Eugene's Electric Vehicle Strategy

The Eugene City Council directed the Eugene City Manager at their June 2017 council meeting to **develop a strategy to incorporate new and emerging transportation technologies into the TSP with the goal of 50% electric vehicles (EV) by 2030 and 90% EVs by 2050**. The City subsequently hired the Lane Council of Governments (LCOG) to conduct research and identify potential strategies for increasing EV use in Eugene with an emphasis on actions that the City can undertake. The actions in this Strategy were informed by the LCOG report, interviews and collaborative planning with internal and external stakeholders and best practice research of municipalities encouraging EV use.

This plan specifically focuses on strategies the City can implement within the next five years to encourage EV growth. The EV market has not grown at a consistent rate over the last decade. State data indicates EV ownership in 2018 at less than 1% of total vehicle ownership within Eugene zip codes. However, Oregon statewide sales data and EWEB incentive data indicates that sales have rapidly increased in the last year indicating a potential inflection point in EV sales.

More automakers have committed to creating larger EV fleets, and the cost of EVs continues to decline. The State of Oregon has also established regulations to encourage the growth of the EV market across the state. However, on the national level, there is discussion about ending the federal tax credit for EVs which could significantly impact the market in the short term. In addition, a growing number of small electric vehicles (SEV) such as electric bikes, scooters and skateboards are coming to market and being used by the public for personal mobility.

These factors make it difficult to predict the rate of EV growth locally and nationally, and therefore difficult to predict how the City of Eugene can influence that growth even three to five years from now. Other cities that have developed EV readiness plans, such as Portland, OR, have created short term, actionable plans designed to be easily and regularly updated. This Strategy is intended to follow that model and represents a five-year EV plan that will be updated regularly to ensure it stays relevant as the EV landscape changes. To that end, the actions are divided into three timelines: short (within two years), medium (within five years), and long (more than five years).

Four broad strategies were identified with supporting actions within the time frame of this plan:

- Charging Infrastructure
- Personal Vehicles, Fleets and Shared Mobility
- Education and Outreach
- Targets and Tracking

The actions in this Strategy address real and perceived consumer concerns and barriers regarding EV and SEV ownership use. Concerns and barriers relating to EVs that are addressed by the actions in this strategy include limited charging infrastructure, the higher sticker price of new EVs compared to vehicles with internal combustion engines, and consumer confusion about how EVs work, including how to charge EVs at home and while traveling, how long it takes to charge EVs, how EVs handle on the road, overall service costs, and overall battery life.

While the path to any target number of EVs is unclear, it is clear that the City and community partners have a role to play in laying a foundation to encourage greater EV use. The sections that follow summarize the places where the City can have the most impact given current resources.

Charging Infrastructure

Ownership and/or operation of an electric vehicle are reliant on the ability to conveniently charge. Access to vehicle charging can be especially challenging to people who rent, especially in multi-family housing. Convenient, publicly accessible charging infrastructure supports people traveling long distances and trip chaining and reduces range anxiety. Mobility hubs can help people move from one form of transportation to another, fostering choice and access. Charging Infrastructure actions are identified in two categories: building infrastructure and public infrastructure.

Charging Infrastructure Actions: Buildings					
City as direct implem-enter	**Task**	**Time Frame**	**Description**	**Lead**	**Support**
•	EV Ready Multi-family and Commercial Buildings	Short term	Explore electric vehicle (EV) and small electric vehicle (SEV), parking and charging infrastructure requirements in new multi-family and commercial construction projects that include parking.	PDD	
•	EV Ready for Affordable Housing	Medium term	Explore the inclusion of EV and SEV parking and charging in city-supported affordable housing developments.	PDD	
	EV Charging for Residential Buildings	Short Term	Provide incentives for level-two charging in residential buildings to provide convenience and allow for future time-of-day charging if necessary	EWEB	

Charging Infrastructure Actions: Public					
City as direct implem-enter	**Task**	**Time Frame**	**Description**	**Lead**	**Support**
•	Right-of-Way Charging	Medium Term	Develop policies and priorities around installation of publicly accessible charging stations in the ROW, including electric bike charging. Perform a study to determine needs and preferred locations.	PW	
•	EV Ready and Retrofit of City Buildings	Short to Long Term	Establish EV and SEV-ready requirements for new City buildings or major retrofits. Develop a plan to strategically retrofit existing City buildings.	CS	PW/PDD
•	City Parking Facility Charging	Short Term	Develop policies and practices to ensure efficient use of existing charging stations and assess needs for installation of additional chargers and addition of SEV chargers.	PDD	PW/CS
•	Clean Fuels Credits	Short Term	Become a credit generator in the Oregon Clean Fuels Program for City-owned chargers. Adopt a policy to ensure that resources received from these types of credits are spent on EV-related projects.	PDD	

Personal Vehicles, Fleets and Shared Mobility Actions

Upfront costs to purchase a new or used electric vehicle can be prohibitive. In addition to personal passenger vehicles, there are a number of other ways that Eugene's transportation system can be electrified. These include e-bikes, public and private vehicle fleets, shared electric cars, scooters and e-bikes, Lane Transit District buses, taxis and TNC vehicles, and other opportunities. Personal Vehicles, Fleets and Shared Mobility Options are identified in three categories: electric vehicle fleets, electric personal vehicles and electric vehicle shared mobility.

Electric Vehicle Fleets					
City as direct implem-enter	**Task**	**Time Frame**	**Description**	**Lead**	**Support**
•	Convert City Fleet Vehicles to EV	Short to Long Term depending on vehicle class	The 2018 Fleet Internal Climate Action Plan includes an action to Purchase Electric Vehicles and Develop Charging Infrastructure. This action will focus conversation on the fleet of light duty vehicles and installation of supporting charging infrastructure.	PW, CS	
	Bus Electrification	Medium to long Term	Support LTD's efforts to test bus electrification and long term transition to an electric fleet.	LTD	PW
Electric Personal Vehicles					
City as direct implem-enter	**Task**	**Time Frame**	**Description**	**Lead**	**Support**
	Autonomous Vehicles	Medium Term	Consider opportunities to pilot electric autonomous vehicles (AVs).	PW, PDD	
•	City Employee Workplace Charging	Medium Term	Continue to explore workplace EV and SEV charging for City employees who park at parking facilities designated for City employees.	CS,	PW
	EV Rebates	Short Term	Work with EV manufacturers to pass through available rebates	EWEB	

Electric Vehicle Shared Mobility					
City as direct implem-enter	**Task**	**Time Frame**	**Description**	**Lead**	**Support**
	Integrate Transit and Shared EV Mobility	Medium to long Term	Explore options to integrate public transit and shared SEV mobility options such as e-bikes, e-scooters and EV car-share vehicles.	PW, UO, LTD	
•	PeaceHealth Rides Electrification	Short Term	Continue to explore electrification of Eugene's PeaceHealth Rides bike share program.	PW	
	Private for Hire Vehicle Electrification	Medium Term	Encourage taxi and transportation network companies (such as Lyft and Uber) to utilize EVs in their fleet and develop charging infrastructure. Explore opportunities for incentives and expedited permitting processes.	PDD	
	Pilot On-Demand Electric Shuttles	Short Term	Support LTD's electric shuttle pilot program in Eugene.	PDD	
	Pilot EV Car Share and Shared Mobility Projects	Short to Medium Term	Work with partners to develop pilot projects for deployment of EV Car Share and SEV shared mobility devices (such as e-bike share and e-scooters).	PDD, PW	
	Promote micro mobility	Medium Term	Explore ways to promote use of micro mobility options such as e-scooters and e-bikes	PW	
	Explore partnerships to pilot micro mobility	Medium Term	Explore setting up a pilot project with Forth Mobility to provide shared EVs and/or electric bikes at an affordable housing development	PW, CMO	

Education and Outreach

Education and outreach support an informed public, providing information on the evolution of the rapidly advancing electric vehicle market that includes longer vehicle range, lower costs to own and options for shared-use. Additionally, electric vehicle charging infrastructure continues to develop and provides reliable and convenient charging. New forms of transportation such as shared electric personal mobility devices provide options but require education for users unfamiliar with the mode of travel on how to safely operate on the transportation system. A coordinated education and outreach program requires internal City coordination and collaboration with regional partners such as Eugene Water and Electric Board (EWEB). Education and Outreach actions are identified in a single category.

Education and Outreach					
City as direct implem-enter	**Task**	**Time Frame**	**Description**	**Lead**	**Support**
	Expand number of existing EV-centered ride and drive consumer education events.	Medium Term	Partner with EWEB and other regional partners to raise awareness of EV's and charging infrastructure.	PDD	
•	Develop Website with Consolidated Eugene EV resources and links to partner organizations	Short Term	Provide a trusted resource page for residents.	CMO/ PW	
	Support rEV Up Eugene Workshop	Short Term	Provide financial support for the rEV Up Eugene! EV education and incentive program.	CMO/ PW	
•	Develop an EV community engagement plan	Short Term	Develop community engagement strategies, prioritizing collaboration and strategies that help marginalized communities' transition to EVs and SEVs	CMO/ ECC	
	EV Dealership Engagement	Medium Term	Work with dealerships to understand incentives, barriers, and opportunities to promote EV ownership	EWEB /CMO	

Targets and Tracking

Targets set a goal by which to measure by and tracking informs progress towards the goal. Setting an informed EV adoption target is complex and will require understanding the relationship with other 2035 Transportation System Plan goals to increase the number of trips people take by walking, biking and using transit. Targets and Tracking actions are identified in a single category.

Targets and Tracking					
City as direct implem-enter	**Task**	**Time Frame**	**Description**	**Lead**	**Support**
•	Use greenhouse gas (GHG) modeling to refine and set a target for EV adoption in 2035	Short Term	Work with LCOG to refine the VisionEval GHG scenario planning model to determine a 2035 Transportation System Plan EV target.	PW	
•	Track EV adoption rates	Short Term	Track registration data for EVs in Eugene zip codes and the number of people using EWEB purchase incentives for EVs. Publish the data on the City's website.	PW