE MAYORS

Electrification Coalition

CITY OF AUSTIN FOUNDED 1839

Sourcewell

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Introduction

The Climate Mayors Electric Vehicle Purchasing Collaborative (the Collaborative) is a joint effort by Climate Mayors, the Electrification Coalition, and Sourcewell working toward accelerating the transition of city fleets to electric vehicles (EVs). By creating a new and innovative cooperative purchasing mechanism, the Collaborative is reducing major barriers to fleet electrification for cities and other public agencies. In addition to an innovative cooperative purchasing option, the Collaborative offers a host of technical resources, analyses, and staff support, which reduces major barriers to fleet electrification.

Austin Mayor Steve Adler is a member of the Steering Committee for Climate Mayors—over 400 U.S. mayors who are committed to taking meaningful action on climate change. The Electrification Coalition (EC) is the nonpartisan, non-profit organization that leads implementation of the Climate Mayors' transportation electrification initiative, leveraging its broad experience as a municipal partner in accelerating EV adoption on a mass scale. Sourcewell, a public procurement agency, facilitates a competitive solicitation and award process for vehicles and service equipment on behalf of their 50,000+ members across North America.

The Collaborative's partners have come together to offer a platform connecting cities with the growing selection of EVs and charging stations, transparent pricing, policy guidance, technical resources, assessment tools, and financing options that can leverage the federal EV tax credit to reduce the up-front costs of EVs and support cities' fleet electrification. The Collaborative also provides cities with training, best practices, educational materials, and analysis to support the successful transition of municipal fleets to electric.

About Austin, TX

One of the 19 founding Collaborative fleets, Texas' capital city, Austin, has long been considered on the leading edge of American culture and technology. The City has a reputation for open-mindedness and inclusivity and has seen an 80% increase in population over the last 20 years. As the fastest-growing large city in the United States in 2015 and 2016 and home to a number of Fortune 500 companies, the Austin metro area has seen its population expand to nearly 2.3 million residents. The City has been challenged in recent years to manage this significant growth but has risen to the occasion by doubling down on improving livability and prioritizing culture.

The unique approach that the City has taken to attract business to the area has been to focus on a high quality of life for residents. By focusing on its livability and its status as a hub of arts and culture, the City has attracted a youthful, energetic, and creative populace. These citizens are also concerned about issues like air quality and climate change, making electric vehicles a critical focus for the City.

Austin's forward-thinking reputation is long-standing and a pride point for city leadership, beginning with a very ambitious goal made in 2007 to achieve a carbon neutral fleet by 2020. The City has made great strides towards achieving this goal, and with plans to have 330 fully electric vehicles registered in the fleet by the end of 2020, the City has demonstrated a solid commitment to climate action.

> *"There's no greater contribution Austin can make to mitigate our impact on the climate crisis. Austin is moving forward in a big way. Electrifying our fleet will create much needed change in our city for years to come."*
>
> Mayor Steve Adler
> Austin, TX

Growing Model Availability and Reducing Cost

One barrier that many cities face when transitioning their fleet to electric is that of EV model availability. In particular, cities located in states that have not adopted the Low Emission Vehicle or Zero Emission Vehicle standards may have an especially difficult time of locating and securing the kinds of vehicles that are required to carry out the work done by city employees. This is where the unique solutions of the Climate Mayors EV Purchasing Collaborative have been a critical component to the ongoing success of Austin's EV fleet transition.

Because of the Collaborative's access to almost every electric vehicle model available in the United States, regardless of locality, cities have much greater choice as it relates to practical vehicle selection. In the case of Austin, the City has purchased over 130 electric vehicles directly through the Collaborative with contracts managed by partner organization, Sourcewell. Two of the EV models that have been made more easily available to the City are the Kia Niro battery electric vehicle and Mitsubishi Outlander plug-in hybrid electric vehicle.

In addition to the Collaborative's ability to provide access to a greater number of EV models, there is also a cost savings benefit associated with this purchasing mechanism. Bulk purchasing sends a clear message to industry that EVs should be prioritized and the City of Austin takes this very seriously. The City is focused on taking a leadership role on the transition to electric vehicles at a large scale and is working to drive down the increased upfront cost of electric vehicles through bulk purchasing. Because EVs tend to have a higher upfront purchase price compared to traditional internal combusion engine (ICE) vehicles, some fleets find this a barrier to adoption.

To overcome this barrier, the City of Austin conducted a telematics analysis of the fleet and found that by transitioning their light-duty fleet to electric, the City would save **$3.5 million dollars over a 10 year period** which tracks closely with the cities vehicle replacement cycle.

With a city that is as focused on meeting the needs of its citizens as Austin is, it should come as no surprise that the city fleet is as equally large and diverse as its population. With over 6,000 total units, it is comprised of a mix of light-, medium-, and heavy-duty trucks, sedans, vans, and equipment. The Austin fleet, like most city fleets, is a working fleet. This means that the majority of vehicles in the fleet are trucks and vehicles that are capable of hauling equipment more so than passengers. Considering today's available EVs, 10.36% of the City's vehicles eligible for electric replacement have been converted; this constitutes 5.36% of the total fleet. With more large electric pickup trucks and heavier-duty models becoming available through the Collaborative in 2020 and beyond, the City of Austin will be well-positioned to continue leading as one of the most electrified fleets in the country.

A key takeaway from the success story in Austin is the City's Mobility Strategy which is centered around

With the help of the Collaborative, Austin has been able to realize significant cost savings associated with direct factory ordering of vehicles while also bypassing the burdensome public bid process. Through the Collaborative, Austin has saved an average of $1,300 per EV.

Austin's Toyota Prius PRIME, Ford Fusion Energi, XL Hybrid Ford F-150 PHEV, Mitsubishi Outlander PHEV, and Chevy Bolt.

"These strategies exemplify the important commitment we have made to the community to be protectors of the environment in all that we do as an organization," said City Manager, Spencer Cronk. "Executive support for this effort is essential to its success as a program that touches all city departments and is easy to provide because it speaks so clearly to the priorities of the community."

a team comprised of representatives from departments across city operations that utilize light-, medium- and heavy-duty vehicle applications as well as transit options. The participating City departments represent 6,800 vehicles. The spirit of the City is present in this team as it is focused on addressing "how we do our work," meaning how does the City transport people and equipment across the community. This mobility focus prioritizes overall mobility whether the job is performed by a passenger vehicle or another form of transportation.

Strategically, each of the City departments has been allocated electric models in an effort to normalize EVs across the City. Before departments received their electric vehicles, employee trainings were held to provide practical information and answer any questions that end users had about best use of the vehicles. Of special focus in Austin are the City's mechanical staff. On-site trainings are held to support education and technical training.

Public Access to Electrification

In keeping with the City's focus on forward thinking solutions to improve the standard of living for all Austinites, clean, equitable transportation options for residents abound. Recognizing the value of implementing high-visibility electric light-duty vehicles within the City fleet, Austin is also focused on leading the charge with electric transit options. CapMetro, the local transit authority, has a long-standing reputation for reliability and strong ridership. Transit options include multiple bus types that incorporate smaller, higher frequency routes, larger more traditional transit bus options, and light rail commuter service. Even transportation options like on-demand ride hailing and service to more rural areas are available. As is to be expected of a transit service in progressive Austin, one commitment that CapMetro has for its ridership is to "make technology work for you."

In an effort to address traffic congestion, expand transit capacity, and offer more options for linking people, neighborhoods, and employers, Mayor Adler and the City Council put a measure for Project Connect on the ballot which was passed in November 2020. Project Connect will bring a high-capacity transit system to Central Texas including an expanded, fully electric bus fleet and a transit tunnel in downtown Austin.

The zero-emission buses source their electricity from clean, renewable solar, and wind energy, making them more than simply zero tailpipe emissions. With Austin's focus on livability, these buses are the

"Austin is a world class city in part because our community has high expectations for the standards we hold ourselves to as an organization," said Assistant City Manager Gina Fiandaca, who is the sponsor of the City's Mobility Outcome. "Our efforts to electrify our fleet are the golden standard within the industry, and we are able to set the bar high because of our community's support and the clear leadership we have internally about what our priorities are and why."

perfect addition to the City given that they are so much quieter than a traditional ICE transit bus.

By the end of 2020, there will be a total of 12 electric transit buses on the roads in Austin, which translates to a reduction of 600 personal vehicles. CapMetro is also currently constructing a large bus charging depot at a facility in North Austin. Once complete, the depot will be able to accommodate 214 buses with charging capacity for 187 fully electric transit buses. Plans for the transition to a fully electric bus fleet have been in the works for many years, setting the stage for the City to purchase exclusively electric buses beginning in 2022. With a 10-year replacement cycle, the City's transit bus fleet will be fully electric by 2032.

Conclusion

This year has come with many challenges that have complicated efforts to implement EVs into city fleets. In response to the current COVID-19 crises and related budgetary impacts, many cities across the country are opting to delay vehicle retirements beyond their typical replacement cycles. Some fleets have considered postponing the shift to electric vehicles altogether in favor of falling back on old, traditional ICE vehicles. Austin, on the other hand, has risen to meet the current century with a confident, optimistic view of what is to be gained by aggressively transitioning its fleet to electric. After a detailed fleet analysis, the City is confident this path will save taxpayer money with reduced fuel and maintenance spending and make steady gains towards cleaner air for all residents. When faced with the question of backing down on its values and commitments, the City of Austin has decided to stay the course and continue to lead the way to a greater future.

For more information about how your agency can partner with the Climate Mayors EV Purchasing Collaborative to take advantage of cooperative purchasing and rich technical assistance, please visit: **www.DriveEVFleets.org**

Or call **800-267-7830**

CLIMATE MAYORS

Climate Mayors, founded in 2014, is a bipartisan, peer-to-peer network of U.S. mayors working together to demonstrate leadership on climate change through meaningful actions in their communities, and to express and build political will for effective federal and global policy action. The Climate Mayors coalition has emerged as a key voice and demonstration of the ongoing commitment of U.S. cities to accelerate climate progress.

Electrification Coalition

The Electrification Coalition (EC) is a nonpartisan, not-for-profit group of business leaders committed to promoting policies and actions that facilitate the acceleration of electric vehicle adoption on a mass scale in order to combat the economic, environmental and national security dangers caused by our nation's dependence on oil.

Sourcewell

Sourcewell is a self-supporting government organization, partnering with education and government agencies throughout North America. On behalf of 50,000 members, Sourcewell conducts competitive solicitations, awarding to the most responsive and responsible vendors.