

Central Shenandoah Regional Electric Vehicle Charger Site Analysis

Identifying and prioritizing 117 potential EV charging sites to prepare the region for a projected 12-fold increase in EVs by 2035



Prepared by the Central
Shenandoah Planning
District Commission

Rural Work Program



CSPDC

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Executive Summary

The Central Shenandoah Planning District Commission conducted a comprehensive analysis of electric vehicle charging infrastructure needs across its ten member localities to prepare the region for substantial growth in electric vehicle adoption through 2035. This study provides strategic guidance for infrastructure investment priorities, implementation strategies, and funding approaches to support the region's transition to electric transportation.

Regional Electric Vehicle Growth Projections

Current electric vehicle registrations in the Central Shenandoah region total 1,880 vehicles, representing 0.7 percent of the regional vehicle fleet. By 2035, the region is projected to host 23,419 electric vehicles, constituting 8.55 percent of all registered vehicles. This represents a twelve-fold increase over eleven years, requiring substantial expansion of public charging infrastructure to support both residents and the growing number of electric vehicle tourists visiting the region's attractions.

The projected growth reflects broader trends in electric vehicle adoption driven by declining battery costs, expanding vehicle model availability, and supportive federal and state policies. Conservative projections account for potential policy changes and maintain robust growth assumptions based on technological improvements and market dynamics rather than policy incentives alone.

Infrastructure Gaps

The region currently maintains 72 publicly accessible Level 2 charging ports and 67 DC fast charging ports distributed across the three sub-regions. To support projected electric vehicle growth, the region will require 680 Level 2 ports and 140 DC fast charging ports by 2035, representing nearly a six-fold increase in total charging capacity.

The analysis identified four primary implementation challenges: installation and maintenance costs, uncertain utilization rates in rural areas, electrical grid capacity limitations, and potential federal policy changes. These risks can be effectively managed through phased implementation, strategic use of grant funding, utility partnership programs, and conservative adoption projections.

Future Site Identification

The study identified and prioritized 117 potential charging sites across the region using comprehensive criteria including traffic patterns, electrical infrastructure readiness, proximity to amenities, and strategic community impact. Sites are distributed across three sub-regions: 47 locations in the Staunton-Augusta-Waynesboro area, 46 in Harrisonburg-Rockingham, and 24 in the Rockbridge-Lexington-Bath-Highland-Buena Vista region.

Implementation should proceed in phases, beginning with 25 high-priority sites that offer the greatest potential for utilization and community benefit. These initial installations will serve as demonstration projects while building local expertise and stakeholder confidence. Subsequent phases will expand corridor charging along Interstate 81, Interstate 64, US Route 250 and US Route 11, followed by destination charging at tourism sites, downtown areas, and community centers.

Economic Development and Community Benefits

Strategic charging infrastructure investment will generate multiple economic benefits for the region. Electric vehicle tourism is projected to contribute to downtown economic development annually in visitor spending by 2035, as charging availability encourages longer stays and increased local purchases. Modern charging infrastructure also supports business recruitment efforts, particularly for companies with sustainability commitments and electric fleet vehicles.

Environmental benefits include a 70 percent reduction in transportation-related carbon dioxide emissions per electric vehicle, improved local air quality through reduced particulate matter, and decreased noise pollution in downtown areas. These improvements support the region's tourism economy and agricultural productivity while enhancing quality of life for residents.

Electric vehicle infrastructure also enhances community resilience by reducing dependence on traditional fuel supply chains vulnerable to disruptions. Emerging vehicle-to-grid technologies will provide backup power capabilities during outages and support grid stabilization during peak demand periods.

Conclusion

The projected twelve-fold increase in electric vehicle adoption presents both significant challenges and substantial opportunities for the Central Shenandoah region. Proactive infrastructure investment will position the region as a leader in sustainable transportation while generating economic development benefits, environmental improvements, and enhanced community resilience. The strategic framework and site priorities outlined in this study provide a roadmap for systematic, cost-effective infrastructure development that will serve regional needs through 2035 and beyond.

1. Introduction

The Central Shenandoah Planning District Commission (CSPDC) Rural Work Program developed an Electric Vehicle (EV) Siting Analysis Study to provide a practical roadmap for developing EV charging infrastructure in the Central Shenandoah region. The planning district region, which includes the cities and towns within a five-county region of Augusta, Bath, Highland, Rockbridge, and Rockingham, is the largest planning district by area in the state, and is characterized by pastoral and agricultural heritage, an established manufacturing sector, and tourism. Due to the region's rural character, the installation of EV charging infrastructure and alternative fueling infrastructure is important for sustained economic vitality, bolstering community resilience, and achieving practical environmental improvements.

Figure 1. Car driving on road near Steeles Tavern

Source: <https://steelestavern.com/blog/fall-in-shenandoah-national-park/>



1.1 Purpose

The CSPDC conducted this analysis to identify and prioritize potential EV charging site locations to assist member localities with installing or supporting the development of future EV charging stations, to prepare localities for future grant applications, and to develop a project and evaluation methodology that considers the specific site needs. The study emphasizes the tangible and practical advantages that EV charging infrastructure can bring to the Shenandoah Valley.

Among other benefits, well-placed charging stations can attract a growing segment of EV-driving tourists, encouraging longer stays and increased spending in local communities. Furthermore, EV infrastructure can support local residents by modernizing the region's amenities and can lead to reduced transportation costs for residents and commercial fleets, in addition to creating new job opportunities in EV charger installation and maintenance.

EV infrastructure can also help improve regional resilience by providing energy independence from traditional fuel supply chains which are vulnerable to disruptions. Additionally, emerging vehicle-to-grid technologies present opportunities for grid

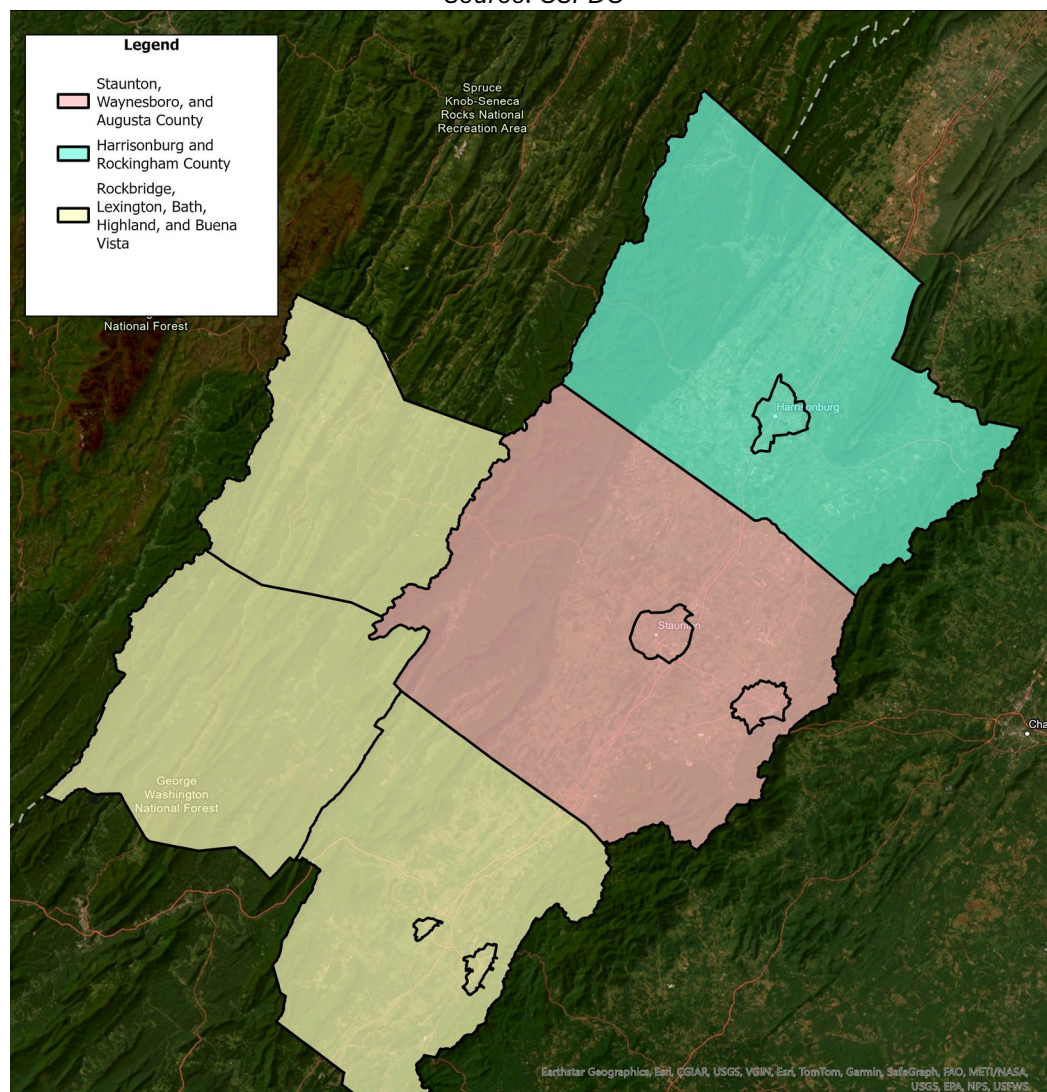
stabilization and emergency backup power during outages. EVs also improve local air quality through both the reduction of particulate matter and a 60-70% decrease in transportation-related carbon dioxide (CO₂) emissions over a vehicle lifespan, improve water quality due to less runoff from vehicle fluids, and reduce noise pollution in urban and natural areas.

1.2 Study Area and Planning Sub-Areas

To effectively analyze EV charging infrastructure needs and develop targeted recommendations, the CSPDC region has been strategically divided into three distinct planning sub-areas based on geographic proximity, shared transportation patterns, economic connections, and existing planning relationships. This sub-regional approach allows for more precise analysis of local conditions, coordinated implementation strategies, and recognition of the unique characteristics that influence EV adoption and charging needs. The three subregions are the Staunton, Augusta, and Waynesboro (SAW) Region, the Harrisonburg and Rockingham (HR) Region, and the combination of two regions seen in **Figure 2** – Rockbridge, Lexington, and Buena Vista along with the Counties of Bath and Highland.

Figure 2. CSPDC Regional Map by Subregion

Source: CSPDC



2: Electric Vehicle Overview

This chapter provides important background information on electric vehicles (EVs) and charging infrastructure to support understanding of the regional analysis and recommendations by detailing vehicle fuel type comparisons, battery cost, driving range, types of EV chargers, and costs.

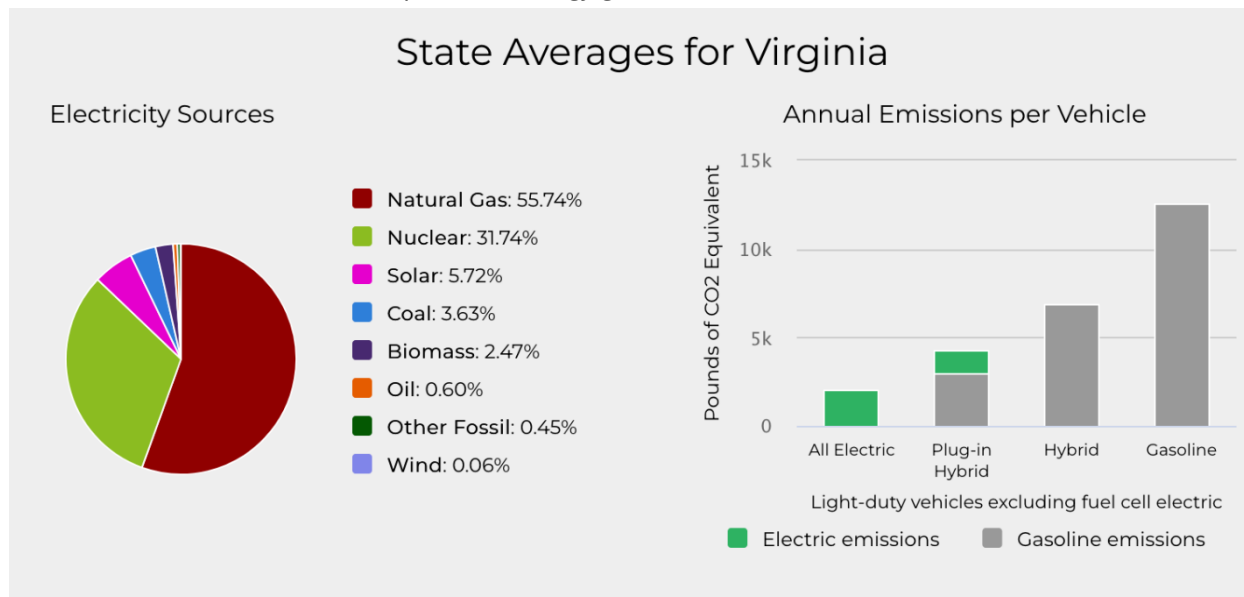
2.1 Vehicle Fuel Type Comparison

EVs differ from traditional gas-powered vehicles and also from hybrid vehicles – both traditional hybrids and plug-in hybrids. Both traditional hybrids and plug-in hybrids use a combination of a gasoline engine and an electric motor, while EVs have only electric motors. Traditional hybrids and plug-in hybrids differ in how each car type recharges its battery. Traditional hybrids recharge their batteries through regenerative braking (by converting its energy of motion into electrical energy when braking, then stores it in its battery) and through its gas engine. Plug-in hybrids have larger batteries that can be charged by plugging into an external power source which extends electric-only driving.

Figure 3 illustrates the estimated emissions for vehicles by fuel type, EVs (“All Electric”), Plug-in Hybrid, Hybrid, and Gasoline, based on average electricity sources in Virginia. The data demonstrates that EVs produce less emissions than any other type of vehicle, including 73% less emissions than traditional gas-powered vehicles.

Figure 3. Comparison of Virginia Vehicle CO₂ Emissions by Fuel and Electricity Sources

Source: <https://afdc.energy.gov/vehicles/electric-emissions>

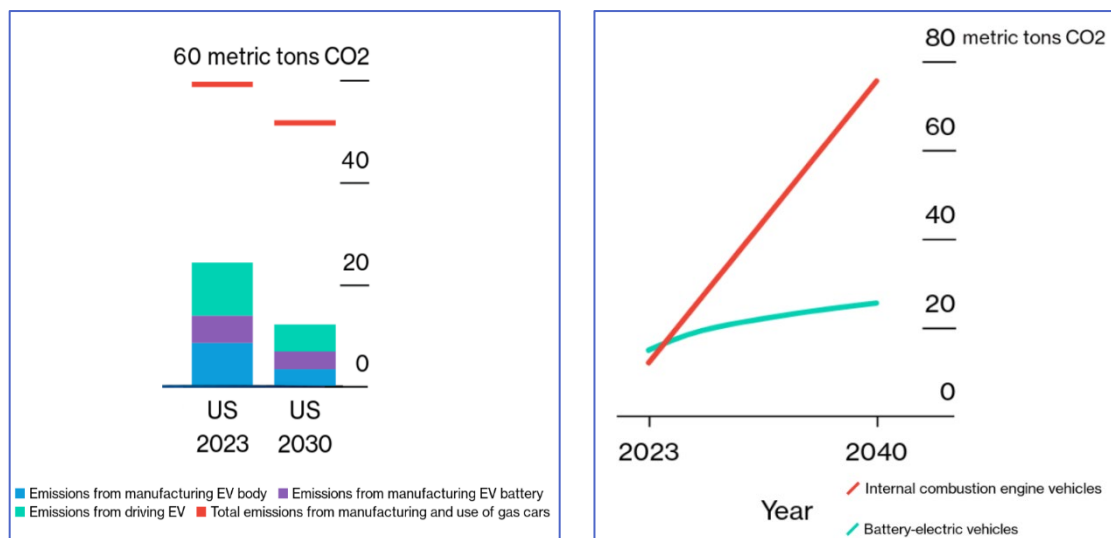


2.2 Battery Manufacturing Cost

Although EVs produce substantially lower CO₂ emissions over their operational lifespan, they do carry a higher initial carbon footprint after manufacture compared to gas vehicles. The manufacturing deficit stems primarily from the energy-intensive process of producing lithium-ion batteries. However, the initial carbon debt is offset during operation (see **Figures 4 and 5**), typically within six months when charged using renewable electricity sources like solar, wind, and hydroelectric power, or within two years using conventional grid electricity that includes fossil fuel generation (Bloomberg NEF, 2024).¹

This manufacturing carbon deficit is declining rapidly as battery production becomes more efficient and renewable electricity expands globally. The Department of Energy has invested heavily in reducing battery costs through public-private partnerships, targeting a reduction from more than \$120/kWh today to \$60/kWh by 2030, which would bring EVs to near cost parity with internal combustion vehicles.² While China currently dominates global lithium battery production, all major lithium manufacturers outside China have committed to net-zero manufacturing emissions by 2030. The DOE's National Blueprint for Lithium Batteries 2021-2030 and the Li-Bridge consortium are working to establish domestic battery manufacturing capabilities, supported by over \$6 billion in federal funding for domestic battery supply chain development.³

Figure 4 (left); Comparison of CO₂ Emissions Across 155,000 Mile Lifecycle: Gas-Powered Vehicle vs. Battery Electric Vehicle; **Figure 5 (right);** Cumulative Emissions for Vehicles Produced in 2023 and use through 2040



¹ Bloomberg NEF, 2024, <https://about.bnef.com/insights/clean-transport/no-doubt-about-it-evs-really-are-cleaner-than-gas-cars/>

² The International Council on Clean Transportation, 2024, <https://theicct.org/wp-content/uploads/2024/02/ID-85-%E2%80%93EV-supply-chain-Report-Letter-70112-v3.pdf>

³ Department of Energy, 2021, https://www.energy.gov/sites/default/files/2021-06/FCAB%20National%20Blueprint%20Lithium%20Batteries%200621_0.pdf

Figures 4 and 5 illustrate the complete lifecycle emissions comparison between gasoline vehicles and battery electric vehicles in the U.S. **Figure 4** shows the breakdown of EV emissions, including body manufacturing (blue), battery manufacturing (purple), and driving emissions (green), compared to total gasoline vehicle emissions. The data demonstrates that for 2023 models, EVs produce 34% lower lifetime emissions (25 metric tons vs. 38 metric tons over 250,000 km), improving to 50% lower emissions for 2030 models, driven primarily by cleaner electricity grids and more efficient vehicle designs. However, battery manufacturing emissions improvements are projected more conservatively, as the industry transitions from current energy-intensive processes to cleaner production methods.

The gap between manufacturer commitments to net-zero production and current projections reflects the time required to implement new technologies and renewable energy sources at manufacturing facilities, with most aggressive improvements expected after 2030 as domestic production scales up and renewable electricity becomes more widely adopted in manufacturing regions. **Figure 5** shows the cumulative emissions over time, clearly illustrating how EVs start with higher upfront manufacturing emissions but are quickly surpassed by gasoline vehicles due to ongoing fuel consumption, with the crossover occurring at the 2 year breakeven point.

2.3 EV Charging and Driving Range

EVs run on battery engines and require regular charging to operate. EV “driving range” refers to charging frequency, or the total driving distance on a single charge. Driving range is impacted by battery capacity, driving habits, terrain, weather/temperature, car design and weight, and other factors. Battery capacity has grown significantly since the earliest days of EV manufacturing, with larger and newer batteries providing longer driving range.

EVs currently average a driving range of 250-300, but many newer vehicles exceed this range. **Figure 6** highlights the extended driving range for 27 Model 2025 EVs using posted Environmental Protection Agency (EPA) ratings – 21 of which exceed a driving range of 300 miles. While sources indicate that the EPA estimates ratings often exceed actual driving range, some new EVs are exceeding 400 miles in driving range, which meets or exceeds conventional gas-powered driving range (VanderWerp, 2025).⁴

While driving range is expanding, not all EVs offer these extended driving ranges. The 2025 *Car and Driver* research, for example, identified 11 recent model EVs (2022-2025) with driving ranges of 200 miles or less. In addition, EV battery functioning declines slightly over time, so older EVs will generally have lower driving range. Factoring in driving range and that the average American drives 30 miles daily, the average EV driver charges their vehicle 2-3 times per week (VCU CNS, 2023).⁵ This makes the location and availability of charging stations a major factor in EV usage.

⁴ <https://www.caranddriver.com/shopping-advice/a32603216/ev-range-explained/>

⁵ <https://www.vpm.org/news/2023-05-19/virginia-clean-car-law-timeline-electric-vehicles>

Environmental Benefits

EVs do not burn gasoline, create no tailpipe emissions, and produce less CO₂ than gas-powered vehicles. The US Department of Energy estimates that EVs produce almost 70% less CO₂ emissions than traditional gas-powered vehicles. In addition, EVs generate fewer “Well-to-Wheel” (WTW) emissions, typically considered a more comprehensive assessment of environmental impact than just tailpipe emissions. WTW emissions encompass all emissions related to fuel extraction, production, processing, distribution, and use, versus the emissions of EV power plants and all emissions associated with extraction, processing, and distribution of energy sources for the electricity used to charge EVs.

In Virginia, WTW emissions for EVs are approximately 2,059 pounds of CO₂ equivalent emissions per year per vehicle compared to approximately 12,594 pounds of CO₂ equivalent annual emissions produced per year per gas-powered vehicle. (Alternative Fuel Data Center State Averages for Virginia, 2024) ⁶ These calculations include the emissions generated by producing the electricity used to charge EVs, assuming they are not being charged using renewable resources like solar and wind.

Figure 6. Longest-Range Cars for 2025

Source: <https://roborace.com/longest-range-evs/3>



2.5 EV Charging Infrastructure

Electric vehicle supply equipment (EVSE) is commonly known as a charger. EVSE is equipment that delivers electricity to an EV for charging. The EVSE port is the receptacle where the charging cable is plugged in to deliver electricity to one EV. A charging station has one or more EVSE ports; it can have either a single- or dual-port configuration, allowing for simultaneous charging of two EVs.

⁶ Alternative Fuel Data Center (AFDC), Virginia State Electricity Sources and Average Emissions from Hybrid and Plug-In Electric Vehicles, 2024, <https://afdc.energy.gov/vehicles/electric-emissions>

Key features of EVSEs/chargers include: the type of chargers, the rate at which they deliver power to a vehicle (i.e., the level of charger), and the type of connector.

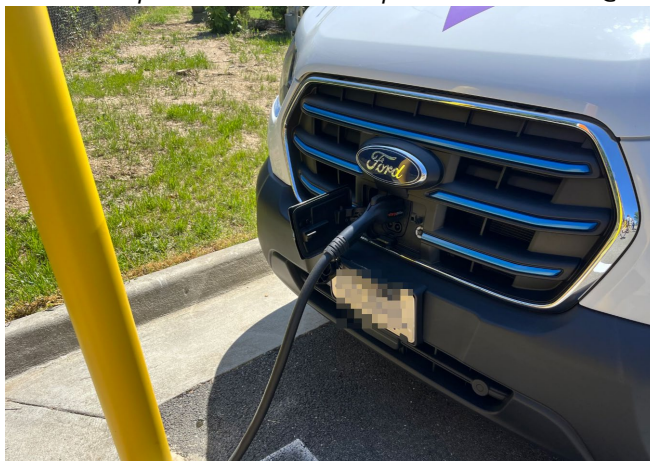
Types of Chargers

While there are multiple types of chargers, plug-in chargers are by far the most common type of EVSE. Plug-in chargers include a charging box, cable, and connector. The connector plugs into the port of an EV. Different mounting styles allow plug-in chargers to be used in different settings, including the home, workplace, and public charging areas.

Other types of chargers include: Overhead, often used for transit bus routes and other contexts in which fast opportunity charging is required; Inductive, also known as wireless charging involving a charging pad installed in the ground; and, Catenary, more common for electric rail and streetcars, although its use for heavy-duty electric trucks has been studied.

Figure 7. Connecting the charging cable connector to an EV for charging

Source: <https://www.flickr.com/photos/101006382@N05/>



Charging Levels

Level 1 charging

Level 1 charging is the most basic method, slowest but easiest to accommodate. It utilizes a standard 120-volt household outlet and offers a power output of only approximately 1 kW to 1.5 kW which translates to a slow charging rate of about 3 to 5 miles of range per hour. This level is best suited for overnight residential charging or for long-duration parking at workplaces, such as for Highland County's government employee vehicles parked overnight, as it requires no special installation beyond a standard wall outlet and incurs minimal costs, typically \$0 to \$500 per port.

Level 2 (L2) charging

L2 charging is the most common for both public and private installations, striking a balance between charging speed and cost. Operating on a 240-volt (residential) or 208-volt (commercial) circuit, L2 chargers deliver power ranging from 4 kW to 19 kW. This provides a charging rate of approximately 10 to 20 miles of range per hour, with some higher-powered units achieving 25-35 miles per hour. A L2 rate can fully charge many EVs overnight or add significant range during a typical workday or a few hours spent at a public destination like a shopping center or restaurant. These chargers are ideal for locations like Harrisonburg's downtown stations near the Farmer's Market, workplaces, and multi-family housing

complexes. Installation requires a dedicated circuit, similar to an electric dryer, with costs typically ranging from \$3,000 to \$7,000 per installed port.

Level 3 DC Fast Charging (DCFC)

DCFC charging offers the quickest charging speeds, making long-distance EV travel practical. These chargers provide power outputs from 50 kW to 350 kW or even higher. A 50kW DCFC can add 60 to 80 miles of range in about 20 minutes, while more powerful units can deliver 100-200 miles in a similar 20-30 minute timeframe, often achieving an 80% charge in under an hour. The infrastructure demands for DCFC charging are significant, requiring a robust 480-volt (or higher) three-phase AC electrical supply, which is then converted to DC power by the charger. This often necessitates considerable electrical service upgrades which makes DCFC the most expensive option, with installed costs ranging from \$50,000 to over \$150,000 per port.

Connector Types

A connector is the portion of the cable that plugs into the vehicle. There are multiple types of connectors; multiple connector types can be available on one EVSE ports to accommodate a range of vehicles, but only one vehicle can charge at a time for each port. Common AC connectors include J1772 and CCS (Combined Charging System). DC fast charging connectors include CCS, CHAdeMO, and J3400/NACS (see **Table 1**).

Table 1. EVSE Type and Connector Information

Source: AFDC ⁷

	Level 1	L2	DCFC		
Description	120-volt (V) alternating current (AC) port, single phase service 12-16 amp (A)	208/240V AC port, single phase service 12-80A	208/480/1,000V AC circuit, three-phase service connection 50-500A		
Connector Type(s)	 J1772 charge port connected to a Standard Wall Outlet	 J1772 charge port connected to a 240V Power Supply	 Combined Charging System (CCS)	 CHAdeMO	 J3400/NACS

⁷ AFDC. Developing Infrastructure to Charge Plug-In Electric Vehicles. Retrieved from:

https://afdc.energy.gov/fuels/electricity_infrastructure.html

	Level 1	L2	DCFC
Typical Use Cases	Light-duty EVs; residential, workplace	Light and medium-duty EVs; residential, workplace, public charging, fleets	Light, medium, and heavy-duty EVs; public charging, fleets
Typical Charge Time (for light-duty EVs, varies based on battery size)	2-5-miles/1 hour of charging PHEVs can be fully charged in 2-7 hours; battery electric vehicles (BEVs) in 14-20+ hours.	10-20 miles/1 hour of charging PHEVs can be fully charged in 1-3 hours; BEVs in 4-8 hours.	60-80-miles/20 min of charging BEVs can be fully charged in 3060 minutes.
Limitations	Lower power delivery lengthens charging time	Requires additional infrastructure and wiring	Can only be used by EVs currently, depending on vehicle capabilities. Higher upfront and operation costs.

While the focus of this plan is on EVs, it is worth noting that the other forms of battery-powered mobility are growing in popularity. Electric scooters and electric bicycles (e-bikes) can typically be plugged into a wall outlet with an AC/DC converter. However, publicly accessible charging stations for micro mobility can help expand the range of these modes and make them more accessible to people living in multi-unit dwellings and other contexts where at-home charging is not as feasible.

2.6 EV Charging Infrastructure Cost and Ownership Considerations

Understanding the financial implications of developing EV charges is a critical component in planning for the expansion of EV adoption. The total investment extends beyond the initial purchase of charging equipment, encompassing significant installation expenses and potential costs associated with utility service upgrades to accommodate the increased electrical load. Cost considerations include 1) Initial Installation Costs, 2) Site-Specific Costs, and 3) On-Going Costs.

Initial Installation Costs

Costs include initial installation costs which comprise Equipment costs (**Table 2**) and Installation costs (**Table 3**) which are influenced by a variety of site-specific factors. Equipment costs vary considerably based on the charger's technological sophistication and power delivery capacity. L2 chargers, for example, provide a charge suitable for locations where vehicles park for several hours while L3 chargers offer much quicker charging times akin to a traditional refueling stop which command much higher prices – progressively higher equipment prices as the speed the equipment provides increases.

Recent comprehensive analysis of charging infrastructure costs demonstrates that the financial composition of EV charging projects has distinct patterns across different cost categories. According to research conducted by the International Council on Clean Transportation (ICCT), "hardware costs are the largest cost component in each case, representing 43%, 40%, and 68% of the total costs, respectively, for the three charging types" (Nelder, 2019). This analysis reveals that hardware represents 40-68% of total project costs depending on charger type, with DC fast charging having the highest hardware cost proportion due to sophisticated power electronics and cooling systems.

Beyond the equipment, installation costs represent another significant variable, heavily influenced by the specific characteristics of each site and the extent of any necessary upgrades. The greater complexity of L3 chargers results in significantly higher installation costs than do L2 chargers.

Table 2. Average EV Charging Equipment Costs Per Port, 2025

Sources: Caltec,⁸ Nicholas (2019 baseline costs adjusted for inflation, technology improvements),⁹ Nelder & Rogers¹⁰

Level	Item	Minimum Cost Estimate	Maximum Cost Estimate
L2	Residential	\$350	\$5,700
	Commercial	\$2,200	\$6,500
	Non-Networked	\$2,000 (single)	\$3,100 (dual)
	Networked	\$4,500 (single)	\$8,600 (dual)
Level 3 / DCFC	50 kW	\$17,500	\$31,000
	150 kW	\$65,000	\$87,000
	350 kW	\$112,000	\$150,000
Typical DCFC cost		\$60,000	\$105,000

⁸ Comparison of Medium- and Heavy-Duty Technologies in California. California Electric Transportation Coalition. Retrieved from: https://caletc.com/wp-content/uploads/2024/04/ICF-Truck-Report_Final_December-2019.pdf

⁹ Nicholas, M, 2019. Estimating electric vehicle charging infrastructure costs across major U.S. metropolitan areas. Retrieved from: https://theicct.org/wp-content/uploads/2021/06/ICCT_EV_Charging_Cost_20190813.pdf

¹⁰ Nelder, C. & Rogers, E.. Reducing EV Charging Infrastructure Costs. Rocky Mountain Institute. Retrieved from: <https://rmi.org/wpcontent/uploads/2020/01/RMI-EV-Charging-Infrastructure-Costs.pdf>

Table 3. Average EV Charging Station Installation Costs Per Port, 2025

Sources: Nicholas¹¹, ICF, ¹² and Energy Marketers of America¹³

Level	Item	Minimum Cost Estimate	Maximum Cost Estimate
L2	Residential	\$520	\$6,500
	Commercial		
L3 / DCFC	Typical Range	\$17,500	\$82,000

The cost projections reflected in these tables incorporate significant market developments since the baseline 2019 analysis. Industry research indicates that "future-year hardware costs are assumed to decline over time at the rate of 3% per year" (Nicholas, 2019), resulting in an approximate 18% total reduction in hardware costs from 2019 to 2025.

This decline reflects several concurrent market forces: improved installation efficiency gains due to increased installer experience and standardization of procedures; economies of scale benefits where "per-charger costs decline as more chargers are installed per site" (Nicholas, 2019); technology improvements through more efficient charger designs and manufacturing processes; and overall market maturation characterized by increased competition and supply chain optimization. These installation figures are influenced by the specific characteristics of each site and reflect the extent of any necessary upgrades reflect the need for robust electrical infrastructure, often including new transformers or service lines.

Site-Specific Factors Affecting Installation Costs

Initial costs also include site-specific factors that should be incorporated into an EV site-installation budget:

- Electrical capacity/infrastructure (including transformers, service lines)
- Trenching distance for electrical conduit
- Local labor costs
- Proximity to electrical distributions
- Need for utility upgrades
- Permitting requirements

¹¹ Nicholas, M, 2019. Estimating electric vehicle charging infrastructure costs across major U.S. metropolitan areas. Retrieved from: https://theicct.org/wp-content/uploads/2021/06/ICCT_EV_Charging_Cost_20190813.pdf

¹² Comparison of Medium- and Heavy-Duty Technologies in California. Retrieved from: https://caletc.com/wpcontent/uploads/2024/04/ICF-Truck-Report_Final_December-2019.pdf

¹³ Energy Marketers of America. Utility Investments and Consumer Costs of Electric Vehicle Charging Infrastructure. Retrieved from:

https://www.energymarketersofamerica.org/ema_today/attachments/Energy_Marketers_of_America_Study_Utility_Infrastructure_for_EVs.pdf

On-Going Costs

In addition to initial installation and site-specific costs, EV chargers include ongoing costs for general maintenance, software and networks, and replacement components. Routine maintenance may involve tasks like cable management, regular inspections of components, and cleaning of the equipment, with occasional repairs being necessary. While these costs can fluctuate based on warranty terms, frequency of use, and environmental wear, station owners should generally anticipate annual maintenance expenses of up to \$400 per charger.

It is important for stakeholders to clearly define maintenance responsibility between the site host, the charging network provider, and the installer. Comprehensive maintenance contracts are advisable and should clearly stipulate expected response times for service calls, guaranteed times for completing repairs, and an overall uptime requirement for the charging stations to ensure reliability and user satisfaction.

Several additional cost considerations must also be factored into the overall budget for EV charging infrastructure. These include expenses for integrating networking and communication capabilities, which allow for remote monitoring, payment processing, and smart charging features; data contracts for these services can range from \$84 to \$240 annually per EVSE, with network contracts adding another \$200 to \$250 per year. Soft costs, such as those associated with navigating permitting processes and paying requisite fees, can also accumulate.

There are mitigation strategies and cost-saving opportunities to reduce costs associated with operating an EV charger:

- *Free charging:* Eliminates payment processing costs, focuses on economic development benefits
- *Time-of-use rates:* Can reduce electricity costs by encouraging off-peak charging
- *Energy management:* Smart charging systems can reduce peak demand and associated charges
- *Multiple chargers:* Per-charger installation costs decrease when installing multiple units simultaneously
- *Municipal advantages:* In-house electricians and permit approval can significantly reduce costs
- *Grant funding:* Can offset 80-100% of equipment costs through various programs
- *Utility partnerships:* Make-ready programs can reduce upfront infrastructure costs

Even with such potential cost-savings, there are a range of financial planning considerations when planning to install and EV charger:

Initial Investment vs. Ongoing Costs

Equipment costs are one-time, but installation can be 2-4x equipment cost

- Annual Operation and Maintenance (O&M) costs accumulate over station lifetime (typically 10 years)
- Revenue highly dependent on utilization and pricing strategy

Break-Even Analysis Factors

- Initial investment (equipment + installation)
- Annual fixed costs (maintenance, network fees)
- Variable costs (electricity, processing fees)
- Revenue per session and utilization rate
- Local electricity rates and demand charge structure

Finally, there are a number of key points for consideration in lower demand areas such as rural localities:

1. Equipment costs are relatively fixed, but installation costs vary dramatically based on site conditions
2. Estimated annual O&M costs are \$200-400 per charger utilization, assuming a non-networked charger without subscription payments to a service provider
3. Revenue potential in rural areas may be lower initially but can grow with EV adoption
4. Demand charges pose the greatest financial risk for low-utilization installations
5. Municipal ownership often provides cost advantages through in-house installation and repair capabilities and streamlined permitting

EVSE Implementation: Local Governmental Regulatory Considerations and Ownership and Liability Framework

As localities consider installing EV chargers, there are a range of factors to consider, including: issues related to liability, insurance coverage, and risk allocation; options for revenue sharing; regulatory and legal considerations; and, which ownership model to adopt. Understanding the regulatory policy environment is central to successful implementation.

Virginia Regulatory Framework and Locality Ordinances

Virginia has established a supportive legal framework for EV charging deployment, including the Right-to-Charge law which prohibits homeowner associations or condominium associations from restricting the installation or use of an EV charging station in a homeowner's dedicated parking space.¹⁴ This law requires associations to treat EV charging station installations in the same manner as any unit architectural modification while

¹⁴ Alternative Fuels Data Center. "Electric Vehicle (EV) Charging Station Policies for Associations." U.S. Department of Energy. Retrieved from: <https://afdc.energy.gov/laws/12407>

ensuring compliance with all relevant building codes and safety standards. Virginia has also implemented supportive enforcement mechanisms, including an EV Parking Space Regulation that prohibits non-charging vehicles from occupying designated EV charging spaces, with penalties up to \$50 when proper signage is displayed.¹⁵

Local governments seeking to prevent regulatory burdens to EV infrastructure can access comprehensive guidance through the U.S. Department of Energy's Charging Smart program, an EV-readiness initiative that provides no-cost technical assistance to help communities follow best practices for expanding EV adoption and charging infrastructure. The program offers Bronze, Silver, and Gold designations based on communities' implementation of policies across six key categories: planning, regulation, utility engagement, education and incentives, government operations, and shared mobility.¹⁶

Ownership Model Considerations

There are pros and cons to each ownership model together with appropriate uses. **Appendix A** provides a detailed overview of ownership model and other factors to consider; included here are several overarching criteria and goals for localities to consider as they begin planning for an EV charger:

- Available capital: Upfront investment capacity
- Technical expertise: Electrical and maintenance capabilities
- Risk tolerance: Willingness to absorb utilization and technical risks
- Revenue objectives: Profit vs. economic development goals
- Control preferences: Operational control vs. hands-off approach

Local governments can also benefit from unique advantages in EV infrastructure ownership models, including direct relationships with public utilities, self-approval capabilities for municipal projects, access to municipal bonds and grants, and a public benefit mission that can justify investment despite higher risk profiles. These factors should be carefully weighed against available capital, technical capabilities, and long-term operational goals when selecting an appropriate ownership model.

¹⁵ Alternative Fuels Data Center. "Electric Vehicle (EV) Parking Space Regulation." U.S. Department of Energy. Retrieved from: <https://afdc.energy.gov/laws/12893>

¹⁶ Interstate Renewable Energy Council. "Charging Smart Program Guide v3.1." January 2025. U.S. Department of Energy Office of Energy Efficiency and Renewable Energy. <https://irecusa.org/programs/charging-smart/>

3. Why Electric Vehicle Infrastructure is Important to the CSPDC Region

The use of EVs is growing across the Central Shenandoah region among both local residents and those traveling through the area. The continued growth in EVs stems from a variety of factors ranging from the environmental benefits of EVs, efforts to increase EV affordability, the expanding charging infrastructure, among others. Expanding regional EV charging infrastructure in response to this growth in EVs provides potential economic benefits, practical resilience benefits, energy independence, and natural resource stewardship.

Economic Benefits

The Shenandoah Valley's economy depends on efficient transportation networks. The region's major employers like Augusta Health, James Madison University, and numerous manufacturing facilities, together with tourist destinations such as the Shenandoah National Park, Blue Ridge Parkway, and historic main street and downtown areas should maintain modern infrastructure to remain competitive. EV charging stations represent a component of essential infrastructure that:

- Attracts visitor spending by the growing EV tourist market
- Supports business recruitment for companies with sustainability goals
- Reduces transportation fueling and maintenance costs for residents, employees, and businesses
- Creates local jobs in installation, maintenance, and related services

Figure 8. Electric Ford F150 Lightning hauling
downed trees in aftermath of Hurricane Helene
Source: Social media documentation of Hurricane Helene recovery efforts



Practical Resilience Benefits

Electric vehicles can provide significant practical benefits. EVs that are charged from the regional grid or local solar installations can provide:

- independence from fuel supply disruptions
- emergency backup power for homes and critical facilities
- energy grid stabilization during peak demand periods
- reduced vulnerability to energy price volatility

Consider recent events have demonstrated the vulnerability of traditional fuel supply chains. In May 2021, the ransomware attack on Colonial Pipeline caused significant disruptions fuel supply, leaving many Valley residents waiting in long lines for gasoline. In addition, natural disasters, such as the impacts of Hurricane Helene in 2024 on Western North Carolina and Southwest Virginia, can also disrupt fuel distribution for weeks (see **Figure 8**).

Natural Resource Stewardship

The Shenandoah Valley's natural beauty and agricultural productivity depend on clean air and water. Regional efforts have successfully improved air quality over the four decades since the Clean Air Act, but concerns remain over elevated nitrogen levels and particulates that interfere with views from regional vistas, see **Figure 9** (NPS, 2024¹⁷). Regional transportation currently accounts for the largest share of regional emissions.

Figure 9. View from Shaver Hollow vista without haze (*left*) versus with haze due to poor air quality (*right*)

Source: <https://www.nps.gov/shen/learn/nature/airquality.html>

Electric vehicles offer measurable environmental improvements in:

- Air Quality: 70% reduction in carbon emissions, near-elimination of particulate matter
- Water Quality: Elimination of oil, coolant, and brake dust runoff into streams
- Noise Reduction: Significant decrease in traffic noise in downtown areas
- Agricultural Benefits: Reduction in ground-level ozone that damages crops



Regional Context and Approach

This study incorporates information drawn from extensive interviews and consultations with member localities and utility partners (Dominion Energy, SVEC, and BARC). While the economic and other benefits of EVs and EV infrastructure were recognized four primary concerns related to EV charging were identified:

1. Installation and maintenance costs
2. Utilization rates and revenue potential

¹⁷ <https://www.nps.gov/shen/learn/nature/airquality.html>

3. Grid capacity and upgrade requirements
4. Long-term policy uncertainty

The following sections discuss the CSPDC analyses, addressing each concern with approaches that are tailored to the regional context while maintaining the fiscal discipline communities expect. The approaches are based on conservative projections that account for potential federal policy changes, including tariff impacts on EV prices and possible elimination of tax incentives. Detailed analyses and specific recommendations are presented for localities' consideration, including the potential economic benefits of assisting with and supporting EV infrastructure. Overall, the economic case for strategic EV infrastructure investment is strong.

Case Study

The installation of an EV charger in the Town of Pennington Gap in Lee County, VA (population ~1600) can be instructive for Central Shenandoah's localities. In October 2024,

Figure 10. Pennington Gap ChargePoint EVSE

Source: Town of Pennington Gap Facebook, October 18, 2024



the Town announced that it had installed a L2 dual charging station on its downtown Main Street as part of a grant partnership with Virginia Clean Cities (VCC) and Tennessee Technical University.¹⁸ The Town noted that the charger was “capable of charging two cars at once – perfect for visitors who want to shop, dine at our local restaurants, or catch a show at The Lee Theatre while their vehicle powers up . . . making our town a destination equipped with the state-of-the-art amenities you expect, all while benefiting our local economy.”

Keith Harless, Pennington Gap's town manager, has focused on the Town preparing for the coming EV innovation: “We recognized years ago that even though we are a small town, we still want to be able to prepare for the future, regardless of what comes...we would still like to accommodate

¹⁸ The Town of Pennington Gap, “Exciting News for Pennington Gap!” Facebook, October 18, 2024, <https://www.facebook.com/100068877143529/posts/-exciting-news-for-pennington-gap-the-town-of-pennington-gap-is-proud-to-announc/855806440058586/>

anybody that's visiting our town.”¹⁹ Harless has noted that “one of the challenges for rural areas with charging stations is being patient on the revenue return...they ‘most likely’ won’t have day-to-day users compared to more densely populated areas like cities.”

Despite this challenge for rural areas, the Pennington Gap EV charging station (**Figure 10**) has provided a revenue return. In a June 2025 VCC Webinar, Harless discussed Pennington Gap’s experience with its downtown EV charging station. The Town’s initial costs totaled approximately “a few hundred dollars,” offset by the grant it had received from Virginia Clean Cities’ Rural Reimagined Program and the donated electrician skills by Harless and local town members. The charging station’s pricing structure is free for the first hour and then \$3 for each subsequent hour. Harless shared that the Town is currently generating \$350/month in revenue – more than recouping their initial costs each month.

¹⁹ <https://virginiamercury.com/2024/09/10/virginias-future-concerning-vehicle-electrification-is-bright-but-costs-are-a-challenge/>

4. CSPDC Regional Adoption of EVs: Present and Future

4.1 Current Status of EVs in the Region

The Central Shenandoah region has a growing number of EV registrations (see **Table 4**). As of 2024, there were 1,880 EVs registered in the Central Shenandoah region accounting for approximately 0.7% of all light duty vehicles registered in the region, up from 0.09% in 2017.

Table 4. Number of Plug-in Electric Vehicles Registered in CSPDC Area (2017-2024)

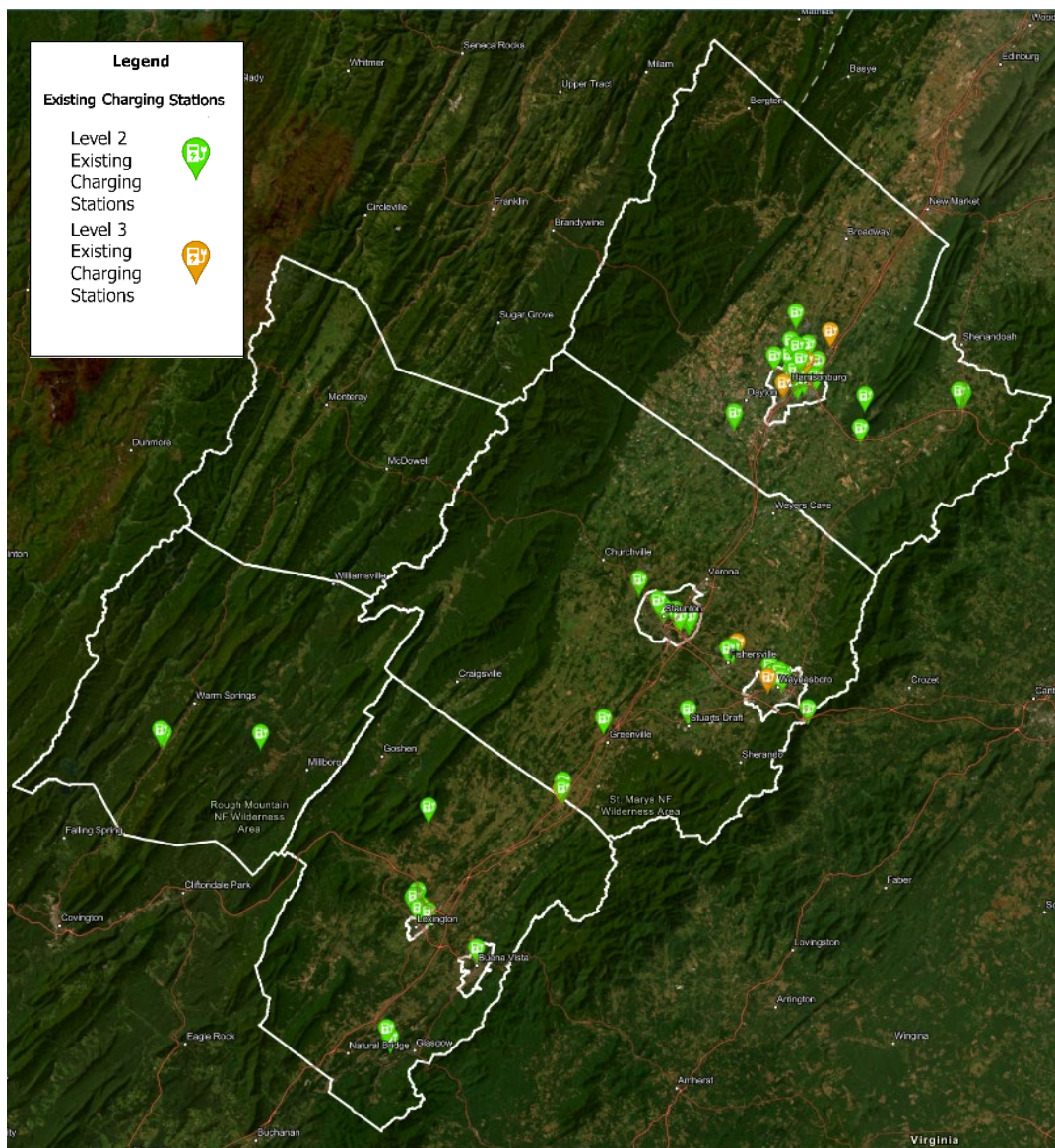
Source: Virginia Annual Vehicle Registration Data provided by Virginia DMV to Virginia DEQ each year

Jurisdiction	2017	2018	2019	2020	2021	2022	2023	2024
Augusta	48	64	83	105	153	228	329	443
Bath	1	2	1	2	7	8	11	18
Buena Vista	2	3	3	3	3	4	7	12
Harrisonburg	32	40	58	72	104	130	203	299
Highland	1	2	2	3	5	6	8	9
Lexington	22	17	16	18	31	35	44	54
Rockbridge	14	16	23	30	47	74	92	135
Rockingham	57	83	115	156	224	306	428	566
Staunton	11	19	22	38	56	95	144	199
Waynesboro	11	14	24	29	51	70	103	145
CSPDC Total	199	260	347	456	681	956	1369	1880

4.2 Existing EV Charging Infrastructure in the Region

An examination of existing EV charging stations across the CSPDC region provides insight into current capacity and future needs. Summing the currently available infrastructure across the three CSPDC sub-regions, there are approximately 72 publicly accessible L2 ports and 67 publicDC Fast Charging (L3/DCFC) ports, with the most out of any region being the Rockbridge Area along I-81 and I-64. Additionally, the region hosts 63 restricted L2 ports and 16 restricted DCFC ports including the "Tesla only" site and the currently restricted Rivian site (see **Figure 11**).

Figure 11. Existing Public EV Charging Stations in the Central Shenandoah Region, June 2025²⁰



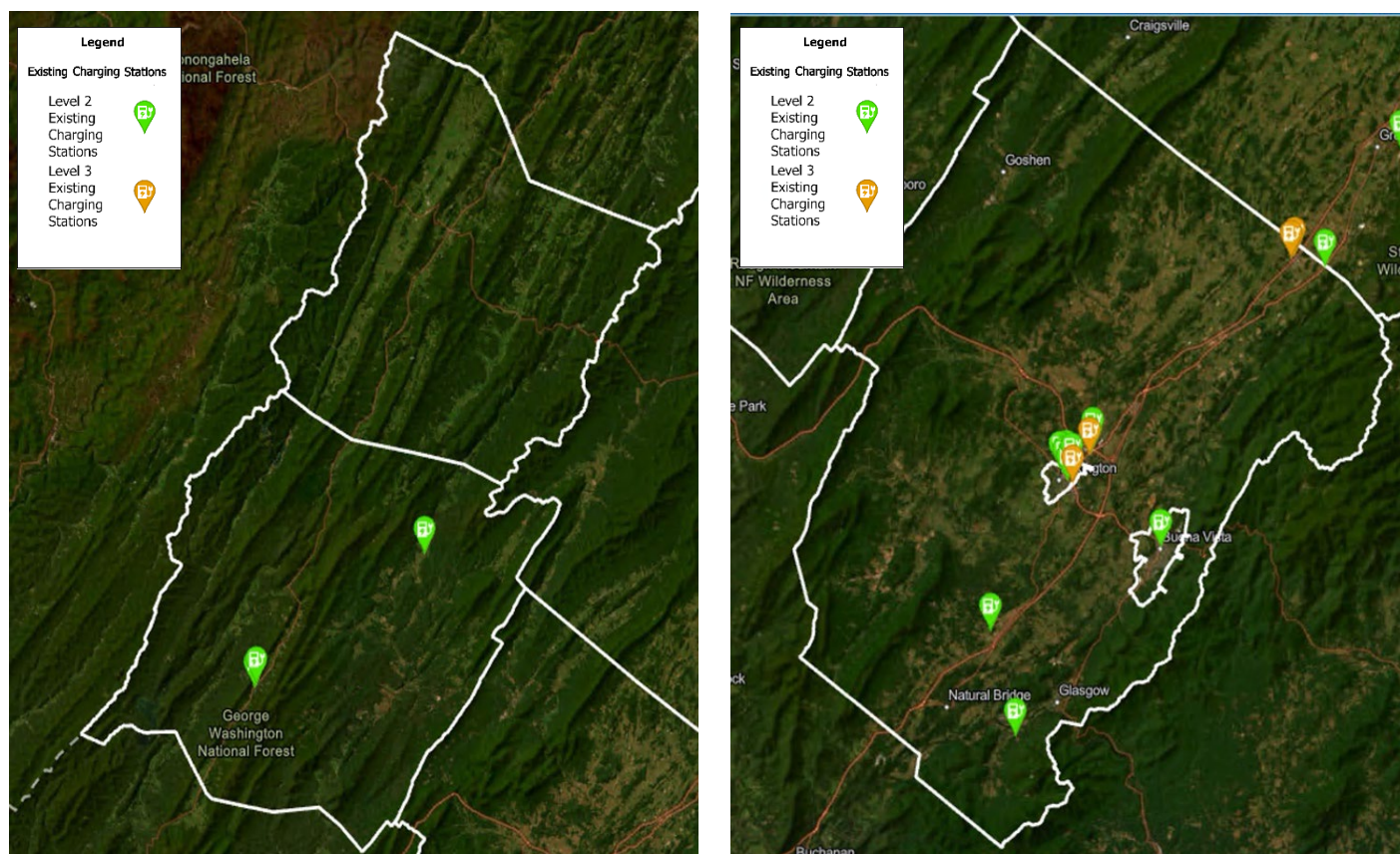
²⁰ See the [CSPDC Regional EV Charging Station Siting Analysis Map](#) to view existing station locations.

Existing EV Charging in the Rockbridge, Lexington, Bath, Highland, and Buena Vista Region

In the Rockbridge, Lexington, Bath, Highland, and Buena Vista sub-region, the current infrastructure offers 10 publicly accessible L2 ports and a notable 38 public DC Fast Charging (L3/DCFC) ports (see **Figures 12 and 13**). This high DCFC capacity is significantly bolstered by several NACS (Tesla-compatible) charging sites placed at hotels and Sheetz locations along major travel corridors.

While this robust DCFC network serves transient demand well, the 16 restricted L2 ports, located primarily at lodging facilities like The Omni Homestead Resort and various B&Bs, do little to alleviate broader public access concerns for L2 charging.

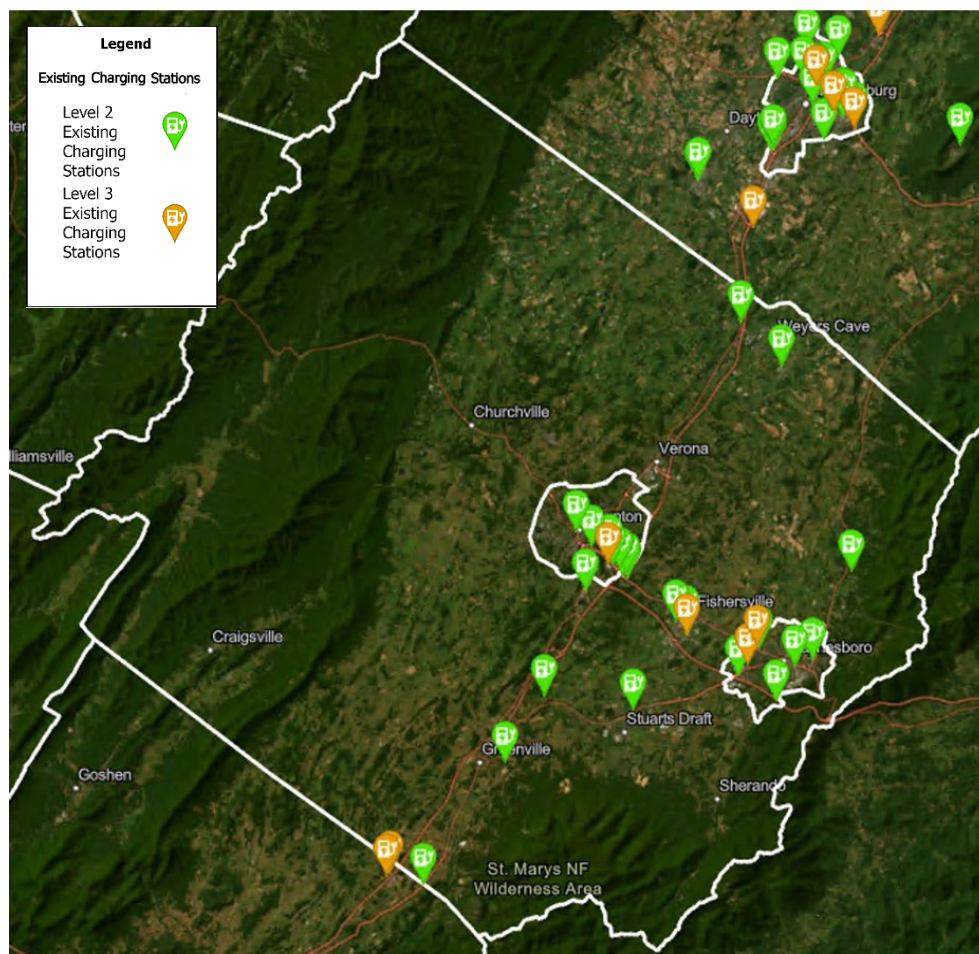
Figures 12 and 13. Existing Chargers in the Rockbridge, Lexington, Bath, Highland, and Buena Vista Region



Existing EV Charging in the Staunton, Augusta, and Waynesboro Region

The Staunton, Augusta, and Waynesboro (SAW) sub-region currently provides 24 publicly accessible L2 ports and 21 public DC Fast Charging (L3/DCFC) ports (see **Figure 14**). However, the actual available capacity is somewhat diminished by several chargers reported as temporarily unavailable, such as the Sleep Inn in Staunton. Public DCFC options include CCS/CHAdEMO sites like the Walmart Supercenter and the newly opened Rivian Adventure Network chargers in Waynesboro. The area's restricted infrastructure includes a "Tesla only" Supercharger site at the Staunton Sheetz, which limits its utility for the broader NACS-enabled EV fleet and accounts for the 8 restricted L3 ports.

Figure 14. Existing Chargers in the Staunton, Augusta, Waynesboro Region

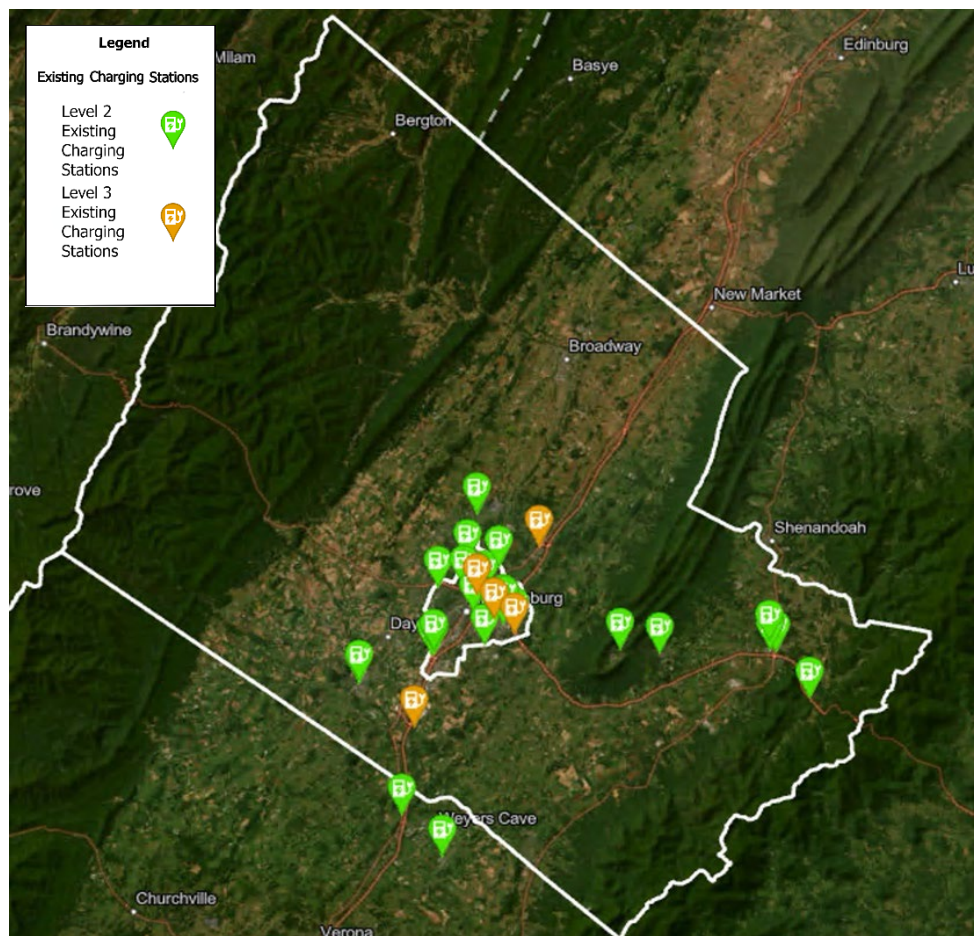


Existing EV Charging in the Harrisonburg and Rockingham Region

The Harrisonburg and Rockingham (HR) sub-region has the region's largest base of public charging, with 38 publicly accessible L2 ports and 34 public DC Fast Charging (L3/DCFC) ports (see **Figure 15**). Public L2 availability is well-distributed across various community points, including churches, university campuses, and local businesses. The DCFC capacity has been significantly enhanced by the recent completion of large installations at the Pilot

Travel Center and the new Buc-ee's in Mt. Crawford, solidifying this sub-region's role as a major corridor charging hub. However, challenges remain, such as infrequently functional L2 ports at the Elkton Community Center, which detract from the network's overall reliability.

Figure 15. Existing Chargers in the Harrisonburg and Rockingham Region



4.3 Regional EV Projections through 2035

Each of the ten localities has experienced growth in EV adoption since 2017, and projections indicate continued growth. Based on the trends in EV adoption thus far, and accounting for anticipated EV growth patterns, **Table 5** provides projections for EV adoption in the upcoming decade in the ten localities. Detailed projections that indicate a continued and significant increase in EV adoption across the entire CSPDC from 2025 through 2035. Region-wide, the number of electric vehicles is forecasted to increase from approximately 2,703 in 2025 to over 23,400 by 2035, representing a 12-fold expansion in EVs in just one decade. While the historical growth rate ranged between 30%-49% averaging 37.8% annually (2017-2024), these baseline business as usual future projections show a maturing market with a 24.1% CAGR through 2035, with annual growth rates expected to moderate from 42% in early years to 13% year over year growth by 2035.

Table 5. Projected Business as Usual Growth Number of Plug-in Electric Vehicles Registered in CSPDC Area by Locality (2025-2035)

Jurisdiction	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Augusta	656	928	1276	1666	2100	2589	3122	3681	4269	4889	5433
Bath	19	25	32	41	50	59	69	78	86	94	98
Buena Vista	12	17	22	27	33	40	46	52	57	62	65
Harrisonburg	450	646	895	1182	1513	1893	2312	2765	3253	3776	4330
Highland	9	12	16	20	25	30	34	39	43	47	49
Lexington	56	75	97	122	150	178	206	234	259	281	294
Rockbridge	139	187	243	306	376	446	516	584	647	703	736
Rockingham	852	1224	1695	2237	2864	3582	4376	5235	6158	7148	8196
Staunton	295	417	573	748	943	1163	1402	1653	1918	2196	2440
Waynesboro	215	304	418	545	687	848	1022	1205	1397	1600	1779
CSPDC Total	2703	3835	5267	6894	8741	10828	13105	15526	18087	20796	23420

This substantial growth in EVs is anticipated across all localities, though the distribution varies, see **Figure 16** and **Figure 17**.

- The Harrisonburg and Rockingham (HR) sub-region is projected to host the largest contingent of EVs, expecting to see its numbers climb from around 1,300 in 2025 to over 12,500, or 10.35% of on-road light duty vehicles in that sub-region by 2035.
- The Staunton, Augusta, and Waynesboro (SAW) sub-region is forecasted for considerable growth, expanding from roughly 1,160 EVs to over 9,600 – 8% of on-road light duty vehicles – between 2025 and 2035.
- While starting with a smaller base, the Rockbridge, Lexington, Buena Vista, Bath, and Highland sub-region is also expected to see its EV count grow substantially, from about 235 vehicles in 2025 to over 1,200 – 3.2% of light duty vehicles – on the road by 2035, demonstrating a consistent upward trend throughout all parts of the CSPDC.

Figure 16. Locality Business as Usual Number of Plug-in Electric Vehicles Registered in CSPDC Area by Locality (2017-2035)

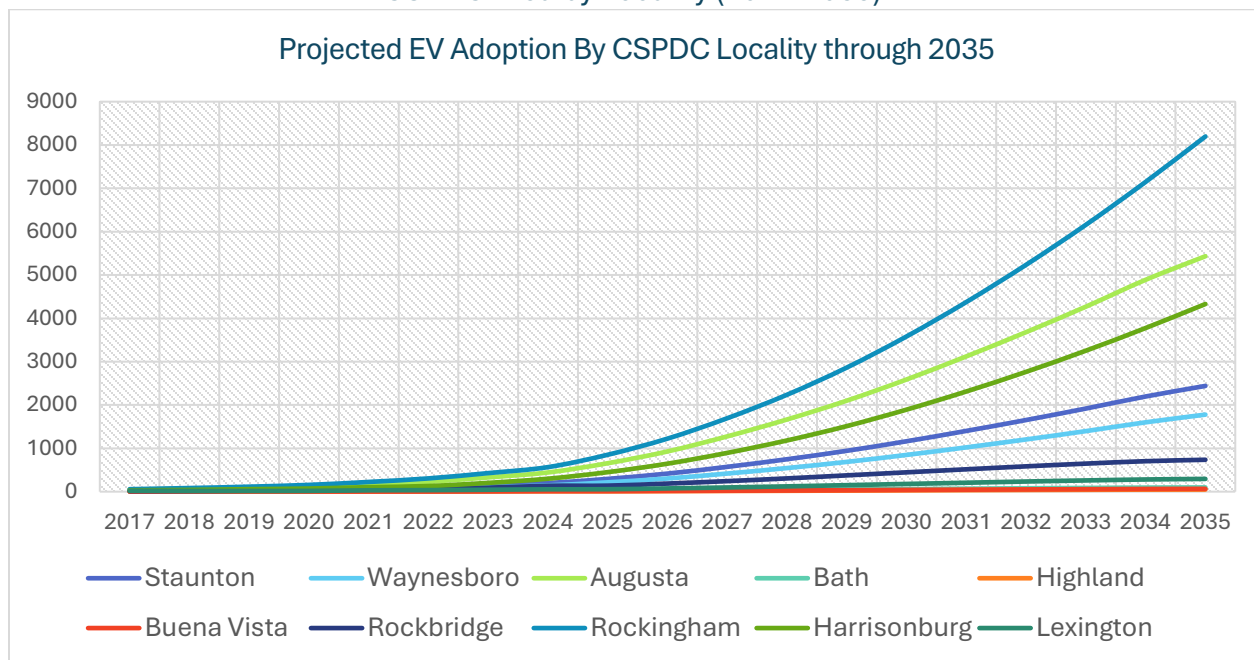
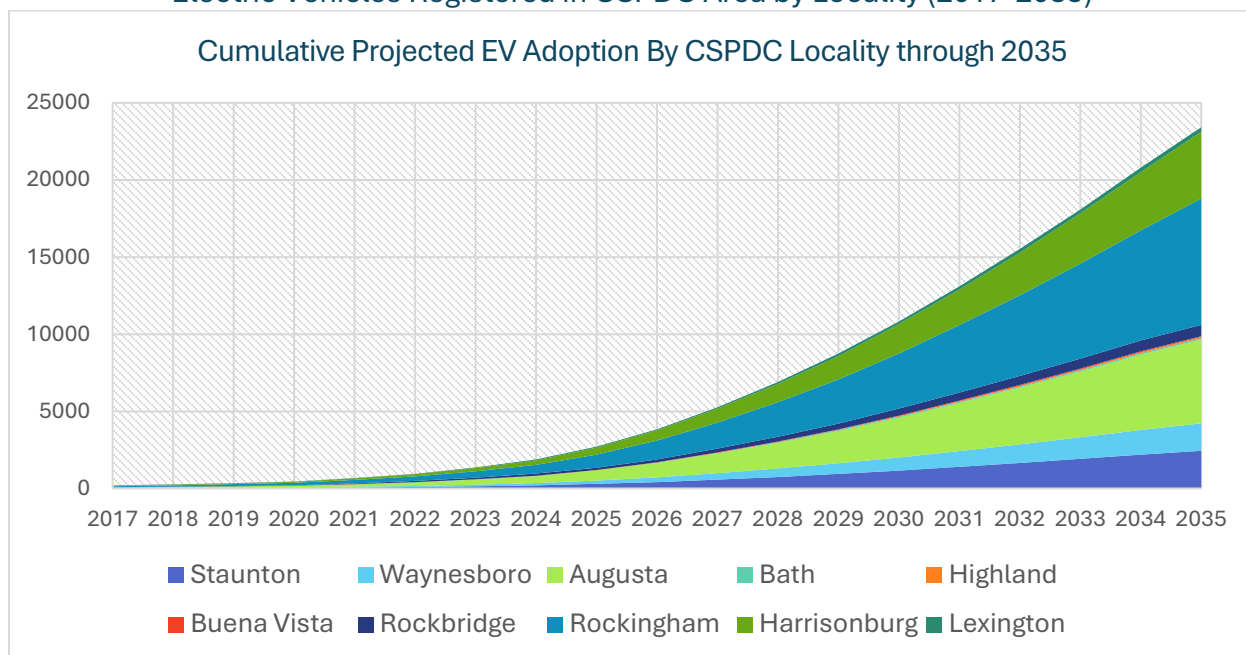


Figure 17. Cumulative Historic and Projected Business as Usual Number of Plug-in Electric Vehicles Registered in CSPDC Area by Locality (2017-2035)



The projection that EVs will constitute 8.55% of all vehicles on the road in the CSPDC and nearly 24% statewide in Virginia by 2035 is anchored in a comprehensive analysis of these trends and several key underlying assumptions, even when accounting for potential policy

changes. These projections consider a business-as-usual scenario for existing tariffs on imported EVs and components and anticipate the potential phase-out or modification of federal tax credits.

Despite these conservative policy assumptions, the forecast remains robust primarily due to the transformative impact of advancements in battery technology and significant cost reductions. The provided text notes that EV battery pack costs have decreased by over 82% between 2013 and 2023 and are anticipated to reach approximately \$70 per kilowatt-hour by 2030, if not the goal of \$60 set by the DOE. This significant decrease in battery costs will likely make EVs more cost-competitive with traditional internal combustion engine vehicles and enabling manufacturers to offer a wider variety of models with greater range.

Battery Technology Advancements Support Future Projections

Further bolstering these adoption projections are ongoing advancements in battery chemistry, such as lithium-iron-phosphate and sodium-ion, and the promising development of solid-state batteries, which are expected to offer enhanced stability, lighter weight, longer lifespans, and faster charging capabilities.

These technological leaps directly address key consumer concerns like range anxiety and charging convenience. While federal vehicle emissions standards set by the US EPA and NHTSA (i.e., Corporate Average Fuel Economy (CAFE)) encourage a shift toward electrification and state-level policies like California's Advanced Clean Cars II regulations (also adopted by several other states) provide additional impetus, the core momentum for achieving high adoption rates hinges on fundamental improvements in EV cost and performance that is driven by battery innovation. Even if some supportive policies are altered, the powerful combination of declining costs, improved technology, and growing consumer demand is expected to sustain a significant upward trend in EV sales and fleet penetration.

Such a substantial increase in the number of electric vehicles, scaling to 8.55% of the local vehicle fleet in the CSPDC, approaching a quarter of all vehicles in Virginia, and accounting for just over a quarter of all vehicles nationally (78.5 million²¹) by 2035, underscores the need to develop a comprehensive and accessible EV charging infrastructure. To support this transition and to ensure that driving range does not become a widespread barrier while providing the convenience necessary for widespread adoption, a significant and strategically planned expansion of L2 and DCFC stations across the region will position the area to meet the significant increase in regional EVs.

²¹Edison Electric Institute, November 2024, "Electric Vehicle Sales and the Charging Infrastructure Required Through 2035" <https://www.eei.org/-/media/Project/EEI/Documents/Issues-and-Policy/Electric-Transportation/EV-Forecast-Infrastructure-Report.pdf>

5. Future EV Charging Needs in the CSPDC Region

To project the future charging infrastructure needed to support the growing number of EVs in the CSPDC region, an analysis was conducted using EV charging projection tools from the U.S. Department of Energy's Electric Vehicle Infrastructure Projection Tool (EVI-Pro Lite). EV charging infrastructure (EVSE) needs are evaluated by Public L2 and L3 Public DCFC.²²

For the CSPDC, EVSE needs are evaluated primarily by Public L2 and L3 Public DC Fast Charging ports, with consideration for shared private charging solutions as well to support the approximately 23,420 EVs projected for the region by 2035.

The EVI-Pro family of tools typically uses a set of key variables to determine the amount of EVSE infrastructure required, including the number of EVs that need support, the anticipated vehicle mix of plug-in hybrid electric vehicles (PHEVs) and battery electric vehicles (BEVs), the level of charging support provided for PHEVs, and, critically, the percentage of EV drivers with access to home charging. The regional analysis incorporated specific local inputs, including an assumption that between 85% and 97% of EV drivers across the region have access to home charging. This high assumed rate of home charging access is a significant factor in modeling the remaining demand for public and shared private charging infrastructure.

The following EVI-Pro Lite assumptions were used for the regional EVSE needs assessment:

- Vehicle mix of:
 - PEV Sedans: 33%
 - PEV C/SUVs: 39%
 - PEV Pickups: 23%
 - PEV Vans: 5%
 - PHEV Share of PEVs: 33%
- Full support provided for PHEVs
- Percent of drivers with access to home charging: 85-97% by region

The inputs above were all default assumptions from EVI-Pro Lite, except for support provided for PHEVs and the percentage of drivers with access to home charging. EVI-Pro Lite assumes partial support for PHEVs and that 98% of EV drivers have access to home charging. The results from the CSPDC region EV projection scenarios were applied to the benchmark years 2035, 2040, 2045, and 2050 to determine the number of EVSE ports needed to be deployed in the region.²⁷

²² AFDC. EVI-Pro Lite Tool. Retrieved from: <https://afdc.energy.gov/evi-pro-lite>

5.1 Projected Demand

The results of this analysis indicate substantial EVSE needs for the CSPDC region by 2035. Approximately 680 public L2 ports are projected to be necessary to meet local charging demands. In addition, a total of around 140 public DCFC ports are anticipated: 60 of these DCFC ports are identified for community and ride-hail local charging needs, while an additional 80 DCFC ports are projected to be required along major corridors to support road trip travel.

The analysis also identifies a need for approximately 383 shared private L2 ports, predominantly at multi-unit dwellings and private workplaces. The EVI-Pro methodology further provides detailed sub-categorizations for these public chargers, allocating L2 ports across various common locations such as retail, recreation centers, healthcare facilities, neighborhoods, and offices, and categorizing DCFC ports by power level and use case like community or corridor charging.

Table 6. Projected EVSE Needs Comparison in the CSPDC Region between 2025 and 2035

Current EVSE v. Projection Need		2025	2035
EV Charging Needs (port count)	Public L2	72	680
	L3 Public DCFC	67	140
	Total (port count)	139	820
EVs to Support		1,880	23,420

With approximately 72 existing publicly accessible L2 ports and 67 public DCFC ports currently in the CSPDC region, the projected needs for 2035 represent a significant required expansion. Public L2 infrastructure would need to increase by nearly tenfold, while the public DCFC network would need to more than double to meet the combined local and road trip demand. Overall, this translates to a requirement for almost six times the current total number of public charging ports. This considerable buildout is essential to adequately support the substantial EV uptake anticipated regionally, an uptake that mirrors robust growth trends observed statewide in Virginia and across the nation.

Given the high assumed prevalence of home charging (85-97%) in this analysis, the continued substantial projected need for public and shared private infrastructure underscores the multifaceted charging solutions required to support all EV drivers, particularly those without consistent home charging options and for charging away from home.

6. CSPDC Regional Electric Vehicle Charging Site Analysis

The EV Charging Site Analysis project identification prioritization methodology is based on 1) Location Types and 2) Site Identification Factors, which are detailed below.

6.1 Location Types

The location of public chargers affects usage, cost-effectiveness, and ability to provide a return on investment. High-traffic public properties like public libraries, government buildings, local parks, and more can utilize existing parking capacity to increase access to EV charging infrastructure. Partners with diverse locations (i.e., schools, retail businesses, major employers) should be identified and engaged as potential site hosts as well.

Recommended priority location types for EV charging sites include transportation hubs, community sites, businesses and institutions, public lands, and tourist destinations. Each location type is detailed below.

Transit and Transportation Hubs

Parking lots and structures nearby public transit stops, such as Virginia Breeze Bus Lines locations or local bus transfer centers in Harrisonburg, Staunton, and Waynesboro, should be considered as potential EVSE sites. This also includes areas near the Staunton Amtrak Station, the existing chargers at the Shenandoah Valley Regional Airport (SHD), and key park-and-ride facilities that overlap with other highly trafficked locations such as Staunton's Lewis Street Hub and Staunton Crossing

Figure 18. Shenandoah Valley Airport Charging
Source: SHD Airport – flyshd.com



Community Centers and Public Libraries

Community sites such as public libraries and community centers are spread across member jurisdictions and often already provide amenities like restrooms and public accessibility. Library systems throughout the CSPDC region offer consistent amenities, extended operating hours, and serve diverse community demographics, making them ideal charging hosts. These locations typically feature adequate parking, restroom facilities, and WiFi access that complement the charging experience.

Municipal and Government Facilities

Government properties serve dual functions as workplace charging for public employees and demonstration sites for community members. These locations benefit from existing

electrical infrastructure, security, and public visibility that builds confidence in charging technology (see **Figure 19**).

Figure 19. Conceptual Rendering of Timberville Town Office EV Charger

Source: CSPDC Internal Rendering via SketchUp



Tourism Destinations and Public Lands

EV charging stations at local and state parks (e.g., Natural Bridge State Park, Grand Cavern in **Figure 20**), access points to national forests like the George Washington & Jefferson National Forests, or popular tourism destinations like parts of the Blue Ridge Parkway or near Shenandoah National Park, can promote EV adoption and greater use of these green spaces. Likewise, other, non-public land tourist destinations within the CSPDC region often experience higher traffic and longer dwell times, making them suitable locations for EV charging stations.

Examples include the Frontier Culture Museum, American Shakespeare Center, Woodrow Wilson Presidential Library, historic downtowns like Lexington, popular caverns, ski resorts like Massanutten, and the numerous wineries and breweries in the area.

Figure 20. Conceptual Rendering of Natural Bridge EV Charger

Source: CSPDC Internal Rendering via Adobe Photoshop



Community Parks and Recreation Areas

Public parks and recreational facilities provide natural destinations where vehicles remain parked for extended periods, making them well-suited for L2 charging infrastructure (see **Figure 21**). These locations often feature existing electrical service for maintenance buildings and lighting systems.

Figure 21. Conceptual Rendering of Dayton's Dove Park EV Charger

Source: CSPDC Internal Rendering via Adobe Photoshop



Historic Districts and Downtown Main Streets

Historic main street areas throughout the CSPDC region offer charging opportunities that support local business districts while providing convenient access for residents and tourists (see **Figure 22**). These locations require careful design integration to maintain historic character while providing modern amenities.

Figure 22. Conceptual Rendering of Bath County's Warm Springs Downtown EV Charger

Source: CSPDC Internal Rendering via Adobe Photoshop



Publicly Serving Private Entities & Institutions

Siting EV infrastructure at high-traffic destinations like educational institutions (e.g., James Madison University, Eastern Mennonite University, Mary Baldwin University, Washington and Lee University, Virginia Military Institute, Blue Ridge Community College), healthcare facilities (e.g., Augusta Health, Sentara RMH Medical Center), along with the growth in chargers in the private market for gas stations, grocery stores, restaurants, and shopping centers with existing parking capacity makes them easily accessible to drivers.

Charging stations at already frequented businesses and institutions allow drivers to incorporate charging into their existing driving patterns. Examples also include hotels, cultural centers, and major employers throughout the region.

Figure 23. Conceptual Rendering of Highland County Library EV Charger

Source: CSPDC Internal Rendering via SketchUp



6.2 Site Identification Factors

Prioritizing potential site locations can depend on a range of factors. Best practices for CSPDC member jurisdictions to consider are listed below.

Traffic Patterns

Siting an EV charging station in a highly trafficked area will increase utilization and maximize station owner investments.

Dwell Time

How long a driver spends at any given location will contribute to the duration of the charging session. For example, charging stations located near major corridors like I-81 or I-64 should consider DCFC, as drivers may only intend to make a quick stop. Most other destinations where drivers may park for hours at a time, like shopping centers and workplaces, should consider installing L2 chargers.

Electrical Capacity

Contact your local utility (such as Dominion Energy, Shenandoah Valley Electric Cooperative (SVEC), or BARC Electric Cooperative) to evaluate whether there is sufficient existing capacity to support EV charging infrastructure or if infrastructure upgrades are needed.

Parking Capacity

Ensuring that there is sufficient parking capacity before dedicating EV-specific parking spaces mitigates potential tension between EV and gas car drivers over parking designations.

Existing EV infrastructure

Siting new EV infrastructure to fill gaps in the regional charging network is important to build drivers' confidence in being able to charge their vehicle no matter where they are in the CSPDC region and minimize potential "range anxiety". Resource: AFDC Station Locator.

Proximity to Public Transportation and Travel Corridors

Maximize public investments in shared mobility by siting EVSE near bus routes or train stations. Siting EVSE by highly trafficked travel corridors like I-81, I-64, and primary U.S. routes reduces range anxiety for drivers that travel along such corridors.

Near Multifamily Housing

Most EV drivers charge at home or at work, but barriers to installing EV charging at multifamily housing make it difficult for residents to consider an EV as their next vehicle. By siting public charging nearby, there would be increased access to EV charging for all residents of nearby multifamily housing developments. These sites are more likely to have higher utilization, as drivers may use nearby public stations as a replacement for at-home charging.

Amenities

Access to typical amenities like bathrooms and food should be considered. Sufficient lighting to alleviate safety concerns with charging overnight is another best practice. Some other important factors to consider include power availability, proximity to amenities, visibility, and construction costs.

6.3 Site Identification and Prioritization Criteria

The CSPDC identified and categorized 117 potential sites for EVSE across the Central Shenandoah Region based on the Location Type and the Site Identification Factors. The identification and categorization process utilized a comprehensive set of criteria, each with a specific purpose and definition, to assess the suitability of each location. The four criteria include: 1) Demand and Usage Assessment; 2) Electrical Infrastructure Assessment; 3) Site Characteristics and User Experience; 4) Strategic and Community Impact Assessment (see **Table 7**).

Table 7. Site Identification and Prioritization Criteria

Factor	Description
1. Demand & Usage Assessment	
Estimated Demand (1,2,3)	This criterion gauges potential charger usage, defined as (1) deeply rural/underutilized frequently, (2) utilized during high demand times, or (3) utilized frequently year-round. Its purpose is to help predict the site's impact and potential for consistent use.
2. Electrical Infrastructure Assessment	
Existing Capacity for Phase III / DCFC (0,1)	This is an inferred assessment (0 = likely requires transformer upgrade for DCFC; 1 = less likely to require a major transformer upgrade). Its purpose is to provide an initial understanding of a site's readiness for high-power DC Fast Chargers and flag potentially high infrastructure costs. It is crucial to note that this assessment is an inference based on publicly available information and observations (e.g., via Google Maps) and requires verification with the utility provider (e.g., Dominion Energy) before any deployment.
Proximate to Electric Panel (0,1)	Based on visual estimation from tools like Google Maps (0 = likely far/complex for L2 installation; 1 = likely close/simple), this criterion helps estimate the potential ease and cost associated with L2 charger installations.
3. Site Characteristics & User Experience	
Close to Pedestrian Infrastructure (0,1)	Defined as (0) no sidewalks/bike paths nearby or (1) yes, such infrastructure is present. The purpose is to evaluate user safety and convenience for accessing nearby amenities while a vehicle charges.
Local Amenities (bathrooms, restaurants, activities) within walking distance (0,1)	Assesses whether (0) no/few amenities or (1) a good availability of amenities exist within approximately 0.25-0.5 miles. This enhances the driver's experience by providing access to useful facilities.
Ample parking capacity (1,2,3)	Defined as (1) not enough current spaces, (2) potential strain at peak times but generally okay, or (3) always enough parking. This ensures sufficient space for dedicated EV charging spots without negatively impacting existing parking needs.

Factor	Description
4. Strategic & Community Impact Assessment	
Meeting Charging Gap/Near L2 Chargers (0,1)	Indicates whether (0) L2 chargers are already nearby or (1) the site fills a gap where L2 chargers are not readily available. This helps prioritize locations that expand the existing charging network into underserved areas.
Proximity to Corridor of Statewide Significance (0,1)	Notes if a site is (0) not directly on or (1) directly on a major state corridor (specifically US-220, I-64, I-81, US-11, US-250). This aligns site selection with support for long-distance EV travel.
Near Library (0.5mi) (0,1)	Identifies if a site is (0) not near or (1) near (within 0.5 miles) a public library, recognizing libraries as community hubs with potential for longer dwell times suitable for charging.
Near (0.25mi) multifamily housing without existing charging (0,1)	Assesses if a site is (0) not near or (1) near (within 0.25 miles) multifamily housing units (which are generally assumed to lack dedicated charging). This addresses equitable access for residents without home charging options.
Near (0.5mi) trailhead (0,1)	Indicates if a site is (0) not near or (1) near (within 0.5 miles) a trailhead, aiming to serve recreational EV users.
Near (0.25mi) transit stop (0,1)	Notes if a site is (0) not near or (1) near (within 0.25 miles) a public transit stop, supporting multi-modal transport and providing charging at community congregation points.

6.4 Regional Distribution of Proposed Charging Sites

The 117 proposed charging sites are strategically distributed across the CSPDC region's three sub-areas to address both local charging needs and regional corridor connectivity (see **Figure 24**). The Staunton-Augusta-Waynesboro region contains the highest concentration with 47 proposed sites as a primary transportation hub along Interstates 64 and 81. Augusta County and Staunton each host 21 locations, providing comprehensive coverage for residents, businesses, and travelers, while Waynesboro contributes 4 additional sites and 1 shared boundary location.

The Harrisonburg-Rockingham region accounts for 46 proposed sites, with Harrisonburg's 14 locations serving the university community and regional employment centers, while the remaining 32 sites are distributed throughout Rockingham County and its towns including Dayton, Bridgewater, Grottoes, Timberville, Broadway, Elkton, and Mt. Crawford to ensure rural accessibility.

The Rockbridge-Lexington-Bath-Highland-Buena Vista region, despite its more rural character, includes 24 thoughtfully placed sites with Highland County's 6 locations addressing tourism needs along scenic routes, while Lexington, Rockbridge County, Bath County, Buena Vista, Glasgow, West Augusta, and Goshen provide essential charging infrastructure for residents and visitors to historic and recreational destinations.

This distribution strategy reflects both population density patterns and regional travel characteristics while ensuring that no area lacks adequate charging access. As illustrated in **Figure 24**, the proposed charging sites create comprehensive coverage across all three CSPDC sub-regions, with the highest concentration of sites clustered around the Staunton-Augusta-Waynesboro and Harrisonburg-Rockingham population centers while ensuring rural connectivity throughout the region. You can review the [CSPDC Regional EV Charging Station Siting Analysis Map](#) to view all proposed public station locations.

Legend

Proposed Charging Sites	Existing Charging Stations
Top Site for Each Locality	Level 2 Existing Charging Stations
High Scoring Site	Level 3 Existing Charging Stations
Other Proposed Sites	

The map displays the Shenandoah National Park area, showing proposed and existing charging sites. The legend indicates that blue squares represent the top site for each locality, purple squares represent high-scoring sites, and red squares represent other proposed sites. Green pins represent Level 2 existing charging stations, and orange pins represent Level 3 existing charging stations. The map includes various geographical labels such as Dryden, Harman, Seneca Rocks, Upper Tract, Miam, Barton, Lost City, New Market, Shenandoah, Overland, Crozet, University, Charlottesville, Albemarle, Amherst, Wingo, Virginia, and Richmond. It also shows various parks and forests, including Monongahela National Forest, Seneca State Forest, George Washington National Forest, Rough Mountain NP Wilderness Area, and St. Marys NP Wilderness Area. A north arrow is located in the bottom left corner.

Locality Priority Site Cutsheets

📍

SITE PROFILE

Address: 6477 S Lee Hwy, Natural Bridge, VA

Site Type: Major State Park & Tourist Attraction

Score: 11/16



EV CHARGING SUITABILITY

As a premier tourist destination for the state, Natural Bridge State Park is the top-ranked site for unincorporated Rockbridge County. The high volume of daily visitors and their long dwell times (typically 2-4 hours) create ideal conditions for both Level 2 destination charging and potentially DC Fast Charging to serve park visitors and travelers on the I-81/US-11 corridor.

Scoring Strengths:

- High Estimated Demand (Score: 3/3)
- Serves as a major Trailhead & Tourism hub

⚙️ IMPLEMENTATION CONSIDERATIONS

- Requires close partnership with the Virginia Department of Conservation and Recreation (DCR)
- The park's visitor center is a large commercial facility. A consultation with Dominion Energy is needed, but the site is more promising for higher-power installations than a smaller park
- The park has large lots. Chargers should be placed in a visible, convenient location likely near the visitor center entrance without disrupting bus/RV parking.



LOCALITY NOTES

- Rockbridge County's strategy should focus on its two main assets: the tourism hubs of Lexington and Natural Bridge.
- While Lexington covers downtown needs, Natural Bridge covers corridor and destination-recreation needs. Filling these two nodes creates a powerful draw for EV-driving tourists.
- The county's rural sites, like Goshen, are secondary but important for recreational gap-filling.

CITY OF LEXINGTON | MCCRUM'S LOT



SITE PROFILE

Address: S Jefferson St, Lexington, VA 24450
Site Type: Downtown Public Parking Lot
Score: 12/16



EV CHARGING SUITABILITY

Four sites in Lexington tied for the top score, but McCrum's Lot is selected because it functions as a central parking hub serving all of downtown's attractions. Its role as a primary visitor parking area makes it the most strategic location for public Level 2 chargers, providing convenient access for tourists and shoppers with multi-hour dwell times

Scoring Strengths:

- High Estimated Demand
- Excellent Proximity to all Downtown Amenities



IMPLEMENTATION CONSIDERATIONS

- As an established public lot near commercial buildings, L2 installation is highly feasible, but a consultation with Dominion Energy is required to assess service needs
- This is a high-demand lot. Charger placement should be in highly visible, but not prime, spaces to minimize conflict
- This is a city-owned lot, requiring collaboration with the City of Lexington's Public Works or management authority.



LOCALITY NOTES

- Thanks to the available DCFC capacity at the major I-81/I-64 interchange and surrounding exits (Exit 188/191), Lexington and main interchanges to the city from Rockbridge are fairly robust.
- Lexington’s focus should be on supporting its tourism economy and securing reliable public charging in the downtown core is paramount, along with coordination with university partners at W&L and VMI
- Concurrent with establishing a strong downtown presence, the City should continue to evaluate public charging access for City owned chargers for City vehicles as fleet electrification continues to progress

📍

SITE PROFILE

Address: 2039 Sycamore Ave, Buena Vista, VA

Site Type: Municipal Government

Score: 11/16



EV CHARGING SUITABILITY

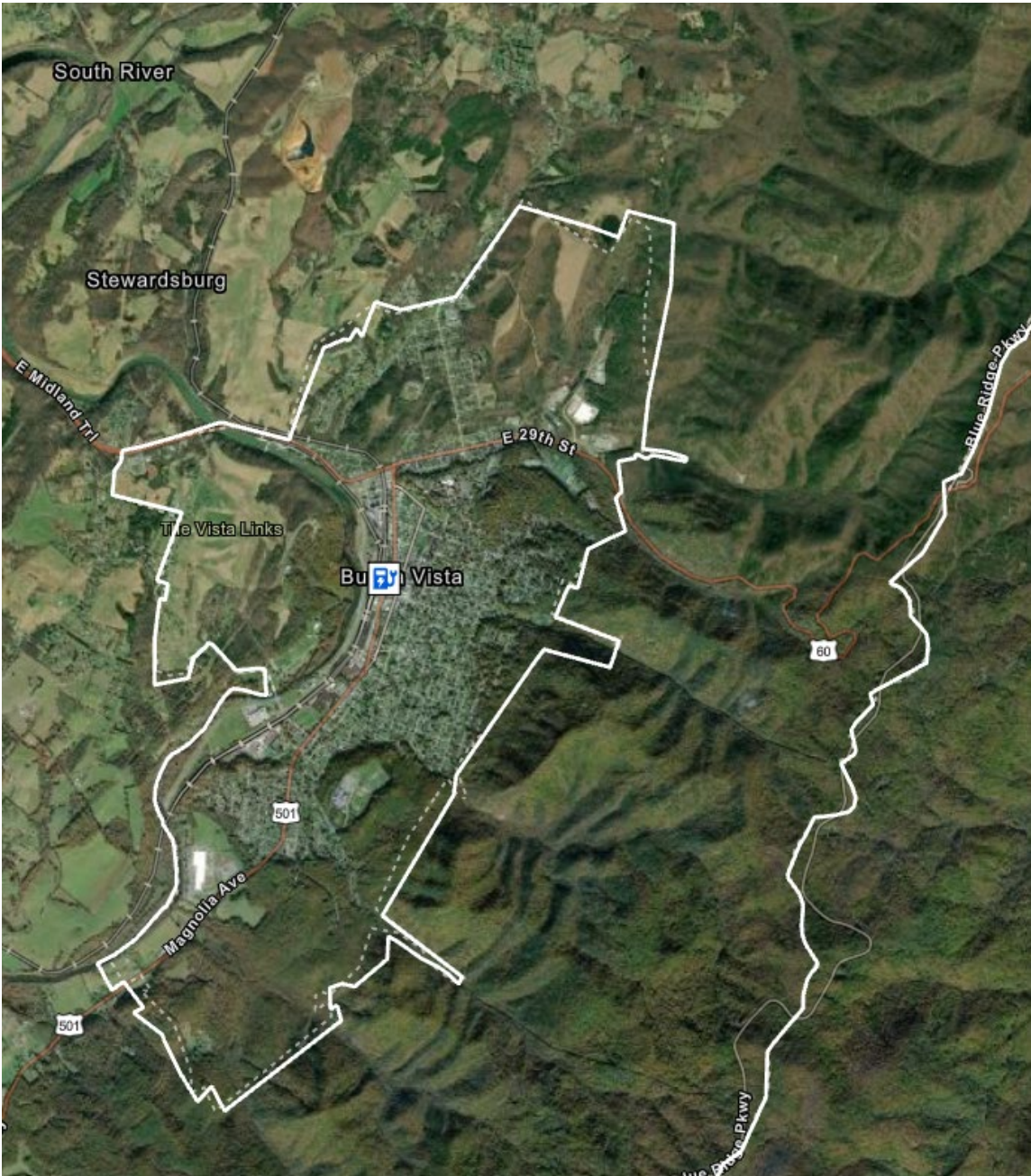
Tying with the City Library for the top score, City Hall is recommended as the priority site. It serves as a central, trusted public location for residents conducting official business and offers the unique potential to support the future electrification of the city's vehicle fleet. It is well-suited for public Level 2 chargers

Scoring Strengths:

- Fills a local Charging Gap
 - High Proximity to Local Amenities & Library
 - Located near Multifamily Housing & Transit Stop
- ⚙️ Potential for municipal fleet integration

IMPLEMENTATION CONSIDERATIONS

- A consultation with Dominion Energy is needed. As a municipal building, it may have more robust pricing service than surrounding commercial properties.
- Likewise, the City must ensure pricing will be thoughtfully coordinated with the existing pricing at the Charger at the Magnolia St. Lot sufficient that decisions made do not undercut agreements with Greenspot
- The city should decide if chargers will be exclusively public or if some will be designated for municipal fleet vehicles, which could impact placement and networking choices.



LOCALITY NOTES

- Buena Vista already has a foundation of public charging at the Magnolia Street lot with turnkey service provided by Greenspot
- Adding chargers at City Hall strengthens the downtown network and ensures municipal future proofing in the case of fleet electrification.
- Additional downtown chargers help ensure charging reliability and expand options to serve residents without home charging access.

📍

SITE PROFILE

Address: 140 Main St, Goshen, VA 24439

Site Type: Public Library

Score: 6/16



EV CHARGING SUITABILITY

As the primary public facility in town, the Goshen Public Library is the top site to establish a “lifeline” charger in this remote rural community. It fills a critical charging desert and serves as an important gateway for recreational visitors heading to Goshen Pass. A single dual-port Level 2 charger here would be a significant asset for the region

Scoring Strengths:

- Fills a Critical Charging Gap and Provides essential access in a remote area
- Is a trusted, public community hub

⚙️

IMPLEMENTATION CONSIDERATIONS

- Electrical hookup capacity is the most significant hurdle. A utility consultation with BARC Electric Cooperative is essential to determine if the library’s electrical service can support an L2 charger without cost-prohibitive upgrades.
- Given a lower potential for revenue, this project would likely be best supported by grant funding from programs such as Virginia Clean Cities’ Rural Reimagined program for free charger and low cost or free installation



LOCALITY NOTES

- The goal for Goshen is not high utilization, but access assurance
- Having a reliable charger here gives EV drivers the confidence to travel to and through this scenic but remote part of Rockbridge County
- The high rate of incident, combined with two recent fatalities, could serve to extend similar improvements to this section of Route 42, which has the same ADT (3,200) as Route 254

📍

SITE PROFILE

Address: 68 W Main St, Monterey, VA

Site Type: Historic Inn / Lodging

Score: 14/16



EV CHARGING SUITABILITY

For a remote, tourism-focused locality like Highland County, providing destination charging is essential. The historic Highland Inn is the top-ranked site because it directly supports the visitor economy. An EV driver is far more likely to stay overnight and spend money locally if they can charge their vehicle. This site fills a critical charging desert on a statewide corridor and is ideal for Level 2 destination chargers with the potential for DCFC charging elsewhere in the Town

Scoring Strengths:

- Fills a Critical Charging Gap with high demand from overnight tourists
- On a Corridor of Statewide Significance (US-250/220)

⚙️ IMPLEMENTATION CONSIDERATIONS

- This project requires a strong public-private partnership between the locality/PDC and the private owners of both the Monterey and Highland Inn.
- A utility consultation with SVEC Electric Cooperative is the first step. The capacity of the grid in downtown Monterey is a primary consideration, especially if DCFC is of interest
- Any agreement should clearly define if the chargers are for guests only or if they will be available to the general public, and what the associated costs will be.



LOCALITY NOTES

- All potential sites in Highland County are high priority due to the lack of existing infrastructure
- Establishing even a single reliable public L2 charger in Monterey would be a significant achievement and would immediately place the town on the map for EV drivers traveling scenic routes.
- Given Monterey's central location at the crossroads of US 220 and US 250, DCFC charging would be a significant boon and attraction for travelers both in state to the east and south, along with interstate travelers from West Virginia

BATH COUNTY | HOT SPRINGS USPS



SITE PROFILE

Address: 97 OLD MILL RD WARM SPRINGS, VA 24484
Site Type: Post Office
Score: 7/16



EV CHARGING SUITABILITY

As the highest-scoring potential public site in the county, the Hot Springs Post Office represents a key opportunity to establish a foothold for public EV charging. Its central location in the resort village on the US-220 corridor makes it the most strategic choice for a public Level 2 charger to serve residents and provide an essential option for tourists not staying at a resort with dedicated charging.

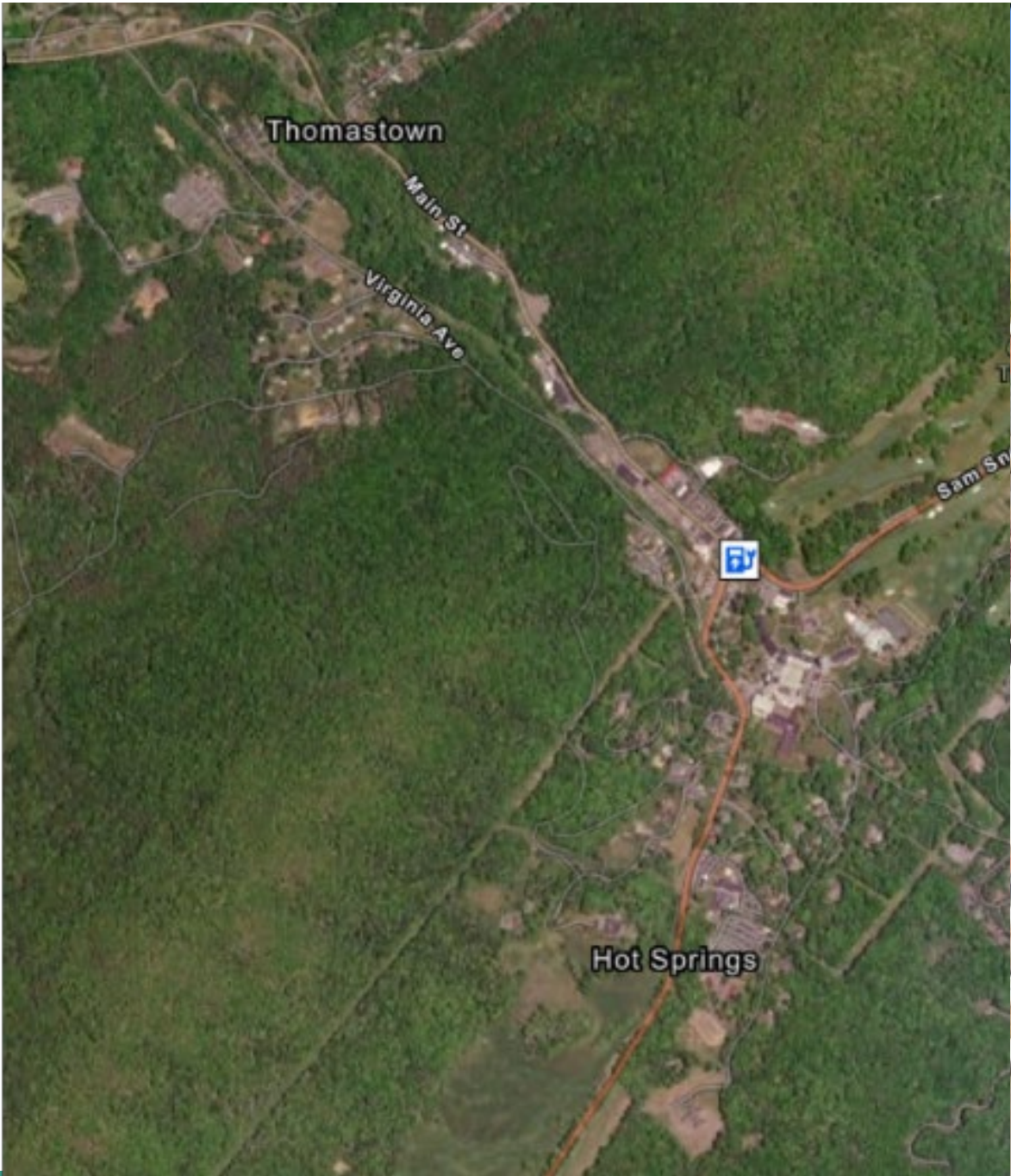
Scoring Strengths:

- Fills a Publicly Accessible Charging Gap
- On a Corridor of Statewide Significance (US-220)
- Proximity to Local Amenities (Walkable to village shops/eateries)



IMPLEMENTATION CONSIDERATIONS

- As this is federal property, installation would require a formal agreement with the U.S. Postal Service. Alternatively, the charger could be sited on adjacent public right-of-way.
- The USPS has very limited parking. This project may only be feasible for a single port, or it might require using adjacent street parking.
- A utility consultation with BARC Electric Cooperative is essential to determine service capacity in the village.



LOCALITY NOTES

- Bath County is a charging desert for public access.
- The top priority is establishing at least one reliable public charger in Hot Springs.
- A secondary, but highly impactful, goal would be to partner with The Omni Homestead Resort to make some of their destination chargers available to the public for a fee, greatly expanding options.

CITY OF STAUNTON | GYPSY HILL PARK



SITE PROFILE

Address: 600 Churchville Avenue, Staunton, VA

Site Type: Major City Park & Recreational Hub

Score: 14/16



EV CHARGING SUITABILITY

As Staunton's premier community gathering space, Gypsy Hill Park is an ideal location to serve a diverse cross-section of EV drivers. High, consistent traffic is generated by the golf course, public pool, sports leagues, concerts, and general recreational use. The longer dwell times associated with these activities are perfectly suited for Level 2 charging

Scoring Strengths:

- High Estimated Demand
- Excellent Proximity to Local Amenities (Pool, Golf, Trails)
- Near Multifamily Housing & Transit Stop

IMPLEMENTATION CONSIDERATIONS

- A thorough assessment with Dominion Energy is needed to find the most cost-effective connection point. Power may need to be run from existing facilities like the pool house or bandstand to desired parking areas
- Placement should be strategic to serve multiple park venues (e.g., near the pool lot or main bandstand parking) without displacing parking for major events.
- Requires close collaboration with the City of Staunton's Parks & Recreation Department for siting and installation approvals.



LOCALITY NOTES

- Staunton's strategy should focus on its strengths: tourism and downtown density. The numerous downtown garages and lots are excellent candidates.
- A key short-term action should be to work with the site host at the L3 Charger for the Mill Street Parking Lot to diagnose and bring their six existing but non-functional public chargers back online, which would immediately and drastically improve the city's network.

AUGUSTA COUNTY | AUGUSTA COUNTY GOVERNMENTAL CENTER



SITE PROFILE

Address: 18 Gov Center Ln, Verona, VA
Site Type: County Government Complex
Score: 15/16



EV CHARGING SUITABILITY

Achieving the highest score in the entire regional analysis, the Augusta County Government Center is a prime strategic location. It combines high year-round demand from employees and the public with proximity to a major interstate corridor (I-81). This site is ideal for a hybrid installation of public Level 2 chargers for employees/visitors and public DC Fast Chargers to serve highway travelers, similar to Albemarle County Governmental Center

Scoring Strengths:

- High Estimated Demand
- Direct Proximity to a Corridor of Statewide Significance
- Transit Stop, Nearby Library, and Downtown Verona



IMPLEMENTATION CONSIDERATIONS

- Coordinate with Dominion Energy and SVEC. The presence of multiple large government buildings and proximity to commercial plazas suggests robust infrastructure may be available, making DCFC installation more feasible than at other sites.
- The site offers an opportunity to co-locate public chargers with dedicated chargers for any future fleet electrification of the county's vehicle fleet



LOCALITY NOTES

- Augusta County's strategy should leverage its major transportation corridors of I-81 / US – 11 along with I-64 / US – 250 .
- While new planned NEVI-funded Wawa Level 3 chargers in Fishersville will create major DCFC hubs, the county's opportunity lies in supplementing these with public L2 charging at key community points (like Verona and Fishersville) and filling rural gaps (like Stuarts Draft, Craigsville, and Churchville).

📍

SITE PROFILE

Address: 648 S Wayne Ave, Waynesboro, VA

Site Type: Joint Community Facility
(Recreation & Library)

Score: 13/16



EV CHARGING SUITABILITY

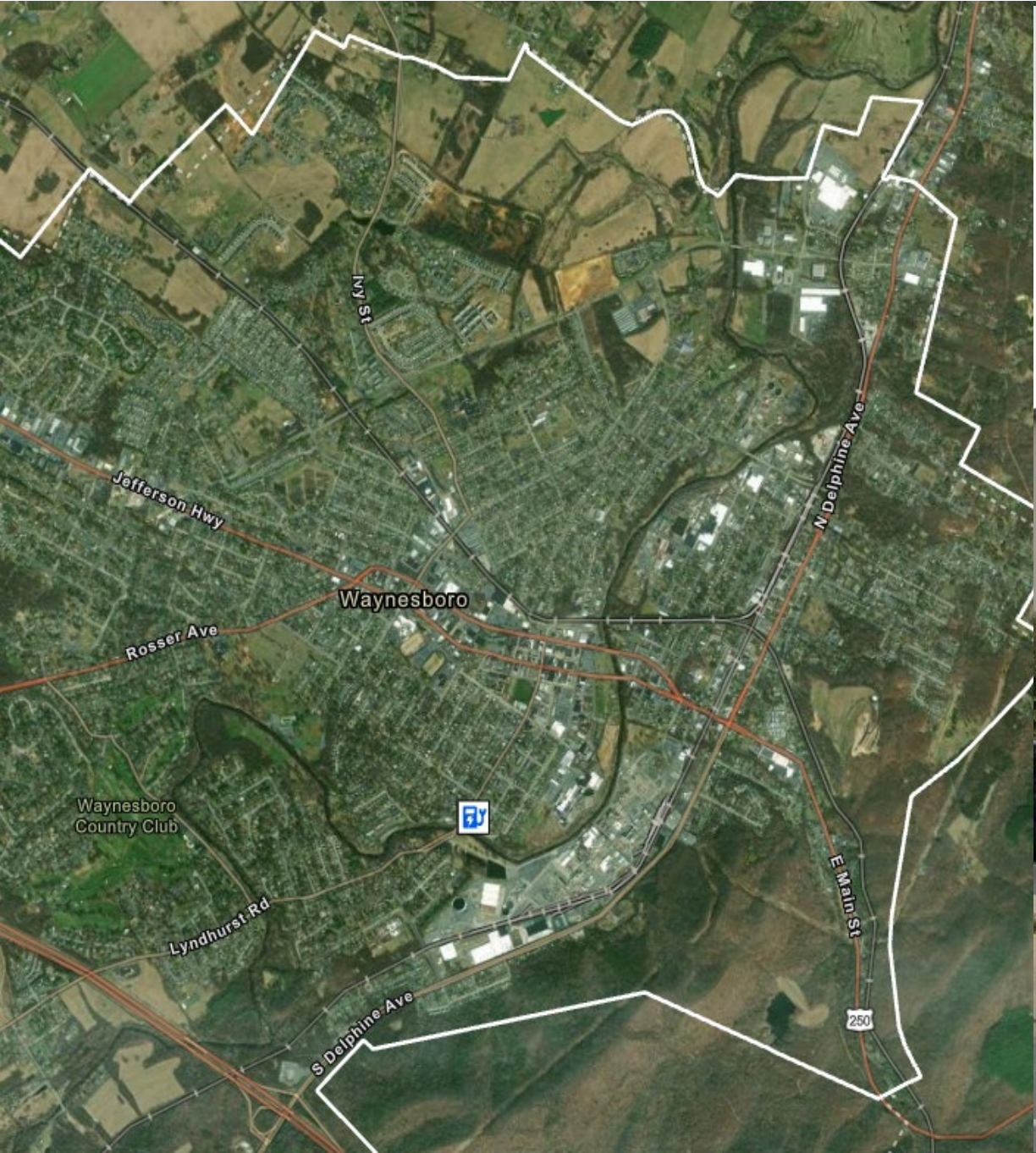
This co-located facility is the highest-scoring site in Waynesboro because it is a high-traffic destination for two distinct user groups—YMCA members and library patrons—guaranteeing frequent, year-round demand. Its prime location directly on the South River Greenway makes it perfect for Level 2 charging, serving residents engaged in multi-hour recreational or community activities.

Scoring Strengths:

- High Estimated Demand
- Direct access to Trailhead (South River Greenway)
- Near Library, Transit Stop, and Multifamily Housing

⚙️ IMPLEMENTATION CONSIDERATIONS

- As a modern building, it likely has sufficient panel capacity for Level 2 chargers. A consultation with Dominion Energy would confirm service needs
- The shared parking lot is very busy. Charger placement should be highly visible but located in spots that minimize disruption to the high-turnover traffic near the main entrance
- Requires coordination between the City, the YMCA board, and the Library system



LOCALITY NOTES

- Waynesboro's opportunity lies in leveraging its downtown walkability and the South River Greenway to continue to build a set of "EV tourists" to downtown, as has already been initiated with the Mission Coffee site
- Creating a seamless charging experience that connects recreational assets like the Greenway to downtown businesses should be a priority.

📍

SITE PROFILE

Address: 1 Ruritan Rd, Mt Crawford, VA 22841

Site Type: Community Hall, Park

Score: 7/16



EV CHARGING SUITABILITY

Tied for the top score, the Ruritan Hall/Park is recommended because it serves a broader community function than the municipal building, hosting events and recreation that lead to longer dwell times. Its location directly on US-11 makes it a strategic spot to capture pass-through traffic in addition to serving residents. It is a good candidate for a foundational Level 2 charger.

Scoring Strengths:

- Fills a Critical Charging Gap
- Serves community events with long dwell times
- On US-11 – Statewide Significant Corridor

⚙️ IMPLEMENTATION CONSIDERATIONS

- Requires partnership with the Mt. Crawford Ruritan Club to act as the site host
- Consultation with SVEC s required to assess the service at the Ruritan building
- The Ruritan Club and Town would need to decide on a cost model—whether to offer charging for free to attract visitors to events, or to charge a small fee to recoup electricity costs.



LOCALITY NOTES

- While modest in size, Mt. Crawford's location directly on US-11 and just west of the new Buc-ee's DCFC hub gives it a unique strategic position.
- A Level 2 charger here would provide a crucial, lower-cost charging option for local residents and for travelers who may be stopping in the area for other reasons and don't need a full fast charge.

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SITE PROFILE

Address: 2328 Silver Lake Rd, Dayton, VA 22821

Site Type: Tourist Destination / Museum

Score: 11/16



EV CHARGING SUITABILITY

As the top-scoring site in Dayton, the Virginia Quilt Museum is a strong candidate because it serves a dual purpose: it's a key tourist destination and a central downtown anchor. Visitors have dwell times ideal for Level 2 charging, and its location benefits the surrounding businesses by encouraging drivers to park, charge, and explore the town on foot.

Scoring Strengths:

- At Silver Lake Trail
- Near Library, Trailhead, and Transit Stop
- Supports local tourism economy

⚙️

IMPLEMENTATION CONSIDERATIONS

- Requires a public-private partnership between the Town of Dayton and the private, non-profit Quilt Museum
- The museum has a dedicated parking lot. An agreement would be needed on which spaces could be designated for EV charging and whether they would be for museum patrons only or the general public.
- The museum is in a historic house, so charger placement and any trenching must be done sensitively to preserve the character of the site.



LOCALITY NOTES

- The town's strategy should be to attract additional tourists by adding charging at cultural destinations like the Quilt Museum and Rocktown History to enhance the visitor experience.
- This creates a "charge and walk" environment that benefits Dayton's downtown commercial district.

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SITE PROFILE

Address: 80 Court Square, Harrisonburg, VA 22802

Site Type: Downtown Government & Commercial Hub

Score: 12/16



EV CHARGING SUITABILITY

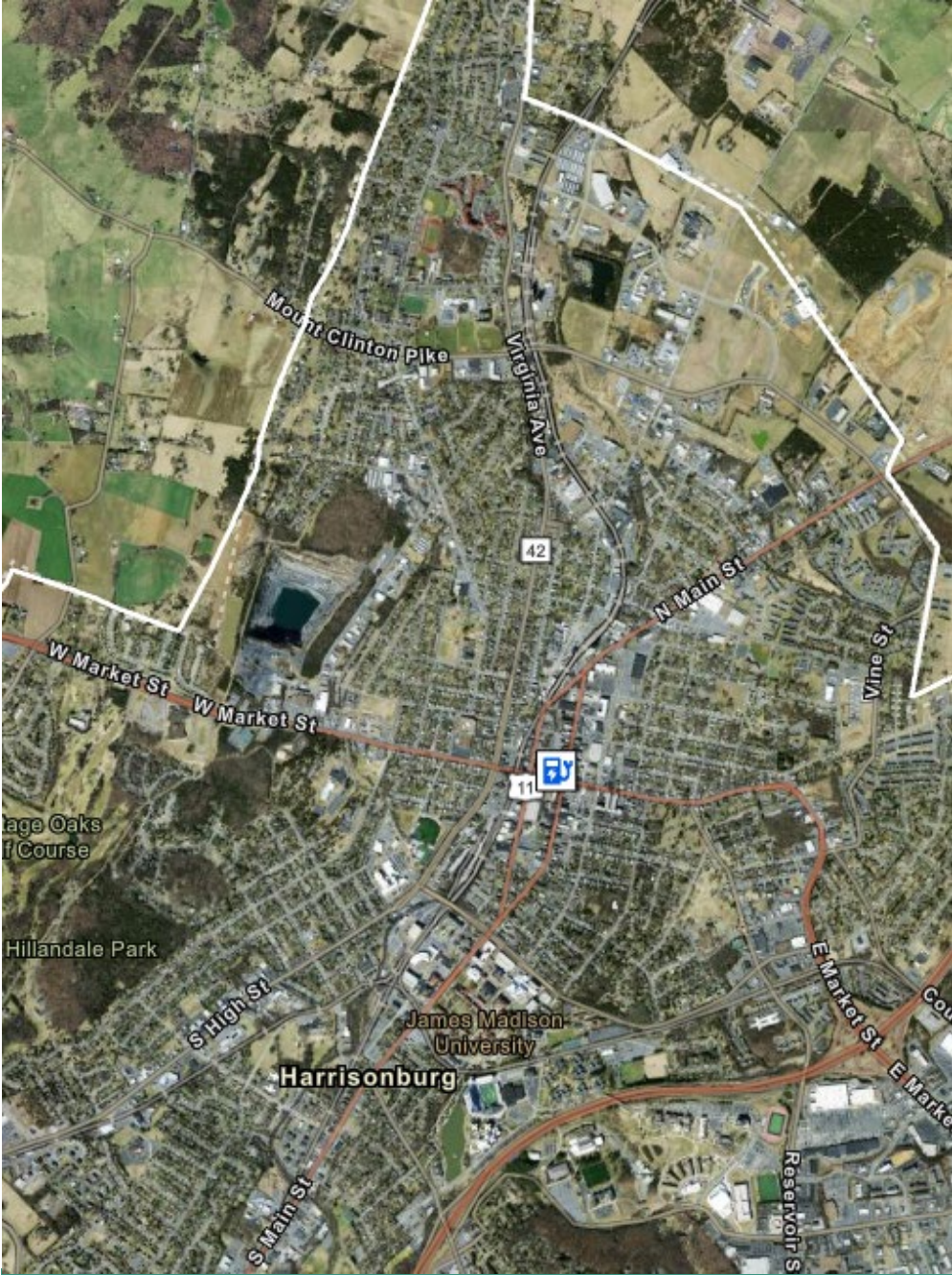
As the geographic and civic heart of the city and county, Court Square is the top-ranked site due to its unmatched density of services and attractions, which generates the highest possible demand. Supporting the courts, city/county offices, downtown businesses, and residents, this area is ideal for Level 2 chargers located within the nearby public parking garages to serve visitors and employees with longer dwell times.

Scoring Strengths:

- High Estimated Demand
- Excellent Proximity to Local Amenities (All downtown)

⚙️ IMPLEMENTATION CONSIDERATIONS

- Installing chargers in existing parking garages is often more feasible than on-street, as garages have robust electrical systems. A utility consult with Harrisonburg Electric Commission is the first step.
- All exterior work, including signage, must be coordinated with the Historic Preservation Commission to ensure it meets downtown design standards.
- Requires close coordination between the City Public Works/Parking Authority and Rockingham County Administration.



LOCALITY NOTES

- Harrisonburg has the most developed charging network in the region.
- The city's strategy should focus on increasing charger density and reliability in high-use areas like downtown and the JMU campus.
- Prioritizing installations within existing public parking garages is the most efficient path forward for the downtown core.

SITE PROFILE

Address: 392 S Main St, Timberville, VA 22853

Site Type: Municipal Government Building

Score: 8/16



EV CHARGING SUITABILITY

As the top-scoring site, the Town Office provides the best opportunity to establish a foundational, trusted public charging station in Timberville. As a public municipal property, it simplifies the hosting process and ensures 24/7 accessibility. This site fills a definite charging gap in the rural northern part of the county and is best suited for an initial Level 2 charger installation.

Scoring Strengths:

- Fills a Critical Charging Gap
- Central, trusted public location

IMPLEMENTATION CONSIDERATIONS

- A utility consult with SVEC is the first step. A municipal building should have adequate service for a Level 2 charger.
- The Town should explore grant opportunities (like the Virginia Clean Cities' Rural Reimagined Program) to offset the cost of equipment and installation.



LOCALITY NOTES

- The main goal for Timberville is to get on the map with its first public charger.
- The Town Office is the most logical and straightforward place to start. Success here could help encourage private businesses, like local restaurants or the grocery store, to consider hosting chargers in the future.

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SITE PROFILE

Address: 1 Rockingham Pk Wy, Penn Laird, VA 22846

Site Type: County Recreation & Sports Complex

Score: 13/16



EV CHARGING SUITABILITY

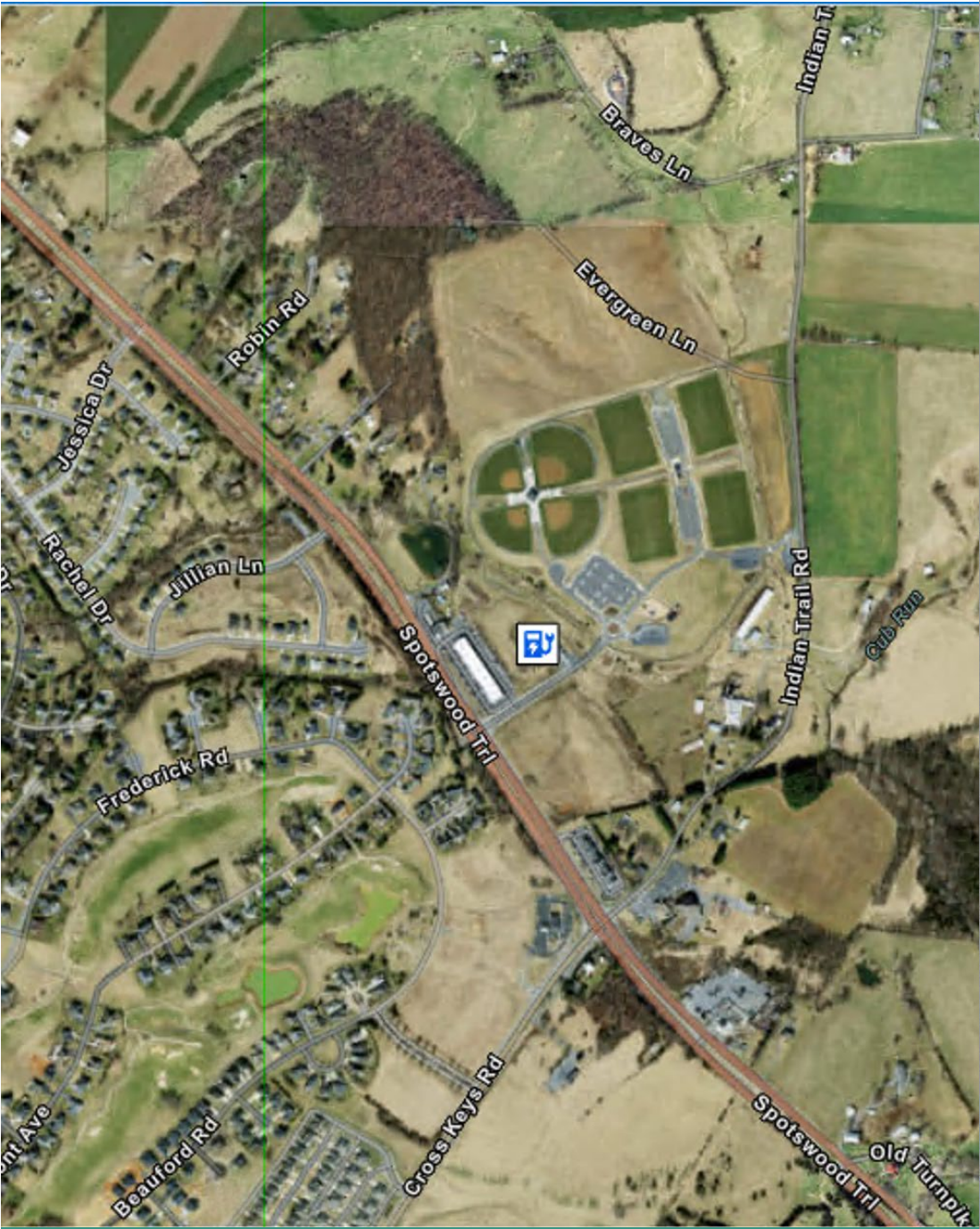
The Rockingham County Recreation Center is a highly strategic site that serves a vital community purpose. It attracts a large number of visitors from across the county and beyond for sports tournaments, leagues, and daily fitness, all of which involve long dwell times. Placing Level 2 chargers here would provide a valuable amenity for families attending events and would fill a significant charging gap along the busy US-33 corridor.

Scoring Strengths:

- Fills a Critical Charging Gap on a major artery
- Serves as a Trailhead/Recreational Hub

⚙️ IMPLEMENTATION CONSIDERATIONS

- Consultation with the local utility (SVEC or Dominion, depending on the specific service area) is required. As a large public facility with exterior lighting for sports fields, it likely has sufficient service for a Level 2 installation, but verification is the first step.
- This is a county-owned facility, requiring direct collaboration between the County Administrator's office and the Parks & Recreation Department for project planning, siting, and management.



LOCALITY NOTES

- While other commercial sites in the county (like Sentara RMH) have higher overall scores based on raw daily traffic, the Recreation Center is a critical site for greater geographic and service distribution.
- A Charger here fills a major charging desert on US-33 between Harrisonburg and Elkton. Prioritizing this site supports sports tourism and provides a key charging location for the central and eastern parts of the county that are otherwise underserved.

TOWN OF BROADWAY | J FRANK HILLYARD MIDDLE SCHOOL / OFF BROADWAY PLAYERS



SITE PROFILE

Address: 209 N Main St, Broadway, VA
Site Type: Public School / Community Theater
Score: 10/16



EV CHARGING SUITABILITY

As the highest-scoring site in Broadway, the community theater is a unique opportunity. It attracts visitors for multi-hour events (plays, performances) during evenings and weekends, complementing the daytime traffic of the nearby Town Office and Library. This provides around-the-clock demand potential and is ideal for publicly accessible Level 2 chargers.

Scoring Strengths:

- Fills a Critical Charging Gap
- Near Library & Multifamily Housing
- High Proximity to Local Amenities (Walkable)



IMPLEMENTATION CONSIDERATIONS

- Requires partnership with RCPS and then the non-profit Off Broadway Players organization.
- Siting chargers in a shared public lot that serves the theater, library, and town office might be the most effective approach.
- Parking can be competitive during a sold-out show. Charger locations should be placed to ensure accessibility without causing conflict during peak event parking.



LOCALITY NOTES

- Broadway is a key town in northern Rockingham County that currently lacks public charging.
- The top priority is to establish a central, walkable charging hub.
- A joint project between the Town Office, Library, and the Hillyard/Off Broadway Players (which are all very close) could create a single, multi-charger station that serves all three key destinations.

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SITE PROFILE

Address: 20593 Blue & Gold Dr, Elkton, VA

Site Type: Community Center & Recreational Hub

Score: 13/16



EV CHARGING SUITABILITY

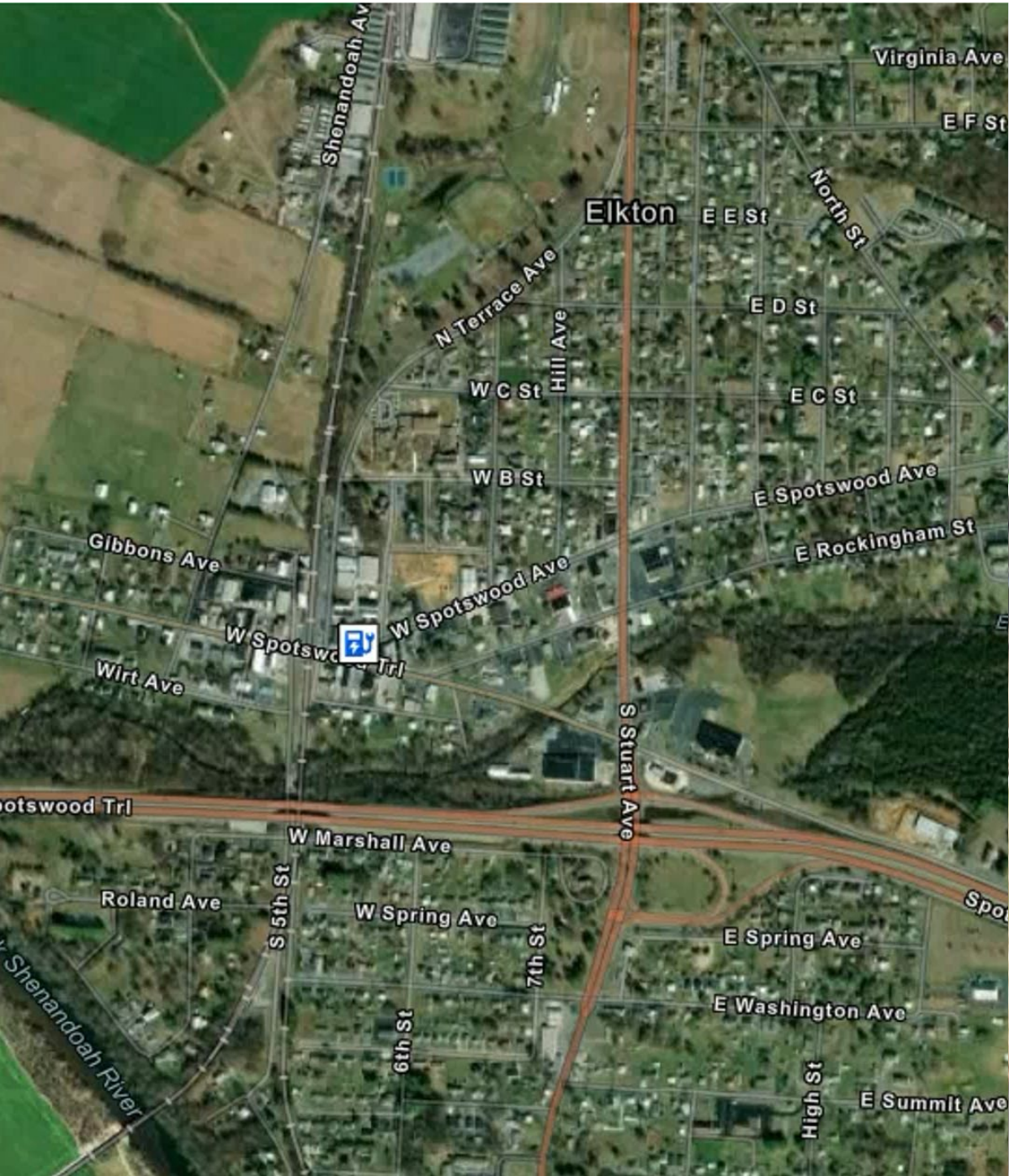
As the highest-scoring site in Elkton, the Community Center is a strategic location that serves multiple community functions, including recreation and events. Its proximity to the library and town center makes it a convenient hub for residents. The mix of short- and long-duration visits makes it ideal for public Level 2 charging.

Scoring Strengths:

- Proximity to Local Amenities
- High Potential for DCFC Capacity

⚙️ IMPLEMENTATION CONSIDERATIONS

- The public Clipper Creek Level 2 charger at this site is currently operational but is reported by users to be unreliable at times. This inconsistent performance creates a poor user experience and should be the primary focus of any new project at this site.
- The Town should consider replacing or retrofitting the existing "finnick" unit as they consider adding a second one. A new dual-port, networked station would solve the reliability issue and expand capacity simultaneously.



LOCALITY NOTES

- The town has a successful set of 3 publicly accessible downtown chargers across the Community Center, Town Hall, and Park
- However, Elkton's leadership in EV charging stations could lead towards continuing to considering modernize the Town's infrastructure and to replace or add to the existing unit with new, reliable, and fully-networked hardware.
- Expanding to a second reliable port should be the immediate subsequent goal to build a trustworthy local network.

SITE PROFILE

Address: 402 E College St, Bridgewater, VA 22812

Site Type: Academic Institution

Score: 15/16



EV CHARGING SUITABILITY

Tying for the highest score in the entire regional analysis, the Bridgewater College main parking area is a premier site. It serves a large, captive audience of students, faculty, staff, and event attendees, guaranteeing high year-round demand. The long dwell times of a campus population are ideal for Level 2 charging. This site would serve as a powerful charging hub for the entire community.

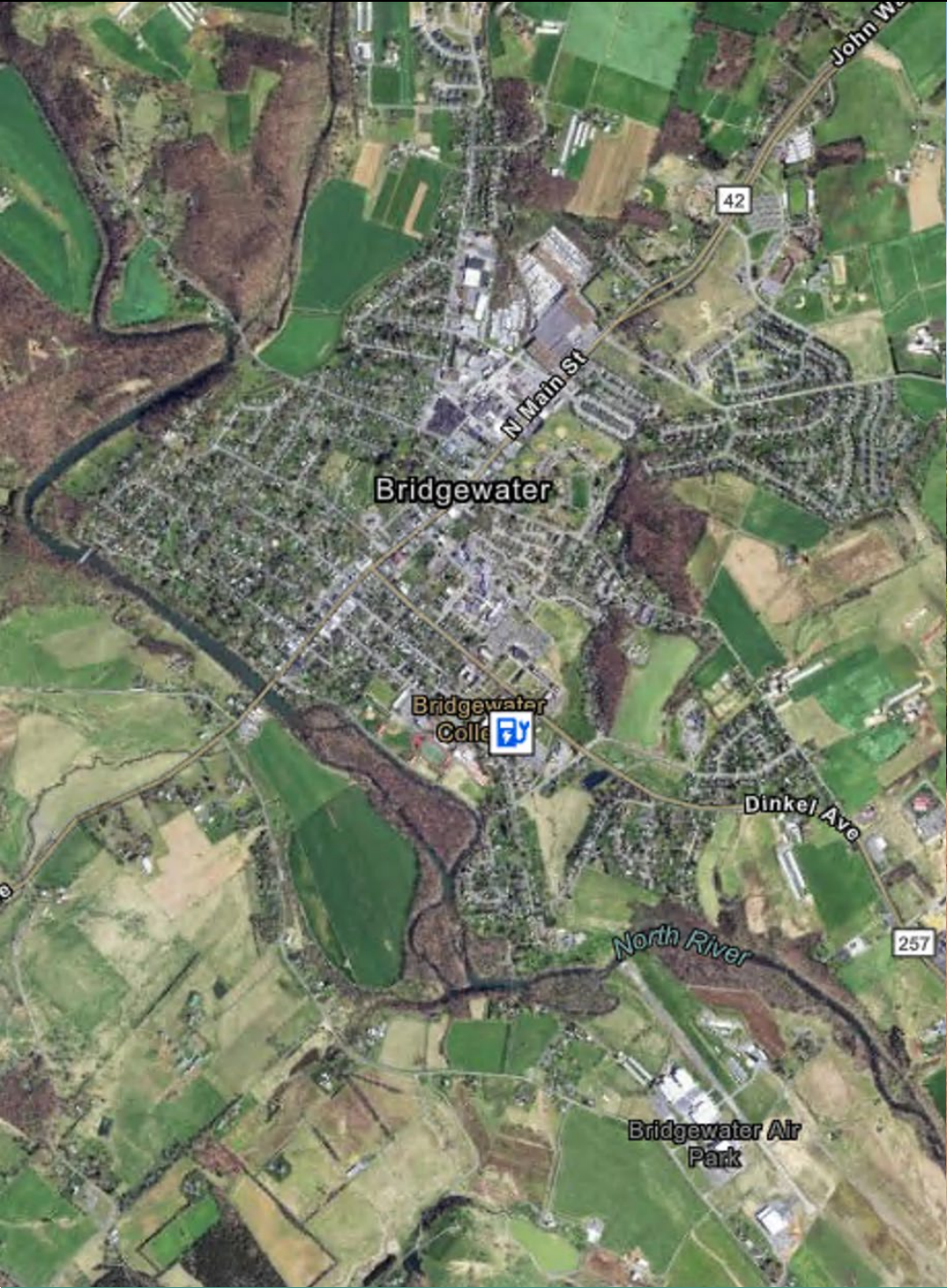
Scoring Strengths:

- High Estimated Demand
- Excellent Proximity to Local Amenities & Library



IMPLEMENTATION CONSIDERATIONS

- Requires a strong partnership with the Bridgewater College administration, including facilities and planning departments.
- A policy must be determined for user access and cost—whether chargers are for permit holders only, or open to the general public, and what the fee structure would be



LOCALITY NOTES

- Bridgewater is a key town in Rockingham County's network and the college serves as a powerful anchor site.
- Town staff should coordinate with the college administration on this primary opportunity, while also encouraging L2 installations at local businesses on Main Street that, like the Generations Park EV Charger, continue to support the downtown commercial district and capture visitors.

SITE PROFILE

Address: 601 Dogwood Ave, Grottoes, VA

Site Type: Municipal Building & Public Library

Score: 11/16



EV CHARGING SUITABILITY

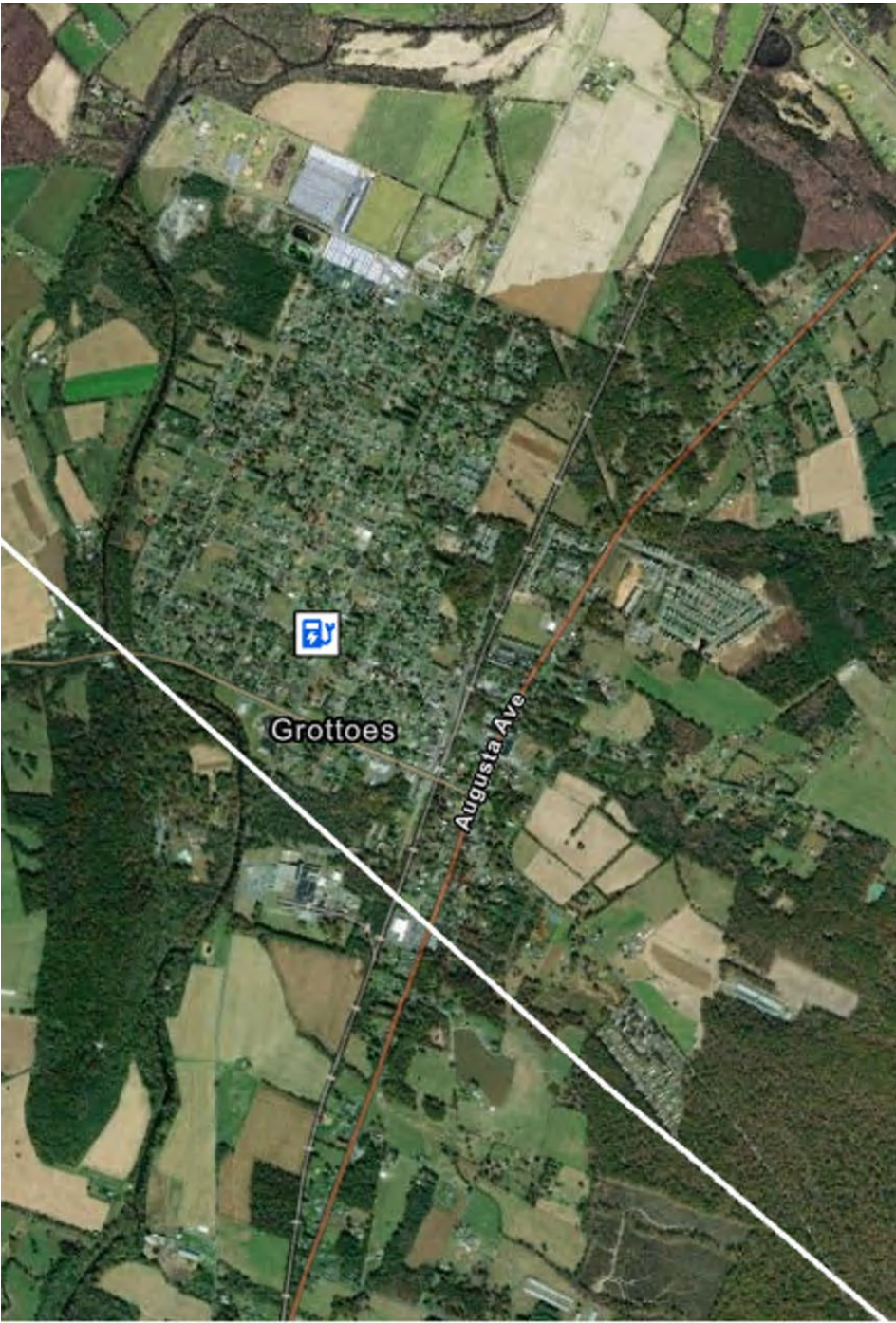
As the top-scoring site in Grottoes, this co-located facility is the ideal first location for public charging in the town. It serves as the primary civic hub for residents and is a trusted, publicly accessible site with amenities. It fills a significant charging gap and is perfectly suited for Level 2 chargers to serve library patrons, town office visitors, and nearby residents.

Scoring Strengths:

- Fills a Critical Charging Gap
- Nearby Pedestrian Amenities

IMPLEMENTATION CONSIDERATIONS

- Grottoes Public Works and electricians on site can help with the install, however, A utility consultation may be needed but as a modern municipal building, it should have sufficient panel capacity for a Level 2 installation.
- The site is highly visible and should be well-signed from the main road (Dogwood Ave) to ensure residents and visitors are aware of its availability.
- While installing one or two dual-port chargers is a great start, the town should consider running conduit for future expansion while the ground is already open to save on future costs.



LOCALITY NOTES

- Grottoes' strategic location between Harrisonburg and Waynesboro (off the interstate) and as the gateway to Grand Caverns make it a prime candidate for downtown EV tourism.
- Establishing a reliable charging station at the town center is the #1 priority. This would not only serve residents but also provide a crucial "top-off" point for tourists, potentially encouraging them to stay longer and visit town businesses.

Appendix A: Ownership Models, Liability Framework, and Local Governmental Regulatory Considerations

Utility and Site Host Ownership Models Comparison

The selection of an appropriate ownership model represents one of the most critical decisions for localities considering EV charging infrastructure deployment. The Electric Power Research Institute identifies four primary infrastructure ownership models that differ primarily in which party owns and operates site-level charger equipment, including panels and charging stations themselves.²³

1. Traditional Electric Company Customer Model

This traditional model establishes a clear delineation where the utility provides power to the meter while the customer assumes ownership of all infrastructure beyond that point. Site hosts bear responsibility for all premises wiring, EVSE equipment, and ongoing maintenance, providing maximum ownership and control while retaining all revenue. However, this approach requires the highest upfront investment and places the greatest financial risk on the site host, making it most suitable for entities with established electrical expertise and adequate capital reserves.

Structure

Utility provides power to meter; customer owns everything beyond meter

- Site host responsibilities: All premises wiring, EVSE equipment, maintenance
- Pros: Full ownership and control, keep all revenue
- Cons: Highest upfront investment, most financial risk
- Best for: Entities with electrical expertise and adequate capital

Example

Albemarle County operates multiple municipally owned charging stations where the city owns all equipment beyond the meter and retains full revenue control, generating over thousands annually from their charging network.²⁴ Likewise, some site hosts are able to generate their own power via solar and act as both utility and service host and provider. Virginia Clean Cities in Harrisonburg operates a Level 2 dual-port charging station at 1401

²³ Electric Power Research Institute. "Interoperability of Public Electric Vehicle Charging Infrastructure." August 2019. Retrieved from: <https://web.archive.org/web/20230325154529/https://www.eei.org/-/media/Project/EEI/Documents/Issues-and-Policy/Electric-Transportation/Final-Joint-Interoperability-Paper.pdf>

²⁴ Albemarle County. "Public Works - EV Charging Stations" <https://www.albemarle.org/government/facilities-environmental-services/planning-construction/ev-charging-stations>

Technology Drive using this model, where they own and operate the solar-powered charging equipment while maintaining full control over pricing and operations.²⁵

2. Make-Ready Model

Under the “Make-Ready” model, utilities install and own wiring infrastructure up to the EVSE interface while customers retain ownership of the charging equipment itself. Utility responsibilities encompass service upgrades, meter installation, and premises wiring to the charging location, while site hosts manage EVSE equipment, maintenance, and operations. This model significantly reduces upfront infrastructure costs by having utilities absorb wiring upgrade expenses, though it provides less control over electrical infrastructure. The approach proves particularly beneficial for sites requiring substantial electrical upgrades.

Structure

Utility installs and owns wiring up to EVSE interface; customer owns chargers

- Utility responsibilities: Service upgrades, meters, premises wiring to charging location
- Site host responsibilities: EVSE equipment, maintenance, operations
- Pros: Reduced upfront infrastructure costs, utility absorbs wiring upgrade costs
- Cons: Less control over electrical infrastructure
- Best for: Sites needing significant electrical upgrades

Example

Dominion Energy's Commercial L2 Charging Program exemplifies this model by offering commercial and industrial customers rebates for up to 50% of the cost to install L2 EV chargers, with Dominion handling electrical infrastructure upgrades while customers own and operate the charging equipment.²⁶

3. EVSE-Only Model

This targeted model limits utility involvement to ownership and installation of charging equipment only. Utilities handle EVSE equipment installation and maintenance while site hosts remain responsible for premises wiring and daily operations. The model offers a lower-cost option when existing wiring proves adequate but provides limited utility investment, leaving site hosts responsible for electrical infrastructure. It works best for locations with existing adequate electrical capacity. Of note in Virginia, Dominion Energy and Appalachian

²⁵ Daily News Record. “Virginia Clean Cities Unveils New Solar-Powered Electric Vehicle Charging Station” December 2021 https://www.dnronline.com/places/local/rockingham_county/harrisonburg/virginia-clean-cities-unveils-new-solar-powered-electric-vehicle-charging-station/article_ee2af66c-566d-5f48-bbf9-d0e033bab07e.html

²⁶ Dominion Energy. "EV Charging Programs for Commercial and Fleet Customers." 2024. Retrieved from: <https://www.dominionenergy.com/virginia/save-energy/electric-vehicles>

Power are restricted from developing, own, maintain, and operate public-facing fast-charging stations.²⁷

Structure

Utility owns and installs only the charging equipment

- Utility responsibilities: EVSE equipment installation and maintenance
- Site host responsibilities: Premises wiring, operations
- Pros: Low-cost option when wiring already adequate
- Cons: Limited utility investment, site host still responsible for electrical infrastructure
- Best for: Sites with existing adequate electrical capacity

Example

Duke Energy's Public Charging program in North Carolina demonstrates this model by installing and maintaining Level 2 and DC fast charging equipment at partner sites while hosts handle site preparation and ongoing operations. The program includes locations like Harris Teeter grocery stores and municipal facilities, where Duke owns the charging equipment but relies on hosts for electrical infrastructure and site management.²⁸

4. Full Ownership Model

The approach places all infrastructure ownership with the utility, including transformers, meters, wiring, and EVSE equipment. Utilities assume responsibility for equipment procurement, installation, maintenance, operations, and fee collection, while site hosts provide minimal involvement beyond location provision. This model eliminates upfront investment requirements and ensures professional operations and maintenance, though it provides no direct revenue and less operational control. The approach proves ideal for large DCFC installations and entities seeking minimal involvement.

Structure

Utility owns all infrastructure including transformers, meters, wiring, and EVSE

- Utility responsibilities: All equipment, installation, maintenance, operations, fee collection
- Site host responsibilities: Minimal - primarily providing location
- Pros: No upfront investment, professional operations and maintenance
- Cons: No direct revenue, less control over operations
- Best for: Large DCFC installations, entities wanting minimal involvement

²⁷ Virginia Legislative Information Service. "ENERGY CONSERVATION EFFORTS OF VIRGINIA'S INVESTOR-OWNED PUBLIC UTILITIES IN 2024" <https://rga.lis.virginia.gov/Published/2025/RD222/PDF>

²⁸ Duke Energy. "Duke Energy launches EV charger rental program in North Carolina" January 2024. <https://news.duke-energy.com/releases/duke-energy-launches-ev-charger-rental-program-in-north-carolina>

Example

Dominion Energy's Fleet EV Charging Station program demonstrates this model by offering to install and maintain EV chargers for commercial fleets, with Dominion owning all infrastructure and handling operations while fleet owners provide locations and pay service fees.

5. Third-Party Ownership Models

5a. Network Company Ownership

Network Company Ownerships operate through partnerships where charging network companies own and operate equipment on site host property. Network companies handle equipment ownership, installation, maintenance, operations, and revenue collection while site hosts provide location access and may receive revenue share or fixed payments. Examples include ChargePoint, EVgo, and Electrify America partnerships with retail establishments.

Structure

Charging network company owns and operates equipment on site host property

- Network company: Equipment ownership, installation, maintenance, operations, revenue collection
- Site host: Provides location, may receive revenue share or fixed payments
- Examples: ChargePoint, EVgo, Electrify America partnerships with retailers

Example

The Greenspot EVSE in Buena Vista demonstrates this model, featuring a Level 2 dual-port charging station at 2156 Magnolia Avenue operated by a third-party network provider. The site offers paid public access with free parking, illuminated 24/7 operation, with maintenance covered by Greenspot and represents a regional example of localities in the Central Shenandoah region leveraging network partnerships to provide charging infrastructure without direct capital investment.²⁹

5b. Infrastructure-as-a-Service (IaaS)

IaaS arrangements involve third-party providers covering all capital expenses and leasing equipment to site hosts under service agreements. Service providers handle all upfront costs and equipment ownership while site hosts pay monthly service fees plus operating costs. This approach eliminates upfront capital requirements and provides predictable

²⁹ The News-Gazette. "EV Charging Stations Coming To BV" May 2023. <https://www.thenews-gazette.com/article/1939,ev-charging-stations-coming-to-bv>
<https://web.archive.org/web/20230325154529/https://www.eei.org/-/media/Project/EEI/Documents/Issues-and-Policy/Electric-Transportation/Final-Joint-Interoperability-Paper.pdf>

monthly costs, though it typically results in higher long-term expenses and reduced control.³⁰

Structure

Third-party covers all capital expenses, leases equipment to site host

- Service provider: All upfront costs, equipment ownership
- Site host: Monthly service fees plus operating costs
- Pros: No upfront capital, predictable monthly costs
- Cons: Higher long-term costs, less control

Example

The Town of Pennington Gap's downtown ChargePoint station exemplify a successful IaaS-like model through Virginia Clean Cities' Rural Reimagined Program. With initial costs of only a few hundred dollars offset by grant funding and donated installation labor, the town now generates \$350 monthly in revenue from their Level 2 dual-port station with pricing of free for the first hour and \$3 for subsequent hours. ChargePoint manages the networked station's data access and any software servicing needs.³¹

B. Liability and Insurance Framework

Research indicates that most property insurance companies do not require additional riders for charging stations, treating them as standard electrical equipment under existing property coverage without additional premiums. Manufacturing defects typically fall under equipment manufacturer coverage, while installation errors are generally covered by certified installers. When underwriting issues arise, manufacturers often assist with necessary documentation. See ChargePoint's liability framework as a model.³²

Operational Liability Structure

Site host responsibilities commonly include managing physical damage from vehicle collisions, slip and fall incidents in charging areas, electrical safety through proper installation and maintenance, and ADA compliance in charging station design. Network and third-party operators typically handle equipment malfunctions, payment processing issues,

³⁰ Electric Power Research Institute. "Interoperability of Public Electric Vehicle Charging Infrastructure." August 2019. Retrieved from: <https://web.archive.org/web/20230325154529/https://www.eei.org/-/media/Project/EEI/Documents/Issues-and-Policy/Electric-Transportation/Final-Joint-Interoperability-Paper.pdf>

³¹ Virginia Clean Cities. "Webinar: EVSE 101" June 12, 2025 Retrieved from <https://vccleancities.org/event/webinar-evse-101-and-qa/>

³² ChargePoint. "CHARGEPOINT PERSONAL CHARGING SERVICE AGREEMENT." 2024. Retrieved from: https://www.chargepoint.com/download-file/cp-driver-personal-charging-service-agreement?srsId=AfmBOopSIN-bngdF-Z5CBxnzkyrA5URudPBOITBI2y5Who0oxcWjTge_

data privacy protection, and network connectivity requirements including uptime guarantees often specified at 97% minimum availability.³³

Maintenance Responsibility Framework

Site host-owned equipment requires routine maintenance including cleaning, cable management, visual inspections, repair coordination for equipment malfunctions, warranty claim management, and emergency response capabilities for after-hours failures. Third-party owned equipment typically limits site host responsibilities to basic cleaning and issue reporting while network or utility owners handle all technical maintenance with specified response times, usually 24-48 hours, based on standard locality agreements and plans with third party providers.^{34 35}

C. Revenue Sharing Agreement Structures

Revenue sharing models vary significantly based on investment recovery periods and risk allocation preferences. The 80/20 split model allocates 80% of revenue to third parties for the initial 20 years to cover investment recovery, with site hosts receiving 20% initially and 100% after the recovery period. Fixed payment models include monthly lease arrangements with flat fees regardless of usage, annual subscriptions covering equipment and maintenance, and graduated payments based on usage thresholds. Hybrid models, on the other hand, combine base payments covering minimum monthly costs with percentage revenue splits above threshold amounts and performance bonuses for high utilization sites. Municipal examples, such as Pennington Gap, Virginia, demonstrate varied approaches with initial free-to-public chargers for economic development and subsequent fee-based, grant-funded chargers generating approximately \$350 monthly in revenue under full municipal ownership.³⁶

Additional Revenue Sharing Examples: The City of San Diego's partnership with SDG&E and ChargePoint operates under a hybrid revenue model where the city provides locations and receives 10% of gross revenue plus free charging for municipal fleet vehicles. After five years, the city has the option to purchase the equipment at depreciated value.³⁷ In Massachusetts, the Town of Brookline's partnership with EV charging provider Greenlots (now Shell Recharge Solutions) includes a revenue split where the town receives 25% of net

³³ DriveElectric.gov. "Webinar: Ensuring a Reliable Charging Experience (Text Version). & EVC&I." (2023, April 14). Retrieved from <https://driveelectric.gov/webinars/reliable-charging?view=text-version>

³⁴ City of Rockville. "EV Readiness Plan". (2023). Retrieved from:

<https://engagerockville.com/17246/widgets/89339/documents/66220>

³⁵ City of Dayton, Ohio. "Dayton Electric Vehicle Infrastructure Roadmap" (2024)

<https://www.daytonohio.gov/1192/Dayton-EV-Infrastructure-Roadmap>

³⁶ Virginia Clean Cities. "Webinar: EVSE 101" June 12, 2025 Retrieved from

<https://vaccinecities.org/event/webinar-evse-101-and-qa/>

³⁷ City of San Diego. "Public Electric Vehicle Charging Program" n.d. Retrieved from

<https://www.sandiego.gov/sustainability-mobility/energy/city-energy-data/evcharging>

revenues after operating costs, generating approximately thousands annually from 12 Level 2 charging stations while the provider handles all maintenance and operations.³⁸

D. Risk Allocation Framework

Financial Risk Distribution

Site host-owned models expose owners to utilization risks when revenue falls below projections, technology obsolescence as equipment becomes outdated, demand charge risks from unexpected utility peak charges, and maintenance cost overruns exceeding projected repair expenses. Third-party owned models allocate location performance and access restriction risks to site hosts while third parties assume equipment performance and technology change risks, with regulatory changes and market conditions typically representing shared risks.

Operational Risk Management

Equipment failure risks place immediate costs and customer relations impacts on site hosts under owner-operator models, with property insurance providing coverage for damage and business interruption while manufacturer warranties protect against defect-related issues. User-related incidents including vehicle damage, personal injury from slip/fall or electrical incidents, and property damage from user actions require careful risk allocation and appropriate insurance coverage.

E. Regulatory and Legal Considerations

State Utility Regulations

State utility regulations may affect pricing and operations through public utility classification requirements, electricity resale restrictions limiting who can sell power, and varying tax implications for electricity sold by EVSE operators. The U.S. Department of Energy's Charging Smart program provides comprehensive guidance for local governments seeking to optimize their regulatory environment for EV infrastructure deployment through technical assistance across planning, regulation, utility engagement, education and incentives, government operations, and shared mobility categories.³⁹

Local Government Advantages

Local governments benefit from unique advantages including permitting self-approval capabilities for municipal projects, direct relationships with public utilities, risk tolerance aligned with public benefit missions rather than profit motives, and financing access

³⁸ Town of Brookline. "Publicly Accessible Electric Vehicle Charging" updated May 13, 2025. Retrieved from <https://www.brooklinema.gov/2500/Publicly-Accessible-Electric-Vehicle-Cha>

³⁹ Interstate Renewable Energy Council. "Charging Smart Program Guide v3.1." January 2025. U.S. Department of Energy Office of Energy Efficiency and Renewable Energy. Retrieved from <https://energy-ready.org/wp-content/uploads/2025/01/Charging-Smart-Program-Guide-v3.1.pdf>

through municipal bonds and grants. These advantages position local governments favorably for EV infrastructure deployment when balanced against available resources and technical capabilities.

F. Best Practices for Ownership Model Selection

Successful ownership model selection requires comprehensive evaluation of available capital for upfront investment, technical expertise in electrical and maintenance capabilities, risk tolerance for utilization and technical uncertainties, revenue objectives balancing profit against economic development goals, and control preferences regarding operational oversight versus hands-off approaches. Rural-specific considerations include limited contractor availability favoring models with utility or network support, lower initial utilization patterns suggesting risk mitigation through third-party ownership, economic development focus potentially justifying municipal ownership despite higher risk profiles, and grant funding availability that can offset traditional ownership model disadvantages.⁴⁰

Municipal ownership advantages include cost control through in-house electrical and permitting capabilities, direct community benefit impact, 100% revenue retention after cost recovery, and policy flexibility for pricing and access adjustments. Third-party ownership provides risk mitigation through professional operation and maintenance, access to network experience and technical support, capital efficiency without upfront investment requirements, and performance guarantees including uptime and maintenance commitments.

Questions for Localities to ask:

- Available capital: What is your upfront investment capacity?
- Technical expertise: Will you be able to manage electrical and maintenance capabilities?
- Risk tolerance: What is your willingness to absorb utilization and technical risks?
- Revenue objectives: What are your profit vs. economic development goals?
- Control preferences: Do you prefer operational control vs. hands-off approach?

⁴⁰ Interstate Renewable Energy Council. "Charging Smart Program Guide v3.1." January 2025. U.S. Department of Energy Office of Energy Efficiency and Renewable Energy. Retrieved from <https://energy-ready.org/wp-content/uploads/2025/01/Charging-Smart-Program-Guide-v3.1.pdf>

Appendix B: Existing EV Chargers

Table B1. Existing Public and Restricted EV Charging Stations in the Rockbridge, Lexington, Bath, Highland and Buena Vista Region

Location Name	Address	Plug Type	Level	Ports	Cost	Public Access
Buena Vista - Greenspot	2156 Magnolia Ave Parking Lot, Buena Vista, VA 24416, USA	J1772	L2	2	Paid	Public - Free parking, pull-in, illuminated, open 24/7
Lexington Sheetz	600 E Nelson St, Lexington, VA 24450, USA	NACS	L3	8	Paid	Public - 8 Superchargers up to 250kW, 24/7 (Tesla & NACS compatible)
VMI - Restricted	301 Letcher Ave, Lexington, VA 24450, USA	J1772	L2	1	Paid	Restricted - VMI access, pay parking
Yogi Bear's Jellystone Park of Natural Bridge	16 Recreation Ln, Natural Bridge Station, VA 24579- 3176	NEMA 14- 50	L2	2	Paid	Restricted - Non- networked chargers
Natural Bridge / Lexington KOA Holiday	214 Killdeer Ln, Natural Bridge, VA 24578, USA	NEMA 14- 50	L2	2	Free	Public - Non- networked chargers, open 24/7
Tru by Hilton Lexington	22 Hotel Dr, Lexington, VA 24450, USA	NACS	L3	12	Paid	Public - 12 Superchargers up to 250kW, 24/7 (Tesla & NACS compatible)
Holiday Inn Express Lexington	880 N Lee Hwy, Lexington, VA 24450, USA	NACS	L3	6	Paid	Public - 6 Superchargers up to 150kW, 24/7
Virginia Horse Center	457 Maury Rd, Lexington, VA 24450, USA	NEMA 14- 50	L2	1	Free	Public - 50 Amp, non-networked charger, open 24/7
Best Western Plus Inn at Hunt Ridge	25 Willow Springs Rd, Lexington, VA 24450, USA	NACS, J1772	L2	4	Paid	Restricted - Hotel guests only, 48 amp Tesla charging, open 24/7
Washington and Lee University EV charging	100 Warner Drive, Lexington, VA	J1772	L2	2	Paid	Public - Garage parking, illuminated, top floor, open 24/7
The Gin Hotel	30 S Main St, Lexington, VA 24450, USA	J1772	L2	1	Paid	Public - ChargePro station, open 24/7

Location Name	Address	Plug Type	Level	Ports	Cost	Public Access
Hampton Inn Lexington	401 US-60, Lexington, VA 24450, USA	J1772	L2	2	Paid	Public - Pull-in parking, free parking, open 24/7
Vine Cottage Inn B&B	7402 Sam Snead Hwy, Hot Springs, VA 24445, USA	J1772	L2	1	Paid	Restricted - Guests only, 11.4kW
The Omni Homestead Resort	1766 Homestead Dr, Hot Springs, VA 24445, USA	NEMA 14-50, NACS	L2	5	Free	Restricted - Resort guests (free with stay), valet, Tesla destination
Fort Lewis Lodge and Farm	811 Millstone Lane, Millboro, VA 24460	NEMA 14-50	L2	1	Paid	Restricted - Lodging guests, non-networked charger
Steeles Tavern Manor and Alpine Hideaway Cabins	8400 North Lee Highway, Raphine, VA 24472	NACS, J1772	L2	2	Paid	Restricted - Guests only (\$20/charge), 16kW Tesla Destination
Pilot Travel Center Raphine	713 Oakland Cir, Raphine, VA 24472	CCS	L3	4	Paid	Public - EVgo 350kW, trailer parking, illuminated, 24/7 (GM Energy)
Comfort Inn & Suites Raphine Lexington	584 Oakland Cir, Raphine, VA 24472	NACS	L3	8	Paid	Public - 250kW Superchargers, 24/7 (Tesla & NACS compatible)

Table B2. Existing Public and Restricted EV Charging Stations in the Staunton, Augusta, and Waynesboro Region

Location Name	Address	Plug Type	Level	Ports	Cost	Public Access
Valley College Park	3445 Lee Hwy, Weyers Cave, VA 24486	J1772	L2	4	Paid	Public - 24/7, Noodoe EV network
Shenandoah Valley Airport	77 Aviation Cir, Weyers Cave, VA 24486	J1772	L2	2	Free	Public - Bathroom access
Waynesboro 340 N Campground	1125 East Side Hwy, Waynesboro, VA 22980	NEMA 14-50	L2	1	Paid	Restricted - Campground users, non-networked
Allocortech Waynesboro	440 N Commerce Ave, Waynesboro, VA 22980	J1772	L2	2	Paid	Public - 24/7, EVConnect app required (workplace charging focus)

Location Name	Address	Plug Type	Level	Ports	Cost	Public Access
Mission Coffee	222 S Wayne Ave, Waynesboro, VA 22980	J1772	L2	2	Paid	Public - 24/7, ChargePoint station
Iris Inn Bed & Breakfast	191 Chinguapin Dr Waynesboro, VA 22980	NACS, J1772	L2	3	Paid	Restricted - Guests only (Tesla Destination Charger)
Sheetz	2870 Stuarts Draft Hwy, Stuarts Draft, VA 24477	NACS	L2	8	Paid	Public - 24/7, Tesla Superchargers (NACS compatible)
Holiday Inn Express Waynesboro	108 Chicurel Ln, Waynesboro, VA 22980	J1772	L2	2	Paid	Blink charger, 24/7 when operational
Waynesboro Plaza - Martin's Food Rivian	437 Tiffany Dr, Waynesboro, VA 22980	CCS	L3	6	Paid	Recently opened to non-Rivian drivers
Waynesboro Plaza - Martin's Food	437 Tiffany Dr, Waynesboro, VA 22980	J1772	L2	2	Free	6 AM - 6 PM when operational, Shell Recharge
Jim Snead Ford	2401 W Main St, Waynesboro, VA 22980	J1772	L2	1	Free	Restricted - Ford owners only, 24/7
Wright Way Hyundai	2551 W Main St, Waynesboro, VA 22980	CCS, CHAdMO	L3	2	Paid	Public - 24/7, ChargePoint station
Wawa (Dependent on NEVI funding)	438 Tinkling Spring Rd, Fishersville, VA	CCS	L3	4	Paid	Future Installation - NEVI funded, new construction
371 Mule Academy Rd Parking	371 Mule Academy Rd, Fishersville, VA 22939	J1772	L2	2	Paid	Public - Weekdays 8 AM - 8 PM, ChargePoint
Augusta Health Outpatient Pavilion	23 N Campus Dr Suite 102, Fishersville, VA 22939	J1772	L2	1	Paid	Public - ChargePoint (user reports 3kW speed)
Sleep Inn Staunton	222 Jefferson Hwy, Staunton, VA 24401	NACS, J1772	L2	6	Free	Temporarily Unavailable (under repair, Tesla Destination & J1772)
Best Western Staunton Inn	92 Rowe Rd, Staunton, VA 24401	NACS, J1772	L2	6	Free	Restricted - Guests only (Tesla & Clipper Creek J1772)

Location Name	Address	Plug Type	Level	Ports	Cost	Public Access
Avid Hotels Staunton	62 Sangers Ln, Staunton, VA 24401	J1772	L2	2	Free	Restricted - Key required from front desk (Clipper Creek)
Tru By Hilton Hotel	120 Crossing Way, Staunton, VA 24401	NACS, J1772	L2	3	Free	Restricted - Guests Only, 24/7
Fairfield Inn & Suites by Marriott Staunton	114 Crossing Wy, Staunton, VA 24401	NACS, J1772	L2	3	Free	Public - 24/7 (ClipperCreek & Tesla Destination)
Sheetz Staunton	1250 Richmond Ave, Staunton, VA 24402	NACS	L2	8	Paid	Restricted - Tesla only Superchargers, 24/7
Walmart Supercenter Staunton	1028 Richmond Rd C, Staunton, VA 24401	CCS, CHAdeMO	L3	5	Paid	Public - Electrify America
Holiday Inn Express & Suites	47 Rolling Thunder Ln, Staunton, VA 24401	J1772	L2	2	Free	Public - 24/7, non-networked Sun Country chargers
Staunton Nissan	297 Lee Jackson Hwy, Staunton VA 24401	J1772	L2	1	Free	Public - Dealer hours (Mon-Fri 9AM-7PM, Sat 9AM-5PM), non-networked
Martin's Staunton	918 Richmond Rd, Staunton, VA 24401	J1772	L2	1	Free	Public - Non-networked (user reports 2 chargers)
Consumers Auto Warehouse	537 Richmond Avenue, Staunton, VA 24401	NACS, J1772	L2	2	Free	Public - Business hours (Tesla L2 with J1772 adapter)
Tiger Solar	331 N Lewis St, Staunton, VA 24401	J1772	L2	1	Free	Restricted - Employees only, solar-powered
Staunton Walnut Hills Campground	484 Walnut Hills Road, Staunton, VA 24401-6936	Wall, NEMA 14-50	L2	2	Paid	Restricted - Campground users, non-networked
Penmerryl Farm Bed & Breakfast	273 Penmerryl Dr, Greenville, VA 24440	Wall, NEMA 14-50	L2	6	Free	Restricted - Guests only (RV plugs, Tesla adapter available)

Table B3. Existing Public and Restricted EV Charging Stations in the Harrisonburg and Rockingham Region

Location Name	Address	Plug Type	Level	Ports	Cost	Public Access
Muhlenberg Lutheran Church	281 E Market St, Harrisonburg, VA 22801	J1772	L2	4	Paid	Public - 24/7 (Requires HeyCharge app)
HEC Charging Station	357 S Main St, Harrisonburg, VA 22801	J1772	L2	3	Free	Public - After Business Hours
Harrisonburg-Rockingham Democratic Headquarters	850 W Market St, Harrisonburg, VA 22801	J1772	L2	1	Paid	Public - 24/7, Solar Powered (Honor System payment)
By the Side of the Road Inn & Cottages	491 Garbers Church Road, Harrisonburg, VA 22801	J1772, NACS	L2	2	Free	Restricted - Guests Only
Virginia Clean Cities	1401 Technology Dr, Harrisonburg, VA 22802	J1772	L2	4	Free	Public - 24/7 (Donations Welcome, Solar EV Charger)
Eastern Mennonite University - Hartzler Library	1195 Park Rd, Harrisonburg, VA 22802	J1772	L2	2	Free	Public - 24/7
Brydgetworks Stain Glass Studio	3315 Harpine Hwy, Harrisonburg, VA 22802	J1772, NACS	L2	2	Paid	Restricted - Business Hours (Activation by business required)
Pilot Travel Center	3634 N Valley Pike, Rockingham, VA 22802	CCS	L3	4	Paid	Public - 24/7 (GM Energy Network)
Buc-ee's	6500 Bucee's Blvd, Mt. Crawford, VA 22841	CCS	L3	20	Paid	Completed on June 30 th , 2025
Bridgewater Retirement	100 Virginia Ave, Bridgewater, VA 22812	J1772	L2	2	Free	Public - 24/7 (Blink charger)
Generations Park	418 N Main St, Bridgewater, VA 22812	J1772	L2	1	Paid	Public - Hours not specified (Non-networked)
Best Western Plus Harrisonburg	3325 S Main St, Harrisonburg, VA 22801	J1772	L2	1	Paid	Restricted - Guests only

Location Name	Address	Plug Type	Level	Ports	Cost	Public Access
Tru Hotel Tesla Charger	111 Pleasant Valley Rd, Harrisonburg, VA 22801	NACS	L2	1	Free	Public - 24/7 (Tesla charger)
Microtel Inn & Suites	85 Pleasant Valley Rd, Harrisonburg, VA 22801	J1772	L2	1	Paid	Public - 24/7 (Blink charger, member/guest pricing)
Weaver's Flooring America	3245 S Main St, Harrisonburg, VA 22801	J1772	L2	2	Free	Public - 24/7 (ChargePoint charger)
Riner Rentals	1587 Port Republic Rd, Harrisonburg, VA 22801	J1772	L2	4	Free	Public - 24/7 (Non-networked Grizzl-E chargers)
Swift Run Campground	19540 Spotswood Trail, Elkton, VA 22827	NEMA 14-50	L2	1	Paid	Restricted - Campground users (Non-networked)
Elkton Community Center	20593 Blue & Gold Dr, Elkton, VA 22827	J1772	L2	2	Free	Temporarily Non-Functional (24/7 when operational)
W Spotswood Ave Elkton Parking	173 W Spotswood Ave, Elkton, VA 22827	J1772	L2	2	Free	Public - 24/7
Stonewall Memorial Park	197 N Terrace Ave, Elkton, VA 22827	J1772	L2	2	Free	Public - Sunrise to sunset
The Market at Massanutten Station	1850 Meadow Vista Ln, McGaheysville, VA 22840	J1772	L2	2	Free	Public - 24/7
Massanutten Fitness & Rec Club	4160 Delwebb Dr, Massanutten, VA 22840	J1772	L2	2	Free	Restricted - Resort and fitness guests, 24/7
Harrisonburg Nissan	2275 E Market St, Harrisonburg, VA 22801	J1772	L2	1	Free	Restricted - Business hours only (Dealership)
Neff Avenue Charger	262 Neff Ave, Harrisonburg, VA 22801	J1772	L2	1	Paid	Public - 24/7
Hyatt Place Harrisonburg	1884 Evelyn Byrd Ave, Harrisonburg, VA 22801	J1772	L2	4	Paid	Public - 24/7 (Blink chargers)

Location Name	Address	Plug Type	Level	Ports	Cost	Public Access
Sheetz	533 University Blvd, Harrisonburg, VA 22801	NACS	L3	8	Paid	Public - 24/7 (Tesla Superchargers)
JMU Ballard Parking Deck	Blue Ridge Hall, Harrisonburg, VA 22801	J1772	L2	2	Paid	Public - Hours not specified (\$1/hr via ParkMobile, non-networked)
JMU Stadium Parking Garage	280 Champions Dr, Harrisonburg, VA 22807	J1772	L2	6	Paid	Restricted - JMU permit required (ParkMobile app)
JMU Warsaw Avenue Parking Deck	119b University Blvd, Harrisonburg, VA 22801	J1772	L2	4	Paid	Restricted - Students/Staff (Public on weekends)
Harrisonburg City Fleet Charger	248 S Liberty St, Harrisonburg, VA 22801	J1772	L2	2	Free	Restricted - City vehicles only, not for public access
Harrisonburg Farmers Market InCharge Charging	409 Lee Hwy, Harrisonburg, VA 22801	CHAdMO, CCS	L3	2	Free	Public - 24/7 (24kW DCFC)
Joe Bowman Auto Plaza	2455 E Market St, Harrisonburg, VA 22801	CCS	L3	2	Free	Restricted - Dealership only, not for public use

Appendix C: EV Charging Funding Opportunities

Table C1. Federal Funding Opportunities

Funding Agency	Program	Eligible Entities	Program Description
U.S. Joint Office of Energy and Transportation	NEVI Formula Program	State departments of transportations (DOT).	The Bipartisan Infrastructure Law created the NEVI Formula Program to distribute \$5 billion to State DOTs for EV charging station investments along alternative fuel vehicle (AFV) corridors. The program is also meant to establish an interconnected network to facilitate data collection, access, and reliability. The NEVI program is on pause at the federal level. If the program continues, Virginia is in phase 1-C and continues to identify DCFC ports
U.S. Internal Revenue Service	Alternative Fuel Infrastructure Tax Credit	Alternative fuel infrastructure operators, businesses, personal vehicle owners or drivers. Tax exempt entities, including state, local, and tribal governments may be eligible.	The U.S. Internal Revenue Service Alternative Fuel Vehicle Refueling Property Credit provides funding for qualified AFV fueling property if installed in a population census tract that is a low-income community or not an urban area. Extended and modified by the Inflation Reduction Act through December 31, 2032.

Funding Agency	Program	Eligible Entities	Program Description
U.S. DOT	Community Alternative Fuel Infrastructure Grants	States, metropolitan planning organizations, local governments, political subdivisions, and tribal governments.	The U.S. DOT Community Alternative Fuel Infrastructure Grants program was established to fill gaps in publicly accessible EV charging and hydrogen, propane, and natural gas fueling infrastructure in community locations, such as a parking facilities, public schools, public parks, or along public roads. DOT must prioritize projects that expand access to charging and alternative fueling infrastructure within rural areas, low- and moderate-income neighborhoods, and communities with limited parking space or a high ratio of multi-unit dwellings to single-family homes.
U.S. DOT	Freight Efficiency and ZEV Infrastructure Grants	States and local governments, metropolitan planning organizations that serve urbanized areas with a population of more than 200,000 individuals, political subdivisions, port authorities, and tribal governments.	The U.S. DOT's Infrastructure for Rebuilding America grant program provides federal financial assistance to eligible transportation infrastructure projects that address climate change and environmental justice impacts, among other key objectives. Eligible projects include, but are not limited to, developing zero emission vehicle infrastructure, and supporting the installation of EV charging stations along the National Highways System.

Funding Agency	Program	Eligible Entities	Program Description
U.S. DOT	Resilient Surface Transportation Grants	State, local, and tribal, governments, metropolitan planning organizations, special purpose districts or public authorities with a transportation functions, a Federal land management agency that applies jointly with a State or group of States, and a multi-State or multi-jurisdictional group of entities.	The U.S. DOT FHWA established the Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation Discretionary Grant Program to provide funding for projects that improve the resilience of the surface transportation system through support of planning activities, resilience improvements, community resilience and evacuation routes, and at-risk coastal infrastructure.
U.S. DOT	Congestion Mitigation and Air Quality (CMAQ) Improvement Program	State DOTs, local governments, and transit agencies.	The U.S. DOT CMAQ Program provides funding for projects and programs that help meet the requirements of the Clean Air Act by reducing mobile source emissions and regional congestion on transportation networks.
U.S. DOT	EV Charging and Reliability Grants	State DOTs and local governments.	The U.S. DOT's Federal Highway Administration EV Charger Reliability and Accessibility Accelerator offers funding for the repair and replacement of existing, non-operational publicly accessible L2 and direct current fast charging stations.

Funding Agency	Program	Eligible Entities	Program Description
U.S. DOT	ZEV Infrastructure and Advanced Vehicle Grants	State, local, tribal, and U.S. territories' governments, including transit agencies, port authorities, metropolitan planning	The U.S. DOT's Rebuilding American Infrastructure with Sustainability and Equity grant program provides federal financial assistance to eligible surface transportation infrastructure projects.
U.S. DOT	Low or No Emission Charging Transit Grant	State, local, tribal, and U.S. territories' governments, including transit agencies, port authorities, metropolitan planning	The Low or No Emission competitive program provides funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of required supporting facilities. FTA announced the availability of \$1.5 billion under the NOFO Grants for Buses and Bus Facilities and Low or No Emission with Applications due by July 14, 2025.
U.S. Department of Energy (DOE)	Transportation Energy Efficiency Grants	U.S. territories, state, local, and tribal governments.	The U.S. DOE offers grants through the Energy Efficiency and Conservation Block Grant Program to reduce energy use and fossil fuel emissions, and to improve energy efficiency in transportation.
USDA	Rural Development Enterprise EV Charging Station Grants	State, local, and tribal governments, and non-profit organizations primarily serving rural areas.	The USDA's Rural Business Development Grants Program provides enterprise grants for rural transportation improvement projects and the acquisition and development of buildings, equipment, access for streets and roads, and parking areas.

Funding Agency	Program	Eligible Entities	Program Description
Multiple agencies	EV Infrastructure Funding and Financing for Rural Areas	Varies	Various rural focused funding opportunities are available. This Rural EV Infrastructure Funding Matrix includes a comprehensive list of relevant Federal programs.

State and Local Funding Opportunities

There are a range of state funding opportunities available to utilize, with many coming from Dominion Energy. The opportunities range from smaller personal rebates to larger grants. The table below highlights state and local funding opportunities in Virginia.

Table C2. State and Local Funding Opportunities

Funding Agency	Program	Eligible Entities	Program Description
Virginia Department of Energy	EV Charging Station Deployment Grants	Businesses or government-industry partnerships.	The Virginia Department of Energy EV Charging Station Deployment Grants program offers grants of up to \$400,000 to private businesses and public-private partnerships for the installation of EV charging stations in rural or underserved communities.
Virginia Clean Cities	Rural Reimagined	Local governments	U.S. DOE funding is facilitated by Clean Cities Coalitions in 5 Appalachian states, including Virginia, to support EV test drives and EV charging installations.

Dominion Energy	Commercial EV Charging Station Rebate	Dominion Energy commercial or industrial customers in Virginia.	Dominion Energy offers commercial and industrial customers a rebate for up to 50% of the cost to install L2 EV chargers through the Commercial L2 Charging Program.
Dominion Energy	Fleet EV Charging Station Rebate	Dominion Energy commercial or industrial customers in Virginia.	Dominion Energy offers to install and maintain EV chargers for commercial fleets.

CSPDC members should work with the [Virginia Clean Cities](#) for assistance in identifying additional incentives. Virginia Clean Cities is one of many state and regional Clean Cities and Communities coalitions are located throughout the country to assist with projects related to alternative fuel vehicles and infrastructure. There are funding opportunities through the Clean Cities and Communities network that can be found [here](#). Additionally, Virginia Clean Cities may be aware of privately available incentives.