

Washington Electric Vehicle Charger Program Grant (WAEVCP 2023)



Department of Ecology

On December 19, 2022, the Washington Department of Ecology updated its Clean Vehicles Program requiring all new light-duty vehicles sold in Washington Meet zero-emission vehicle (ZEV) standards by 2035.



What qualifies as a ***ZEV***?

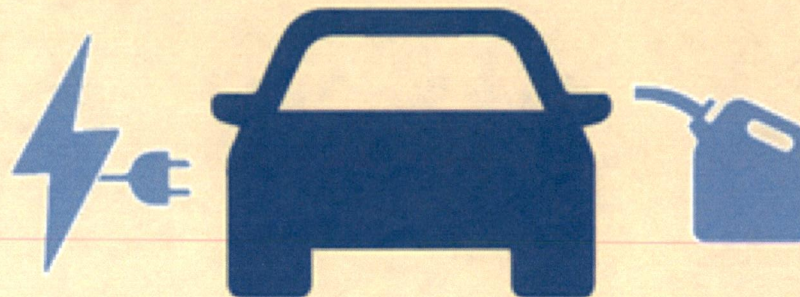
Battery electric vehicles



Hydrogen fuel cell vehicles

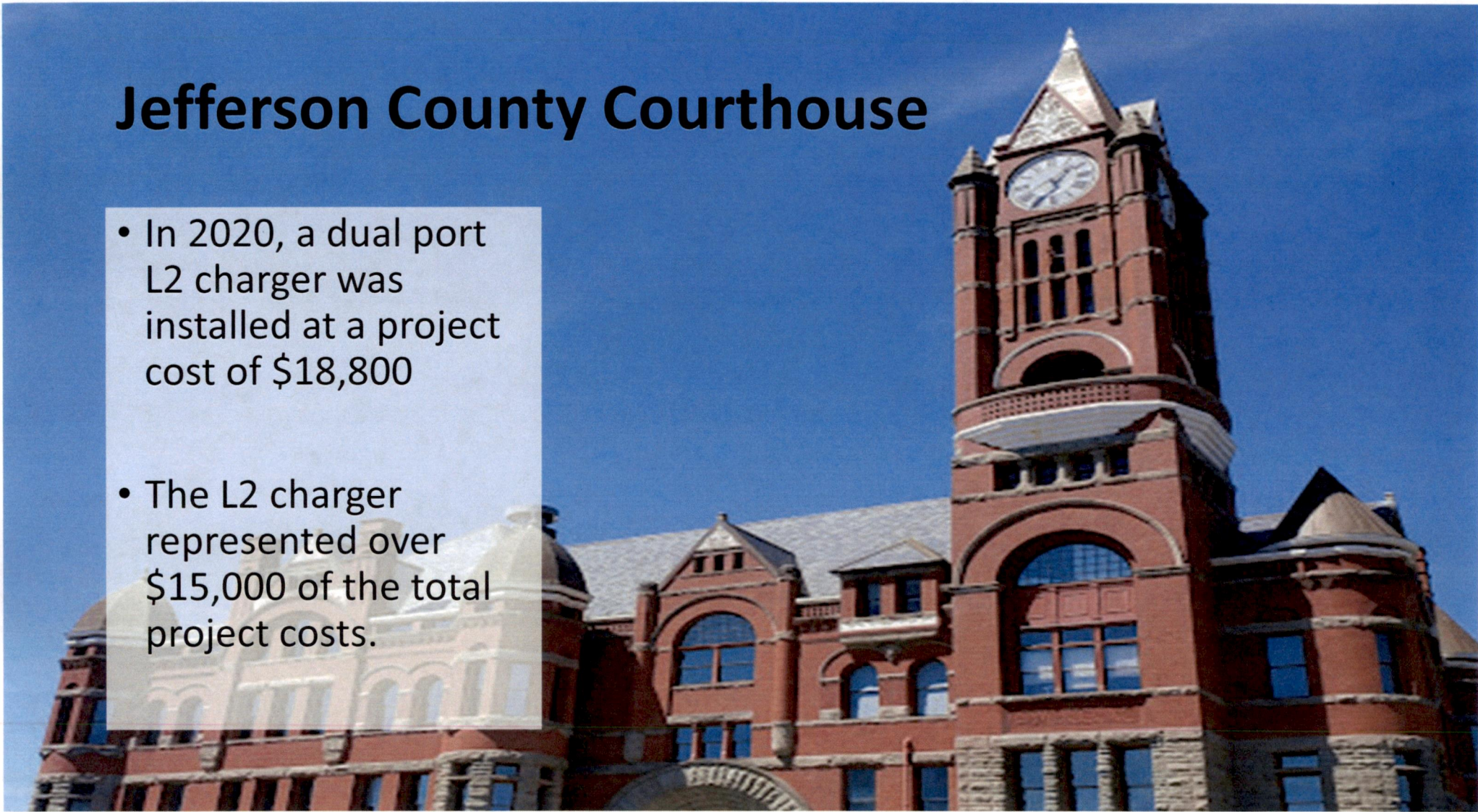


Plug-in hybrid vehicles with > 50 miles of electric-only range



Jefferson County Courthouse

- In 2020, a dual port L2 charger was installed at a project cost of \$18,800
- The L2 charger represented over \$15,000 of the total project costs.



Washington Electric Vehicle Charger Program Grant



- Initial applications submitted 12/1/23 for Jefferson County Courthouse and Castle Hill locations. Conditional award 2/28/24.
- 20 Level 2 (dual port) or 40 single ports, plus 6 stub-outs.
- Contract signed between lead applicant (Clean and Prosperous Institute) and the State on Aug. 9, 2024. Required completion by May 6, 2025.
- Award provides \$306K in grant funding, requires a 25% match (\$102,000).

Jefferson County Fleet Consideration

- Approximately 100 light and medium vehicles that fall under the WA Clean Vehicle Program.
- 53 vehicles have a scheduled replacement date that has expired or will expire by December 31.
- Electrification of the Fleet has already begun.



Electric Vehicle Authorizations

- Mustang Mach E

- 98KW battery
- 14Hour charge time from 0% battery using a 7KW Charger.

- Ford Lightning Pickup

- 131 KW Battery
- 18.7 hour charge time from 0% battery using a 7KW charger.

- Department of Enterprise Services price comparison

- 2023 Mustang Mach E approximately \$10,009 more than 2024 Ford Edge.
- 2025 F-150 Lightning approximately \$10,800 more than comparably equipped 2025 F-150 crew cab.
 - Lightning was equipped with upgraded 131 KW battery.

WAEVCP 2023 Implementation Options



WAEVCP 2023 Option 1

- **Accept the award and move forward with installing all or some of the allotted 40 L2 ports and 6 stubs.**
 - Requires 25% Match up to \$102,000.
 - Considerable unknown construction costs (Site excavation, transformers, new service establishment, electrical, etc.)
 - Currently unbudgeted and unscheduled capital project.
 - May 6, 2025 deadline is very difficult to meet.
 - Jefferson County would be charged at the PUD rate (projected at 11 cents per kWh)

WAEVCP 2023 Option 2

- **Amend the existing contract with EVCS, allowing them to take on the burden of installing the L2 ports with the County acting as the site host in a signed LOI.**
 - EVCS responsible for installing, maintaining L2 ports while Jefferson County acts as the site host.
 - EVCS responsible for data reporting in compliance with grant requirements.
 - EVCS retains ownership of equipment at the end of the contract.
 - EVCS recoups cost through utilization of charging ports at a rate of 29 cents per kWh.

Estimating Charging Costs Using EVCS Rate

Year	Price/kWh	# Vehicles	Price/Charge of EV Fleet	CPY	Total	Breakeven
Year 1	\$0.29	4	\$21.69	100	\$2,169.20	\$99,704.82
Year 2	\$0.29	8	\$43.38	100	\$4,338.40	\$95,492.40
Year 3	\$0.29	12	\$65.08	100	\$6,507.60	\$88,984.80
Year 4	\$0.29	16	\$86.77	100	\$8,676.80	\$80,308.00
Year 5	\$0.29	20	\$108.46	100	\$10,846.00	\$69,462.00
Year 6	\$0.29	24	\$130.15	100	\$13,015.20	\$56,446.80
Year 7	\$0.29	28	\$151.84	100	\$15,184.40	\$41,262.40
Year 8	\$0.29	32	\$173.54	100	\$17,353.60	\$23,908.80
Year 9	\$0.29	36	\$195.23	100	\$19,522.80	\$4,386.00
Year 10	\$0.29	40	\$216.92	100	\$21,692.00	(\$17,306.00)

WAEVCP 2023 Option 3

- **Decline the award, this would mean that the County would pay full price for the installation of L2 chargers along with all associated costs (Construction, equipment, material, etc.).**
 - Seek other funding opportunities, or budget as future capital projects.
 - Eliminate immediate financial constraints of the grant match requirement.
 - Potential long term savings depending on future costs of implementing the technology.
 - Prevents 10 year contractual obligation related to the EV Charger stations.
 - Requires addressing the immediate charging needs of electric vehicles already purchased.

Estimating Variance in Charging Costs

Year	# Vehicles	Price/Charge of the EV Fleet at .29	Price/Charge of the EV Fleet at .11	Variance per charge	Total at \$0.29 per kWh	Total at \$0.11 per kWh2	Annual Variance
Year 1	4	\$21.69	\$8.23	\$13.46	\$2,169.20	\$822.80	\$1,346.40
Year 2	8	\$43.38	\$16.46	\$26.93	\$4,338.40	\$1,645.60	\$2,692.80
Year 3	12	\$65.08	\$24.68	\$40.39	\$6,507.60	\$2,468.40	\$4,039.20
Year 4	16	\$86.77	\$32.91	\$53.86	\$8,676.80	\$3,291.20	\$5,385.60
Year 5	20	\$108.46	\$41.14	\$67.32	\$10,846.00	\$4,114.00	\$6,732.00
Year 6	24	\$130.15	\$49.37	\$80.78	\$13,015.20	\$4,936.80	\$8,078.40
Year 7	28	\$151.84	\$57.60	\$94.25	\$15,184.40	\$5,759.60	\$9,424.80
Year 8	32	\$173.54	\$65.82	\$107.71	\$17,353.60	\$6,582.40	\$10,771.20
Year 9	36	\$195.23	\$74.05	\$121.18	\$19,522.80	\$7,405.20	\$12,117.60
Year 10	40	\$216.92	\$82.28	\$134.64	\$21,692.00	\$8,228.00	\$13,464.00

Summary

- WAEVCP 2023 provides funding for 40 L2 ports for the Jefferson County workforce.
- Upfront costs, timeline, and potential unknown costs present challenges for implementation.
- The County has contracted with EVCS for other EV charging station grant awards.
- The WAEVCP decision should be incorporated into a broader discussion on increasing zero emission vehicles in the Jefferson County fleet.