



**BUSINESS OF THE CITY COUNCIL
CITY OF MERCER ISLAND**

**AB 6836
March 3, 2026
Study Session**

AGENDA BILL INFORMATION

TITLE:	AB 6836: Electric Vehicle Charging Plan Development Update	<input checked="" type="checkbox"/> Discussion Only <input type="checkbox"/> Action Needed: <input type="checkbox"/> Motion <input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution
RECOMMENDED ACTION:	Receive report. No action necessary.	

DEPARTMENT:	Public Works
STAFF:	Jason Kintner, Chief of Operations Kellye Hilde, Deputy Director of Public Works Alanna DeRogatis, Sustainability Program Manager
COUNCIL LIAISON:	n/a
EXHIBITS:	1. Electric Vehicle Charging Infrastructure Implementation Strategy
CITY COUNCIL PRIORITY:	4. Focus efforts and actions to be an environmentally and fiscally sustainable, connected, and diverse community.

AMOUNT OF EXPENDITURE	\$ n/a
AMOUNT BUDGETED	\$ n/a
APPROPRIATION REQUIRED	\$ n/a

EXECUTIVE SUMMARY

The purpose of this agenda item is to provide an update on the development of the City’s Electric Vehicle (EV) Charging Infrastructure Plan.

- The Mercer Island Climate Action Plan (CAP) was adopted by City Council in April 2023 ([AB 6246](#)). The CAP includes several actions aimed at reducing greenhouse gas emissions from the Transportation sector, including Municipal Fleet Electrification (CAP Action ID CC2.4) and development and implementation of an EV Charging Infrastructure Plan (CAP Action ID TR1.1).
- In October 2024, the City was awarded \$100,000 in funding from the 2023-2025 Climate Planning Grant from the Washington State Department of Commerce to begin the development of an EV Charging Infrastructure Plan with a focus on the transition of the municipal fleet and the required charging infrastructure.
- In January 2025, the City engaged EXP U.S. Services, Inc. (EXP) and their partner, ElectroTempo, to begin development of the first phase of the EV Charging Infrastructure Plan, focused on a fleet electrification strategy for the City, which was completed in June 2025 (Exhibit 1).
- The Fleet Electrification Strategy is a comprehensive municipal fleet electrification plan that includes multiple replacement schedule scenarios to help the City manage and plan for electrifying fleet vehicles over the next 5-25 years.

- Work is now underway on the development of the next phase of the Plan, which focuses on community charging infrastructure and is expected to be finalized in June 2026.

BACKGROUND

Climate Action Plan

In 2007, the City adopted its first greenhouse gas reduction (GHG) targets in alignment with State goals. In 2011, to remain consistent with the King County Growth Management Planning Council's policies, the City updated its GHG targets to a 50% reduction by 2030, 75% by 2040, and 95% by 2050, using a 2007 baseline.

Recognizing that many actions needed to reduce GHG emissions, strengthen resiliency, and protect the environment must occur at the local level, the City Council adopted the [Mercer Island Climate Action Plan](#) (CAP) in April 2023. The CAP strategically guides the City's planning and investments to meet emissions and resiliency goals. It built on years of prior work and existing City planning documents to organize and prioritize strategies and actions to reduce GHG emissions. As part of the City's commitment to reducing emissions and leading by example, the CAP also establishes a target of achieving carbon-neutral municipal operations by 2030.

The transportation sector is consistently one of the largest contributors to Mercer Island's GHG emissions at both the municipal and the community levels. The CAP includes several actions aimed at reducing emissions from this sector, including Municipal Fleet Electrification (CAP Action ID CC2.4) and development and implementation of an EV Charging Infrastructure Plan (CAP Action ID TR1.1) In 2023, City fleet emissions accounted for 40% of municipal operations emissions, making fleet electrification a crucial strategy to achieving the 2030 target of carbon-neutrality.

The development of an EV Charging Infrastructure (EVCI) Plan is one of the key actions in the CAP that will enable the City to meet its 2030 and 2050 emissions reduction goals for the community-level. The CAP calls for the development and implementation of a Plan, in collaboration with the City's utility provider, Puget Sound Energy (PSE), that can be used to guide expansion of EV charging capacity throughout the City. The CAP notes that this Plan should include recommendations for the facilities and infrastructure required for the City and the Mercer Island School District to meet 2030 and 2050 fleet electrification goals, as well as a readiness and capacity study to evaluate increasing EV charging at commercial and residential properties citywide.

Finally, the Plan is meant to outline an implementation strategy including partnerships, funding, and future policy recommendations for the City.

2023-2025 Climate Planning Grant

State legislation signed into law in 2023 ([HB1181](#)) added a climate goal to the Growth Management Act and requires local comprehensive plans to have a climate element. Climate elements must maximize economic, environmental, and social co-benefits and prioritize environmental justice in order to avoid worsening environmental health disparities. A climate element can take the form of a single comprehensive plan chapter or be integrated into several chapters/elements such as housing, transportation, and land use. Mercer Island is not required to adopt a climate element into its comprehensive plan until 2029.

Beginning in July 2023, the Washington State Department of Commerce (Commerce) made approximately \$30 million available in statewide grants for the 2023-2025 biennium to assist jurisdictions in developing plans related to building community resilience and reducing greenhouse gas emissions. In October 2024, the City was awarded \$100,000 to begin development of an EVCI Plan. Due to the scale of the Plan outlined in the

CAP, and the deadline for the 2023-2025 grant, the development of the plan was divided into two phases: municipal and community. In November 2024, following a competitive process, the City selected EXP U.S. Services, Inc. (EXP), along with their partner, ElectroTempo, to begin development of the municipal phase of the EVCI Plan that was to be completed by the grant deadline of June 2025.

ISSUE/DISCUSSION

The municipal phase of the City's Electric Vehicle Charging Infrastructure (EVCI) strategy (Exhibit 1) is an action plan that lays out fleet electrification options to help the City evaluate GHG emissions reductions and costs/savings associated with multiple potential future fleet electrification scenarios. The strategy provides a phased deployment approach to facilitate and optimize fleet electrification while being mindful of potential barriers, such as grid impacts, and charger/parking availability. The plan also offers strategies for building internal education and awareness, coordinating with stakeholders, and understanding industry best practices. The strategy was developed in alignment with the schematic design for the planned Public Safety and Maintenance (PSM) Building, and prior to the acquisition of the 9655 Building. This plan is a living document and will continue to evolve in the coming months.

Fleet Transition Strategy

The consultants conducted a total cost of ownership analysis for each vehicle in the City fleet to determine if an electric option is appropriate for the next cycle replacement. This analysis included lifecycle costs associated with the vehicle, such as purchase price, maintenance, fuel, and potential incentives. Overall, the fleet electrification plan results in an ROI positive net savings of \$1.2 million. Estimated capital expenses for full electrification will be ≈\$5.93 million, an increase of ≈\$2.78 million compared to comparable gas or diesel vehicle replacements, but the 12-year operational savings will be ≈\$4 million. These savings are primarily realized through fuel cost reductions as well as lower maintenance and downtime expenses.

To develop the transition strategy, the fleet was divided into two groups based on charging requirements:

1. **Slow charging fleet** for all light-duty and non-emergency vehicles
2. **Fast charging fleet** for all emergency vehicles and medium- and heavy-duty vehicles

There are currently a limited number of slow chargers available at the City's Public Works facility. Until future plans for the site are determined, it does not make sense to install additional charging infrastructure, which makes fleet electrification challenging in the near term. For this reason, the consultant evaluated two options for EV transition that would allow for progress towards electrification goals while working around the constraints of facility unknowns:

- A. Scenario A assumes that no fleet vehicles that will need to charge at the City Hall/Public Works campus will be replaced with EVs until after construction has been completed and permanent charging solutions are available.
- B. Scenario B assesses how the City could replace a subset of vehicles prior to construction being completed and then ramp up the full EV transition after that point.

Under Scenario A, the fleet transition would be completed by 2037. Scenario B results in 13 vehicles being electrified before 2030, with the full transition completed in 2039. The 13 vehicles that could be electrified prior to 2030 are assumed to use either slow chargers at a temporary parking location, or the existing slow chargers at City Hall. These six chargers are already being used as the primary charging spaces for several City EVs, in addition to being accessible for personal staff vehicles for paid charging.

The 10-year total cost of ownership for Scenario B was found to be slightly lower than Scenario A due to lower electricity demand charges from slow charging in the initial years. However, due to the large upfront investment in lower mileage vehicles, these vehicles may not necessarily generate enough savings from lower operational costs to offset higher initial expenses and will only contribute marginally to emissions goals due to the lower mileage driven. Therefore, there is minimal benefit to prioritizing the electrification of these vehicles.

Ultimately, full electrification of the vehicles at the City Hall/Public Works site will require 55 charger ports, assuming smart chargers that can switch charging between ports. This would also eliminate the need for personnel to be on-site to swap vehicles after hours. With the acquisition of the 9655 Building, and potential temporary charging solutions, it may be possible to accelerate EV transition and achieve a blended version of Scenarios A and B, though this evaluation is still in progress.

The Mercer Island Community and Event Center has seven vehicles located on premises in scope for electrification. Five vehicles at this site could be electrified by 2030 with two utility carts electrified in 2039 and 2041. Full electrification at this site requires a total of four chargers: one fast charger and three slow chargers.

Readiness and Capacity Study

Electrification of the City fleet will require a total of 64 charging ports across the two sites: 18 fast chargers and 14 slow chargers. The chargers require approximately 2.43 MW (megawatts) of additional power on top of building needs. As the majority of fleet vehicles will be charged at the City Hall/Public Works campus, care must be taken to ensure adequate power is supplied to the site during the design phase of this project. The new chargers at the City Hall/Public Works campus will require approximately 2.25 MW of power, and this demand should be incorporated into the development of future plans for the site.

Staff will continue to work with PSE and EV subject-matter experts to develop, adjust, and implement long-term plans for electrification. Innovative new technologies become available each year and could be considered to augment the existing strategy presented in this report. The City could consider integrating distributed energy resources, such as on-site solar generation and battery energy storage systems to facilities to help address this additional power need.

Bi-directional Charging Strategy

EV batteries can be utilized for bi-directional charging, where the vehicle's battery serves as a backup power solution to help provide resilience benefits and demand-response capabilities to a building. This form of bi-directional charging, known as Vehicle-to-Building (V2B) was evaluated due to the need for backup power during outages to maintain critical infrastructure. V2B technology enables EVs to discharge stored energy into a building's electrical system, offering benefits such as enhanced energy resilience, cost optimization, and greater integration with renewable energy sources. However, realizing the full potential of V2B requires more than just compatible EVs—it also depends on a supporting ecosystem of infrastructure components.

Currently, two EV models on the market support V2B functionality: the Nissan Leaf and the Ford F-150 Lightning, though there are other models that plan to offer the functionality as well. At present, most vehicles support V2B only within the manufacturer's proprietary ecosystem, requiring specific installation and integration setups. The City already owns several of each of these vehicles, and including future fleet replacements, they could provide a total potential battery capacity of approximately 2,218 kWh (kilowatt-hours) to 2,991 kWh. In November 2025, the Public Works Building used about 560 kWh/day, so while V2B

could offer some supplemental power supply in an emergency, the City will still require additional power generation methods in order to remain operational during an extended period of power loss.

Adding solar power enhances sustainability and provides capacity for off-grid operation. EVs can be charged by solar during the day and then used as a power source at night or during outages. Supplemental stationary battery storage can further increase system resilience by:

- Supporting higher load demands
- Providing backup power when EVs are unavailable or fully discharged
- Reducing energy costs with better load shifting and peak shaving
- Increasing clean energy utilization

NEXT STEPS

The consultant team is currently working with staff to further develop the EVCI Plan beyond municipal fleet electrification to support community-wide EV adoption. This second phase of plan development is intended to specifically address the current barriers of expanding EV charging access and align with Mercer Island's CAP goals. There is a strategic focus on growing existing public EV charging infrastructure and encouraging the installation of EV chargers at commercial and multifamily properties. The expanded EVCI Plan will also include an assessment of policies and regulations the City could implement to further support EV adoption on the Island.

The consultants have developed a dashboard to evaluate several EV adoption rate scenarios on Mercer Island that can estimate future charging demand and the corresponding energy requirements at the block group level. The dashboard involves forecasting which households are likely to own EVs and can project EV sales growth to estimate the future magnitude of the EV adoption on the Island. This data has been used to produce high, medium, and low scenarios to inform charging infrastructure needs for different EV adoption rates.

Staff are using this dashboard to develop a list of priority sites for increasing public charging infrastructure, including both City- and privately-owned properties. Work is currently underway with PSE to assess each identified site's readiness to install EV chargers, and the consultant team is working with staff to develop a system to rank these sites for prioritization. Considerations for the site ranking include prioritizing expanding access to historically underrepresented groups and choosing sites that will provide the greatest benefit to the greatest number of community members. This process will provide staff with compelling data that can help inform future capital investments and grant applications to expand City-owned public charging infrastructure as well as help staff develop an outreach strategy to work with private property owners on installing chargers.

By leveraging these tools for demand forecasting, site analysis, and scenario modeling, the team will provide Mercer Island with a comprehensive, equitable, and resilient EV Charging Infrastructure Plan that addresses both municipal and community-wide needs, ensuring everyone on the island can charge an electric vehicle. The municipal fleet electrification strategy will also be revisited in the coming months as plans for City facilities continue to evolve.

RECOMMENDED ACTION

Receive report. No action necessary.