



**JUNE 2025** 

Annual Electric Vehicle Supply Equipment Installation Report

**JULY 2023 — JUNE 2025** 

**Business Resources Division** 

Report to the Legislature

## **Agency Overview**

The Department of Enterprise Services (DES) provides centralized services to state government agencies; to other public entities such as cities, counties, and tribes; and to Washington residents.

DES' mission is to strengthen the business of government.

We do this by creating overall operating efficiencies so our state's government entities can focus on their core missions. Our buying power, economies of scale and years of experience help government get the best value for the products and services they need to support their missions.

### **Key Services**

- Capitol Campus stewardship
- Construction & public works
- Contracts & procurement
- Employee Assistance Program
- Energy efficiency
- Engineering & architectural services
- Facilities management
- Fleet management & EVs

- Parking management
- Print & mail services
- Property management
- Real estate services
- Risk management
- Small agency support
- Surplus property
- Training & workforce development



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## **Executive Summary**

Each year, the Department of Enterprise Services (DES) provides updates on electric vehicle supply equipment (EVSE) infrastructure projects that are underway across the state to advance the state's vehicle electrification goals.

This report shares the progress made in the 2023-2025 biennium using funding provided from the transportation and operating budgets. In the 2023-2025 biennium, the Legislature provided DES with \$5.3 million in operating funds and \$6 million in transportation funds to install electric vehicle supply equipment infrastructure (ESSB 5187 Sec. 153 (6) and ESHB 2134.SL Sec. 114 (1) (a)).

In coordination with the State Efficiency and Environmental Performance (SEEP) Office and the Zero-Emission Vehicle (ZEV) Workgroup, and with support from the Interagency Electric Vehicle Coordinating Council (IEVCC), DES solicited EVSE project proposals to funding consideration. A six-person panel of SEEP and DES staff scored submitted projects based on criteria and ranked and selected projects to prioritize.

The 2023-2025 biennial funding will install 391 charging ports at 65 state-agency locations. The transportation funding is supporting the installation of 195 new Level 2 charging ports and 30 Level 3 charging ports. The operating budget funding is supporting the installation of 150 new Level 2 charging ports and 16 Level 3 ports.

## Introduction

The 2023-2025 operating budget provided \$5.3 million to install electric vehicle supply equipment (EVSE) infrastructure and the 2023-2025 transportation budget included an additional \$6 million (ESSB 5187 Sec. 153 (6) and ESHB 2134.SL Sec. 106 (1) (a)).

Electric vehicle supply equipment (EVSE) is needed to advance the state's fleet vehicle electrification goals. DES, in collaboration with the State Efficiency and Environmental Performance (SEEP) Office, developed an application template and process for selecting projects for funding. The selection panel gave priority to projects located in areas that had limited or no nearby public charging infrastructure and projects in multi-tenant facilities.

An electrical assessment of each selected facility was conducted to determine if the building had sufficient electrical capacity to support the EVSE or if building upgrades would be required.

This report provides an update on the 53 projects that were selected using the \$11.3 million that was appropriated in the 2023-25 biennium. These projects resulted in:

- 191 Level 2 chargers (345 ports).
- 46 Level 3 chargers (46 ports).

These chargers contribute to the estimated projected need of 913 new Level 2 charger ports and 38 Level 3 charger ports in 2024, as identified in the <u>Zero-Emissions Vehicle Implementation Strategy</u> Report. This new charging infrastructure will improve the state's readiness to meet the fleet electrification targets outlined in <u>Executive Order 21-04</u>.

In the fiscal year 2024 report submitted in June 2024, DES estimated that the funding would be used for 124 Level 2 chargers and 17 Level 3 chargers. These numbers are different than the interim report due to scope modifications made during construction and the addition of transportation budget funding.

### **Statutory Directive**

#### **2023-25 Biennial Operating Budget - From ESSB 5187**:

"\$2,671,000 of the general fund—state appropriation for fiscal year 2024 and \$2,671,000 of the general fund—state appropriation for fiscal year 2025 are provided solely for zero emission electric vehicle supply equipment infrastructure at facilities to accommodate charging station installation. The electric vehicle charging equipment must allow for the collection of usage data and must be coordinated with the state efficiency and environmental performance program. The department must prioritize locations based on state efficiency and environmental performance location priorities, and at least where zero emission fleet vehicles are or are scheduled to be purchased. The department must report when and where the equipment was installed, usage data at each charging station, and the state agencies and facilities that benefit from the installation of the charging station to the fiscal committees of the legislature by June 30. The department shall collaborate with the interagency electric vehicle coordinating council to implement this subsection and must work to meet benchmarks established in chapter 182, Laws of 2022 (transportation resources)."

#### **2023-25 Biennial Transportation Budget - From ESHB 2134.SL:**

"\$6,000,000 of the carbon emissions reduction account and beginning January 1, 2025, \$12,000,000 of the carbon emissions reduction account—state appropriation, are provided solely for zero emission electric vehicle supply equipment infrastructure at facilities to accommodate charging station installations. The electric vehicle charging equipment must be coordinated with the state efficiency and environmental performance program. The department must prioritize locations based on state efficiency and environmental performance location priorities and where zero emission fleet vehicles are located or are scheduled to be purchased. The department must report when and where the equipment was installed and the state agencies and facilities that benefit from the installation of the charging station to the fiscal committees of the legislature by June 30, 2025, with an interim report due January 2, 2024. The department shall collaborate with the interagency electric vehicle coordinating council to implement this section and must work to meet benchmarks established in chapter 182, Laws of 2022 (transportation resources)

[...]

(4) The department must provide a report to the transportation committees of the legislature that estimates current biennial and future carbon reduction impacts resulting from zero-emission electric vehicles and supply equipment infrastructure funded in this section by June 30, 2025."

### **Background**

Former Governor Inslee signed <u>Executive Order 21-04</u>, which established fleet electrification goals for the Washington State Cabinet Fleet. To support the change in fleet composition, the Legislature provided funding for the installation of EVSE in the 2023-2025 operating and transportation budgets. Installing charging infrastructure at state-owned and state-leased buildings is a critical step in fleet electrification.

#### **Types of chargers**

A Level 1 EV charger uses a standard 120-volt outlet, which has 10-12 amps of power available and is a typical wall outlet found in most homes. Level 1 chargers are the slowest charging option, adding about 2-5 miles of range per hour.

A Level 2 EV charger uses a 240-volt outlet, which has up to 22 kilowatts of power available and is similar to a clothes dryer outlet. Level 2 chargers add about 10-30 miles of range per hour.

A Level 3 EV charger, also known as a direct current fast charger (DCFC), uses high-voltage direct current to deliver rapid charging. These types of chargers are typically used for public charging stations, as they are the fastest charging option. Level 3 chargers add about 100-250 miles of range per hour.

Charging times and speed will vary based on the specific vehicle and type of charger used.

## Methodology

In partnership with the State Efficiency and Environmental Performance (SEEP) Office and the Interagency Electric Vehicle Coordinating Council (IEVCC), DES developed a process for prioritizing electric vehicle (EV) projects. This process includes how we estimate the carbon emissions reduced by installing electric vehicle supply equipment (EVSE) charging stations and meet the state's environmental priorities.

#### **Project criteria**

In July 2024, the EVSE team created an application template that included the following criteria:

- Readiness: What pre-work has been completed that could expedite the project?
- **Project location:** Would chargers be installed at both state-owned and state-leased facilities?
- **Network capabilities:** The facility must have the ability to support a networked charger so that usage data can be collected.
- Project benefits:
  - Does the project:

- Positively affect economically disadvantaged communities?
- Positively affect communities with poor air quality?
- Provide charging infrastructure for multiple agencies or any state employee using an EV while on official state business?
- Increase EV replacements for internal combustion engines that have reached the end of their useful life?
- Install EVSE in areas with coverage gaps?

State agencies and higher education institutions submitted over 159 project proposals. A six-person panel of SEEP and DES staff scored all submitted projects.

The selection panel ranked projects using the following criteria:

- 1) The number of anticipated vehicle conversions to Battery Electric Vehicles for a proposed project scope.
- 2) The distance the proposed project locations were from a nearby publicly available direct current fast charger (DCFC) using PlugShare.
- 3) The state's environmental justice priorities.

The panel gave additional points to projects that were accessible to other state agencies or the public, and to those that would likely result in the replacement of a gas-powered vehicle with an electric vehicle once the chargers were installed.

DES, SEEP, and IEVCC shared the application process at ZEV workgroup meetings, through the SEEP and ZEV newsletters, and through direct connections with DES Real Estate Services and individual agency contacts.

#### Calculating reduced carbon emissions

AFLEET Charging and Fueling Infrastructure (CFI) Emissions Tools were used to estimate carbon reductions generated by these projects. The AFLEET CFI Tool estimates well-to-wheel greenhouse gas (GHG) emissions and vehicle operation air pollutant emissions. Similarly, ChargePoint, an EVSE brand, calculates GHG savings based on the energy dispensed through each charging station.

In some instances, an actual use measurement was not possible because EVSE equipment was not on the network or on a dedicated meter. In these cases, we calculated an average use value. This calculation used the average kilowatt-hour (kWh) per Level 2 charging port across agencies per month. This calculation produced an average value of 141 kWh per port per month. To find the actual utilization of non-networked chargers, we multiplied the number of months the charger operated by the number of ports against this 141kWh average.

Using the AFLEET CFI, we were able to calculate the average greenhouse gas (GHG) saved,

measured in short tons. For every one kWh consumed, the state saved 0.00091 tons/kWh of greenhouse gases. The Washington state agency-owned ChargePoint EVSE data for the past 12 months averaged 0.00081 tons/kWh of GHG saved. DES compared these results to help validate the calculations of greenhouse gases saved.

# **Findings/Results**

As of May 2025, most projects have begun construction, and some have already been completed. Projects often need building infrastructure upgrades which can lead to longer lead times on project completion.

FY 2023-2025 project status

Project status	Number of projects
Planning	0
Design	4
Construction	28
Completed	18
Cancelled	3
Total	53

Each project has agreed to a memorandum of understanding (MOU) with DES to establish project standards and expectations. The MOU approves funding up to a certain amount to complete the charging installation, so the number of chargers listed below is subject to change as project costs become more certain. The MOU also includes requirements for agencies to report charging station use to DES on an annual basis.

We collect the total kilowatts (kWh) charged for the life of each unit once construction is complete. For projects that are still in process, we cannot collect this data yet and have listed the total kWh and completion date for the project as "to be determined" (TBD). For projects that were exploratory in nature, we cannot collect data on these units and have listed the total kWh for the unit's lifetime as not applicable (N/A).

Of the 53 projects selected, three were cancelled, based on the outcomes of their feasibility studies. These projects are identified with "cancelled" in the table below. Some projects listed below were exploratory in nature and in the following tables we've marked their kWh usage as not applicable (N/A). These feasibility studies were to evaluate the potential for future larger charger installations.

### **FY 2023-2025 projects**

### **Transportation budget funding**

The 2023-2025 transportation budget funded projects that:

- Installed 120 Level 2 ports.
- Installed 16 DCFC ports.
- Resulted in a total of 61,626 kWh charged, measured in year to life (YTL) of the charging units.

#### 2023-2025 transportation budget funded projects

Agency	Location	Date Completed	Level 2 Ports	DCFC Ports	Total kWh Charged YTL
DES	Yakima	TBD	30	4	
DES	Olympia	1/22/2025	22	0	25,888
DES	Lacey	Cancelled	0	0	N/A
DFW	Ephrata	6/20/2024	6	0	3,334
DFW	Montesano	3/26/2024	4	0	1,204
DOC	Walla Walla	9/4/2024	0	3	8,660
DSHS	Omak	1/6/2025	4	0	23
DSHS	Wenatchee	6/27/2024	12	2	1,754
DVA	Walla Walla	1/6/2025	0	1	2,197

Agency	Location	Date Completed	Level 2 Ports	DCFC Ports	Total kWh Charged YTL
LNI	Moses Lake	3/17/2025	4	1	1,335
LNI	Wenatchee	TBD	4	1	
LNI	Mount Vernon	Cancelled	0	0	N/A
MIL	Spokane	2/5/2025	10	2	1,511
MIL	Yakima	7/9/2024	8	0	5,188
MIL	Bremerton	7/9/2024	8	0	523
MIL	Camp Murray	2/5/2025	6	2	9,074
SVC	Friday Harbor	6/26/2024	2	0	935

### **Operating Budget Funding**

The 2023-2025 operating budget funded projects that:

- Installed 225 Level 2 ports.
- Installed 30 DCFC ports.
- Resulted in a total of 76,970 kWh charged, measured in year to life (YTL) of the charging units.

### 2023-2025 operating budget funded projects

Agency	Location	Date Completed	Level 2 Ports		Total kWh Charged YTL (year to life of charging unit)
AGR	Yakima	Cancelled	0	0	N/A
CJT	Burien	TBD	24	0	

Agency	Location	Date Completed	Level 2 Ports		Total kWh Charged YTL (year to life of charging unit)
DCYF	Bellingham	TBD	10	0	
DCYF	Centralia	TBD	7	0	
DCYF	Ellensburg	TBD	6	0	
DCYF	Kent	TBD	6	0	
DCYF	Puyallup	TBD	8	0	
DCYF	Richland	TBD	11	0	
DES	Seattle	TBD	2	0	
DFW	Centralia	TBD	4	0	
DFW	Issaquah	TBD	4	0	
DFW	Kalama	TBD	4	0	
DFW	Mill Creek	TBD	4	0	
DFW	Shelton	TBD	2	0	
DOC	Clallam Bay	2/4/2025	0	1	270
DOC	Connell	TBD	0	2	
DOC	Monroe	TBD	0	2	
DSHS	Tacoma	TBD	7	0	
DSHS	Bremerton	TBD	2	0	
DSHS	Everett	TBD	8	0	
DSHS	Toppenish	TBD	6	0	
DSHS	Bremerton	TBD	2	0	

Agency	Location	Date Completed	Level 2 Ports		Total kWh Charged YTL (year to life of charging unit)
DSHS	Kennewick	TBD	4	0	
DSHS	Bremerton	TBD	10	0	
DSHS	Arlington	TBD	8	0	
DSHS	Vancouver	TBD	8	0	
DSHS	Walla Walla	TBD	2	0	
ECY	Spokane	TBD	28	14	
ECY	Lacey	TBD	0	8	
НСА	Olympia	10/9/2024	10	0	8,460
LCB	Olympia	7/11/2024	10	0	65,321
LCB	Tacoma	TBD	6	0	
SEC	Tumwater	TBD	6	0	
SFB	Vancouver	2/24/2025	6	0	1,200
UTC	Lacey	1/27/2025	6	0	1,719
WSP	Shelton	TBD	4	3	

### **Estimated emission reductions**

The table below shows estimated greenhouse gas emission reductions, using total kilowatt hours (kWh) charged, and the AFLEET Charging and Fueling Infrastructure (CFI) Emissions Tool.

Estimated emission reductions (Apr. 2024-Mar. 2025)

Fund	Level 2 Ports	DCFC Ports	Total kWh Charged (Apr. 2024– Mar. 2025)	AFLEET CFI (short tons)
FY 2023-2025 Operating	32	1	76,970	71
FY 2023-2025 Transportation	86	11	61,626	56
Total	118	12	138,596	127

## **Conclusions**

With the funding provided in the 2023-2025 operating and transportation budgets, 45% of agencies' requests for Level 2 ports and 30% of direct current fast charger (DCFC) ports were funded and installed.

While good progress is being made to expand the state's charging infrastructure, there is still a lot of work to be done to ensure the state-owned charging infrastructure is robust enough to meet the electrification goals established in EO 21-04. In addition to installing new charging infrastructure and equipment, the demand for replacing aging equipment is rising.

