2025

Transportation Electrification Plan

AVISTA

About Avista

Avista Corporation is an energy company involved in the production, transmission, and distribution of energy as well as other energy-related businesses. Avista Utilities, the Company's operating division, serves more than 418,000 electric and 382,000 natural gas customers across 30,000 square miles in eastern Washington, northern Idaho and parts of southern and eastern Oregon with a population of 1.7 million people.

Avista's legacy begins with the renewable energy we've generated and delivered since our founding in 1889 and grows with our mission to enable vibrant communities through energy – safely, responsibly, and affordably – putting those we serve at the center of everything we do.

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Transportation Electrification Vision

By the year 2045, renewable and clean energy sources power the electric grid and a vibrant modern economy, including the transportation sector – resulting in major regional economic benefits of over $1 billion per year in fuel and maintenance cost savings alone. Whether moving people or goods on the road, off the road, by rail, in the air, or over water, clean and affordable electricity generated and delivered in our region makes it happen. The majority of transportation is electrified and the use of fossil fuels is no longer dominant. Customers have new and exciting transportation choices with superior battery-electric drivetrains, resulting in cost savings for the great majority of light-duty as well as many medium- and heavy-duty applications. This is accomplished while eliminating more than 80% of harmful air pollution and greenhouse gas emissions from transportation—formerly the largest source of air pollution in the region.

In this electrifying future, transportation accounts for over 20% of utility electric load and revenue, helping to pay for fixed grid costs and maintain low billing rates for all customers. A combination of cost-effective load management technologies, energy storage, and price signals act to optimally integrate flexible transportation loads with the grid—including a wide array of new distributed energy resources. This reduces peak loads on the system, improves grid resiliency, and maximizes the use of cost-effective, renewable energy sources.

Autonomous electric transportation has also revolutionized the way we move people and goods, dramatically increasing vehicle and equipment utilization, driving down transportation costs, freeing up people's time, and saving thousands of human lives and serious injuries every year. The vehicles themselves are integral parts of a new age in communications and connection, opening the door to a wide variety of products and services that improve people's lives.

In just 20 years, an amazing transformation has occurred—the transportation sector has converged with the energy and information technology sectors—fundamentally changing the way we live and making the world a better place. Avista has played a key role in this transformation, working over several decades with industry partners, policymakers and regulators, community leaders, and customers to innovate and create a better energy future for all.

The Future is Electric!

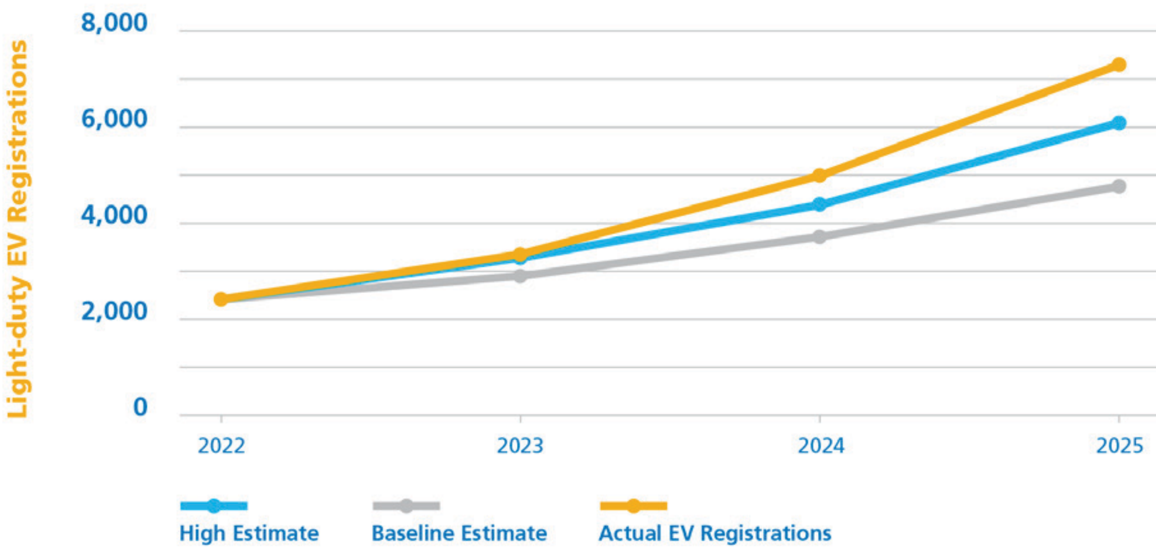
Executive Summary

Avista is dedicated to supporting transportation electrification (TE) initiatives that deliver long-term benefits to all customers, leading to a future with advanced transportation of people and goods, powered by a reliable electric grid using cleaner, less expensive and regional energy sources – and providing for a more affordable, vibrant, and sustainable regional economy. Building on nearly a decade of experience and lessons learned from its TE programs and research, Avista is well positioned to pursue an adaptive, cost-effective, and customer-centric TE strategy, informed by extensive engagement with interested parties, evolving market conditions, and in alignment with state policy goals. The body of this TE Plan provides a detailed assessment of EV forecasts in Avista's service territory, which forms the basis for modeling required charging infrastructure, grid impacts, cost-benefits over the 2026-2035 timeframe, and the strategy and objectives supported by Avista's TE programs and activities.

2021-2024 Market Growth and Key Results of Avista's TE Programs

TE in Avista's Washington service territory has come a long way from its early stages and is well positioned to grow substantially in the future. Light-duty EV adoption has tripled over the last 4 years, exceeding the predicted high adoption forecast of the 2020 TE Plan by 19% in 2025, as shown below. Significant early-market growth has also occurred for medium- and heavy-duty (MHD) vehicles at regional transit agencies and at school districts deploying electric school buses.

Figure 1 – 2020 TEP Light-duty EV Forecast vs. Actuals in Washington Counties Served by Avista[1]



[1] Based on Washington State Department of Licensing Data, accessible at: https://data.wa.gov/Transportation/Electric-Vehicle-Population-Data/f6w7-q2d2/about_data.

Throughout the 2021-2025 period, Avista supported the EV market with approved programs and activities per the TE Plan (TEP) and as prescribed by Tariff Schedule 077 and Commercial EV Time-of-Use (TOU) schedules 013 and 023, including AC Level 2 (L2) and DC Fast Charger (DCFC) installation and maintenance programs, community and low-income support, education and outreach, fleet services, and innovative vehicle-grid integration (VGI) projects. Key metrics from these programs include the following:

Table 1 – Avista Transportation Electrification Metrics (2021 to 2024)

Year	2021	2022	2023	2024
Regional Transportation Cost Savings	$3,600,000	$4,200,000	$5,900,000	$12,800,000
Avoided CO_2 emissions (tons)	9,740	11,348	15,816	37,428
Light-duty EVs in WA Counties Served (year-ending)	2,396	3,347	5,013	7,283
Light-duty EV Charging Peak Load (MW)	1.3	1.8	2.7	3.9
MHD EVs in WA Counties Served (year-ending)	-	-	-	43
MHD EV Charging Peak Load (MW)	-	-	-	5.3
Revenue from EV Charging	$662,184	$791,828	$1,104,154	$3,022,262
Avista TE Capital Investments	$1,466,413	$2,235,866	$2,074,602	$1,927,067
Avista TE Operating Expenses	$501,745	$555,089	$486,646	$716,051
Avista Residential L2 ports in service	274	481	751	818
Avista Commercial L2 ports in service	291	428	590	647
Avista DCFC ports in service	7	16	30	43
Non-networked L2 equipment uptime	99%	98%	99%	98%
Networked L2 equipment uptime	96%	93%	95%	91%
DCFC equipment uptime	95%	89%	86%	91%
Active Number of Community Based Organization (CBO) Partners	5	7	10	14
Public Charging ports in Named Communities and CBO ports	61	105	177	201
Customer Satisfaction with Avista TE Programs	96%	97%	97%	95%

In addition, Avista completed 49 fleet service consultations, 128 community and interested parties education and outreach engagements, and deployed load management pilots demonstrated over 90% off-peak load profiles. Costs and benefits met or exceeded expectations in terms of cost-effective charging infrastructure within budget, with beneficial utility revenue of $3,022,262, 37,428 tons of avoided CO_2 emissions, and over $12.8M in regional transportation cost savings in 2024 alone.

Avista's TE programs demonstrate that utility-led initiatives and customer-facing programs can materially increase beneficial EV adoption, deliver net benefits to all utility customers, and enable grid integration efforts that can help reduce peak loads and associated costs. Lessons learned include the ongoing importance of workplace charging, fleet services, cost-effective non-networked L2 applications, and the need for robust, cost-effective load management capabilities for both residential and commercial customers. The utility can help provide an essential backbone of reliable public charging infrastructure and partner with customers to install cost-effective fleet and workplace charging that enables strong and beneficial market growth. This may be accomplished while incenting third-party investments, supporting industry innovation, and providing benefits to communities and low-income customers.

EV Policy Landscape

While recent market growth has been substantial, policy changes at the federal level will adversely impact U.S. EV adoption in the near term, especially in the MHD market segments. These policy changes include eliminating light-duty tax credits starting in October of 2025 and revoking key policies that would have allowed states, including Washington, to require auto and truck manufacturers to produce zero-emission vehicles (ZEVs). Without those incentives and requirements in place, EV adoption is expected to decline by approximately 30% in the light-duty sector according to recent Harvard and Bloomberg New Energy Finance (BNEF) studies,[2] with even greater declines in the MHD sector. On a positive note, as of August 11, 2025, the federal administration announced it will now move forward with the $5 Billion National Electric Vehicle Infrastructure (NEVI) Program, which will help fund deployment of charging infrastructure across the country on primary interstate corridors. Washington State is also increasing support with ongoing infrastructure grants such as the Washington Electric Vehicle Charging Program (WAEVCP) administered by the Department of Commerce, the Clean Fuels Program (CFP) administered by the Department of Ecology, and a new Washington Zero-emission Incentive Program (WAZIP) by the Washington State Department of Transportation (WSDOT). WAZIP will provide $126 million in purchase voucher incentives for zero-emission MHD vehicles, significantly reducing the upfront cost to commercial businesses. In addition to state-level support, the global EV market continues to grow at a brisk pace, particularly in China and Europe. Investments in key technologies such as batteries are expected to improve performance and reduce cost through economies of scale and energy storage density. These developments may affect vehicle range, weight, safety features, and market potential. Furthermore, ongoing EV innovation and availability may be expected from natural market forces and the fact that major U.S.-based automakers must compete on a global level for growing EV market share, not just in the U.S. As Ford's CEO Jim Farley recently stated, "We are in a global competition with China, and it's not just EVs. And if we lose this, we do not have a future Ford."[3]

Corridor DCFC in Colville, WA (2025)

[2] https://salatainstitute.harvard.edu/wp-content/uploads/2025/03/Policy-Brief_Trump-EV-Policy-Overhaul.pdf.
[3] https://www.thestreet.com/automotive/ford-ceo-jim-farley-speaks-up-about-rivals-humbling-progress

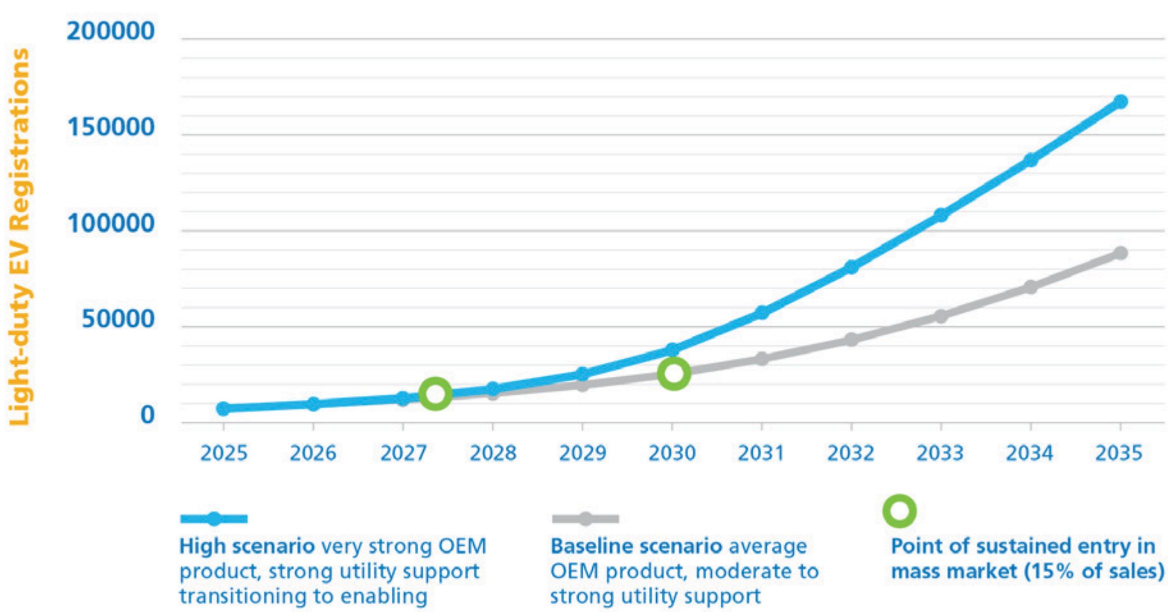
2025 TE Plan Adoption Forecasts

Several industry-leading EV adoption and load projection models for 2030 and 2035 were investigated, including the following (see References section for citations and web links):

- Washington State Transportation Electrification Strategy (TES)
- U.S. Department of Energy National Renewable Laboratory
    - o Electric Vehicle Pro-lite model
    - o Transportation Energy & Mobility Pathway Options Model (TEMPO)
    - o 2030 National Charging Network: Estimating U.S. Light-Duty Demand for Electric Vehicles
- Electric Power Research Institute (EPRI) eRoadMAP Model
- Applied Energy Group (AEG) Avista Distributed Energy Resource Study

Although these models are considered among the best available in the industry, their roots predate the recent changes in federal policy and may not be well calibrated to constraints in local vehicle stock turnover and customer preferences, resulting in very high adoption forecasts. Internally developed models were therefore incorporated with higher confidence, utilizing continuity from the 2020 TEP modeled forecasts that showed a closer match between predicted and actual adoption levels, based on county-level registration data and vehicle stock turnover. The table below summarizes resulting light-duty EV forecasts for baseline and high adoption scenarios from 2026 through 2035.

Figure 2 – Light-duty EV Baseline and High Adoption Forecasts in Washington Counties Served by Avista



At this point in time, it is difficult to project MHD adoption given the nascent stage of this market segment and changes in federal policy. Initial baseline and high adoption forecast scenarios for MHD are presented in the Market Adoption and Forecasts section of this TE Plan. These forecasts use data from the Washington Department of Licensing for Class 3 through 8 vehicles in Washington counties served, along with estimates from the Washington TES forecasting model.

Charging Infrastructure

Required charging infrastructure by type is summarized below, based on adoption forecasts of both light-duty and MHD vehicles and incorporation of modeling provided by the International Council on Clean Transportation (ICCT)[4] and the Washington TES.

Table 2 – Required Charging Infrastructure for Combined Light-duty and MHD EV Baseline and High Adoption Forecasts in Washington Counties Served by Avista

Avista Baseline EV Adoption	Public DCFC	Fleet Depot DCFC	Public L2	Workplace L2	MUD L2	Fleet Depot L2	SFH L2
2025 (actuals)[5]	130	15	422	291	372	291	4,361
Baseline Scenario 2030	211	67	867	1,287	979	1689	16,695
Baseline Scenario 2035	673	137	3,025	4,487	3,415	5,892	58,223
High Scenario 2030	300	74	1,292	1,917	1,459	2,517	24,869
High Scenario 2035	1,212	142	5,731	8,502	6,470	11,163	110,310

City of Colville

[4] https://theicct.org/sites/default/files/publications/charging-up-america-jul2021.pdf
[5] Based on the Alternative Fuels Data Center available at https://afdc.energy.gov/ and Avista TE program records

Grid Impacts

The recently released EPRI eRoadMAP model was utilized to provide load projections for potential EV deployments in 2030 as well as a100% electrification case based on existing vehicle stock. The model breaks out the projected load for both light-duty and MHD markets as summarized below.

Table 3 – Forecasted TE Grid Impacts in Washington Counties Served by Avista (EPRI's eRoadMAP)

EPRI eRoadMAP results for Avista WA Service Territory	Lt. Duty Unmanaged (MW)	Lt. Duty Managed (MW)	Lt. Duty Energy (MWh/day)	MHD Unmanaged (MW)	MHD Managed (MW)	MHD Energy (MWh/day)
2030	66	44	752	15	11	90
100% Electrification	504	344	5849	443	245	2386

A majority of the load impacts are projected to come from the light-duty vehicle sector; however, peak loads from MHD are expected to eventually approach the magnitude of light-duty peak loads in the full electrification scenario. Notably, approximately 30% peak load reduction may be feasible with load management technologies currently in development but not yet proven from a technical and cost-effectiveness standpoint. Managed charging and vehicle-grid integration (VGI) will become an increasingly important element in TE utility programs. This coincides with other utility initiatives involving growth and management of distributed energy resources (DERs), including cost-effective demand response capabilities and virtual power plant (VPP) automated controls for a variety of residential and commercial load types.

L2 Public Charging at Colville City Hall

2025-2030 Avista TEP Strategy and Objectives

Building on nearly a decade of TE program execution, Avista will maintain a flexible and adaptive strategy, adjusting programs and tariffs as appropriate to reflect changing market conditions and customer needs. Key strategic objectives and results include the following:

- **Strengthen external partnerships with customers and other key interested parties,** emphasizing beneficial growth in fleet, workplace, and community programs through effective customer outreach and innovative solutions.
- **Maintain a backbone of reliable public charging in the region,** transitioning from a “push” to “pull” approach for the development of new sites, expansion of existing sites to meet growing demand, and effective make-ready solutions that encourage more third-party investment in charging infrastructure.
- **Demonstrate and begin to scale cost-effective load management programs for both residential and commercial fleet vehicles;** explore the viability of a new DER tariff as a dependable funding mechanism for optimally managing EV loads, as well as other forms of demand response and DERs.
- **Commit to annual TE net capital budgets** of $3 Million to $5 Million and O&M spending of $300,000 to $600,000 for TE programs, providing flexibility and adjustment to changing market conditions.
- **Maximize funding from the Clean Fuels Program (CFP) to supplement rate-based capital and O&M,** with CFP funds estimated at $600k per year in 2026 and growing to over $1M per year by 2030. CFP funds are utilized to expand programs and activities, including but not limited to community EV programs, EVSE operational expenses, fleet advisory services, EV ride-hailing and sharing programs, as well as rural access and agricultural applications.
- **Apply for grants where appropriate and feasible** to minimize net costs for certain DCFC and innovative technology demonstration projects.
- **Provide regular updates of EV load profiles and forecasts** in UTC annual reports and for Integrated Resource Planning purposes.

2025-2030 TE Programs

A breakdown of planned 2025 to 2030 program activities is summarized below, with balanced budget targets designed to optimally meet strategic objectives.

Table 4 – TE Programs and Budget Targets

Program / Activity Category	Budget Target
Charging Infrastructure	40%
Community Programs	20%
Fleet Services	15%
Vehicle-Grid Integration	12%
Education and Outreach	5%
Market / Technology Monitoring and Testing	5%
Data Management, Analysis and Reporting	3%

This set of customer programs and activities builds from a strong foundation of proven charging infrastructure programs, expands community programs, and provides continued support for education and outreach, while adding increased focus on fleet services and vehicle-grid integration. This balanced approach has an aspirational goal of 30% of overall funding[6] (in aggregate from all categories) to benefit Named Communities[7] and low-income customers; however, this goal is not a cap and the Company may exceed this goal. Programs should be viewed as flexible and adaptive to changing market conditions and policy. The increased focus on fleet services is in response to customer interest, market potential and state policy goals to support increasing adoption of zero-emission light and MHD fleet vehicles. The emphasis on vehicle-grid integration recognizes the importance of this technology as adoption levels increase, to help reduce peak load impacts on the grid and maximize beneficial utility revenue that can help keep electric rates more affordable for all customers.

[6] UTC docket UE-190334, et. al, Partial Multiparty Settlement Stipulation, pp. 11-12.
[7] The Clean Energy Transformation Act (CETA) defines Highly Impacted Communities and Vulnerable Populations per WAC 48-10-605. Collectively, Avista refers to them as Named Communities. While the definition of Highly Impacted Communities is prescribed by CETA, Vulnerable Population designations are identified in collaboration with the Company's EAG and other advisory groups."

Costs and Benefits

Based on projected adoption scenarios and available budget and funding mechanisms, the following summarizes TE program costs and customer benefits over the 2026-2035 timeframe, assuming baseline EV adoption.

Table 5 – Costs and Benefits Summary for Avista Planned TE Programs and Activities Baseline EV Adoption Scenario (2025 – 2035)

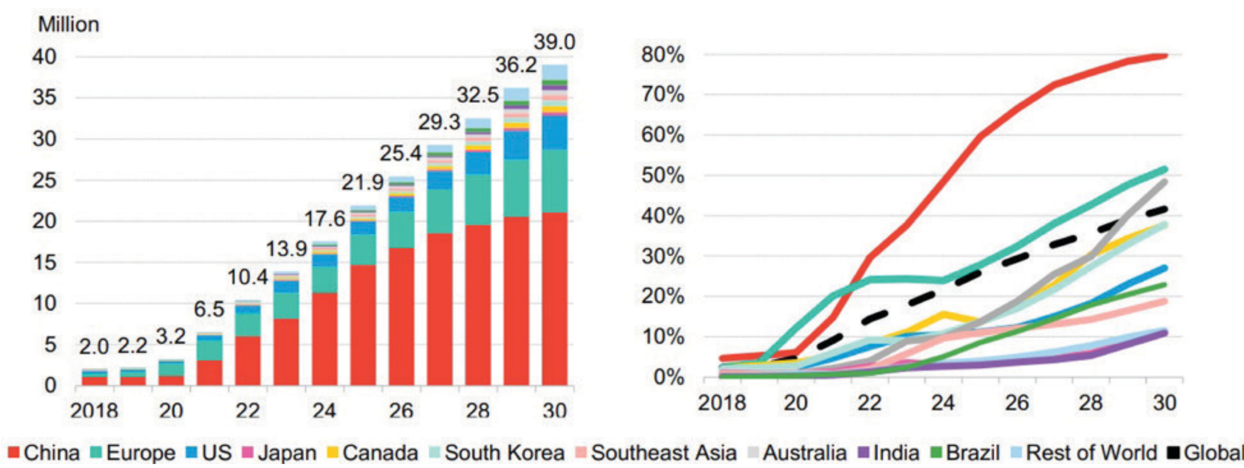
Avista 2025 TEP Target Cost-Benefits	Avista Capital Investments	Avista O&M Funding	Clean Fuels Program (CFP) Funding	Total Avista Capital, O&M and CFP TE Expenditures	Utility TE Billing Revenue	Customer Fuel and Maintenance Savings	Avoided CO_2 Emissions (tons)
2026-2030	$19,092,596	$2,100,000	$4,385,687	$25,578,283	$37,401,781	$156,221,664	441,558
2031-2035	$33,304,632	$1,500,000	$8,927,104	$43,731,735	$117,939,253	$492,007,857	1,361,260
2026-2035 Totals	**$52,397,228**	**$3,600,000**	**$13,312,791**	**$69,310,018**	**$155,341,034**	**$648,229,521**	**1,802,818**

From a broader grid perspective, TE may be considered as a long-term, 20-to-30-year system expansion comparable to the widespread adoption of air conditioning in the 20th century. This reflects the fact that in order to enable the broad transition to electricity as a transportation fuel, most homes and commercial buildings will eventually need a certain level of charging capability for daily needs, as well as charging facilities placed along major travel corridors for longer trips. The changes and impacts may at times be swift and concentrated in certain local areas; however, they are expected to grow at a steady and manageable pace over at least the next 10 years, as the technologies and markets progress.

Market Adoption and Forecasts

The shift to EVs has created a worldwide race to adopt EVs and dominate associated supply chains. Recent studies tracking global EV adoption predict strong market growth, led by China and Europe, as shown below.[8]

Figure 3 – Global Passenger EV Sales and EV Share of Sales by Market (Bloomberg New Energy Finance, 2025)

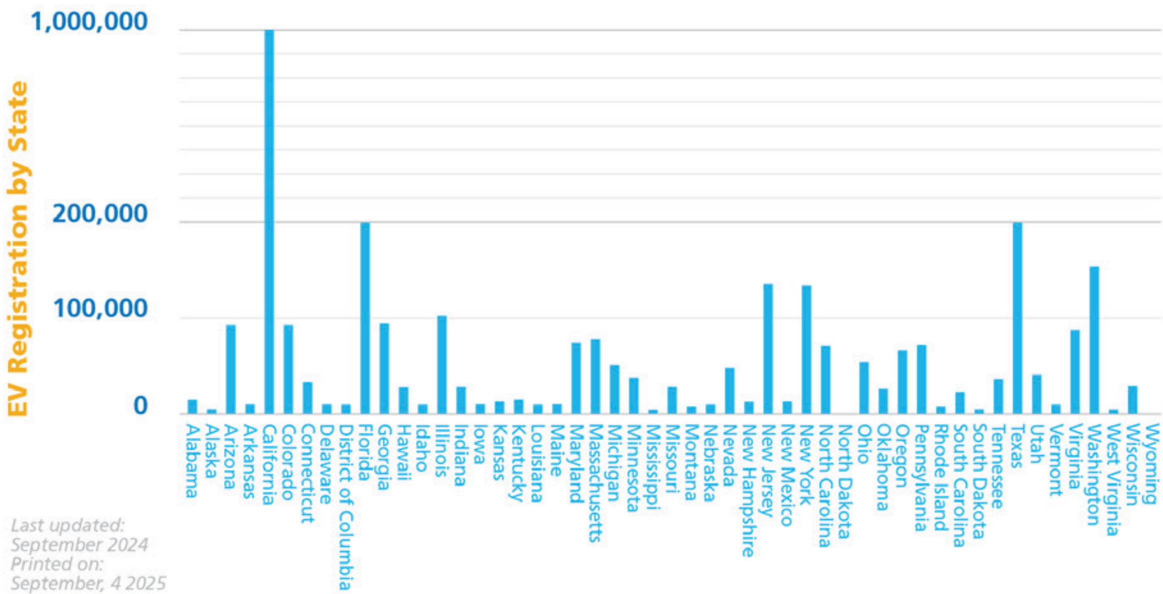


Note that worldwide adoption increased over 500% since 2020 and is projected to double again from 2024 to 2030. Unfortunately, U.S. manufacturers and supply chains are currently far behind Chinese technology and manufacturing capacity, a strategic and competitive gap that appears likely to widen with the reduction of federal support. Even though the U.S. is not leading in adoption, manufacturing or supply chain development, the benefits from worldwide EV market development will help improve the U.S. EV market through new technology and cost reductions resulting from increased economies of scale. A good example of a market and technology improvement currently underway involves solid-state lithium battery technology. Going back several years, solid-state technology was considered the holy grail of lithium batteries with the potential to improve EV range by 70% and reduce DCFC charging session time by more than 80%, while improving safety and reducing dependency on current battery technology using graphite anodes produced by China.[9] Solid-state lithium batteries are just now beginning to enter the market and will likely make EVs more competitive with vehicles powered by internal combustion engines (ICE), accelerating adoption on a global scale.

In the U.S., Washington State ranks fourth in EV adoption, as shown, based on data collected by the U.S. Department of Energy Alternative Fuels Data Center.[10]

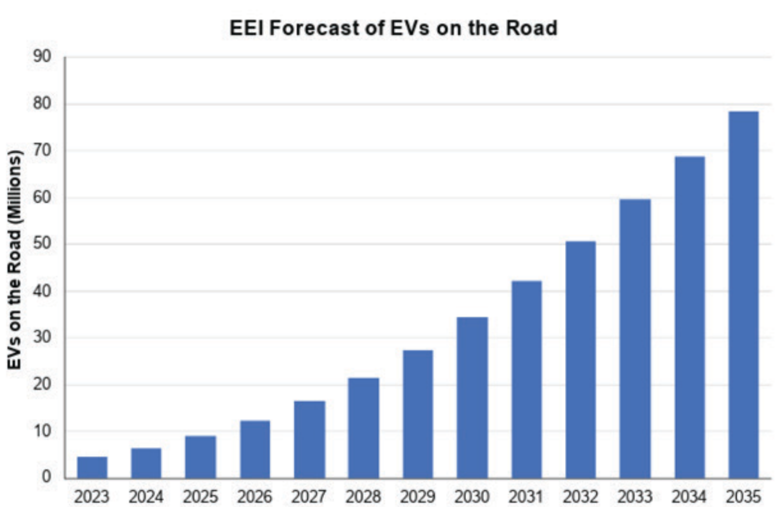
8 https://about.bnef.com/insights/clean-transport/electric-vehicle-outlook/#key-numbers and https://www.iea.org/reports/global-ev-outlook-2025
9 https://www.caranddriver.com/features/a63306863/solid-state-batteries-evs-explained/
10 https://afdc.energy.gov/data/10962

Figure 4 – State-by-State EV Registration Comparison (U.S. DOE Alternative Fuels Data Center)



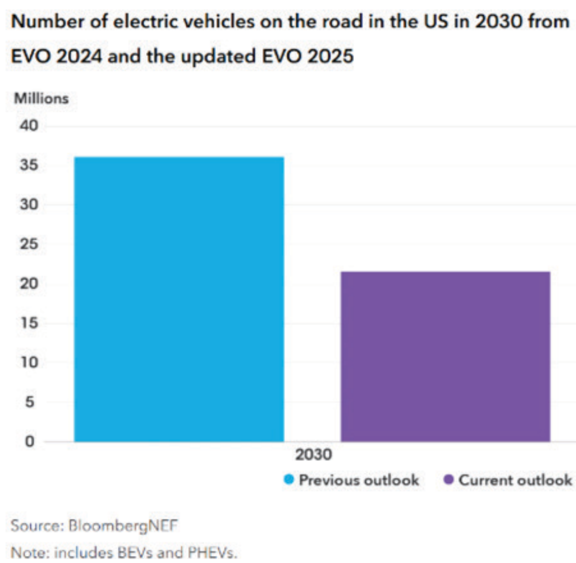
Prior to the 2025 federal policy changes, the Edison Electric Institute (EEI) issued a report in October of 2024, providing U.S. EV market projections based on several sources, including studies from GuideHouse, the Boston Consulting Group, PwC, and the EY-Mobility Lens Forecast to achieve a total market size of approximately 78 million EVs on the road by 2035, and 35 million vehicles on the road by 2030.

Figure 5 – Projected U.S. EV Population (Edison Electric Institute)



These studies also correspond to a BNEF Electric Vehicle Outlook-2025 Report recently released that projects the 2030 U.S. market at 35 million EVs prior to recent federal policy changes. The same BNEF Report provides post-federal policy projections that predict 40% lower market growth by 2030 as shown below. Post-policy projections by Harvard's Sala Institute are also projecting upwards of a 30% reduction on market growth out to 2030.

Figure 6 – U.S. Market Projection Post-2025 Federal Policy Changes

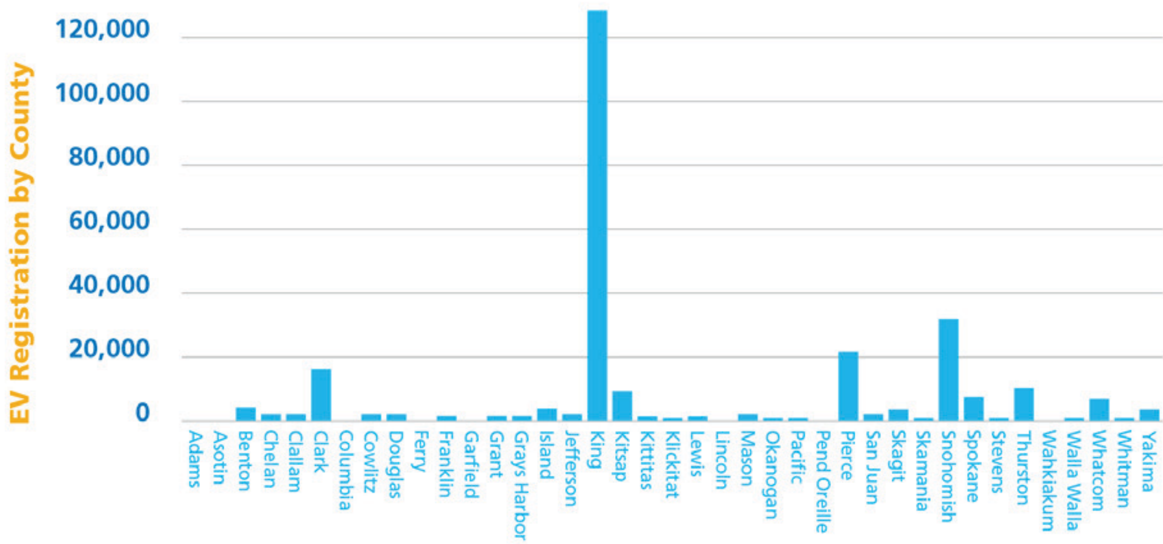


Notably, the BNEF projection for 35 million EVs in the U.S. prior to federal policy changes tracks closely with the EEI estimate. In addition, most of the projections are heavily dominated by light-duty vehicle adoption, given that updated MHD projections are made more difficult with the more extensive and targeted federal policy changes affecting that sector.

Light Duty EV Adoption in Washington State and Eastern Washington

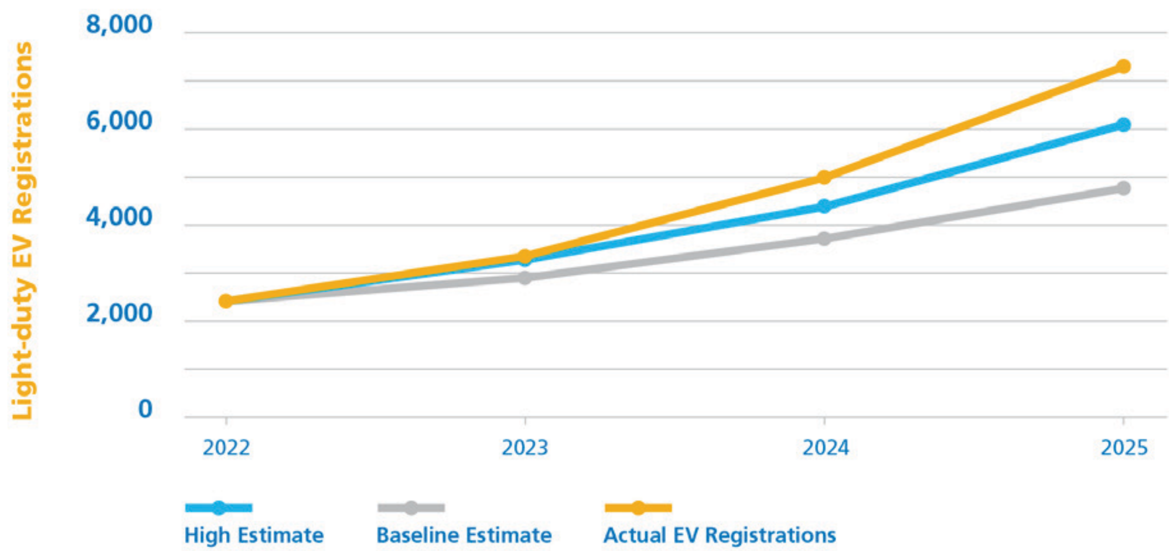
In Washington state, EV adoption is dominated by Western Washington and King County as shown below, largely as a function of population density.

Figure 7 – Washington EV Adoption by County (data.wa.gov)



A breakdown of light-duty EV adoption in the counties in Avista' service territory is provided in the figure below, showing that EVs on the road in the last four years has tripled. This is compared to the 2020 TEP forecasts for baseline and high adoption, with actuals tracking 19% higher than the high adoption forecast in the beginning of 2025.

Figure 8 – 2020 TEP Light-duty EV Forecast vs. Actuals in Washington Counties Served by Avista



MUD Charging at Experience Senior Living Community

Table 6 – Combined Light-duty Passenger and Truck EVs in Avista's Service Territory Counties

County / Year (beginning)	2018	2019	2020	2021	2022	2023	2024	2025
Adams	9	11	13	17	31	35	46	78
Asotin	13	21	23	29	39	49	66	94
Ferry	4	5	7	12	17	28	27	34
Lincoln	8	7	12	17	23	30	47	69
Spokane	538	812	1115	1432	2061	2879	4307	6309
Stevens	31	43	62	76	99	146	215	269
Whitman	37	61	88	95	126	180	305	430
Total	**640**	**960**	**1320**	**1678**	**2396**	**3347**	**5013**	**7283**

Light-duty EV Adoption Forecasts

In order to establish EV adoption forecasts, Avista utilized several models and studies to consider different perspectives, data sources, and market uncertainties, while being mindful of state goals established in Washington's TES that was published in February of 2024, and its associated publicly accessible Tableau database.

The TES model was created in support of the State's electrification goals and was first evaluated with high and low adoption levels calculated by county, according to the percentage of Avista customers in each county. These two scenarios from the Washington TES are detailed in Appendix B as Scenario 5 Worst Case and Scenario 1 Baseline. These two scenarios are more conservative than the most prominent scenario featured in the TES, which was Scenario 3 Strong Adoption. Scenario 5 Worst Case corresponds to a scenario that would result in less adoption based on higher ZEV costs, lack of supporting electrification policies, and lack of vehicle miles traveled reduction policies. Scenario 1 Baseline was intended to represent "middle of the road" EV costs and existing policies prior to federal policy changes. Scenario 3 Strong Adoption, which figured prominently in the TES but was not evaluated here, was intended to represent what happens if Washington enacts additional policies to support electrification, such as higher incentives for ZEVs and EVSE, inclusion of California's Advanced Clean Fleet rule, as well as additional education and outreach support to encourage stronger consumer interest in ZEVs. Thus, Scenarios 5 Worst Case and Scenario 1 Baseline were deemed most applicable to the current conservative federal EV policy environment. The TES Tableau model outputs for Avista's service territory counties for Scenario 5 and 1 are detailed in Appendix B.

Analysis of the TES forecasts indicates they are unrealistically high for both 2030 and 2035, even for the Low Scenario 5 at 119,412 EVs in 2030 and 279,665 EVs in 2035. Washington State's registration records indicate 548,015 light-duty vehicle stock in Avista's service territory in 2025. Given average vehicle service life of 15 years and 1% annual stock increase reflective of population growth, results in vehicle stock turnover of approximately 36,000 vehicles in 2025 and 38,000 in 2030. The TES model forecasts through 2035 require annual EV adoption exceeding 100% of the stock turnover in our region, which could only realistically occur if new policy were implemented, such as a scrap and replace internal combustion-powered vehicles incentives, which seems extremely unlikely.

In addition, Avista obtained a second set of EV adoption forecasts from AEG as part of a comprehensive DER Study, as summarized in Appendix C. The AEG results for 2030 are also improbable—62,600 EVs for the baseline scenario and 104,838 for the high scenario—given the changes in federal policy support upon which this model relied and which are no longer in place. The 2035 AEG predictions—122,000 EVs for the baseline and 177,357 for the high scenario—are also unlikely but more plausible than the TES model results.

Lastly, we examine actual adoption against the 2020 TEP's previous forecasting methodology, which incorporates annual changes in cumulative EV growth as a function of overall vehicle stock turnover. As shown below, actual adoption in Avista's service territories from 2021 through 2024 tracked slightly higher but relatively close to the high adoption forecast of the 2020 Avista TE Plan for those years. Actual registrations of 7,283 vehicles at the beginning of 2025 compares to the 2020 TEP's high estimate of 6,114, a difference of 19%.

Corridor DCFC at Yoke's Market in Deer Park

Table 7 – Actual Light-duty EV Registrations Compared to 2020 TE Plan Baseline and High Adoption Estimates

Year (beginning)	Baseline Estimate	High Estimate	Actual EV Registrations	Variance Actual-High Estimate
2022	2,339	2,467	2,396	-3%
2023	2,951	3,271	3,347	2%
2024	3,728	4,418	5,013	13%
2025	4,792	6,114	7,283	19%
2026	6,273	8,624	-	-
2027	8,350	12,335	-	-
2028	11,250	18,013	-	-
2029	15,259	26,701	-	-
2030	20,505	40,610	-	-

Workplace Charging at CHAS Health Maple Street Clinic

Comparatively, the TES model predicts 18,460 EVs at the beginning of 2025 for the Low Scenario 5, and 20,456 EVs for the Baseline Scenario 1, a variance of 153% and 181% to actuals, respectively. Given these results, an updated version of the 2020 TE Plan's methodology was used to establish updated 2025 TEP adoption forecasts for 2025 – 2035 as shown below. Adjustments include a reduction from recent 50% annual cumulative growth to 35% in 2025 and 25% in 2026, gradually increasing to 20% of stock turnover (a proxy for new sales penetration) by 2030 and then more rapidly increasing to 50% of stock turnover by 2035. This reasonably compares to the Bloomberg forecast for EV adoption in the U.S. overall at 28% EV sales by 2030. The revised high adoption forecast is similar in terms of relatively flat near-term sales, transitioning more rapidly to 50% of stock turnover by 2030 and reaching 79% by 2035. Given recent events, the high adoption scenario appears unlikely; however, it represents a credible upper bound if battery technology and cost improvements at the global level are realized and introduced after some lag period to the U.S., and the possibility that U.S. National policy support reemerges. The availability of affordable light-duty trucks, crossovers, and SUVs in the U.S. market over the next several years will be influenced by consumer preferences for these vehicle types. If not, actuals could very well come in lower than predicted, due to the high percentage of light-duty truck and SUV sales in the region compared to overall light-duty sales.

Table 8 – Baseline and High LDV Adoption Scenario in WA Counties Served for Light-duty Vehicles (Class 1 and 2 < 10,000 GVWR)

	Baseline Adoption Scenario				High Adoption Scenario			
Year *	Cumulative LD EVs	Cumulative Growth Rate	Annual EV Increase	% of LDV Stock Turnover	Cumulative LD EVs	Cumulative Growth Rate	Annual EV Increase	% of LDV Stock Turnover
2025	7,283	35%	2,549	7%	7,283	35%	2,549	7%
2026	9,667	25%	2,417	7%	9,667	31%	2,997	8%
2027	12,084	27%	3,263	9%	12,664	38%	4,812	13%
2028	15,347	28%	4,297	11%	17,477	44%	7,690	20%
2029	19,644	29%	5,697	15%	25,166	50%	12,583	33%
2030	25,341	31%	7,856	20%	37,750	51%	19,252	50%
2031	33,196	30%	9,959	26%	57,002	42%	23,941	62%
2032	43,155	29%	12,515	32%	80,943	34%	27,116	69%
2033	55,671	27%	15,031	38%	108,058	27%	28,852	73%
2034	70,702	25%	17,675	44%	136,910	22%	30,531	76%
2035	88,377	23%	20,327	50%	167,441	19%	31,814	79%

* Year beginning

For reference, a summary of the various models and forecast results is provided below.

Table 9 – Comparison of Light-duty EV Forecasts in Avista Washington Counties Served

	2030 baseline (low)	2030 high scenario	2035 baseline (low)	2035 high scenario	2045 baseline (low)	2045 high scenario
WA TES Dashboard[14]	119,412	132,289	279,665	290,617	N/A	N/A
AEG Study[11]	62,600	104,838	122,000	177,357	346,000	426,534
Avista 2020 TEP	20,505	40,610	N/A	N/A	N/A	N/A
Avista 2025 TEP	25,341	37,750	88,377	167,441	N/A	N/A

Medium- and Heavy-Duty EV Adoption in Avista's Service Territory

The MHD market segment is in a much earlier stage of adoption compared to light-duty vehicles and remains largely dependent on policy incentives from the government to spur technological advances and customer adoption. With the recent loss of policy support at the federal level and rollback of mandated MHD electrification in California and associated ZEV States adopting Zero-Emission Vehicle policies,[11] much lower relative MHD adoption is expected in at least the next few years. However, some healthy growth may be realized with the combination of ongoing advances in technology on a global scale, incentives in Washington State through the WAZIP and WAEVCP grant programs, utility support, and other tax and local incentives – particularly for Class 3 to 5 commercial vehicles, where total cost of ownership (TCO) may be competitive with traditional vehicles given the considerable fuel and maintenance cost savings of EVs.

To better understand the current MHD market in the region and perform due diligence, Avista acquired Washington Department of Licensing data for vehicles of all power types in its service territory, as summarized below.

[11] https://calmatters.org/environment/2025/05/california-electric-car-mandate-senate-revoke-waiver/

Table 10 – Medium and Heavy-duty Vehicles in Avista's Service Territory as of Jan 1, 2025

		Class / GVWR	3	4	5	6	7	8
Avista WA Counties Served	All power types	Electric only	10,001 - 14,000	14,001 - 16,000	16,001-19,500	19,501 - 26,000	26,001 - 33,000	33,001+
Adams	1,946	-	722	93	116	79	106	830
Asotin	1,156	-	780	139	77	57	33	70
Ferry	600	1	393	53	23	23	31	77
Lincoln	1,543	-	771	114	86	67	101	404
Spokane	21,022	20	12,478	2,439	1,700	1,986	942	1,477
Stevens	3,930	1	2,463	332	234	225	179	497
Whitman	2,530	1	1,203	123	138	150	167	749
Totals	**32,727**	**23**	**18,810**	**3,293**	**2,374**	**2,587**	**1,559**	**4,104**

Note that these values have some degree of uncertainty, estimated at +/- 10% as many vehicles did not include a weight rating, and/or may have more than one registration per calendar year in the database (e.g., when an owner renews registration early), and because many registered addresses are tied to the owner's business address rather than the vehicle's actual depot or operating location. In addition, an estimated 1,034 electric forklifts operated in Washington counties served by Avista in 2024, representing roughly 30% of forklifts in service and the largest segment of non-road electric transportation in Avista's service territory. Forecasts for this and other non-road TE segments in the future (such as airport ground support equipment and electrified trailer units), will be provided in future reports as credible data is obtained.

Detailed modeling results of MHD electrification based on the TES dashboard are provided in Appendix B. The table below summarizes the Washington TES results, compared to 2025 actuals and results for 2030 and 2045 from the AEG study summarized in Appendix C.

Table 11 – Medium and Heavy-duty (MHD) EV Adoption Model Comparison

	2030			2035			2045
Methodology	Transit Buses	School Buses	Other MHD (Classes 3-8)	Transit Buses	School Buses	Other MHD (Classes 3-8)	All (Classes 3-8)
2025 Actuals	11	3	9	N/A	N/A	N/A	N/A
WA TES Low (Scenario 5)	62	53	824	71	210	2870	N/A
WA TES High (Scenario 1)	77	149	1205	152	584	3,102	N/A
AEG High Incentive Scenario*	N/A	N/A	786	N/A	N/A	N/A	10,196

Given considerable uncertainties in future MHD electrification, Avista will closely monitor and report on MHD registrations, depot/operating locations, and credible forecasts as they are developed in the future. Recent noteworthy developments include the substantial electrification of transit buses in Spokane[12] and Pullman,[13] and near-term plans for up to 200 electric delivery vans in the West Plains area of Spokane County.

Public L2 Charging at Kendall Yards

[12] https://www.spokanetransit.com/wp-content/uploads/2023/05/20230508-STA-Electric-Buses-Fact-Sheet.pdf
[13] https://www.pullman-wa.gov/dept_news_detail_T37_R319.php

Charging Infrastructure and Grid Impacts

Based on incorporation of modeling provided by the International Council on Clean Transportation (ICCT) and the Washington TES, the following tables show the number of charging ports required with respect to Avista's LDV and MHD forecasts presented in the previous section. All customers adopting charging at various facilities for listed use cases are considered utility commercial customers, except for L2 chargers located at single-family homes (SFH) owned by residential customers (modeling assumes 75% of SFH utilize L2 charging and 25% L1 charging).

Table 12 – Charging Ports Required for Baseline EV Adoption Scenario in Washington Counties Served by Avista

	Public DCFC	Fleet Depot DCFC	Public L2	Workplace L2	MUD L2	Fleet Depot L2	SFH L2
2025 (actuals)	130	15	422	291	372	291	4,361
2030	211	67	867	1,287	979	1,689	16,695
2035	673	137	3,025	4,487	3,415	5,892	58,223
Levelized Additions per Year 2025-2030	16	10	89	153	121	280	2,467
Levelized Additions per Year 2025-2035	54	12	260	397	304	560	5,386

ZEV Co-Op Car-Sharing in Partnership with Avista and Gonzaga University

Table 13 – Charging Ports Required for High EV Adoption Scenario in Washington Counties Served by Avista

	Public DCFC	Fleet Depot DCFC	Public L2	Workplace L2	MUD L2	Fleet Depot L2	SFH L2
2025 (actuals)	130	15	422	291	372	291	4,361
2030	300	74	1,292	1,917	1,459	2,517	24,869
2035	1,212	142	5,731	8,502	6,470	11,163	110,310
Levelized Additions per Year 2025-2030	34	12	174	279	217	445	4,102
Levelized Additions per Year 2025-2035	108	13	531	798	610	1,087	10,595

Public L2 and DCFC Charging at Kendall Yards

Grid Impacts

The following tables summarize results based on current actuals and modeling results using the EPRI's eRoadMAP tools as described in Appendix D.

Table 14 – 2030 Scenario - EPRI E-RoadMAP Capacity Analysis for Avista-served Washington Counties - Light and MHD On-road Transportation Electrification

Avista County %'s applied	2030					
County	Lt. Duty Unmanaged (MW)	Lt. Duty Managed (MW)	Lt. Duty Energy (MWh/day)	MHD Unmanaged (MW)	MHD Managed (MW)	MHD Energy (MWh/day)
Adams	1.95	1.68	19.57	0.74	0.19	4.19
Asotin	3.32	2.26	39.37	0.04	0.19	2.10
Ferry	1.23	0.63	9.40	0.04	0.03	0.24
Lincoln	0.99	0.86	13.07	0.62	0.32	3.37
Spokane	44.24	27.61	494.68	11.33	7.86	69.11
Stevens	4.39	3.49	54.63	1.03	1.20	5.14
Whitman	9.55	7.59	120.96	1.04	1.04	5.64
Totals	**65.68**	**44.12**	**751.67**	**14.82**	**11.14**	**89.79**

Community DCFC & L2 Charging Stations at The Hive

Table 15 – 100% Electrification Scenario - EPRI E-RoadMAP Avista-served Capacity Analysis for Washington Counties - Light and MHD On-road Transportation Electrification

Avista County %'s applied	Full Electrification					
County	Lt. Duty Unmanaged (MW)	Lt. Duty Managed (MW)	Lt. Duty Energy (MWh/day)	MHD Unmanaged (MW)	MHD Managed (MW)	MHD Energy (MWh/day)
Adams	14.60	10.91	182.85	30.28	22.33	205.19
Asotin	35.17	23.09	388.74	11.5	5.25	70.00
Ferry	6.83	6.52	94.19	0.99	0.54	4.56
Lincoln	9.49	8.69	129.88	48.87	24.22	183.67
Spokane	331.99	216.86	3,710.55	266.06	147.17	1,520.85
Stevens	44.77	32.62	534.54	26.97	15.38	111.57
Whitman	61.37	45.42	808.75	58.11	30.52	290.55
Totals	**504.23**	**344.11**	**5,848.96**	**442.78**	**245.41**	**2,386.40**

These results indicate a manageable increase in energy demand and consumption by 2030, mostly from light-duty vehicles, representing 82% of a total increase of 80.5 MW demand from both light and MHD EVs, if unmanaged. This increases Avista's 2025 peak requirement of 2300 MW by 4% to 2381 MW in 2030, assuming other loads on the system remain constant. In the full electrification model, MHD vehicle loads rise to near parity with LDVs, and together total 947 MW if unmanaged – increasing Avista's peak by 41% from 2025 levels to 3247 MW, assuming other loads remain constant. If managed, the EPRI tool shows the full electrification peak demand reduced to 590 MW, increasing Avista's peak load by 26% from 2025 levels and avoiding 357 MW of additional peak load. However, note that these results assume zero growth in light-duty and MHD vehicle stock. Corresponding to population growth trends, between 1% and 2% annual growth for vehicle stock may be more likely, which would result in larger electric TE loads on the system of 28%, and 64%, respectively.

This is yet another indicator of the importance of developing cost-effective load management solutions and deploying at scale, well ahead of accelerating TE that may be expected by the mid- to late 2030s, with commensurately significant grid impacts. This is especially important given that other large loads from data centers and other forms of electrification are likely to increase system and local distribution peak demands as well. Solutions may encompass a combination of TOU rates and demand response programs utilizing vehicle telematics, EVSE control systems, and other vehicle-grid integration technologies as automated inputs to virtual power plants.[14] Although Avista's EV load management pilots since 2016 have demonstrated encouraging results (e.g., high customer acceptance and load profiles with >90% off-peak energy consumption), much work remains to develop cost-effective solutions that provide a compelling value proposition to potential customer participants, while simultaneously providing net benefits to the system, e.g., benefits exceeding costs required to implement load management program(s). Both elements are essential and required to scale.

[14] See https://sepapower.org/knowledge/unlocking-grid-flexibility-with-virtual-power-plants-vpps-and-managed-charging/

Strategy and Objectives

Building on nearly a decade of experience and lessons learned from its TE programs and research, Avista is well-positioned to pursue an adaptive, cost-effective and customer-centric TE strategy, informed by extensive interested-party engagement, evolving market conditions, and in alignment with state policy goals.

Since 2016, Avista's TE programs demonstrate that utility-led initiatives and customer-facing programs can materially increase EV adoption, deliver net benefits to all utility customers, and enable grid integration efforts that can help reduce peak loads and associated costs over time. Key takeaways include the ongoing importance of workplace charging, cost-effective non-networked L2 applications, and the need for robust, cost-effective load management capabilities for both residential and commercial customers.

Avista will maintain a flexible and adaptive strategy, adjusting programs and tariffs as appropriate to reflect changing market conditions and customer needs. The utility will support beneficial market growth, off-peak charging, and community benefits within balanced capital and O&M budget constraints, supplemented by funding from the CFP administered by the Department of Ecology. Future direction includes expanding fleet, workplace and community programs, proving out and scaling cost-effective load management programs and technology platforms, and maintaining a backbone of reliable public fast charging in the region. Internal coordination with Avista's System Planning, Integrated Resource Planning, and the Innovation Lab teams will help ensure timely and cost-effective buildout of resources and technology platforms that enable beneficial TE load growth.

MUD Charging at Millennium Monroe Apartments

2025-2030 Strategic Objectives and Key Results

- **Strengthen external partnerships with customers and other key interested parties,** emphasizing beneficial growth in fleet, workplace, and community programs through effective customer outreach and innovative solutions.
- **Maintain a backbone of reliable public charging in the region,** transitioning from a “push” to “pull” approach for the development of new sites, expansion of existing sites to meet growing demand, and effective make-ready solutions that encourage more third-party investment in charging infrastructure.
- **Demonstrate and begin to scale cost-effective load management programs for both residential and commercial fleet vehicles;** explore the viability of a new Distributed Energy Resource (DER) tariff as a dependable funding mechanism for optimally managing EV loads, as well as other forms of demand response and DERs.
- **Commit to annual TE net capital budgets** of $3 Million to $5 Million and O&M spending of $300,000 to $600,000 for TE programs, providing flexibility and adjustment to changing market conditions.
- **Maximize funding from the CFP to supplement rate-based capital and O&M,** with CFP funds estimated at $600k per year in 2026 and growing to over $1M per year by 2030. CFP funds are utilized to expand programs and activities, including but not limited to community EV programs, EVSE operational expenses, fleet advisory services, EV ride-hailing and sharing programs, education and outreach, and rural access and agricultural applications.
- **Apply for grants where appropriate and feasible** to minimize net costs for certain DCFC and innovative technology demonstration projects.
- **Provide regular updates of EV load profiles and forecasts** in UTC annual reports and for System Planning and Integrated Resource Planning purposes.

Community DCFC and L2 Charging at the MLK Jr. Center

TE Programs and Activities

Cost-effective programs designed to achieve strategic objectives include charging infrastructure deployment, community support programs, fleet electrification advisory services, customer education and outreach, and vehicle-grid integration efforts. See Appendix E for example highlights of programs and projects currently underway.

Proportional funding in various programmatic categories is targeted as follows to optimally balance competing needs and priorities. This is accomplished with an aspirational goal of 30% of overall funding (in aggregate from all categories) to benefit named communities and low-income customers.

Table 16 – Budget Targets by TE Program / Activity

Program / Activity Category	Budget Target
Charging Infrastructure	40%
Community Programs	20%
Fleet Services	15%
Vehicle-Grid Integration	12%
Education and Outreach	5%
Market / Technology Monitoring and Testing	5%
Data Management, Analysis and Reporting	3%

Guiding Principles

- **Customer-centric, high-satisfaction programs** provide objective information and choices that enable informed customer decisions.
- **Materially support beneficial market growth, utility revenue, off-peak charging, and community benefits,** within limits of overall Avista capital and O&M funding capability and maximal use of CFP funds.
- **Partner and collaborate** with customers and interested parties across the region.
- **Adaptive & flexible plans and programs** align with legislative and regulatory policy.
- **Support healthy market competition,** third-party ownership, innovation and interoperable industry standards.
- **Cost-effective, integrated management** across all programs and activities.
- **Implement utility fleet electrification,** facility EVSE, and employee engagement programs effectively.

Costs and Benefits

Avista is committed to support TE that, over the long term, provides significantly higher benefits than costs for all customers in terms of major economic, environmental, and utility grid benefits.

The tables below summarize annual levelized costs for EVSE equipment and installation, including utility and customer sides of the meter. This is based on the estimated number of various types of charging required to support baseline and high scenarios presented in the Charging Infrastructure and Grid Impacts section, and actual cost data obtained from Avista's TE programs.

Table 17 – Levelized Charging Ports and Costs for Baseline EV Adoption Scenario in Washington Counties Served by Avista

	Public DCFC	Fleet Depot DCFC	Public L2	Workplace L2	MUD L2	Fleet Depot L2	SFH L2
Cost per Port (nominal)	$131,597	$103,801	$7,107	$5,373	$6,252	$6,274	$1,783
Levelized Port Additions per Year 2025-2030	16	10	89	153	121	280	2,467
Installation and Equipment Cost per Year 2025-2030	$2,139,657	$1,073,175	$632,928	$823,880	$759,313	$1,754,447	$4,398,198
Levelized Port Additions per Year 2025-2035	54	12	260	397	304	560	5,386
Installation and Equipment Cost per Year 2025-2035	$7,151,377	$1,263,682	$1,849,727	$2,131,660	$1,902,600	$3,513,814	$9,603,557

Table 18 – Levelized Annual Charging Ports and Costs for High EV Adoption Scenario in Washington Counties Served by Avista

	Public DCFC	Fleet Depot DCFC	Public L2	Workplace L2	MUD L2	Fleet Depot L2	SFH L2
Cost per Port (nominal)	$131,597	$103,801	$7,107	$5,373	$6,252	$6,274	$1,783
Levelized Port Additions per Year 2025-2030	34	12	174	279	217	445	4,102
Installation and Equipment Cost per Year 2025-2030	$4,486,490	$1,222,479	$1,236,576	$1,500,937	$1,358,898	$2,792,476	$7,313,343
Levelized Port Additions per Year 2025-2035	108	13	531	798	610	1,087	10,595
Installation and Equipment Cost per Year 2025-2035	$7,151,377	$1,263,682	$1,849,727	$2,131,660	$1,902,600	$3,513,814	$26,134,844

By statute and in alignment with the UTC TE policy statement,[15] Avista may invest prudently in infrastructure and programs supporting TE, and may receive the 2% incentive return for net capital investments resulting in less than 0.25% revenue requirement.[16] However, Avista's investment capacity is limited and must be balanced with the objective and practical need for significant third-party investments and other forms of government funding that may be made available.

Given these considerations, Avista plans to support TE with Capital, O&M, and estimated CFP funding it may receive as summarized below, compared to the expected level of benefits, including utility revenue from EV charging, customer fuel and maintenance savings, and CO_2 emission reductions over time. This level of investment is intended to provide a backbone of charging infrastructure and supporting programs benefiting customers and communities, that adequately support beneficial EV adoption with a commensurate level of spending by other public and private parties.

[15] Policy and Interpretive Statement Concerning Commission Regulation of Electric Vehicle Charging Services." Washington Utilities and Transportation Commission, Docket UE-160799 (2017).

[16] Revised Code of Washington (RCW) 80.28.360 (1)

Table 19 – Avista TE Costs and Benefits Summary for Baseline EV Adoption Scenario

	Avista Capital Investments	Avista O&M Spending	Clean Fuels Program (CFP) Funding	Total Avista and CFP TE Expenditures	Utility TE Billing Revenue	Customer Fuel and Maintenance Savings	Avoided CO_2 Emissions (tons)
2026	$2,556,784	$600,000	$605,614	$3,762,398	$4,617,618	$19,401,566	55,704
2027	$3,382,694	$500,000	$757,018	$4,639,712	$5,673,265	$23,738,200	67,685
2028	$3,836,057	$400,000	$870,570	$5,106,627	$7,041,462	$29,384,119	83,241
2029	$4,357,775	$300,000	$1,001,156	$5,658,931	$8,827,592	$36,794,053	103,608
2030	$4,959,286	$300,000	$1,151,329	$6,410,615	$11,241,844	$46,903,726	131,320
2031	$5,455,215	$300,000	$1,324,028	$7,079,243	$14,286,453	$59,663,272	166,258
2032	$6,000,736	$300,000	$1,522,633	$7,823,369	$18,099,618	$75,644,237	209,983
2033	$6,600,810	$300,000	$1,751,027	$8,651,837	$22,696,885	$94,825,127	262,457
2034	$7,260,891	$300,000	$2,013,682	$9,574,572	$28,143,970	$117,395,727	324,221
2035	$7,986,980	$300,000	$2,315,734	$10,602,714	$34,712,327	$144,479,494	398,341
2026 - 2030	$19,092,596	$2,100,000	$4,385,687	$25,578,283	$37,401,781	$156,221,664	441,558
2031 - 2035	$33,304,632	$1,500,000	$8,927,104	$43,731,735	$117,939,253	$492,007,857	1,361,260
Totals	**$52,397,228**	**$3,600,000**	**$13,312,791**	**$69,310,018**	**$155,341,034**	**$648,229,521**	**1,802,818**

Note that planned Avista capital investments are dependent to a large degree on market forces and customer participation in Avista's TE programs. Estimated third-party investments are also a function of inherent market forces, as well as other public or government contributions and incentives that may be available.

Resulting levelized costs for non-residential charging infrastructure and planned Avista capital investments are summarized below for the 2025-2030 horizon, in both the baseline and high adoption scenarios.

Table 20 – Levelized Non-residential Charging Infrastructure Costs and Investments in Washington Counties Served by Avista, 2025-2030

Adoption Scenario / Costs	Baseline EV Adoption	High EV Adoption
Total Charging Infrastructure Costs	$57,907,990	$99,555,995
Non-utility Capital Investments	$38,815,394	$80,463,399
Planned Avista Capital Investments	$19,092,596	$19,092,596
Avista % of Total Capital Investments	33%	19%

Significant distribution system costs are not expected until beyond 2030, especially if MHD adoption is severely dampened. At higher adoption levels beyond 2030, however, additional utility distribution system costs in the form of service transformer replacements, feeder upgrades, and substations will at some point reach a level of significance and may be reasonably forecasted to include with the figures indicated above and incorporated in Avista's Integrated Resource Planning (IRP) processes. Proactive investments in the distribution system that enable transportation electrification may be prudently made, assuming credible projected loads in certain locations are developed that justify these investments and are in accordance with UTC policy guidelines.

Reporting and Adjustments to Plan

This 2025 TE Plan will guide programs and activities through 2030, with some adjustments as appropriate with changing customer needs, technology developments, and market conditions. The Company may periodically propose adjustments to plans and programs through the normal filing process under tariff schedule 077. Any proposed changes will incorporate prescribed review processes facilitated by the Utilities and Transportation Commission.

Annual summary reports will be filed by March 31st for the prior calendar year, focusing on expenses, revenues and high-level program results, and including a summary of CFP funding and spending. An updated 2030 TE Plan will be filed by December 31, 2030.

Corridor DCFC Charging at the Harvester Restaurant in Spangle, WA (2024)

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Appendix A – Glossary of Terms

AC, DC: alternating current, direct current. The U.S. electricity grid generally operates on AC. A typical household outlet is 110–120 VAC (volts alternating current). Larger home appliances use 240 VAC. Electric car batteries operate on DC.

AC Level 2 Charger: AC Level 2 (L2) chargers can be found in both commercial and residential locations. They provide power at 220V-240V and various amperages, resulting in power output ranging from 3.3kW to 19.2kW.

AFDC: U.S. DOE Alternative Fuel Data Center website containing a wealth of information on alternative fuels and vehicles.

Aggregator: An aggregator is a third-party intermediary linking electric vehicles to grid operators. Increasingly, aggregators are stepping into a role of facilitating interconnections to entities that provide electricity service. Broadly, aggregators serve two roles: downstream, they expand the size of charging networks that electric vehicle (EV) customers can access seamlessly, facilitating back-office transactions and billing across networks; upstream, they aggregate a number of EVs and charging station operators (CSO) to provide useful grid services to distribution network operators (DNO) and transmission system operators (TSO).

AV: Autonomous vehicle is a vehicle that can guide itself without human input. There are various levels of autonomous technology as defined by SAE, from level 0 (no driving automation) to level 5 (full driving automation).

BEV (Battery Electric Vehicle): Battery Electric Vehicle is a vehicle with a drivetrain that is only powered by an onboard battery and electric motor(s).

CAV: Connected autonomous vehicle is an autonomous vehicle that has vehicle-to-vehicle or vehicle-to-infrastructure capabilities.

CCS: The Combined Charging System is a charging method for electric vehicles from the SAE J1772 connector. The plug contains DC and AC options and is also referred to as a combo connector. The automobile manufacturers supporting this standard include BMW, Daimler, FCA, Ford, General Motors, Hyundai, Jaguar, Tesla and Volkswagen.

Charger: A layperson's term for the on-board or off-board device that interconnects the EV battery with the electricity grid and manages the flow of electrons to recharge the battery. Also known as electric vehicle supply equipment (EVSE).

Charge Session: A charge session is the period of time an electric vehicle (EV) is actively charging its battery through the connection with a charger (EVSE).

Charging: Charging is the process of recharging the onboard battery of an electric vehicle.

Charging Level: The terms "AC Level 1", "AC Level 2" and "DC fast" describe how energy is transferred from the electrical supply to the car's battery. Level 1 is the slowest charging speed. DC fast is the fastest. Charging rate varies within each charging level, depending on a variety of factors, including the electrical supply and the car's capability.

Charging Station: The physical site where the electric vehicle supply equipment (EVSE) (also known as the charger) or inductive charging equipment is located. A charging station typically includes parking, one or more chargers, and any necessary "make-ready equipment" (e.g., conduit, wiring to the electrical panel, etc.) to connect the chargers to the electricity grid, and can include ancillary equipment such as a payment kiosk, battery storage or onsite generation.

CHAdeMO: "CHArge de MOve" is the trade name of a quick charging method formed by Tokyo Electric Power Company, Nissan, Mitsubishi and Fuji Heavy Industries, and later joined by Toyota.

Connector: The plug that connects the electricity supply to charge the car's battery. J-1772 is the standard connector used for Level 1 and Level 2 charging. CCS or "combo" connectors are used for DC Fast charging on most American and European cars. CHAde-MO is the connector used to DC fast charge some Japanese model cars.

Demand Response (V1G, direct load management, controlled charging, intelligent charging, adaptive charging or smart charging): Central or customer control of EV charging to provide vehicle grid integration (VGI) offerings, including wholesale market services. Includes ramping up and ramping down of charging for individual EVs or multiple EVs, whether the control is done at the EVSE, the EV, the EV-management system, the parking lot EV energy-management system or the building-management system, or elsewhere.

DER: Distributed energy resource

DERMS: Distributed energy resource management system

Direct Current Fast Charger (DCFC): Direct current fast charging equipment is designed to rapidly deliver direct current to a vehicle's onboard battery. DCFCs commonly have power ratings of 50kW or higher.

Direct Install Costs: Corresponding to the direct costs associated with the installation of an EVSE. These costs include labor and materials for mounting the EVSE, wiring connections, network connections, signage, EVSE testing, and work to complete required permitting and inspections.

DOE: "Department of Energy" is commonly used to refer to the U.S. energy agency or a state energy agency.

DOT: "Department of Transportation" is commonly used to refer to the U.S. Dept of Transportation or a state transportation agency.

DR: Demand response (see "Demand Response")

DRMS: Demand response management system

E&O: Education and outreach

Electric Vehicle Service Provider (EVSP): An electric vehicle service provider, also known as a network service provider (NSP), provides services related to chargers, such as data communications, billing, maintenance, reservations and other non-grid information. The EVSP sends grid commands or messages to the EV or EVSE (e.g., rates information or grid information based on energy, capacity or ancillary services markets; this is sometimes called an electricity grid network services provider). The EVSP may send non-grid commands (e.g., reservations, billing, maintenance checks), and may receive data or grid commands from other entities, as well as send data back to other entities.

Electric Vehicle Supply Equipment (EVSE): Electric vehicle supply equipment, also often called an EV charger, is stand-alone equipment used to deliver power to the input port connection on an EV. This device includes the ungrounded, grounded and equipment-grounding conductors and the electric vehicle connectors, attachment plugs and all other fittings, devices, power outlets or apparatus associated with the device, but does not include premises wiring.

ENERGY STAR for EVSE: Compliance standards for electric vehicle supply equipment to receive ENERGY STAR certification.

EPA: "Environmental Protection Agency" is commonly used to refer to the U.S. environmental protection agency or a state environmental protection agency

EPRI: Electric Power Research Institute conducts research, development and demonstration projects to benefit the public in the United States and internationally.

EV: "Electric vehicle" is the commonly used name for vehicles with the capability to propel the vehicle fully or partially with onboard battery power and contains a mechanism to recharge the battery from an external power source. EVs can include full battery-electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs).

EVSE: See Electric Vehicle Supply Equipment.

EVSP: See Electric Vehicle Service Provider.

Fleet EVSE: EVSE for use by business-owned vehicles.

GGE: Greenhouse gas emissions

GHG: Greenhouse gas

GMS: Grid Management System is based on an architecture and guiding principles to proactively support changing requirements while minimizing disruption to existing operations, consumer commitments and regulatory requirements.

GSE: Ground support equipment is equipment used in airports, such as belt loaders, luggage tags and water trucks.

HDV: Heavy-duty vehicles have a gross vehicle weight above 26,000 pounds.

Internal Combustion Engine (ICE): ICE is an acronym for "Internal combustion engine." ICE vehicles typify the majority of gasoline/diesel/natural gas vehicles that make up the majority of automotive fleet.

ICCT: International Council on Clean Transportation. ICCT is a research group and has published several reports supporting transportation electrification.

IEEE: Institute of Electrical and Electronics Engineers is a professional association whose objectives are the educational and technical advancement of electrical and electronic engineering, telecommunications, computer engineering and allied disciplines.

IEEE 2030.5: IEEE 2030.5 is a standard for communications between the smart grid and consumers. The standard is built using Internet of Things (IoT) concepts and gives consumers a variety of means to manage their energy usage and generation.

IEEE P2690: This standard defines communications between electric vehicle charging systems and a device, network and services-management system, which is typically based "in the cloud" but could also include interfaces to site-specific components or systems (e.g., building energy management systems).

IGP: Integrated grid planning

Interoperability: The ability of devices, systems or software provided by one vendor or service provider to exchange and make use of information, including payment information, between devices, systems or software provided by a different vendor or service provider.

IOU: Investor-owned utility

ISO 15118-1:2013: ISO 15118 specifies the communication between EV and the EVSE.

J1772: also known as a "J plug", is a North American standard for electrical connectors for electric vehicles maintained by the Society of Automotive Engineers (SAE) International, and has the formal title "SAE Surface Vehicle Recommended Practice J1772, SAE Electric Vehicle Conductive Charge Coupler." It covers the general physical, electrical, communication protocol and performance requirements for the electric vehicle conductive charge system and coupler.

L2 Station: See AC Level 2 Charger.

Long-Range Battery Electric Vehicles (LBEV): LBEVs are BEVs (see BEV) that have an average driving range greater than 200 miles for a full battery charge.

LDV: Light-duty Vehicles have a gross vehicle weight at or below 14,000 pounds.

Level 1: Level 1 is part of the charging standard defined by the SAE for charging equipment using standard 120V household electricity.

Level 2: Level 2 is part of the charging standard defined by the SAE for charging equipment using 208V or 240V electricity, similar to the power level used for ovens and clothes dryers.

Load Curve: A load curve or load profile is a graph of electrical load over time. This is useful for utilities to determine how much electricity will be needed to be available at a given time for efficiency and reliability of power transmission.

Make-ready: Make-ready describes the installation and supply infrastructure up to, but not including, the charging equipment. The customer procures and pays for the charging equipment, which could be funded by a separate rebate or other incentive by the electric company or other entity.

Managed Charging: Managed charging allows an electric utility or a third party to control the charging of an EV remotely. This entity could enable or disable charging, or could control the power level for charging.

MDV: Medium-duty vehicles have a gross vehicle weight more than 14,000 and less than 26,001 pounds.

MUD: Multi-unit dwellings are a type of residence in which multiple housing units are located within a single building or building complex (e.g., an apartment complex, duplex, condos, etc). This is synonymous with a multi-dwelling unit (MDU). EVSE at MUDs are intended for use by MUD residents. EVSE located on hotel or motel properties are also included within MUD session data in this report.

NEMA: National Electric Manufacturers Association

Networked EVSE: These devices are connected to the Internet via a cable or wireless technology and can communicate with the computer system that manages a charging network or other software systems, such as a utility demand response management system (DRMS) or system that provides charging data to EV drivers on smartphones. This connection to a network allows EVSE owners or site hosts to manage who can access EVSE and how much it costs drivers to charge.

NGO: Non-governmental organization

Non-networked EVSE: These devices are not connected to the Internet and provide basic charging functionality without remote communications capabilities. For example, most Level 1 EVSE are designed to simply charge a vehicle; they are not networked and do not have additional software features that track energy use, process payment for a charging session, or determine which drivers are authorized to use the EVSE. Secondary systems that provide these features can be installed to supplement non-networked EVSE.

NREL: National Renewable Energy Laboratory

NPV: Net present value is the sum of future cash flows using a discount rate, such that it takes into account the time value of money.

OATI: Open Access Technology International, Inc.

OEM: Original equipment manufacturer, commonly used to refer to automobile manufacturers.

OpenADR 2.0b: Open Automated Demand Response (OpenADR) is an open and standardized way for electricity providers and system operators to communicate DR signals with each other and with their customers using a common language over any existing IP-based communications network, such as the Internet.

OCPP: The goal for the Open Charge Point Protocol (OCPP) is to offer a uniform solution for the method of communication between charge point and central system.

PEV (Plug-in Electric Vehicle or PEV): see EV

PHEV (Plug-in Hybrid Electric Vehicle): Plug-in hybrid electric vehicle is a plug-in electric vehicle that can be powered by either or both a gasoline/diesel engine and/or an onboard battery.

Platform: The base hardware and software upon which software applications run.

Port: See Connector.

Premises Wiring: electrical supply panel and dedicated 208/240VAC circuits that supply electricity directly to EVSE. This includes the protective breaker at the supply panel, wiring, final junction box, receptacle and all attachments and connections.

Proprietary Protocol: A protocol that is owned and used by a single organization or individual company.

Protocol: Set of rules and requirements that specify the business process and data interactions between communicating entities, devices or systems. Most protocols are voluntary in the sense that they are offered for adoption by people or industry without being mandated by law. Some protocols become mandatory when they are adopted by regulators as legal requirements. A standard method of exchanging data that is used between two communicating layers.

Public EVSE: Public EVSE can be found in multiple types of locations, including but not limited to business parking lots, public buildings and adjacent to public right-of-way. Public AC Level 2 EVSE have a standard J1772 connector, while DCFC have a CHAdeMO and/or CCS connectors. Tesla vehicles may utilize public EVSE with an adapter; however, other EVs cannot use Tesla EVSE, as no adapters are available.

Residential EVSE: Located within a person's home, most often in a garage, residential EVSE are usually used by one or two EVs intended only for use by the homeowner.

Ride and Drive: Event where individuals are given the opportunity to look at EVs, talk with EV drivers, and ride in or drive an EV.

RPS: Renewable portfolio standard

Open Charge Point Protocol (OCPP): An application protocol for communication between EVSEs and EVSP servers.

Standard: An agreed-upon method or approach of implementing a technology that is developed in an open and transparent process by a neutral, non-profit party. Standards can apply to many types of equipment (e.g., charging connectors, charging equipment, batteries, communications, signage), data formats, communications protocols, technical or business processes (e.g., measurement, charging access), cybersecurity requirements, and so on. Most standards are voluntary in the sense that they are offered for adoption by people or industry without being mandated in law. Some standards become mandatory when they are adopted by regulators as legal requirements.

Standardization: Process where a standard achieves a dominant position in the market due to public acceptance, market forces or a regulatory mandate.

State of Charge (SOC): The level of charge of an electric battery relative to its capacity.

TCO: Total cost of ownership is a financial estimate that accounts for both purchase price and continued, variable operating costs of an asset.

TE: Transportation electrification

Telematics: In the context of EV charging, including managed charging, telematics refers to the communication of data between a data center (or "cloud") and an EV, including sending control commands and retrieving charging session data.

TNC: Transportation network company is a company that connects passengers with drivers via a mobile app or website. Example companies include Uber and Lyft.

TOU (Time of Use) Rate: "Time of use" often refers to electricity rates that can vary by the time of day. TOU rates can also be structured to vary by season.

TRU: Truck refrigeration unit is a device that is installed in a truck to refrigerate a truck's storage compartment.

Use Case: Defines a problem or need that can be resolved with one or more solutions (technical and/or non-technical) and describes the solutions. The use case is a characterization of a list of actions or event steps, typically defining the interactions, describing the value provided and identifying the cost.

Uptime: Defines the amount of time an EVSE is functionally able to provide a charge when requested, as opposed to a faulted state where no charge may occur. Depending on configuration settings, networked EVSE may still be able to provide a charge and maintain uptime status when offline from the network connection.

Workplace EVSE: Workplace EVSE are located on business property, primarily intended for use by employees. However, often the business owner will allow use by visitors or the public if it is located in an accessible location.

V1G: V1G refers to vehicles only capable of receiving power from the electrical grid to the onboard battery. This can also commonly be referred to as demand response for EVs.

V2B: "Vehicle-to-building" refers to vehicles capable of sending power from the onboard battery to a building.

V2G: "Vehicle-to-grid" refers to vehicles capable of receiving power to the onboard battery from the electrical grid and vice versa.

V2H: "Vehicle-to-home" refers to vehicles capable of sending power from the onboard battery to a home.

V2L: "Vehicle-to-load" refers to vehicles capable of sending power from the onboard battery to a particular piece of equipment or electric load

V2X: "Vehicle-to-everything", including V1G, V2B, V2G, V2H, and V2L

VMT: Vehicle miles traveled

VGI: Vehicle-grid integration refers to the full suite of grid infrastructure, hardware, and software controls, and the corresponding markets and regulations that enable widespread adoption of electric vehicles in a way that supports the needs of both EV drivers and the grid. VGI is inclusive of certain forms of EV load management and demand response, including V2X.

VPP: Virtual power plant (VPP) is a cloud-based distributed power plant that aggregates the capacities of heterogeneous energy resources for the purposes of enhancing power generation, as well as trading or selling power on the open market.

ZEV: Zero-emission vehicle is a vehicle with no tailpipe emissions. The term includes battery electric vehicles and hydrogen fuel cell electric vehicles.

Appendix B – Detailed Analysis and Modeling Notes of Market Forecasts and Required Charging Infrastructure

Prepared by Bill Boyce Consulting, LLC

To establish EV adoption numbers, two primary modeling sources were used for Avista's service territory. The first source was the Washington State Transportation Electrification Strategy (WA TES) Tableau Dashboard for Washington-based counties. The second was the U.S. Department of Energy National Renewable Energy Laboratory (NREL) State and Local Planning for Energy (SLOPE) model. Note there are many different supportive databases that revolve around EV adoption with associated charging loads provided. Significantly more model maturity exists for personal light- duty vehicle adoption versus medium and heavy-duty vehicles. The Rocky Mountain Institute (RMI) conducted the EV adoption modeling for the WA TES, whereas the NREL SLOPE model uses another NREL model called the Transportation Energy and Mobility Pathway Option Model (TEMPO) to predict light-duty EV adoption and then uses EVI-Pro/Pro lite and EVI-Road-Trip to transform that data into charging and EVSE recommendations.

The WA TES Tableau model itself is an interactive model that can be found here: https://public.tableau.com/app/profile/waevcouncil/viz/WashingtonStateTransportationElectrificationStrategy/Story_Published. The WA TES states that RMI uses a two-stage approach for adoption and charging needs modeling. As quoted from the TES, "The first stage uses a vehicle stock rollover model, which assesses potential EV adoption from 2023 through 2035, by vehicle segment and by county, using a combination of bottom-up economic analysis based on estimated total cost of ownership for different powertrains, and top-down policy requirements such as the Advanced Clean Cars II and Advance Clean Trucks regulations. The second stage of the modeling assesses anticipated EV charging needs, using the number of EVs estimated through the stock rollover model combined with local trip data or average daily VMT" (WA TES, Appendix D Technical Appendix, page 181). Note that specific county-by-county stock turnover data was not made evident in the WA TES and it is assumed that this is programmed into the WA TES Tableau model. A review of the individual county-by-county stock turnover data and modeling applications would have been valuable in comparing local EV adoption actuals to date, given the WA TES RMI projections go back to 2023. RMI also created different adoption scenarios to reflect different market and policy support options and sub-options. Three scenarios were used in this analysis: Scenario 3 Strong Adoption, Scenario 1 Baseline, and Scenario 5 Worst Case. Scenario 3 Strong Adoption appears to be the State of Washington target as specified in the TES and assumes California ACCII, ACT and Advanced Clean Fleets (ACF) policies remain in place. Below is a description of the three scenarios as related to the WA TES:

Scenario 1 Core Baseline

EV adoption under current (2024) policy and middle-of-the-road outlooks on cost trajectories.

Scenario 3 Core Strong Electrification Policy

Washington enacts additional policy to support electrification, such as higher incentives for ZEVs and EVSE, inclusion of the ACF rule's adoption rates and education, and outreach to encourage strong consumer interest in ZEVs.

Scenario 5 Exploratory Worst Case

Combination of factors that would together constitute the worst case, such as higher ZEV costs, lack of electrification policy and lack of VMT policy

For simplification purposes, summary data will be provided for a high (Scenario 1) and low adoption case (Scenario 5). Additionally, RMI embedded Class 2B vehicles in the light-duty vehicle population count (WA TES Footnote 73, page 74). Unfortunately, EV supportive policies including federal policies and incentives, have been rolled back.

The publicly available TES Tableau Dashboard model does not provide adoption scenario data by county and only provides county-level data for Scenario 3 Strong adoption, so county-level data for Scenarios 1 and 5 must be adjusted from the Scenario 3 county data. This was done by looking at statewide data where all the scenarios are included and calculating reduction percentages for Scenarios 1 and 5 that can then be applied to the county data. The reduction percentage factors for Scenarios 3 and 5 for 2030 and 2035 are provided in Table B1.

Table B1 – Washington TES Scenario Percentage Factors

Vehicle Category	S3 Strong Default	S1 Baseline 2030	S5 Worst Case 2030	S1 Baseline 2035	S5 Worst Case 2035
Light-Duty	100%	92.20%	83.20%	95.50%	91.90%
Med./Hvy.-Duty	100%	68%	46.50%	73.50%	68%
School Buses	100%	40%	14.30%	85.70%	40.00%
Transit Buses	100%	88.90%	72.20%	66.67%	22.22%

In addition to the WA TES scenario options, reduction filters were also put in place to reflect Avista's service territory coverage percentage by county. The % of Avista service coverage by WA county is given in Table B2.

Table B2 – Avista Washington Service Territory Percentage by County

Avista Washington	
County	**% Avista**
Adams	85%
Asotin	100%
Ferry	61%
Lincoln	82%
Spokane	87%
Stevens	100%
Whitman	100%

For Idaho, no TES strategy type document existed, so NREL's EV adoption model was used directly. The most accessible rendition of the NREL light-duty adoption data is available from NREL's SLOPE model using the data viewer field. The NREL SLOPE model data viewer model can be found at: https://maps.nrel.gov/slope/data-viewer?filters=%5B%5D&layer=transportation.vehicles-count&year=2020&res=county.

The SLOPE model uses NREL's TEMPO data. Direct TEMPO data did not appear to be publicly available. SLOPE data appears to be a simplified interactive version with TEMPO data embedded in the Model, which provides county-level light-duty vehicle data, so no Medium/Heavy-duty EV adoption data will be presented for Idaho. County-level data will be adjusted according to the Avista service territory coverage percentage. The % of Avista service coverage by ID county is given in Table B3.

Table B3 – Avista Idaho Service Territory by Percentage

Avista Idaho service territory by percentage	
County	**% Avista**
Benewah	50%
Bonner	70%
Clearwater	36%
Kootenai	65%
Latah	61%
Lewis	63%
Nez Perce	57%
Shoshone	80%

Summary Adoption for 2030 and 2035

Below is Table B4 with the high and low EV adoption projections for Avista's service territory by Washington counties. Table 5. Is the high and low adoption for Avista service territory by Idaho counties based on the NREL SLOPE model.

Table B4 – Avista Washington Light-duty EV Population Projections

	2030		2035	
Avista service territory county percentages applied	**Low** WA TES Scenario 5 "Worst Case"	**High** WA TES Scenario 1 "Baseline"	**Low** WA TES Scenario 5 "Worst Case"	**High** WA TES Scenario 1 "Baseline"
County				
Adams	4,831	5,352	9,931	10,320
Asotin	5,062	5,607	11,252	11,692
Ferry	1,463	1,620	3,033	3,151
Lincoln	2,122	2,351	5,204	5,408
Spokane	86,650	95,994	205,665	213,718
Stevens	11,090	12,286	26,525	27,564
Whitman	8,194	9,077	18,056	18,763
Total	**119,412**	**132,289**	**279,665**	**290,617**

Table B5 – Avista Idaho Light-duty Adoption EV Population Projections

Avista service territory county percentages applied	2030 **Low** NREL SLOPE "Reference"	2030 **High** NREL SLOPE "High Electrification"	2035 **Low** NREL SLOPE "Reference"	2035 **High** NREL SLOPE "High Electrification"
County				
Benewah	67	1,019	95	1,765
Bonner	466	4,689	739	9,125
Clearwater	27	554	40	1,012
Kootenai	2,436	14,395	3,502	28,165
Latah	762	3,778	1,002	6,563
Lewis	5	418	9	769
Nez Perce	275	2,847	379	5,545
Shoshone	190	2,306	245	4,062
Total	**4,227**	**30,006**	**6,011**	**57,005**

Table B6 through Table B8 are the low and high Washington projections for the Medium and Heavy-Duty sector vehicles with separate breakouts for School Buses (Table B7) and Transit Buses (Table B8). As previously noted, there are no medium-or heavy-duty vehicle projections for Idaho counties.

Table B6 – Avista Washington Medium-Heavy-duty EV Population Projections

Avista service territory county percentages applied	2030 **Low** WA TES Scenario 5 "Worst Case"	2030 **High** WA TES Scenario 1 "Baseline"	2035 **Low** WA TES Scenario 5 "Worst Case"	2035 **High** WA TES Scenario 1 "Baseline"
County				
Adams	53	78	223	241
Asotin	22	32	73	79
Ferry	3	4	12	13
Lincoln	32	47	134	145
Spokane	579	846	1,944	2,101
Stevens	66	97	237	256
Whitman	69	101	246	266
Total	**824**	**1,205**	**2,870**	**3,102**

Table B7 – Avista Washington School Bus EV Population Projections

	2030		2035	
Avista service territory county percentages applied	**Low** WA TES Scenario 5 "Worst Case"	**High** WA TES Scenario 1 "Baseline"	**Low** WA TES Scenario 5 "Worst Case"	**High** WA TES Scenario 1 "Baseline"
County				
Adams	3	8	11	34
Asotin	2	4	6	17
Ferry	1	2	2	7
Lincoln	3	9	13	39
Spokane	33	91	113	338
Stevens	6	17	26	78
Whitman	6	17	24	71
Total	**53**	**149**	**195**	**584**

Table B8 – Avista Washington Transit Bus EV Population Projections

	2030		2035	
Avista service territory county percentages applied	**Low** WA TES Scenario 5 "Worst Case"	**High** WA TES Scenario 1 "Baseline"	**Low** WA TES Scenario 5 "Worst Case"	**High** WA TES Scenario 1 "Baseline"
County				
Adams	0	0	0	0
Asotin	0	0	0	1
Ferry	0	0	0	0
Lincoln	7	9	10	20
Spokane	47	58	52	110
Stevens	1	2	2	3
Whitman	6	8	8	17
Total	**62**	**77**	**71**	**152**

DC Fast Charger Deployment Methodology / Summary / Discussion

Two primary sources of data were used to assess DCFC deployment. First, the WA TES Tableau Dashboard had the ability to generate DCFC data. So this data was used for consistency with the rest of the data used in this report and for applicability with state policy. The second source of data used was the NREL EVI-Pro Lite model for the “metropolitan” areas in Avista’s service territory, which included the Spokane Valley, Lewiston-Clarkston and Coeur d’Alene areas. The map for the Spokane Valley in the EVI-Pro-Lite model appeared to encompass all the counties in Avista’s Washington service territory, with the exception of Asotin and Whitman Counties. Asotin County was covered in the Lewiston-Clarkston map, leaving only Whitman County devoid of any EVI-Pro-Lite data. An attempt was also made to use the NREL EVI-Road-Trip model, which covers corridor charging by county for designated roadways; however, the model appeared to have too many inconsistencies when attempts were made to use it.

The WA TES Dashboard model did have the ability to delineate public versus depot charging by county and vehicle segment. The data is presented in several different slices to contrast and compare some of those variables, primarily between public versus depot DCFC deployment. Table B9 provides a low and a high estimate for the combined market for public DCFC deployment. Table B10 provides a high and low estimate for the combined market for depot DCFC Deployment. Table B11 is the high and low Medium-Heavy-Duty/School Bus, Transit Bus public DCFC. Table B12 is high and low Medium-Heavy-Duty/School Bus/Transit Bus depot DCFC.

Table B9 – Avista Washington Combined Public DC Fast Charger Projections

	2030		2035	
Avista service territory county percentages applied	**Low** WA TES S 5 “Worst Case”	**High** WA TES S 1 “Baseline”	**Low** WA TES S 5 “Worst Case”	**High** WA TES S 1 “Baseline”
County				
Adams	58	64	92	96
Asotin	11	12	20	21
Ferry	19	21	29	30
Lincoln	21	23	49	51
Spokane	330	366	549	570
Stevens	50	55	94	97
Whitman	28	31	46	48
Total	**517**	**573**	**879**	**913**

Table B10 – Avista Washington Depot DC Fast Charger Projections

	2030		2035	
Avista service territory county percentages applied	**Low** WA TES S 5 "Worst Case"	**High** WA TES S 1 "Baseline"	**Low** WA TES S 5 "Worst Case"	**High** WA TES S 1 "Baseline"
County				
Adams	18	20	40	41
Asotin	7	8	14	14
Ferry	2	2	3	3
Lincoln	13	14	29	31
Spokane	248	274	499	519
Stevens	26	29	52	54
Whitman	27	30	57	59
Total	**341**	**378**	**695**	**722**

Table B11 – MHD EV / School Bus / Transit Bus Public DC Fast Charger Projections

	2030		2035	
WA TES Dashboard - Avista service territory county percentages applied	**Low** WA TES S 5 "Worst Case"	**High** WA TES S 1 "Baseline"	**Low** WA TES S 5 "Worst Case"	**High** WA TES S 1 "Baseline"
County				
Adams	4	5	7	5
Asotin	1	1	1	1
Ferry	1	1	1	1
Lincoln	2	2	5	2
Spokane	23	26	42	27
Stevens	4	5	6	5
Whitman	2	3	6	3
Total	**37**	**41**	**67**	**43**

Table B12 – Med / Hvy-duty EV / School Bus / Transit Bust Depot DC Fast Charger Projections

	2030		2035	
WA TES Dashboard - Avista service territory county percentages applied	**Low** WA TES S 5 "Worst Case"	**High** WA TES S 1 "Baseline"	**Low** WA TES S 5 "Worst Case"	**High** WA TES S 1 "Baseline"
County				
Adams	18	20	40	41
Asotin	1	1	3	3
Ferry	1	1	3	3
Lincoln	13	14	29	31
Spokane	248	274	499	519
Stevens	26	29	52	54
Whitman	27	30	57	59
Total	**333**	**369**	**684**	**710**

The last set of data is the NREL EVI-Pro-Light Data which is applicable to light-duty vehicle adoption only. The model was run for the three "metropolitan" areas included in Avista's service territory: Spokane Valley (Table B13 for 2030 and B14 for 2035), Coeur d'Alene (Table B15 for 2030 and B16 for 2035), and Lewiston-Clarkston (Table B17 for 2030 and B18 for 2035) as previously discussed. The primary input is number of vehicles. The model also provides a distinction between community DCFC and those needed for Transportation Network Company (TNC) vehicles like Uber and Lyft. The data is also provided according to charging power, with low (below 200kW), medium (between 200kW and 400kW), and high (greater than 450kW). Regarding Lewiston-Clarkston area, to be consistent with the rest of this report an attempt was made to separate these according to county, Asotin (WA) and Nez Perce (ID). The data is presented differently from the previous WA TES-based data given the output differences in the EVI-Pro-Lite model. This is evident in this data being provided as "high" data first versus "low" and 2030 data being presented separately from 2035 data.

Table B13 – Spokane Valley 2030 EVI Pro-lite DC Fast Charger Projections

	2030			
Spokane Valley from NREL map, it appears to include all Avista WA service territory except for Asotin and Whitman Counties. EV Population data from WA TES	**Low** S5 Population		**High** S1 Population	
EV Population	106,156		117,604	
EVI Pro-Lite	Conservative	Aggressive with TNC	Conservative	Aggressive with TNC
# of DCFC Total	188	280	207	307
Community 150kW	39	39	43	43
Community 250kW	45	45	50	50
Community 350kW	96	96	105	105
TNC 150kW	4	44	4	48
TNC 250kW	2	27	2	30
TNK 350 kW	2	29	3	31

Table B14 – Spokane Valley 2035 EVI Pro-Lite DC Fast Charger Projections

	2035			
Spokane Valley from NREL map, it appears to include all Avista WA service territory except for Asotin and Whitman Counties. EV Population data from WA TES	**Low** S5 Population		**High** S1 Population	
EV Population	250,357		260,161	
EVI Pro-Lite	Conservative	Aggressive with TNC	Conservative	Aggressive with TNC
# of DCFC Total	387	527	402	541
Community 150kW	16	16	17	17
Community 250kW	95	95	98	98
Community 350kW	256	256	266	266
TNC 150kW	9	71	9	71
TNC 250kW	5	43	6	43
TNK 350 kW	6	46	6	46

Table B15 – Kootenai County 2030 EVI Pro-Lite DC Fast Charger Projections

	2030			
Kootenai County / Coeur d'Alene Reminder: EV population data is from NREL SLOPE Model	**Low Case: Approx. the S5 case**		**High Case: Approx. the S1 Case**	
EV Population	2,439		14,395	
EVI Pro-Lite	Conservative	Aggressive with TNC	Conservative	Aggressive with TNC
# of DCFC Total	11	13	24	35
Community 150kW	8	8	11	11
Community 250kW	3	3	5	5
Community 350kW	0	0	8	8
TNC 150kW	0	0	0	5
TNC 250kW	0	1	0	3
TNK 350 kW	0	1	0	3

Table B16 – Kootenai County 2035 EVI Pro-Lite DC Fast Charger Projections

	2035			
Kootenai County / Coeur d'Alene Reminder: EV population data is from NREL SLOPE Model	**Low Case: Approx. the S5 case**		**High Case: Approx. the S1 Case**	
EV Population	3,502		281,65	
EVI Pro-Lite	Conservative	Aggressive with TNC	Conservative	Aggressive with TNC
# of DCFC Total	11	13	35	35
Community 150kW	8	8	12	11
Community 250kW	3	3	8	5
Community 350kW	0	0	14	8
TNC 150kW	0	0	0	5
TNC 250kW	0	1	0	3
TNK 350 kW	0	1	1	3

Table B17 – Lewiston / Clarkston 2030 EVI Pro-Lite DC Fast Charger Projections

Lewiston / Clarkston The EVI-Pro output is for the Lewiston-Clarkston area. Data will be split between Asotin, County, WA and Nez Perce, County, ID according to the Avista % of service territory. The Asotin EV population data is from the WA TES and the ID data is from the NREL SLOPE data base.	**2030**			
	Low Case: Approx. the S5 case		**High Case: Approx. the S1 Case**	
EV Population	5,337		8,454	
EVI Pro-Lite	Conserv. / Low Asotin (94.8%)	Conserv. / Low Nez Perce (5.2%)	Aggressive / High Asotin (66.3%)	Aggressive / High Nez Perce (33.7%)
# of DCFC Total	20	20	22	22
Community 150kW	6	0	4	2
Community 250kW	4	0	3	2
Community 350kW	6	0	5	2
TNC 150kW	2	0	1	1
TNC 250kW	1	0	1	0
TNK 350 kW	1	0	1	0
Total	**19**	**1**	**15**	**7**

Table B18 – Lewiston / Clarkston 2035 EVI Pro-Lite DC Fast Charger Projections

Lewiston / Clarkston The EVI-Pro output is for the Lewiston-Clarkston area. Data will be split between Asotin, County, WA and Nez Perce, County, ID according to the Avista % of service territory. The Asotin EV population data is from the WA TES and the ID data is from the NREL SLOPE data base.	**2035**			
	Low Case: Approx. the S5 case		**High Case: Approx. the S1 Case**	
EV Population	11,631		17,237	
EVI Pro-Lite	Conserv. / Low Asotin (96.7%)	Conserv. / Low Nez Perce (3.3%)	Aggressive / High Asotin (67.8%)	Aggressive / High Nez Perce (32.2%)
# of DCFC Total	29	29	46	46
Community 150kW	7	0	7	4
Community 250kW	6	0	7	3
Community 350kW	9	0	10	5
TNC 150kW	3	0	3	2
TNC 250kW	2	0	1	1
TNK 350 kW	2	0	2	1
Total	**28**	**1**	**31**	**15**

Appendix C – Summary of DER Potential Study

Prepared by Applied Energy Group, Inc., Cadeo Group and Verdant Associates

Tables E-1 and E-2 from the study summarize results for the high incentive scenario in 2030 and 2045 for LDV, MDV and HDV vehicle weight classes. These results indicate 20% electrified LDV vehicles in the counties served by Avista in Washington State by 2030, at 104,838 EVs, and MDV and HDV each 3% electrified, with 436 and 350 vehicles electrified, respectively. This results in an estimated additional peak load of 31.6 MW and 325,977 MWh annual consumption in 2030. By 2045, 74% of LDVs are electrified (426,534 vehicles), 30% of MDVs (5,434 vehicles) and 37% of HDVs (4,662). This results in an additional peak load of 132 MW and 2,056,621 MWh annual consumption.

Table E-1 – Year 2030 Electric Vehicle Results Summary, High-Incentive Scenario

Vehicle Weight Class	Total Vehicles	% Electrified	EVs	Peak Load Impact (WW)	Annual Consumption (MWh)
LDV	519,499	20%	104,838	26.4	284,418
MDV	16,087	3%	436	3.0	25,913
HDV	10,348	3%	350	2.2	15,646
Total	**545,934**	**19%**	**105,624**	**31.6**	**325,977**

Table E-2 – Year 2045 Electric Vehicle Results Summary, High-Incentive Scenario

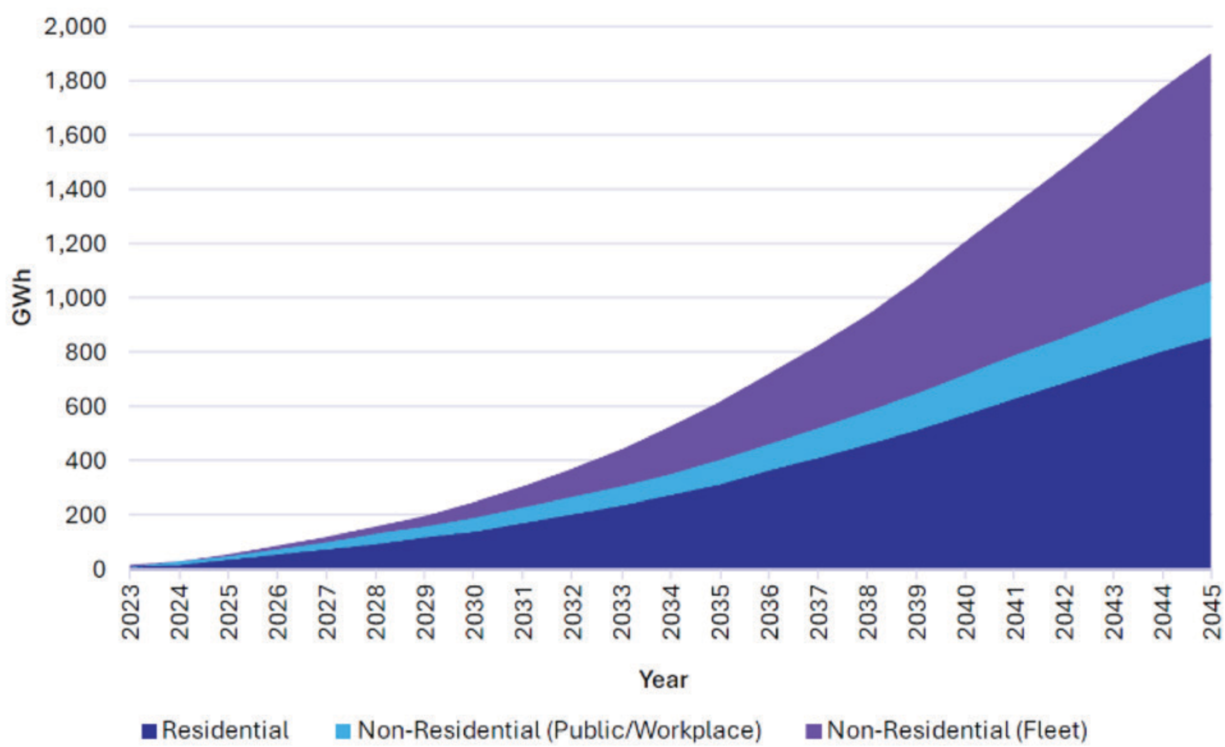
Vehicle Weight Class	Total Vehicles	% Electrified	EVs	Peak Load Impact (WW)	Annual Consumption (MWh)
LDV	573,839	74%	426,534	97.8	1,389,054
MDV	17,855	30%	5,434	15.0	286,129
HDV	12,603	37%	4,662	19.3	381,437
Total	**604,297**	**72%**	**436,630**	**132.1**	**2,056,621**

Figure 3-6 below indicates steady load growth from EVs charging at residential, fleet depot, and public/workplace commercial locations for the reference scenario, reaching 1,900 GWh of energy consumption by 2045. For the high incentive scenario, 2,617 GWh of load is predicted – representing over 40% load growth from 2024.

Key recommendations of the study include the following:

- **Address Fleet Data Gaps.** Finding fleet vehicle data is challenging. Secondary data likely undercounts smaller light-duty vehicle (LDV) fleets. Therefore, the AEG Team recommends that Avista conduct the following activities:
  - **Continued outreach to fleet operators.** Continue surveying and collaborating with transit authorities, school districts, and parcel delivery companies in its service territory, as such outreach will help inform future DER forecasts.
  - **Analysis of satellite imagery.** Satellite imagery is a low-effort method to determine commercial and industrial fleet service points. Consider analyzing satellite imagery to help inform EV fleet forecasting.
  - **Acquire fleet inventory data.** The Washington Department of Commerce is currently conducting a fleet inventory for most commercial businesses in the state of Washington. Once this data becomes available, the AEG Team recommends Avista pursue and use it.

Figure 3-6 – Annual Charging Load Impact (GWh), Reference Scenario



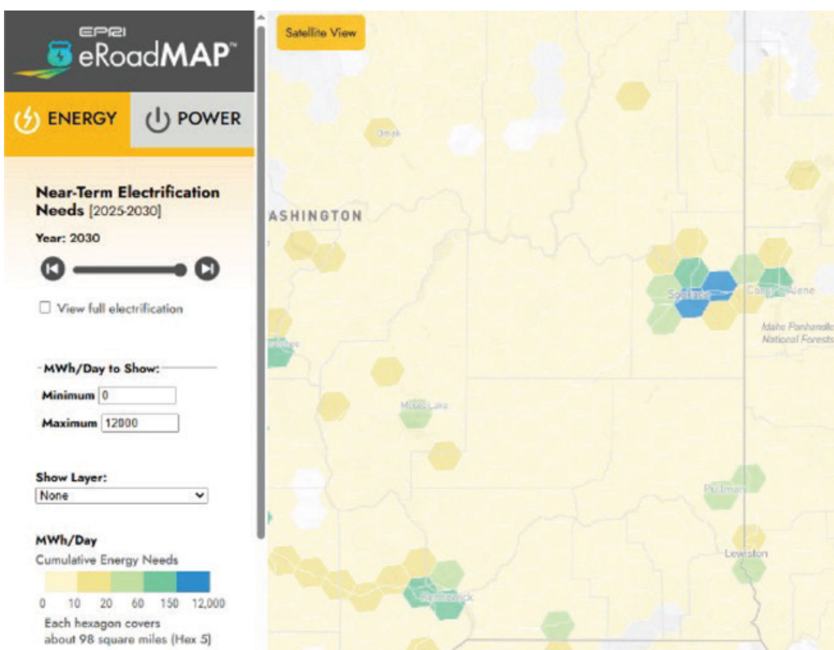
- **Develop Commercial EV Charging Profiles.** Limited data are available to characterize EVSE charging profiles, especially for commercial fleets. The AEG Team recommends that Avista conduct load research on commercial fleet charging.
- **Develop Seasonal EV Charging Profiles.** The team did not have sufficient data to characterize seasonal differences in EV charging profiles (kW per hour) and driving patterns (vehicle miles traveled per day), so we assumed the summer and winter charging profiles are the same in Avista's service territory. However, the winter charging profile may be more significant due to vehicle cabin space heating or smaller because of less driving in the winter. Therefore, we recommend that Avista conduct load research on seasonal charging.
- **Conduct Additional Scenario Analyses.** The DER adoption forecast analyzed two scenarios: a reference scenario and a high-incentive scenario. Consider adding additional scenarios to study the impacts of climate change (e.g., weather, customer grid resiliency) and ancillary services incentives on DER forecasting.
- **Integrate the DER and Demand Response (DR) Potential Studies.** Some types of DERs, like EV charging and customer battery storage, can be leveraged in DR events. Therefore, it would benefit Avista to integrate its DER and DR potential studies to avoid overestimating or underestimating the combined potential.
- **Consider Adding Building Electrification.** Building electrification and load flexibility can affect customers' decisions regarding DER installations. Therefore, including building electrification and associated load control measures (e.g., connected thermostats, heat pump water heater switches) in future DER potential studies would provide Avista with a more comprehensive understanding of customer load growth and opportunities to shape it with programs and rates.
- **Consider Adding Emerging Technologies.** Emerging technologies, such as autonomous vehicles and vehicle-to-grid technologies, can change customer energy consumption patterns. Therefore, in future DER potential studies, Avista may want to consider emerging technologies as they become commercially available.

Appendix D – Summary of EPRI eRoadMAP Modeling and Analysis

A detailed data extraction and analysis of the Electric Power Research Institute (EPRI) eRoadMAP model was performed for the seven counties comprising Avista's service territory in Eastern Washington. The eRoadMAP model is a comprehensive EV adoption impact model that graphically projects the expected energy and capacity needs to support vehicle electrification for the United States by the year 2030 and also provides a full 100% electrification scenario with no predicted date to reach full electrification (it does not specify additional timelines or adoption levels). The data is broken down between light-duty vehicles (LDVs) and medium/heavy-duty vehicles (MHDVs). It also provides for both unmanaged and managed charging scenarios. The eRoadMap Model is publicly available online at the following web address: https://eroadmap.epri.com

The model breaks up the United States into a series of hexagons using GIS technology, with the ability to vary the hexagon fidelity from Hex 3 level (4785.13 square miles) down to Hex 8 level (.28 square miles). This analysis was conducted at the Hex 5 Level (97.65 square miles), which struck the best balance of granularity to a manageable number of data points, given the data collection limitations from the publicly available model and the ability to correlate results to Avista counties served in Washington (the publicly available model does not allow for aggregated custom data queries and only provides data for individually selected hexes). At the Hex 5 level, most of the Avista service territory counties, with the exception of Asotin, had between 20 and 29 hexes.

Figure D1 – 2030 EV Power Needs for E. Washington and N. Idaho (Hex 5 level) - EPRI eRoadMAP



Individual hexes inside the county borders were individually selected, and the data was manually recorded and transferred to a spreadsheet, as summarized in the tables below. Note that the estimated % of Avista meters served in each county were applied to the raw data. These estimates are reasonably in the +/- 20% confidence level.

Table D1 – % of Avista Service in Washington Counties

Avista Washington	
County	**% Avista**
Adams	85%
Asotin	100%
Ferry	61%
Lincoln	82%
Spokane	87%
Stevens	100%
Whitman	100%

Table D2 – 2030 Scenario - EPRI E-RoadMAP Avista-served Capacity Analysis for Washington Counties - Light and MHD On-Road TE

Avista County %'s applied	2030					
County	Lt. Duty Unmanaged (MW)	Lt. Duty Managed (MW)	Lt. Duty Energy (MWh/day)	MHD Unmanaged (MW)	MHD Managed (MW)	MHD Energy (MWh/day)
Adams	1.95	1.68	19.57	0.74	0.19	4.19
Asotin	3.32	2.26	39.37	0.04	0.19	2.10
Ferry	1.23	0.63	9.40	0.04	0.03	0.24
Lincoln	0.99	0.86	13.07	0.62	0.32	3.37
Spokane	44.24	27.61	494.68	11.33	7.86	69.11
Stevens	4.39	3.49	54.63	1.03	1.20	5.14
Whitman	9.55	7.59	120.96	1.04	1.04	5.64
Totals	**65.68**	**44.12**	**751.67**	**14.82**	**11.14**	**89.79**

Table D3 – 100% Electrification Scenario - EPRI E-RoadMAP Capacity Analysis for Avista-served Washington Counties - Light and MHD On-Road TE

Avista County %'s applied	Full Electrification					
County	Lt. Duty Unmanaged (MW)	Lt. Duty Managed (MW)	Lt. Duty Energy (MWh/day)	MHD Unmanaged (MW)	MHD Managed (MW)	MHD Energy (MWh/day)
Adams	14.60	10.91	182.85	30.28	22.33	205.19
Asotin	35.17	23.09	388.74	11.5	5.25	70.00
Ferry	6.83	6.52	94.19	0.99	0.54	4.56
Lincoln	9.49	8.69	129.88	48.87	24.22	183.67
Spokane	331.99	216.86	3,710.55	266.06	147.17	1,520.85
Stevens	44.77	32.62	534.54	26.97	15.38	111.57
Whitman	61.37	45.42	808.75	58.11	30.52	290.55
Totals	**504.23**	**344.11**	**5,848.96**	**442.78**	**245.41**	**2,386.40**

eRoadMap Model Technical Details

See https://eroadmap.epri.com/docs/eRoadMAP_technical_details.pdf

Light-duty Vehicle Modeling Methodologies

The light-duty vehicle (LD) modeling data was primarily provided by the Rocky Mountain Institute (RMI) and used their Grid Up modeling tool. The model was informed by the Replica travel model that projects vehicle usage behavior, which helps to determine vehicle energy needs. EPRI notes that some Tesla public charging data and data provided by Enterprise was also used in the model. EPRI used the baseline EV adoption data from the National Renewable Energy Laboratory's (NREL) "2030 National Charging Network" report from 2024 out to 2030: https://docs.nrel.gov/docs/fy23osti/85654.pdf

The supporting models for eRoadMap are some of the most comprehensive models of this nature in the U.S. and have been used extensively within the industry. The RMI Grid Up model does not include L1 charging, but does have the ability to quasi-calculate reduced charging levels near level 1 under the managed charging scenario. It also caps DCFC charging below 150kW, so it is somewhat limited in that respect, as 350-400kW charging equipment is already available and likely to be widely adopted in the future.

Medium and Heavy-Duty Vehicle Modeling Methodologies

For medium and heavy-duty vehicle modeling data, EPRI collected trip data from truck manufacturers, fleet operators and some aggregators that represented approximately 21% of truck operations in the U.S., and then applied that data to the rest of the fleet to derive energy and charging data. Much of this data was telemetry data from ongoing truck operations. For adoption data, EPRI primarily used NREL data that was based on regulatory policy drivers (EPA Phase 3, CA Advanced Clean Trucks, and CA Advanced Clean Fleets) that were tied to either California or national policy. California's adoption was based on a California Energy Commission model that had more aggressive adoption. The table below reflects those regulatory splits.

Table D4 – eRoadMap Projection Scenarios

Region	Policies Compliant with	Projection Scenario used
California	ACT + ACF	AATE3 Scenario (CEC)
ACT States	ACT	Central (NREL)
Non-ACT states - 'Other'	EPA Phase3	Modified Conservative Tech (NREL)

Given the current zero-emission truck regulatory roll-back in both federal and California-aligned states, these adoption values would likely result in a significant reduction if incorporated in the model. In addition, the EPRI medium and heavy-duty charging information did not include any references to charging levels above 450kW. Given recent technological advances it is probable that charging levels will migrate in the future to levels above 1MW for MHD EVs, which would respectively increase the peak energy values in the model.

Appendix E-1 – Program Activity and Descriptions

Avista's TE programs are designed to cost-effectively achieve the TEP's strategic objectives within prescribed budget constraints, adaptively managed to changing market conditions, and as prescribed by tariff schedule 077. The principal objective is to support and achieve the baseline adoption scenario, with an aspirational goal to exceed the high adoption scenario – as this overarching objective results in significant economic, environmental, and grid benefits that extend to all customers. Supportive goals and metrics of various programs and activities are tracked continuously and reported annually to the UTC along with narratives highlighting noteworthy lessons learned and program adjustments. In addition to program budget targets, annual goals include the following averages over the 2026-2030 timeframe:

300	Commercial L2 ports installed
15	DCFC ports installed
97%	EVSE uptime
95%	Customer satisfaction with Avista TE programs
75%	Off-peak load profile for TOU rates and managed charging
15	Community and stakeholder education and outreach
25	Fleet consultations
4	Community EV partnerships
30%	% TE spending benefiting Communities and Low-Income

Many other measures of performance and effectiveness are tracked and included with annual report narratives, such as EVSE utilization by location, cost breakdowns, web page visits, number of trips and passenger-miles served by Community EVs, and charging ports benefiting Named Communities and CBO partners. Extensive customer research providing insights of segmentation and sentiment including positive awareness of electric transportation is completed every three years and provided to the UTC.

Charging Infrastructure Programs

In order to support beneficial transportation electrification, the Company continues to prioritize a measured, market-responsive expansion of electric vehicle supply equipment (EVSE) at workplace and fleet charging locations, multi-unit dwellings (MUDs), rural communities, as well as public direct-current fast charging (DCFC), reflecting both the operational grid benefits associated with managed commercial charging loads and meeting charging requirements for an expanding EV base.

Avista supports and encourages third-party ownership through enabling utility policies, including "make-ready" program options and a commercial EV rate with time-of-use (TOU) energy charges.

Under the make-ready options Avista will install required utility-side infrastructure to an agreed-upon meter connection point, subject to investment caps of $20,000 per public DCFC site and $2,500 per commercial AC Level 2 port (for fleet, workplace, public, or MUD primary use), in addition to the serving transformer. These caps are intended to cover the majority of utility costs for sites located reasonably close to existing electric service, thereby promoting cost-effective installations. Participating customers must maintain site access and EVSE operability for a minimum of 10 years and may assess user fees at their discretion.

For additional detail on the commercial EV TOU rate, including applicability to third-party-owned EVSE, please refer to the Rate Design section.

Workplace, Fleet and MUD AC Level 2

Workplace, fleet, and multi-unit dwelling (MUD) electric vehicle supply equipment (EVSE) installations play an important role in supporting electric vehicle adoption while delivering operational and grid-related benefits. Workplace charging, in particular, has demonstrated value as a cost-effective catalyst for EV adoption and can help shift charging activity away from evening on-peak periods, supporting more efficient utilization of the electric system. Workplace charging may also address adoption barriers for lower income and MUD customers, providing reliable access to low-cost EV charging.

Consistent with public AC Level 2 charging offerings, Avista supports commercial EV charging through multiple program options available to business and property owners, as outlined in our Washington tariff schedule 077. These offerings are intended to encourage the installation of charging infrastructure for employee, fleet, and multi-family residential use, while supporting broader market growth and beneficial adoption of electric transportation across the service territory.

EVSE installations may be utility-owned or customer-owned depending on site-specific considerations, customer preferences, and system impacts. Program availability, incentive levels, and design elements are periodically reviewed and may evolve in response to changing market conditions, technology advancements, and regulatory guidance.

The scale and configuration of charging installations are evaluated based on existing EV demand, expected near-term usage, and longer-term adoption potential associated with the site and organization. Where feasible, infrastructure designs may incorporate additional conduit or preparatory work to enable lower-cost future expansion as demand increases.

For many workplace, fleet, and MUD applications, non-networked AC Level 2 charging solutions can provide a reliable and cost-effective option by minimizing ongoing operating and maintenance expenses. Where customers prefer networked charging to enable features such as point-of-use user payment or access control, site hosts may select from certified, interoperable EVSE options and assume responsibility for ownership, network service fees, and maintenance.

In networked charging scenarios, site hosts generally retain discretion over user pricing, with guidance available to help align fees with prevailing market conditions and local charging practices.

Customer agreements for workplace, fleet, and MUD charging installations provide for utility load management where practical, supporting system reliability and efficient grid operation. In addition, customers acknowledge the potential future application of time-of-use (TOU) rates to encourage off-peak charging behavior.

In many cases, charging installations are designed to leverage existing electrical capacity to minimize overall costs. Sites with separately metered EV charging loads may be eligible for EV-specific TOU rates, further supporting load shifting and cost-effective integration of electric transportation.

Public AC Level 2

Public AC Level 2 EVSE serve a distinct role within the overall charging ecosystem. They deliver significantly lower power per port and are therefore designed to support longer dwell-time charging at destinations where vehicles are typically parked for extended periods. Correspondingly, installation and operating costs for AC Level 2 charging infrastructure are substantially lower than those associated with DCFC, making AC Level 2 a cost-effective option for expanding public charging coverage, where appropriate.

Given the longer charging durations associated with AC Level 2 EVSE, site selection is a critical component of effective deployment. Public AC Level 2 charging strategies prioritize geographic distribution and coverage at locations with sustained visitor activity, supporting both local charging needs and regional travel.

Customer feedback indicates that destination-based sites—such as retail centers, grocery stores, parks, and other community destinations—are well suited for public AC Level 2 charging. In addition, strategically placed AC Level 2 chargers in smaller and rural communities can support longer regional trips by enabling charging at locations where drivers expect to remain for several hours. These deployments can be achieved at relatively low cost compared to DCFC and support more equitable access to EV charging in early-adoption and rural areas.

Avista intends to pursue high-powered public AC Level 2 charging opportunities in rural locations as part of a broader strategy to expand access in strategically selected rural communities along secondary travel corridors (SR 23, SR 25, SR 27, SR 129, and SR 231). Each site will be designed to accommodate up to eight 19.2-kW AC Level 2 ports, with two to four ports installed during the initial construction phase. Sites will ideally be located on city-owned property and situated near traveler amenities to support longer charging stops. These installations will also enable local municipalities to pilot fleet electric vehicles and evaluate charging needs as they plan for future municipal EV infrastructure.

To complement proactive siting efforts, Avista utilizes a customer-driven, application-based approach that enables interested business customers to propose and host public AC Level 2 charging through available commercial EV charging programs. This pull-based model helps align infrastructure deployment with site host interest, customer demand, and local market conditions. Program incentives, eligibility, and availability are subject to periodic review and may evolve over time.

Public AC Level 2 charging programs are designed to offer flexibility in ownership and technology selection. Customers may choose from program options that include utility-owned, full-service installations or customer-owned installations supported through make-ready infrastructure.

In many cases, non-networked AC Level 2 EVSE are encouraged due to their demonstrated reliability and lower lifecycle costs. Where site hosts prefer networked charging—such as to enable user payments or data collection—networked EVSE certified for interoperability may be selected. In these cases, the site host generally maintains responsibility for EVSE ownership, network service fees, and ongoing maintenance.

Site hosts retain discretion over user pricing for networked charging, with consultation available to help establish fees that are consistent with prevailing market practices.

Avista's public AC Level 2 charging strategy is designed to remain flexible and responsive to evolving customer preferences, technology performance, site host interest, and market conditions. Deployment plans, incentives, and technology configurations are periodically evaluated to ensure continued alignment with customer needs, cost-effectiveness, and broader electric transportation objectives.

Public DCFC

Beginning in 2022, Avista initiated construction on its first new DCFC station since the 2016-2019 pilot. By the end of 2025, 19 new sites had been constructed as well as all sites upgraded with either 180kW or 320kW charging units.

New DCFC sites were selected through a coordinated planning process that included Avista, the Washington State Department of Transportation (WSDOT), regional transportation planners, community representatives, customer input, and other stakeholders. Site locations were selected to provide charging access at intervals of approximately 40 to 50 miles along major travel corridors—including U.S. Highways 395, 195, and 2, and Interstate 90—within Avista's eastern Washington service territory, as well as within urban, rural, and community centers. Utilization data for completed sites indicate increases in year-over-year usage following installation.

These new sites represent an investment of approximately $6.4 million, with an average cost of $319,000 per site. This cost exceeded the estimates included in Avista's 2020 TEP and is due to elevated prices for copper, electrical panels and breakers, labor, and high-power DCFC equipment, with several components affected by supply-chain disruptions related to the COVID-19 pandemic. Grant funding totaling $2.5 million was awarded for 16 of the 19 new DCFC sites through programs administered by the Washington State Department of Commerce, including Clean Energy Fund III and the Washington Electric Vehicle Charging Program. After accounting for grant funding, the average cost per site was reduced to approximately $196,000.

Typical DCFC sites are designed to enable cost-effective expansion as the market grows, with a 1MW standard buildout capacity, and are intended to be built in multiple phases. The first phase includes all utility and supply side electrical infrastructure (including conduit for future expansion) two 40A AC Level 2 chargers and either a 180kW or 320kW DC charger. Future phases will expand the site with additional DC chargers. Three sites, located in outlying communities, have had two DC chargers installed during the initial construction phases to add redundancies and ensure charger availability when repairs are needed on one unit.

Installing conduit, electrical capacity, and related infrastructure during the initial construction phase reduces the cost and site disturbance associated with future DCFC expansion. With infrastructure already in place, additional DCFC units may be installed without additional trenching or ground disturbance, requiring only installation of a concrete pad, equipment mounting, and conductor pulls to existing switchgear.

The electric vehicle market has increasingly shifted away from the CHAdeMO connector standard and is transitioning toward adoption of the North American Charging Standard (NACS). As of the end of 2025, 20 of Avista's 26 DCFC sites were equipped with dual CCS-1 connectors. Four sites included both CCS-1 and CHAdeMO connectors, and one site included both CCS-1 and NACS connectors. Avista plans to retrofit existing DCFC assets to support NACS connectors as market adoption increases, while maintaining compatibility and interoperability with existing vehicle fleets.

DCFC sites owned and operated by Avista assess a user fee, currently set at $0.42 per kilowatt-hour in Washington State and subject to regulation by the Washington Utilities and Transportation Commission. Each DCFC site operates under a property easement or access agreement with a minimum term of ten years, consistent with the expected service life of the charging equipment. All Avista-owned DCFC installations meet applicable network interoperability requirements and include credit-card payment capability, enabling customer access without mandatory network memberships or subscriptions.

Education and Outreach

With respect to light-duty passenger vehicles, customer awareness, understanding, and perceptions of EVs vary widely across both residential and commercial segments. These disparities continue to present meaningful market barriers to EV adoption. Contributing factors include fluctuating legislative and policy environments and the increasing politicization of electric transportation, which have at times generated strong opinions and reduced openness to considering the potential benefits of EVs for individuals, businesses, and the broader community.

Although new and used EV availability has generally improved, vehicle inventory and OEM offerings remain a constraint in certain market segments. Automakers' responses to evolving legislative signals—such as adjustments to EV strategies or reductions in available models—have contributed to ongoing uncertainty and limited consumer choice in the U.S. market.

Customer surveys and direct engagement indicate that Avista's EV charging programs continue to perform well and are positively received by participating customers. Early 2026 survey data suggest that approximately 37 percent of customers are aware of program availability, indicating that while foundational awareness has been established, a substantial portion of the market remains uninformed about available incentives and support offerings. This presents opportunities for continued education and outreach to expand program reach and participation.

The EV purchase decision typically follows a progression from awareness, to consideration, and ultimately to purchase. Beyond general awareness, customers often require trusted information sources, referrals, and direct experience—such as riding in, driving, or charging an EV—to address perception-based concerns and support informed decisions during the consideration phase.

As a trusted energy advisor with established customer relationships, Avista is well positioned to address awareness gaps and, where feasible, support experiential opportunities that help customers evaluate electric transportation options. To that end, Avista is implementing an expanded education and outreach strategy intended to increase awareness, improve perceptions of electric transportation, and encourage participation in EV charging programs across its service territory.

Avista's education and outreach efforts are designed to be adaptable and responsive to market conditions and customer needs. Examples of current and ongoing approaches include:

- **Targeted digital and social media engagement** to highlight available programs, incentives, and use cases relevant to residential customers and businesses, including workplace charging, employee benefits, and potential operating cost considerations for fleets.
- **Customer success storytelling**, showcasing examples of customers who have participated in EV charging programs and experienced operational, environmental, or economic benefits.

- **Collaboration with third-party partners** to enhance targeted outreach, provide program awareness, and support high-level evaluations of potential costs and benefits. These efforts may also include opportunities for short-term EV exposure, such as loaner or demonstration programs, to reduce uncertainty prior to vehicle purchase.

- **Direct customer interaction and Fleet consultation** to advocate and share the benefits of fleet electrification and workplace charging. These activities help address businesses' unique issues and barriers to entry, so that they can be confident in their capital outlay. The fleet consultation specifically identifies routes, usages and vehicles that would provide the most benefit through electrification.

Data and customer feedback indicate that adoption increases after individuals or organizations gain firsthand experience with EVs or engage directly with peers who drive electric. By emphasizing customer experiences and facilitating informed engagement, Avista anticipates continued improvements in customer awareness, perception, and program participation. As demonstrated by the EV Experience center concept implemented at local libraries, although informational kiosks and other sources of information may be helpful to some degree, there is no substitute for the direct experience of riding in and driving an EV to inform customer perception and interest. This may be further enhanced with support for expanded EV carsharing services as was successfully piloted with the non-profit ZEV Co-op and Gonzaga University, the Community EV program, as well as other programs under consideration, in partnership with TNC companies such as Uber and Lyft which in addition to education and outreach provide benefits to Communities and low-income customers.

In addition to targeted outreach initiatives, Avista continues to provide ongoing customer support and informational resources, including:

- Maintaining an electric transportation webpage with current program information, incentive references, educational tools, a map of planned charging locations, frequently asked questions, and application resources.

- Responding to customer inquiries promptly, with access to more specialized staff as needed to address topics such as vehicles, charging equipment, infrastructure considerations, and commercial fleet opportunities.

- Supporting community-based activities, including EV educational events and ride-and-drive opportunities, where feasible and effective

- Delivering informational presentations through diverse forums such as public webinars, community meetings, and engagements with local governments, industry groups, and non-profit organizations.

- Sharing information on the benefits and considerations of electric transportation through various media channels, including earned media and trade press.

Beyond the activities described above, Avista evaluates additional education and outreach opportunities on an ongoing basis, adjusting strategies as market conditions, customer needs, and regulatory environments evolve. This flexible approach supports continuous improvement and agile customer response while ensuring resources remain aligned with program objectives and customer demand.

Community Programs

Electric transportation has the potential to improve mobility options for underserved populations while delivering economic and environmental benefits. Avista is committed to supporting access to electric transportation for disadvantaged communities and individuals across its service territory through partnerships, targeted programs, and adaptable support mechanisms.

Avista maintains established partnerships with a broad range of community service organizations and local stakeholders and will continue to collaborate with both existing partners and new organizations as appropriate. These partnerships are intended to improve awareness of electric transportation options, identify priority community needs, and support solutions that expand equitable access.

Collaborative efforts with local governments, planning organizations, libraries, and other community-based entities have helped inform approaches such as prioritizing EV charging infrastructure at accessible public locations, including community centers and libraries. These efforts are designed to benefit low-income customers, leverage existing community resources, and support broader access to electric and multimodal transportation options. Avista also intends to expand engagement with tribal governments and additional non-profit organizations to ensure programs are responsive to diverse community needs and opportunities.

Avista continues to offer a Community EV program that provides competitive grants to qualifying community-based and non-profit organizations, supporting electric vehicle deployment for fleet or shared community use. The program is intended to deliver direct transportation benefits while supporting broader community outcomes.

This program typically includes the provision of an electric vehicle and supporting charging infrastructure, enabling convenient and low-cost operation. Avista intends to continue this program and evaluate opportunities to scale participation over time, subject to available funding and program design considerations. Vehicles used in the program also support broader education and visibility efforts, helping more community members experience and understand the benefits of electric transportation. Participating organizations are able to reinvest transportation cost savings into their services, contributing to ongoing community benefits.

In addition to EV charging infrastructure programs available to all customers, Avista provides enhanced support for installations serving low-income communities and community service organizations. This support may include additional assistance for public, fleet, workplace, and multi-unit dwelling Level 2 charging installations, including alleviating certain upfront costs that would otherwise fall to participating organizations.

Research indicates that transportation network company (TNC) services are frequently used by individuals with limited transportation resources. Avista continues to explore opportunities for pilot initiatives that could support TNC drivers serving disadvantaged communities. Such efforts may involve partnerships that combine access to public charging infrastructure, vehicle acquisition or leasing support, and mobility service incentives. These approaches may also help improve first- and last-mile connections to public transit, enhancing overall transportation access.

Avista will continue to evaluate equity-focused electric transportation strategies as market conditions, community needs, and funding opportunities evolve. Programs and partnerships are intended to remain flexible, scalable, and responsive, supporting long-term access to the benefits of electric transportation across the region.

Fleet Services

In addition to significant fuel and maintenance savings, zero tailpipe emissions, quiet operations, and beneficial utility revenues, commercial and public fleet electrification results in significant reductions in greenhouse gas emissions and local air pollution. Avista can support this growth with information, tools and consulting services for commercial customers in their consideration of fleet electrification, including vehicle and charging information, utility rates and load management options, total cost of ownership (TCO) comparisons, referrals, as well as federal, state, and manufacturer purchase incentives and tax rebates. This may be comprehensively provided for light duty passenger vehicles, lift trucks (forklifts), and for certain segments of medium- and heavy-duty vehicles where economic options become more available over time. For example, the company currently offers fleet consultation and route analysis services to all school districts in the region that are interested in deploying electric school buses. These services identify routes suitable for electrification, develop customized charging strategies to support reliable daily operations, design charging systems that meet current fleet needs while allowing for future expansion as electrification progresses, and helps fund the installation of those systems. Lessons learned through this program are being used to develop expanded programs working with other public and commercial fleets, in order to better understand the costs, benefits, grid impacts and support that Avista may best provide. This may also often be accomplished in conjunction with beneficial services to communities and low-income customers.

Load management consultation services are provided as part of the fleet support program, including application of the commercial EV TOU rate with dedicated meter service.

Vehicle-Grid Integration

Development and documentation of electric vehicle (EV) load profiles is an ongoing effort. Residential load profiles are developed using vehicle telematics data from a limited test pool of customers. Load profiles for fleets, workplaces, and multiple-unit dwellings (MUDs) are derived from advanced metering infrastructure (AMI) data collected from a known set of customers that have received charging installations through Avista's AC Level 2 programs. AMI meter data is also used to develop load profiles for public direct-current fast charging (DCFC), school bus charging, and transit applications. Research into load characteristics for larger vehicle classes is currently underway.

The methodology used to develop these load profiles was created through extensive collaboration with Avista's system planning group, and the resulting profiles have been provided to that group and submitted as inputs to the Integrated Resource Plan. These profiles are used in conjunction with updated modeling of grid assets and operating conditions, broader load forecasts, and the effects of distributed energy resources (DERs) to support a sound assessment of generation capacity and distribution system needs for optimized asset management. As data availability and modeling capabilities improve, more detailed analysis of EV clustering effects on the distribution system may also be conducted.

Avista will deploy cost-effective load-management services in conjunction with EVSE installation programs. This includes EV programming and low-cost, programmable, non-networked EVSE, as well as emerging technologies utilizing AMI and other systems that enable communication with EVs and distributed energy resources, where they demonstrate potential to support scalable load management and grid integration.

Over the longer term, scalable load-management solutions for light-duty EVs will become increasingly important as adoption approaches approximately 30 percent of vehicles on the road and distribution system impacts become material. In the nearer term, medium- and heavy-duty electrification for transit and commercial fleets may affect local distribution systems more rapidly due to site power demands exceeding 1 MW. Avista will monitor these developments and work with customers to understand operational requirements and identify cost-effective integration strategies that maintain system reliability.

Avista is conducting a direct load control pilot at a limited number of public DC fast charging (DCFC) sites. The pilot includes installation of onsite controllers hardwired to each DC charger via CAT5 cable, enabling remote curtailment of charging output during extreme events. In the initial phase, grid operators are able to manually initiate curtailments as needed. In the second phase, the controllers will accept Modbus signals from the utility, allowing real-time feeder loading data to be transmitted directly to the ChargePilot system. Charging output will then be automatically adjusted based on available grid capacity. This automated functionality enables operators to monitor stations without the need for active, continuous management. If the pilot demonstrates reliability, effectiveness, and scalability, Avista will evaluate expansion of this capability to all company-owned DCFC stations, as well as selected privately owned and fleet charging sites. Automated control systems of this type can support widescale electrification while maintaining distribution system reliability as incremental load is added.

Avista continues to evaluate cost-effective program designs to support managed charging for residential customers, and where appropriate, select commercial applications. These efforts focus on the potential use of vehicle and EVSE telematics technologies to manage and shift electric vehicle charging load in a manner that supports efficient grid operation.

While early results indicate these technologies show promise in enabling load shifting and peak mitigation, additional evaluation is needed to fully assess cost-effectiveness, customer participation, and long-term performance. Research and industry experience suggest that participation rates in individual managed charging programs tend to be limited, indicating that no single approach is likely to achieve sufficient load impacts on its own.

To address participation and effectiveness challenges, Avista anticipates that a combination of complementary load management mechanisms will be required to meaningfully shift EV charging away from peak periods. These mechanisms may include technology-enabled managed charging solutions, rate-based signals, and customer education and outreach.

EV-specific TOU rates have the potential to provide stronger price signals and achieve greater peak load reductions by directly aligning customer charging behavior with system conditions. In addition to existing time-of-use (TOU) rate pilots, Avista may consider and evaluate residential EV-specific TOU rates as a longer-term strategy, based on analysis of pilot TOU rates and recommendations in the near term.

Avista will continue to monitor technology performance, participation levels, and customer response as part of its ongoing evaluation process. Program designs and rate options will be assessed and refined over time to balance customer acceptance, cost-effectiveness, and grid benefits, ensuring that managed charging strategies remain flexible and responsive to evolving market conditions and customer needs.

Market and Technology Monitoring and Testing

For certain promising technologies and market developments, Avista will seek to employ innovative projects demonstrating technical feasibility, customer experience, cost considerations, and potential system benefits prior to broader deployment.

These activities may include a range of technologies and applications across the electric transportation ecosystem, such as load management and demand response capabilities, integration of onsite energy generation and storage with EV charging, battery recycling and second-use applications, and vehicle-to-home, to-building or to-grid functionality at customer facilities. Additional areas of interest may include advanced charging solutions for medium- and heavy-duty applications, electrified truck stops and trailers, ground support and off-road equipment, inductive charging, micro-mobility, and shared mobility models.

The scope and design of demonstration projects will be informed by market readiness, customer interest, and alignment with system and customer benefits, and may evolve as technologies mature.

Avista may pursue demonstration and pilot projects independently or in collaboration with customers, private entities, and other partners. Depending on project design and funding availability, the Company may fully or partially fund these efforts, including measurement and evaluation activities, and may also leverage external grant opportunities where appropriate.

Project partners and participants may contribute through cost sharing, provision of operational or energy-use data, and participation in surveys or interviews to inform evaluation and learning outcomes.

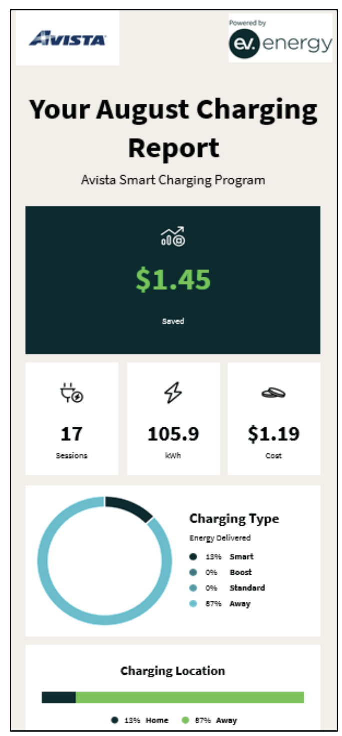
In coordination with stakeholders, information gathered through monitoring and demonstration efforts may be used to inform the design of new programs or improvements to existing offerings. During the initial monitoring phase, Avista may identify qualitative or quantitative indicators—such as improving total cost of ownership, demonstrated technical performance, or customer acceptance—that support progression from observation to pilot testing.

Where pilots demonstrate favorable outcomes, findings may inform scalable deployments over time, supporting sustained customer, system, and community benefits while managing risk and ensuring prudent use of resources.

Appendix E-2 – Program Examples and Partnerships

Demand Response

Avista's EV charging partner, ev.energy, is a Certified B Corporation® with a mission to make charging greener, cheaper, and smarter for utilities and their customers. Their software platform connects to a wide range of EVs and chargers, intelligently managing EV charging while collaborating with utilities to deliver added value. This open platform enables integration across EVs, chargers, home types, and digital channels ensuring broad accessibility for Avista customers.



Avista conducted a pilot program with 76 participants, helping them charge their EVs in cost-effective, grid-friendly ways by automatically shifting charging to off-peak hours using the ev.energy platform without requiring changes to driving habits or plug-in routines. Looking ahead, Avista can reduce system costs, defer infrastructure upgrades, manage peak demand more effectively, and improve overall service to customers by scaling and optimizing charging across a large number of customer vehicles.

Electrifying Results

Statistics for Avista residential smart charging programs run in collaboration with ev.energy:

- **Total energy dispensed:** **127.25 MWh**
- **Estimated miles driven:** **337,842 miles**
- **Percentage Off-Peak Charging:** **89.70%**
- **Estimated CO_2 reduction:** **94.69 metric tons**

Public and Workplace charging at Spokane Falls Community College, WA

L2 Charging Programs

Clipper Creek Commercial L2 Station

An essential pillar of Avista's TE strategy focuses on a measured buildout of L2 charging infrastructure at public, fleet, workplace and multi-family locations. These initiatives provide a backbone of reliable charging, supporting beneficial adoption that results in economic, environmental, and grid benefits. Residential charging lays the foundation for effective load management where most charging will occur. Avista promotes a cost-effective portfolio approach, scaling infrastructure with market growth and leveraging non-networked EVSE where feasible to avoid over-investment and superior equipment reliability. Third-party ownership is encouraged through "make-ready" options and a commercial EV time-of-use (TOU) rate, with Avista covering up to $5,000 per Level 2 port for workplace, fleet, or MUD sites.

Maintaining reliability is critical for customer satisfaction and adoption, with Avista targeting greater than 95% uptime. Avista also provides consultation on user fees to balance cost recovery and accessibility. This comprehensive approach ensures charging infrastructure is deployed strategically, maintained effectively, and supported by policies that foster equitable access and sustainable market growth.

Electrifying Results

Statistics for Commercial Charging Programs & Maintenance since 2021:

- **Avista Owned and Operated:** **799 Ports**
- **L2 Non-Networked Uptime*:** **98.4%**
- **L2 Networked Uptime*:** **90.9%**

**With a goal of >95% uptime*

ABB Terra 184 DCFC in Sprague, WA

DC Fast Charging

During Avista's 2016-2019 EV pilot program, seven DCFC sites were completed. These sites provided lessons learned and enabled a template for future sites. In the spring of 2022 Avista collaborated with stakeholders and initiated work on a regional charging buildout with best-in-class 180kW DCFC. Since that time, Avista installed 15 additional 180kW DCFC at 14 new locations, and six DCFC at five of the original locations.

Starting in 2025 Avista began installing next generation 320kW DCFC. These DCFC enable a typical 15-minute charging session, approaching the gas station experience of most customers. Six of these DCFC have been installed with four more planned for 2026. These DCFC provide a backbone of corridor DCFC and support adoption of EVs throughout the region.

ABB flo EV Charging

Electrifying Results

Statistics for all DC charging stations since 2022:

- **Total charge session:** **20,351 sessions**
- **Total kWh dispensed:** **622,527 kWh**
- **Miles driven:** **1,653,000 miles**
- **Total CO_2 reduction:** **463.26 metric tons**

Flo Ultra 320kW DC fast charging stations in Colville, WA

DC Fast Charging

In 2021 Avista met with the mayor of Colville, the public works department, and the parking commission to discuss the installation of a DC charging station on city property. Over the next four years several locations were discussed, funding sources were identified, and contracts were negotiated. Avista received 47% of the sites funding through the Washington Electric Vehicle Charging program grant in January of 2024, and construction began in March of 2025.

The new site opened in June of 2025, marking the initial electrification of US-395. With DCFC sites in North Spokane, Deer Park, Chewelah, and Colville, drivers can now comfortably travel from Spokane to Canada with DCFC sites at 30-to-40-mile intervals. This DCFC site also provides a positive effect on Colville's economy as drivers explore the shops and restaurants on Main Street while they charge.

Electrifying Results

Statistics for the first four months of operations at the Colville DC Fast charging station:

- **Total charge sessions:** **300 sessions**
- **Total kWh dispensed:** **11,787 kWh**
- **Miles driven:** **31,300 miles**
- **Total CO_2 reduction:** **8.76 metric tons**

L2 electric bus charging at VL Transport in Valley, WA

Electric School Buses

Through a combination of grants for the WA State Department of Ecology and the Environmental Protection Agency, school districts in Avista's service territory have been receiving grant funding to purchase electric school buses. As their trusted energy advisor Avista offers fleet electrification consultation services. These services walk the school district through selecting their buses, identifying which routes can be electrified, determining when they need to charge, educating them on the importance of off-peak charging, and determining their annual fuel savings and reduction in CO_2 emissions.

Avista's EVSE community programs kick in after the consultation and fund the installation of a charging system for the school districts. These systems are designed with expansion in mind and set the school district up for quick and easy charger installations down the road.

Electrifying Results

Statistics for school bus charging across the 10 districts:

- **Total routes completed:** **4,400 routes**
- **Total kWh dispensed:** **264,525 kWh**
- **Miles driven:** **165,325 miles**
- **Total CO_2 reduction:** **206 metric tons**

COAST Transportation's Chevrolet Bolt EV

A Partner Charged for Success

Avista awarded COAST Transportation a Chevy Bolt EV in 2022 and a Toyota RAV4 Plug-in Hybrid Electric Vehicle (PHEV) in 2024. Safe and reliable transportation is essential for residents in underserved rural communities. COAST is committed to meeting this need by offering demand-response ride services that enhance mobility across Whitman, Asotin, Garfield, and southern Spokane counties in Eastern Washington.

Coast Public Transportation

COAST provides safe, affordable, accessible, and coordinated transportation and brokerage services for all residents within its service area regardless of income or age. Drivers are trained to assist passengers with limited mobility, including helping with the movement and storage of mobility aids and wheelchairs, ensuring every rider receives the support they need. Utilization of EVs has lowered their carbon footprint, reduced their fuel cost, and raised positive awareness in the community.

Electrifying Results

Statistics for Chevy EV and Toyota PHEV utilization in 2023 & 2024:

- **Total trips:** **780 trips**
- **Total miles driven:** **18,220 miles**
- **Total savings on gas & maintenance:** **$4,890**
- **Total CO_2 reduction:** **10,293 pounds**

The new 2024 Chevy Blazer EV awarded to Rural Resources

A Partner Charged for Success

Rural Resources Community Action was founded in 1965 by a dedicated group of local citizens concerned about their neighbors in need. For the last 60 years, the organization has empowered residents across Northeastern Washington to improve their lives and support one another. Through various assistance programs and services, they offer hope to children, seniors, and families, by working to create a stronger and more stable community.

In 2021, Rural Resources received a Kia Niro EV and Level 2 charging through Avista's Community EV Program. Four years later, Avista continued its support by awarding the organization a Chevy Blazer EV to provide weatherization services. Each year, thousands of individuals in Ferry, Lincoln, Pend Oreille, Whitman, and Stevens Counties turn to Rural Resources for assistance and long-term solutions to help them take control of their lives and improve their futures. The EVs awarded through the Community EV Program enables Rural Resources to serve the community in a cost-effective and environmentally sustainable way, while also promoting positive awareness of electric transportation throughout the region.

Rural Resources Community Action

Electrifying Results

Statistics for Rural Resources EV utilization from 2021 to 2024:

- **Total trips:** 508 trips
- **Total miles driven:** 17,735 miles
- **Total savings on gas & maintenance:** $5,365
- **Total CO_2 reduction:** 10,079 pounds

Their 2023 Kia Niro EV in front of their office at 1101 West College Avenue

A Partner Charged for Success

In 2018, Avista awarded an EV and on-site Level 2 charging equipment to Spokane Regional Health District (SRHD). Established in 1970, SRHD currently serves a population of more than 550,000 across Spokane County. The organization works in partnership with the community to protect, promote and improve the health, wellness, and safety of all people in Spokane County.

SPOKANE REGIONAL HEALTH DISTRICT

The SRHD staff reported that the EV significantly strengthens their service and outreach capabilities by allowing them to transport clients to critical appointments and efficiently deliver supplies and educational materials. The vehicle enables their team to transport clients quickly, conveniently, and at minimal cost to their organization. Fuel cost savings from the EV give SRHD greater capacity to serve their clients, while also reducing their carbon footprint. Overall, the addition of the EV has increased service capacity, reduced costs, and raised positive awareness of electric transportation.

Electrifying Results

Statistics for SRHD's EV utilization from 2022 to 2024:

- **Total trips:** **627 trips**
- **Total miles :** **8,184 miles**
- **Total savings on gas & maintenance:** **$4,430**
- **Total CO_2 reduction:** **4,688 pounds**

TEDD's Chevy Bolt charging at DC station in Ritzville, WA (2024)

A Partner Charged for Success

In 2023, Avista awarded on-site Level 2 charging and a Chevy Bolt EV to Tri County Economic Development District (TEDD). TEDD works with local businesses, communities, and other organizations in Ferry, Pend Oreille, and Stevens counties to advance sustainable economic development.

TEDD said the new EV reduced its carbon footprint and significantly contributed to its outreach capabilities. Although primarily driven locally, the vehicle has been used to attend long-distance conferences in Walla Walla and Wenatchee.

TEDD successfully implemented a vehicle branding strategy by wrapping the EV with its logo and messaging. This notably increased TEDD's visibility, fostering name recognition and enhancing the organization's relationship with potential clients.

Tri County
ECONOMIC DEVELOPMENT DISTRICT

Electrifying Results

Statistics for EV utilization in 2023 & 2024:

- **Total trips:** **245**
- **Total miles driven:** **11,521**
- **Total savings on gas & maintenance:** **$4,003**
- **Total CO_2 reduction:** **6,645 pounds**

The Mitsubishi Outlander PHEV that has been utilized by Transitions since 2018

A Partner Charged for Success

In 2018, Avista awarded Transitions a Mitsubishi Outlander PHEV and Level 2 charging. Since then, they have successfully utilized the vehicle to drive 14,871 miles while reducing their carbon footprint and promoting electric transportation in the community. The vehicle has also been branded to highlight their mission and promote their work throughout Spokane.

Transitions is committed to ending poverty and homelessness for women and children in Spokane, Washington. Their work is rooted in the understanding that women, children, and non-binary people experience unique challenges. Transitions is dedicated to actualizing diversity, equity, and inclusion by facilitating programs that are collaborative, respectful, and centered on the needs of each participant. These include the Women's Hearth Center and New Leaf Café, as well as housing, case management, and childcare services.

Transitions

Electrifying Results

Statistics for PHEV utilization from 2022-2024:

- **Total trips:** **242 trips**
- **Total miles driven:** **2,926 miles**
- **Total savings on gas & maintenance:** **$3,372**
- **Total CO_2 reduction:** **912 pounds**

A SNAP driver and their 2017 Chevy Bolt EV

A Partner Charged for Success

In 2023, Avista awarded a Chevy Bolt EV and Level 2 charging stations to Spokane Neighborhood Action Partners (SNAP). SNAP's mission is to "increase the human potential of our community by providing opportunities for people in need." As a long-standing and highly valued partner of Avista, SNAP plays a vital role in supporting the Spokane community.

SNAP Resource Rides

SNAP offers a comprehensive range of services, including affordable housing support, homebuyer education, down payment and closing cost assistance, mortgage and foreclosure prevention loans, energy assistance, weatherization, low-interest home repair loans, financial literacy education, small business loans, homeless services, and transportation services. By utilizing their Level 2 EV charging stations, SNAP has successfully reduced transportation costs, lowered their carbon footprint, and increased community awareness through their Resource Rides Program.

Electrifying Results

Statistics for SNAP's utilization of the Chevy Bolt EV in 2023 & 2024:

- **Total trips in 2023 & 2024:** **832 trips**
- **Total miles driven in 2023 & 2024:** **6,861 miles**
- **Total savings on gas & maintenance:** **$3,433**
- **Total CO_2 reduction:** **3,919 pounds**

Electrifying Results

Statistics for Chevy Blazer EV utilization in 2024:

- **Total trips:** **100**
- **Total miles driven:** **4,903**
- **Total savings on gas & maintenanc** **$1,541**
- **Total CO_2 reduction:** **2,556 pounds**

Meals on Wheels delivery driver and the 2024 Chevy Blazer EV they utilize for deliveries

A Partner Charged for Success

In 2024, Avista awarded a Chevy Blazer EV and an on-site Level 2 charging station to Meals on Wheels of Greater Spokane County (MOW). The mission of Meals on Wheels is to fight hunger and social isolation among seniors. They carry out this mission by providing high-quality nutritious meals via home delivery or through their Silver Café community meal sites, collaborating with other community agencies, advocating for seniors, and educating the public about senior hunger and isolation.

Meals on Wheels serves 19,695 meals every month across the 1,800 miles of Spokane County through home deliveries and Silver Cafes. Their kitchen prepares over 900 daily meals for seniors over 60 who are unable to access nutritious food. By utilizing electric transportation for meal deliveries, they have been able to lower their carbon footprint and reduce their fuel costs.

Meals on Wheels
GREATER SPOKANE COUNTY

IRC Program Coordinator with their Kona EV at the Spokane office

A Partner Charged for Success

In 2023, Avista awarded a Hyundai Kona EV to the Spokane International Rescue Committee (IRC). Today, the IRC delivers lasting impact by providing health care, helping children learn, and empowering individuals to become self-reliant, with a focus on the unique needs of women and girls.

INTERNATIONAL RESCUE COMMITTEE

Since its founding at the request of Albert Einstein in 1933, their global team has helped people upended by conflict and crisis to survive, recover, and regain control of their lives. The IRC emphasizes five key areas: ensuring safety from harm, improving health, increasing access to education, improving economic wellbeing, and ensuring people have the power to influence decisions that affect their lives.

In Spokane, the IRC has put their EV to meaningful use by transporting clients and supporting daily operations throughout the city. The vehicle enables the team to carry out their work in a cost-effective and environmentally sustainable way, aligning with both the IRC's mission and Avista's commitment to clean energy solutions.

Electrifying Results

Statistics for IRC's EV utilization in 2023 & 2024:

- **Total trips:** **581 trips**
- **Total miles driven:** **6,530 miles**
- **Total savings on gas & maintenance:** **$3,426**
- **Total CO_2 reduction:** **3,788 pounds**

The Dignified Workday crew and their Ford F-150 Lightning

A Partner Charged for Success

Dignified Workday is a low-barrier employment program in Spokane designed to support individuals experiencing homelessness and instability. It began organically when Tresa Schmautz, a retired social worker and volunteer gardener, was pulling weeds at Saint Ann Catholic Church and asked a man passing by the church if he wanted to work for compensation. He accepted, and after two hours of work, he asked if he could come back and bring friends. This turned into pulling weeds every Tuesday for months.

To expand the initiative, Tresa reached out to a fellow parishioner Andy Dwonch, COO at Career Path Services, a Spokane non-profit specializing in employment and human services that serves job seekers around Washington State. Career Path Services had the experience and resources to build on Tresa's concept and develop a comprehensive program. Today Dignified Workday employs 45 workers and is administered by Career Path Services.

In 2024, Avista awarded a Ford F-150 Lightning to the partnership through the Community EV Program. Though the organizations have only had the vehicle for a brief time, they are already interested in acquiring additional EVs to support their work crews. The electric truck enables cost-effective, environmentally sustainable operations, while also demonstrating that EVs are a practical solution for commercial and community-based work.

Electrifying Results

Statistics for Ford F-150 Lightning utilization during the 5 months of 2024:

- **Total trips taken:** **43 trips**
- **Total miles driven:** **1,502 miles**
- **Total annual savings on gas & maintenance:** **$1,413**
- **Total CO_2 reduction:** **634 pounds**

career path services

Dignified WORKDAY

Asotin County Health District’s Kia Niro EV

A Partner Charged for Success

The Asotin County Health District (ACHD) serves as a trusted advocate for public health, providing reliable information, education, and services that promote wellness, prevent illness, and protect the environment. ACHD is committed to helping everyone who lives, works, or visits Asotin County achieve their best health. Guided by the values of integrity, compassion, and optimism, ACHD continually strives to build a safer, healthier, and more resilient community.

The awarded Kia EV provides clean, cost-effective transportation for the ACHD team to utilize in the community. The Level 2 charging at the ACHD office enables convenient and time-saving charging for the staff. The EV not only enhances their ability to serve the community but also reduces operating costs, making it smart and sustainable transportation. Overall, the EV adds significant community outreach capabilities while also saving the organization money and reducing their carbon footprint.

Electrifying Results

Asotin County Health District’s EV utilization from 2022 to 2024:

- **Total trips:** **444**
- **Total miles driven:** **8,399**
- **Total savings on gas & maintenance:** **$4,298**
- **Total CO_2 reduction:** **4,753 pounds**

The launch event at the Gonzaga University Sustainability Office in 2024

EV Car Sharing

In 2024, Avista awarded on-site Level 2 charging stations to ZEV Co-op, a non-profit organization committed to making zero-emission vehicles (ZEVs) accessible to all, especially those in low-income, underserved, and rural communities. Whether you need a car for an hour or a week, ZEV Co-op provides the reservation system, electric vehicle, insurance, maintenance, and kilowatts to get you on your way.

ZEV Co-op's vision is to make shared electric mobility available to all users by establishing a member-owned, community-focused, democratically controlled car share enterprise that utilizes zero-emission vehicles, emphasizing transportation equity and serving overlooked communities, offering a variety of ZEVs that meet the needs of members, and expanding the cooperative throughout Washington. Located at the Gonzaga University Sustainability Office, this car sharing cooperative offers affordable, environmentally friendly transportation to students and community members alike.

Electrifying Results

Statistics for ZEV Co-op ride sharing for the second half of 2024:

- **Trips taken:** 65 trips
- **Miles driven:** 2,563 miles
- **Total savings on gas & maintenance:** $1,601
- **CO_2 reduction:** 1,455 pounds

Appendix F – Joint Stakeholder Comment Matrix

This matrix summarizes comments from stakeholders that reviewed the draft TEP submitted on September 22, 2025 and Avista's responses

Commenter	Comment	Avista Response
Washington UTC Staff	Does Avista make a distinction anywhere in its EVSE ports in service forecasts for customer-owned vs. Avista-owned EVSE? Was a sensitivity done to determine if this makes a meaningful difference in the EVSE installation rate in Avista's service territory?	The required number of EVSE ports is derived from modeling that uses the forecasted number of EVs in the baseline and high-adoption scenarios as inputs. These results are irrespective of EVSE ownership. The number of Avista-owned ports relative to third-party and customer-owned EVSE is a very important consideration. Our analysis indicates that Avista's EVSE investments support higher levels of beneficial adoption, which, in turn, result in a more attractive market for third-party investment and customer ownership of EVSE. The number of EVSE that Avista owns and maintains is a function of the planned investments and maintenance that Avista is capable of providing, service levels provided by EVSE vendors, customer participation levels in Avista's programs, and the level of third-party and customer investments that may be expected. As planned, Avista's EVSE investments would represent 33% of the market need in the case of baseline adoption, and 19% in the case of high EV adoption scenarios. This level of Avista investment is judged as most reasonable and balanced to provide a backbone of cost-effective charging availability, support beneficial EV market growth, and encourage private-party investments through both natural market forces and tailored make-ready programs. Continuous assessment of market needs, private party investments, and optimal Avista investment levels is anticipated as markets and customer needs evolve.
Washington UTC Staff	Are all the ports in Named Communities and CBOs listed in Table 1 publicly accessible, or are some of these limited by "club" rules (e.g., an EVSE at a housing complex available only to its residents).	Of these 201 ports listed in Table 1, all are publicly available in Named Communities except for 28 that are designated for EVs utilized by CBOs, which provide benefits to their respective communities, most of which are in Named Communities.

Commenter	Comment	Avista Response
Washington UTC Staff	Staff understands Avista's concern over the substantial federal policy shift and the impact it will have on adoption rates. To what extent has Avista considered and included Auto Manufacturers' own behaviors to mitigate the loss in sales from the sunsetting of the federal tax credit? Several OEMs (BMW, Ford, etc.) have internalized this cost to some extent and adjusted their prices accordingly to maintain sales. Given this, Staff is concerned that the downward adjustment of Avista's forecast may be premature, given that the historical adoption rate has consistently exceeded Avista's high adoption forecast.	It is uncertain what level of EV production, inventory, and price competitiveness will be provided by vehicle OEMs in the United States and, more locally, in our service territory over the next several years. Actions taken in the short term by some OEMs may not be indicative of what occurs over the next several years and longer time periods. Avista plans to monitor and adjust forecasts and supporting programs on an ongoing basis, as appropriate to the level of vehicle availability, competitiveness, and market adoption that manifests over time. Avista's 2020 TEP high adoption forecast was relatively close to actuals over the last several years, with the highest variance of 1,169 light-duty EVs under forecast in 2024 (6,114 were forecasted compared to an actual of 7,283).
Washington UTC Staff	Staff noted Avista's explanations of expectations for level 2 and DCFC charger buildout within its service territory—Staff is curious to what extent Avista anticipates and models level 1 chargers on its system, and what assumptions are being made as to the mix of level 1 and level 2 residential EVSE.	Based on referenced ICCT research, 75% of residential households are modeled utilizing level 2 EVSE, with the remaining 25% utilizing level 1 EVSE.
Washington UTC Staff	Has Avista further broken out the light-duty segment by vehicle type? Staff is interested to see if customers in Avista's service territory are more likely to be drawn to EVs that are capable of vehicle to home or other V2X functionality. To what extent is Avista considering V2X pilots or programs to take advantage of this?	Avista has considered class 1 and class 2 vehicles, as well as trucks and SUVs within the light-duty segment. Vehicle-to-home (V2H) capability is an emerging feature in some recent EV models and seems likely to become commonly available. Avista plans to investigate V2H and research customer and market potential as part of a future TE program. Other forms of power export from EVs (V2X) are also of interest and will be monitored for feasibility in future demonstration pilots and customer program development as well.

Commenter	Comment	Avista Response
Washington UTC Staff	Where does Avista take into account RCW 43.392.020(1), which states: "A target is established for the state that all publicly owned and privately owned passenger and light-duty vehicles of model year 2030 or later that are sold, purchased, or registered in Washington state, be electric vehicles"?	Avista recognizes the strong policy support for EVs in the State of Washington, and that RCW 43.392.020(1) establishes a clear state target and policy goal. This is indicative of state policy support that may consistently help raise EV adoption in Washington state and thereby justifies the relatively strong growth represented by Avista's baseline and high adoption forecasts, relative to the U.S. average. However, while the established policy goal lends confidence in strong EV growth in the state, it is unlikely that 100% of light-duty vehicles sold in 2030 are electric, due to a number of factors not under state control, including vehicle availability and competitive pricing in the marketplace.
Washington UTC Staff	Does Avista have a timeline for when it will submit a program tariff for monetizing and spending Clean Fuel Standards credits?	As stated in the TEP, Clean Fuel Standard (CFS) funding is utilized to supplement TE programs and spending under tariff 77, improving benefits and reducing costs for customers, while supporting state policy goals. A CFS program tariff is not planned, as credits, monetization and spending are regulated by the Department of Ecology and kept separate from Avista's rate-based spending and revenues. CFS activities are reported as required to the Department of Ecology. A summary of CFS activities will also be provided to the UTC in Avista's regular annual TE report.
Washington UTC Staff	What guidelines does Avista use for determining availability of various charging port standards (e.g., CCS, ChaDeMo, J-3400/NACS, etc.) at its public EVSE? Is there any consideration made for concerns that cheaper legacy vehicles using older standards like ChaDeMo are more likely to have smaller, less "healthy" batteries and thus be more reliant on public charging?	Convergence has not yet occurred in the U.S. around one DCFC connection standard; however, several OEMs have indicated they will adopt NACS in the future. With proven CCS-1 to NACS adapter availability and demonstrated industry consolidation around the NACS standard in new EVs, NACS may be exclusively utilized in new DCFC installations, instead of CCS-1. CHAdeMO is an obsolete standard and should not be incorporated in new DCFC installations. Increasingly, older EVs with significant battery degradation cannot use CHAdeMO due to required battery protection thresholds, are limited to much shorter driving distances between charges, and must rely entirely on AC Level 2 for charging.

Commenter	Comment	Avista Response
Washington State Dept of Commerce	*The Avista light-duty EV adoption forecast is significantly below the modeling results from the Transportation Electrification Strategy (TES).* The TES modeling was conducted in 2023 using a stock rollover model, resulting in the number of light-duty vehicles needed at the state and county levels to achieve the state's vehicle emission standards. The modeling outputs were revised downward in analysis that was posted to the EV Council website in September 2025 (see the files in the "Measuring Progress" accordion box on the website). The forecasted number of EVs Avista published in Table 5 of Avista's draft TEP for its service territory is far below the need projected in the TES and in the revised targets. The attached file shows that Avista's annual EV forecasts are only about 20-40% of the revised TES targets; Avista's "high" scenario only begins to approach the TES targets in the latest years of the forecast, and even then, Avista forecasts fewer than two-thirds the number of EVs modeled in the TES. The difference between the TES and Avista's forecast is significant and difficult to reconcile.	Avista's baseline and high adoption scenarios in the TEP were developed to reflect the most likely range of actual adoption in our service territory. They are used to derive the respective charging infrastructure, capital investments, and utility system planning needed to support this range of EV adoption. They may also be updated over time, recalibrated as appropriate to actual adoption levels. The TES modeling may be indicative of the adoption trajectory required to meet state goals; however, it is well outside of the range of probable adoption in our service territory. Con-sider that the TES model predicted 18,460 EVs at the beginning of 2025 for the Low Scenario 5 in Avista's service territory, and 20,456 EVs for the Baseline Scenario 1, compared to the actual of 7,283 EVs. This would have required roughly 15,000 new EV registrations in 2024, from 5,013 registered at the beginning of the year, and compared to an actual increase of 2,270 EVs. Given annual stock turnover of approximately 36,000 vehicles in our service territory, the TES effectively predicted 42% EVs for new light-duty vehicle registrations in 2024. In future years, the TES model, if realized, would require greater than 100% of vehicle stock turnover to be EVs, which would only be possible with major incentives to scrap vehicles prior to the end of their normal service life. These forecasts may be reflective of desired outcomes, but they are not realistic for planning purposes in the TEP.
Washington State Dept of Commerce	*Avista's forecast ignores its own internal data.* Avista contracted with AEG to produce its distributed energy resources (DER) forecast, part of which included an EV forecast. Like the TES, that forecast also calls for higher levels of EV adoption than Avista recommends in its draft TEP. It seems odd that Avista would essentially disregard its own study in its draft TEP forecast.	The AEG study produced modeling projections that are not equivalent to empirical data. It incorporated policy assumptions such as the Advanced Clean Cars II regulation would be in effect, which is not now the case, and as a result, it's reasonable to expect lower adoption levels than those projected by the AEG study.
Washington State Dept of Commerce	*There isn't much explanation for why both the TES and AEG's estimates are deemed too high:* Avista alludes to a general slowdown in the market (which is something the EV Council is tracking as well), along with federal policy changes as explanations for why its EV forecast comes in lower than the TES's and AEG's. Otherwise, the TES and AEG estimates are simply judged to be "improbable". The methodological explanation on pages 21-22 allude to an updated methodology from the 2020 TEP, but it isn't clear what those updates are.	See comment above regarding Avista and TS modeling results. Adjustments to Avista's forecasting methodology include a reduction from recent 50% annual cumulative growth to 35% in 2025 and 25% in 2026, gradually increasing to 20% of stock turnover (a proxy for new sales penetration) by 2030 and then more rapidly increasing to 50% of stock turnover by 2035. This reasonably compares to the Bloomberg forecast for EV adoption in the U.S. overall at 28% EV sales by 2030. The revised high adoption forecast is similar in terms of relatively flat near-term sales, transitioning more rapidly to 50% of stock turnover by 2030 and reaching 79% by 2035.

Commenter	Comment	Avista Response
Washington State Dept of Commerce	*Past EV forecasts have been too conservative:* Table 4 shows that Avista's "high" adoption estimate in its 2020 TEP came in nearly 20% below actual registrations by 2025. What isn't clear is what adjustments have been made to correct for this under-forecasting in the 2025 methodology. However, the history of under-forecasting is notable and raises the question of whether taking a more conservative approach now will also turn out to be an under-forecast.	Avista will monitor actual adoption levels and make appropriate adjustments to its forecasts and supportive programs, as appropriate, and as documented in its annual reports to the UTC.
Washington State Dept of Commerce	*Similarly, the EVSE port forecast in the draft TEP is well below the TES-modeled need:* A comparison of Avista's total EV charging ports required (Tables 9 and 10) to the TES shows a very large gap between the two assessments. As noted in the attached file, Avista's projected need for DCFC ports is not that far below the need projected in three TES scenarios. The number of Level 2 charging ports expected by Avista, however, is dramatically less than the need projected by the TES.	ICCT modeling was utilized to estimate the number of required ports by type through 2035, using Avista's forecasted Baseline and High EV adoption scenarios as inputs. These models and supportive programs may be changed over time, as appropriate to observed changes in the market that will be monitored by Avista.
Washington State Dept of Commerce	*Planning for adoption levels that are well below the state's needs carry risk:* There is an obvious tension between Avista's planning purposes and the purpose of the TES. The TES made reaching the state's required vehicle emission standards (as expressed through the Advanced Clean Cars and Advanced Clean Cars II standards) a key modeling assumption, an assumption that Avista does not make. At the same time, it is risky for Avista to assume that the state will experience such a significant gap between the targets modeled in the TES and actual adoption in future years. Avista risks underbuilding the charging and grid infrastructure needed to fuel the EVs that will be driven in its territory in future years. Aiming lower could undermine the importance of electrifying transportation as a path to meeting the state's greenhouse gas emission targets. Finally, there is a messaging disconnect when one of the state's major utilities publishes a TEP that shows it is planning for a level of EV adoption substantially lower than what is needed to meet the state's targets. Avista should consider these risks of under-forecasting EV adoption as it finalizes its TEP.	Very low risk is inherent in the adoption forecasts and commensurate TE programs as outlined in the TEP. Avista's TE strategy is adaptive and flexible to changes in the market, customer needs, and utility capabilities. In this way, Avista's TE programs will properly support state policy goals for EV adoption and encourage more private-party investments and innovations in a cost-effective manner that is attuned and responsive to changing market conditions and needs.

Commenter	Comment	Avista Response
Weavegrid	We appreciate and support the utility's view that cost-effective managed charging is an important TEP element to reduce grid and customer costs. We are happy to see budget dedicated to this effort in your 2025 draft TEP. WeaveGrid supports multiple cost-effective utility VGI programs across the country. Strategic program design and high participation levels ensure that a program is cost-effective, resulting in participant and non-participant benefits.	Avista looks forward to ongoing research and product development to deploy cost-effective managed charging programs, reducing peak loads on the grid and providing net benefits to customers.
Weavegrid	We agree that managed charging is important to relieve both bulk system and secondary distribution grid constraints. In our experience, we see that the majority of the value a managed charging program can provide is through optimizing EV charging to reduce secondary distribution asset upgrades. WeaveGrid supports several distribution-focused managed charging utility programs that have yielded impactful results.	Avista appreciates Weavegrid's expertise that may be considered in future product development and customer-facing programs. In addition to the value provided to power supply on the bulk system and distribution system constraints, the ability to shift loads not only on a daily basis but for an extended basis during extreme weather events is of interest, as the typical BEV uses, on average, less than 10 kWh per day while maintaining a battery pack capacity of over 60 kWh.
Weavegrid	In addition to TOU and DR, we recommend that your team consider continuous load management approaches to mitigate EV grid impacts.	Avista will continuously monitor technological innovations and feasibility of cost-effective EV load management, including more dynamic and continuous direct load control that may be demonstrated and scaled as appropriate.

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