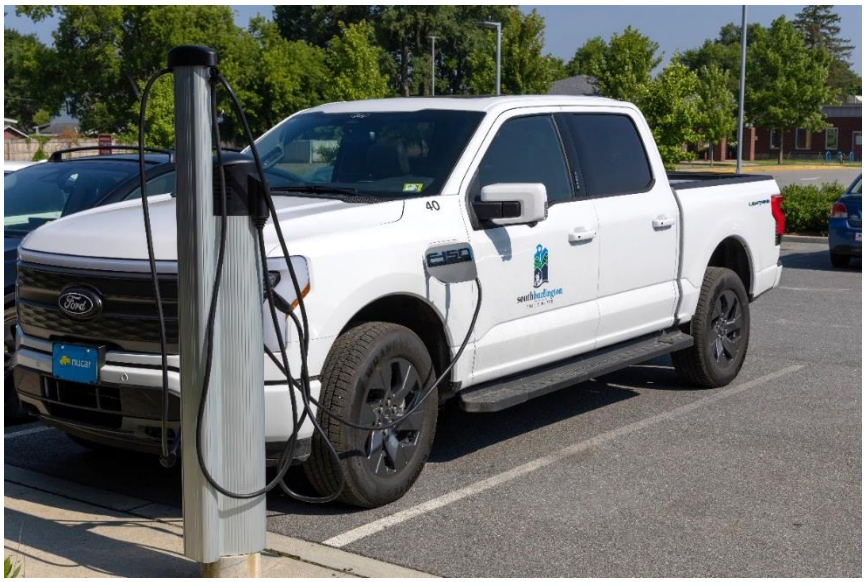
City of South Burlington

Electric Vehicle Charging Public Infrastructure Plan

Final Report

February 23, 2026



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Council presentation and final report acceptance on 2/2/2026

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Executive Summary

The City of South Burlington is planning for plug-in electric vehicle (EV) adoption as part of its long-term climate and energy goals. This plan considers public charging needs through 2050, with a primary focus on preparing for charging infrastructure needed by 2035. Public EV charging is open for any EV driver to use and may include Level 1, 2, and/or 3 electric vehicle supply equipment as detailed in the charging overview in the introduction below.

Based on the medium EV adoption scenario detailed in this report, there will be roughly 12,000 EVs in the City by 2035, representing about 55% of all registered vehicles. This anticipated growth from about 1,000 EVs as of 2025 reflects both statewide clean transportation goals and local commitments outlined in the City's Climate Action Plan and Transportation Sector Implementation Plan.

With a growing proportion of City residents—currently 40%— living in multiunit housing with limited access to home charging, near-term expansion of public charging will be essential to meeting 2035 demand and supporting equitable EV adoption. The City also serves as a regional hub for employment, commerce, and travel, further increasing non-resident demand for public charging infrastructure. -unit housing

To meet expected demand, and accounted for anticipated population and business growth, the City will need an estimated 590 public Level 2 ports and 70 public Level 3 ports by 2035, increasing to approximately 910 Level 2 ports and 80 Level 3 ports by 2050.

As of December 2025, South Burlington had 88 public Level 2 ports and 19 public Level 3 ports already in operation within its municipal boundary. Relative to the 2035 need, this leaves a remaining gap of about 490 additional public Level 2 ports and 50 additional Level 3 ports needed over the next decade. Closing that gap would require annual growth rates of about 19% for Level 2 ports and 13% for Level 3 charging from 2025 to 2035.

Building out the public EV charging infrastructure will require sustained planning and coordination. Implementation approaches, costs, and EV technologies will continue evolving, so the City should regularly review the charging infrastructure needs and consider incorporating charging projects into the City's Capital Improvement Plan (CIP) as funding becomes available.

Partnerships with funders and incremental investments guided by prioritization factors such as housing density, employment centers, traffic flow, and equity considerations will help ensure the future charging network is reliable and accessible. These prioritization factors are used throughout this report to guide recommended charging investments through 2035, while also positioning the City for continued progress toward 2050 climate and transportation goals.

Introduction

The City of South Burlington's 2022 Climate Action Plan (CAP) sets overall greenhouse gas (GHG) emissions reductions from 2019 levels of 60% by 2030 and 90% by 2050. The CAP included a target of replacing 75% of gasoline vehicles registered in the City with all-electric vehicles and plug-in hybrid electric vehicles by 2030, resulting in a 42% reduction in GHG emissions.[1]

A separate Transportation Sector Implementation Plan (TSIP) was finalized in November 2023 to advance transportation-specific actions.[2] The TSIP included a specific action, T.1.3, to develop public plug-in electric vehicle (EV) charging infrastructure in the City by considering gaps in the existing charging network, identifying locations for charging deployment, and working in partnership with other organizations, including Green Mountain Power, to advance charging installations. Public EV charging infrastructure is defined as EV charging that is available for public use, regardless of its ownership or location.

The City is planning a separate effort to focus on increasing charging availability at private multi-unit residential developments (TSIP T.1.1). This work is anticipated to begin in the first quarter of 2026 and will be influenced by the strategies of this plan.

In addition to the CAP and the TSIP, the City Plan (adopted in 2024) reinforced the commitment to mitigating climate change. The City Plan also highlighted the need for more housing to meet current and future demand. In 2025, the City adopted an Economic Development Strategic Plan, that signals its ambitions to remain and grow as a regional economic destination. Put together, a growth in workforce, residents and visitors will require appropriate public infrastructure, including EV charging, to meet their needs.

This plan supports the CAP and TSIP objectives and includes a review of existing conditions for public EV charging in the City, a forecast of EV ownership and associated charging needs, a gap analysis, and site prioritization to support future charging infrastructure development.

EV Charging Overview

Plug-in electric vehicles (EVs), including all-electric vehicles (AEVs) and plug-in hybrid electric vehicles (PHEVs) require an external power source to charge.[3] Electric Vehicle Supply Equipment (EVSE) is the technical term for the device that bridges the connection from the vehicle to the

[1] South Burlington Climate Action Plan. October 2022. https://www.southburlingtonvt.gov/190/Climate-Action-Plan
[2] South Burlington Transportation Sector Implementation Plan. November 2023. https://www.southburlingtonvt.gov/620/Transportation-Implementation-Plan
[3] For more information on the different types of EVs please visit Drive Electric Vermont's website: https://www.driveelectricvt.com/about-evs/vehicle-types

power supply. This report generally uses the blanket term "charging equipment" to refer to the EVSE and any associated infrastructure required to serve EV charging needs.

There are 3 types of charging in widespread use (see Figure 1 below for visual examples):

Level 1 Charging

- Voltage: 120V (standard household outlet)
- Charging Speed: 2–5 miles of range per hour
- Best For: Overnight home charging with low daily driving needs
- Equipment Needed: Standard charging cable (usually included with EV)

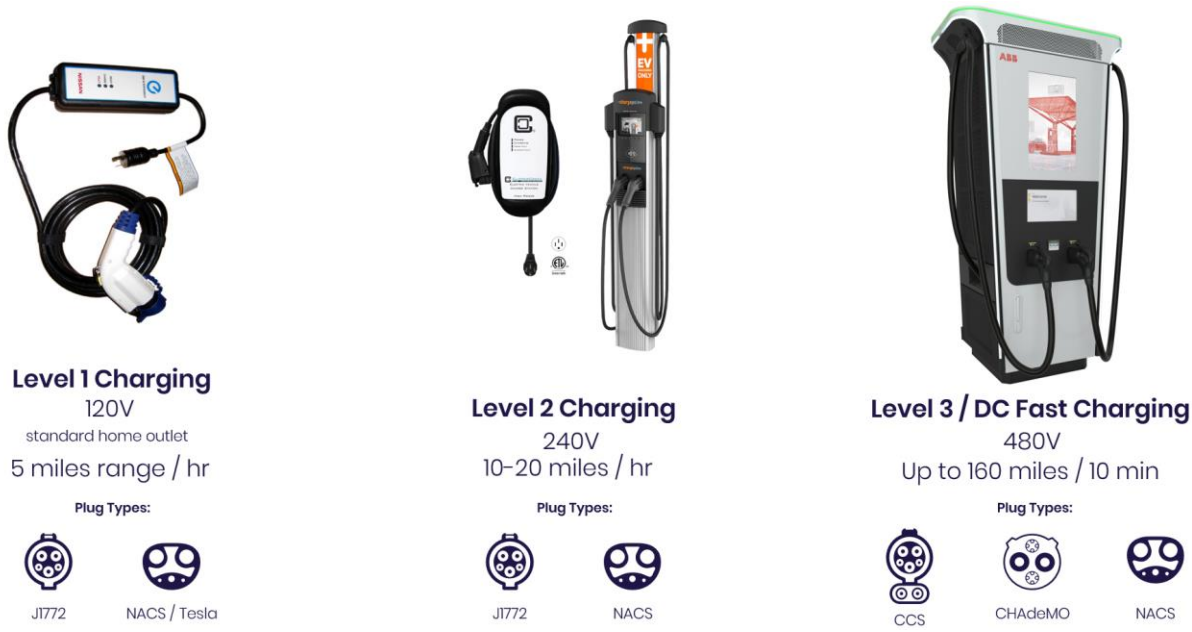
Level 2 Charging

- Voltage: 240V (like an electric dryer or oven outlet)
- Charging Speed: 10–60 miles of range per hour
- Best For: Home, workplace, and public charging stations
- Equipment Needed: Dedicated EV charging station (may be provided by the electric utility or automaker when purchasing an all-electric model)

Level 3 Charging (also known as DC Fast Charging)

- Voltage: 400V–900V (direct current)
- Charging Speed: 60–250+ miles of range in 20–30 minutes
- Best For: Long-distance travel and quick top-ups
- Equipment Needed: Specialized high-power charging stations (not for home use)

Figure 1. Types of EV Charging Equipment



Most current Vermont EV drivers are using Level 1 or Level 2 equipment to charge their EVs at home during the overnight hours. If drivers are unable to charge at home, then workplace and public charging options are critical to enable widespread EV adoption.

Level 1 and Level 2 charging equipment offer similar power levels and predictable charging performance across nearly all EV makes and models, leading to consistent charging speeds for drivers.

In contrast, Level 3 equipment is available in a wide range of power outputs—including, presently, 50 kW, 100–150 kW, and 300 kW—and not all EVs are designed to accept the highest charging rates. Because each vehicle has its own maximum fast charging capability, Level 3 charging always occurs at the lower of the charger's available power and the vehicle's accepted power level. As a result, even when a higher-power Level 3 unit is available, an EV's onboard charging system ultimately determines how fast it can charge. Fast charging stations are important to support mid-trip travel stops.

The EV industry continues to evolve with new battery and charging technologies expected over the next decade. Higher-powered fast-charging systems may be required to support electric trucks and future long-range EVs, while more energy-dense and cost-efficient batteries could reduce how often drivers need to charge. South Burlington should periodically reassess public charging deployment plans to ensure the City remains aligned with future EV capabilities, charging behavior, and community needs.

Building Energy Code Requirements

The most affordable way to provide EV charging readiness is to integrate it into larger new construction or redevelopment projects.[4] Vermont's residential and commercial building energy standards include EV-readiness requirements for new developments. Updated standards went into effect in July 2024, which required each multi-unit residential dwelling unit with dedicated parking built after that date to have electrical capacity and streamlined wiring capability for EV charging installations.[5]

Vermont Governor Phil Scott issued executive order 06-25 in September 2025 which reinstated the 2020 code requirements as an option for developers instead of complying with the 2024 code.[6] This may significantly reduce availability of EV charging in multi-unit residential developments compared to what would've been required under the 2024 code, as the 2020 code only required EV readiness at 10% of parking spaces for new multi-unit residential developments. The applicability of the code is a rapidly-evolving subject and is noted here primarily as a point-in-time reference.

Existing Conditions

Existing Vehicle and EV Ownership

Based on recent Vermont Department of Motor Vehicles (DMV) vehicle registration data, there are approximately 18,200 on-road vehicles registered in South Burlington.

Per-capita, South Burlington had about 0.9 vehicles per person based on the 2020 Census population count of 20,292. This was just below the average per-capita vehicle ownership rate for Vermont municipalities.

The City has seen robust EV growth over the past nine years as shown in Table 1 below. As of January 2025, there were 590 all-electric vehicles (AEVs) and 389 plug-in hybrid electric vehicles (PHEVS) registered, for a total of 979 plug-in electric vehicles (EVs). Figure 2 below charts this

[4] Pacific Northwest National Lab. Electric Vehicle Charging for Residential and Commercial Energy Codes Technical Brief PNNL-31576. July 2021. https://www.energycodes.gov/sites/default/files/2021-07/TechBrief_EV_Charging_July2021.pdf

[5] Drive Electric Vermont. Vermont's 2024 Energy Code: EVSE Requirements. March 2025. https://www.driveelectricvt.com/uploads/media/Documents/Resources/VT-2024-EVSE-Building-Energy-Code-Overview.pdf

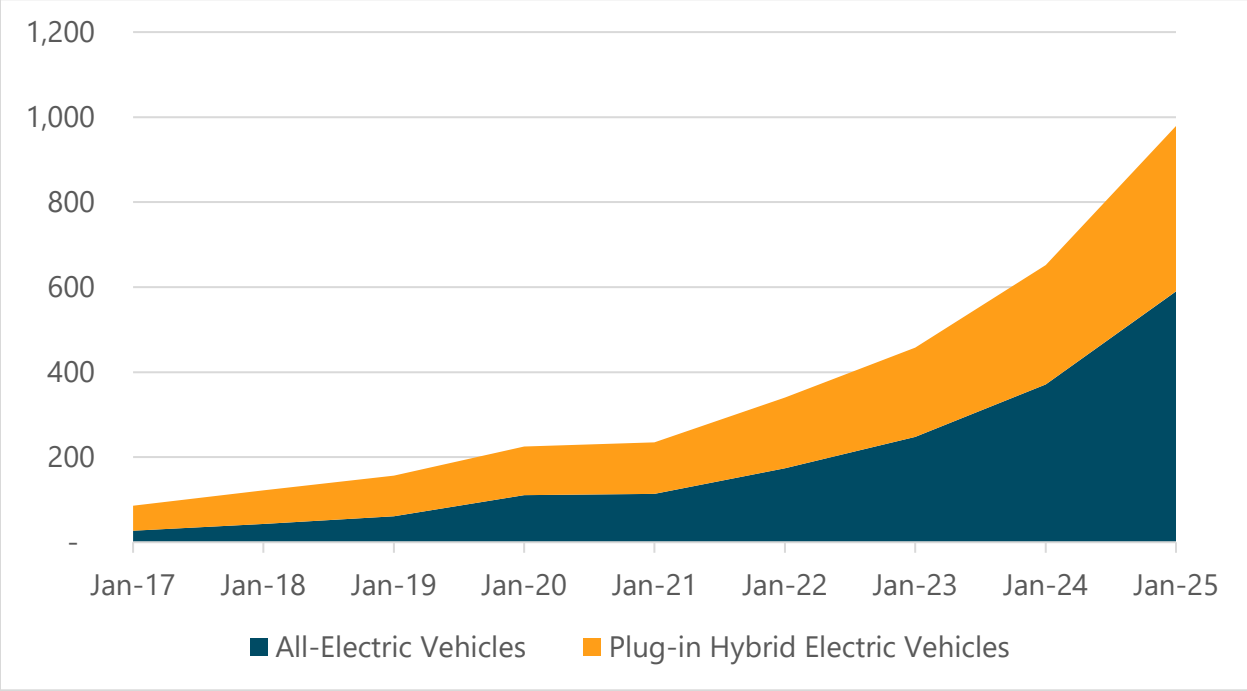
[6] State of Vermont Executive Department. Executive Order 06-25. September 2025. https://governor.vermont.gov/sites/scott/files/documents/EO%2006-25%20Promoting%20Housing%20Construction%20and%20Rehabilitation.pdf

growth. As the capability and prices of AEV models have improved, the share of PHEVs has gone from about 70% of EVs registered in 2017 to a current low of 40% PHEVs as of January 2025.

Table 1. South Burlington EV Registration Snapshots, 2017-2025[7]

Date	All-Electric Vehicles	Plug-in Hybrid Electric Vehicles	*Total EVs*
Jan-2017	27	59	***86***
Jan-2018	43	79	***122***
Jan-2019	61	96	***157***
Jan-2020	111	114	***225***
Jan-2021	114	121	***235***
Jan-2022	174	166	***340***
Jan-2023	248	210	***458***
Jan-2024	371	281	***652***
Jan-2025	590	389	***979***

Figure 2. South Burlington EV Registrations

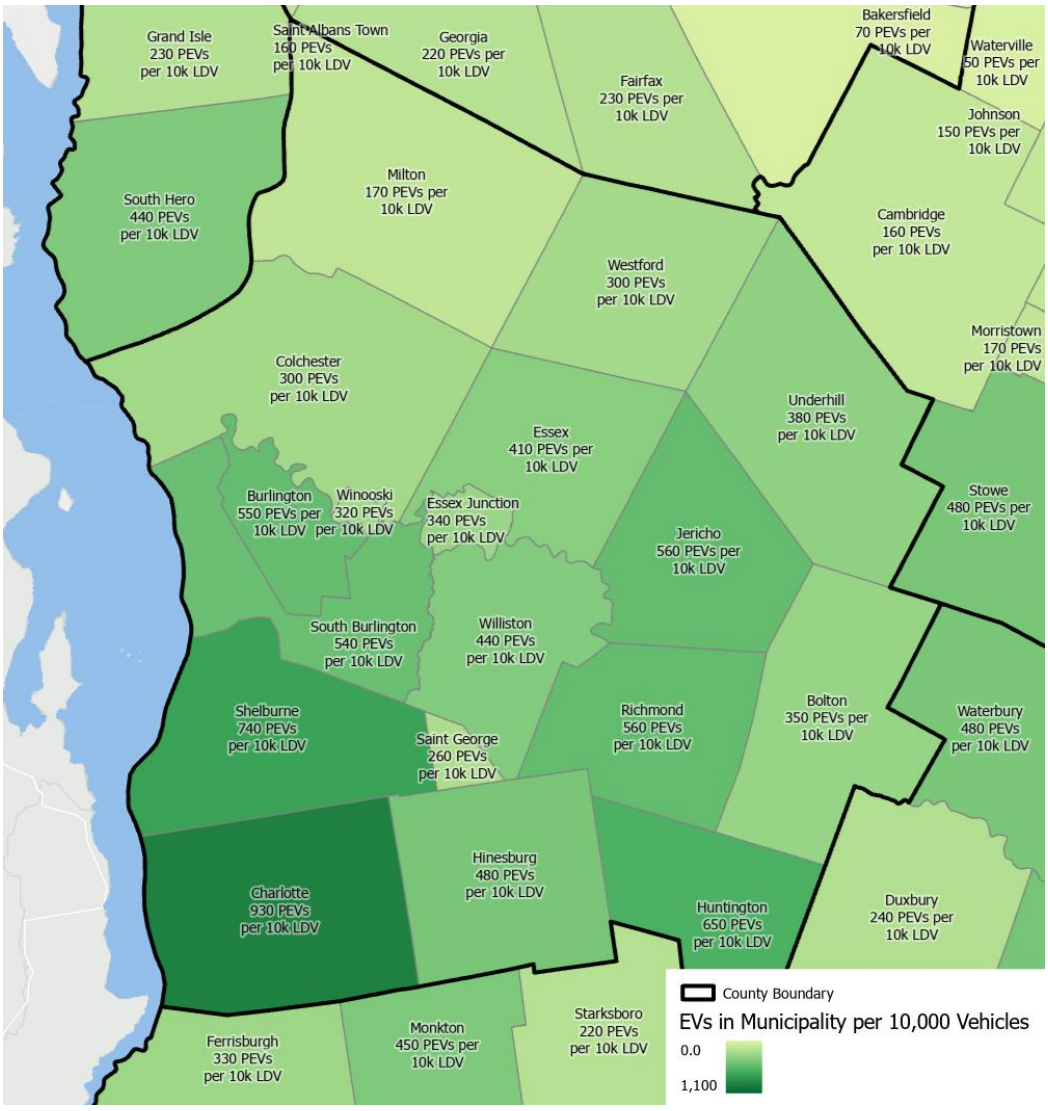


[7] VEIC, Vermont Agency of Natural Resources, Vermont Dept of Motor Vehicles. Vehicle Registration Data. Updated January 4, 2025.

South Burlington's rate of about 540 EVs registered per 10,000 vehicles is in the top 10% of Vermont municipalities. Figure 3 below shows estimated adoption rates for municipalities in the vicinity of Chittenden County.

South Burlington's adoption curve has followed a similar trajectory as statewide numbers. As of July 2025, there were about 19,500 EVs registered in Vermont, 60% of which were all-electric models.[8] Market share of EVs was about 10% of all new vehicle sales. Used EV market share was significantly lower, but has continued to grow as availability of EVs in the secondary market improves. With over 100 unique models of EVs registered in the state, there are now more options for car buyers with preferences for certain types of vehicles or brands.

Figure 3. EVs Registered per 10,000 Light Duty Vehicles, January 2025



[8] VEIC provides regular updates on EV market conditions in Vermont and shares summaries of this data at: https://www.driveelectricvt.com/uploads/media/Documents/Maps/vt_ev_registration_trends.pdf

Existing Housing Types

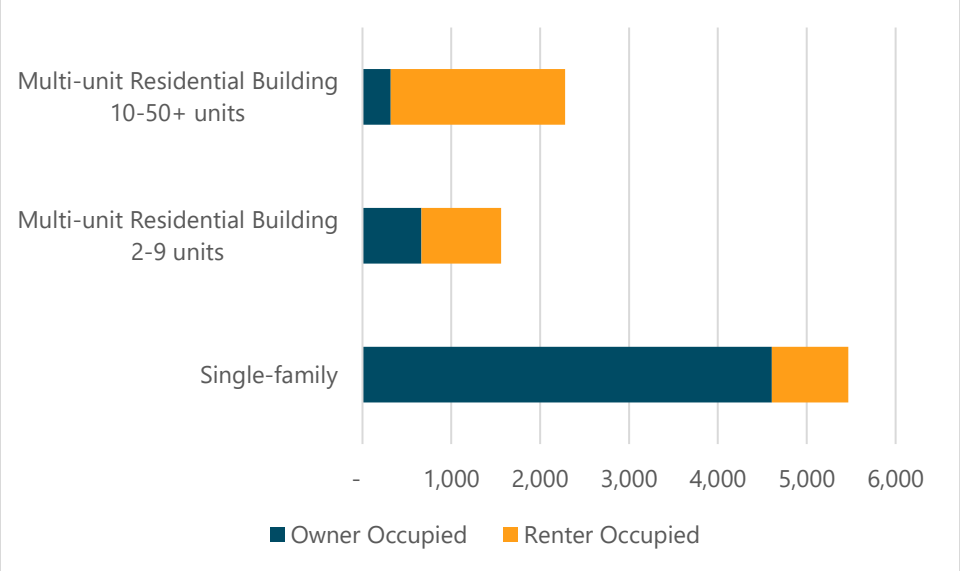
The type of housing (single or multi-unit residential) and tenure (owner or renter) can strongly influence a household's willingness to consider an EV purchase. Multi-unit residential housing owners and renters generally have more barriers to home charging installation due to the cost and complexity of retrofitting charging at existing developments.

South Burlington has a significant share of multi-unit residential housing and renter occupied housing, as shown in Table 2 below and the chart in Figure 4 below. Based on 2023 census data, approximately 40% of South Burlington housing is renter-occupied and similarly about 40% is multi-unit residential.

Table 2. South Burlington Occupied Housing Types and Tenure, 2023[9]

Structure Type	Owner Occupied	Renter Occupied	*Total*
Single-family	4,608	859	***5,467***
Multi-unit Residential Building 2-9 units	664	897	***1,561***
Multi-unit Residential Building 10-50+ units	318	1,961	***2,279***
Total	***5,590***	***3,717***	***9,307***

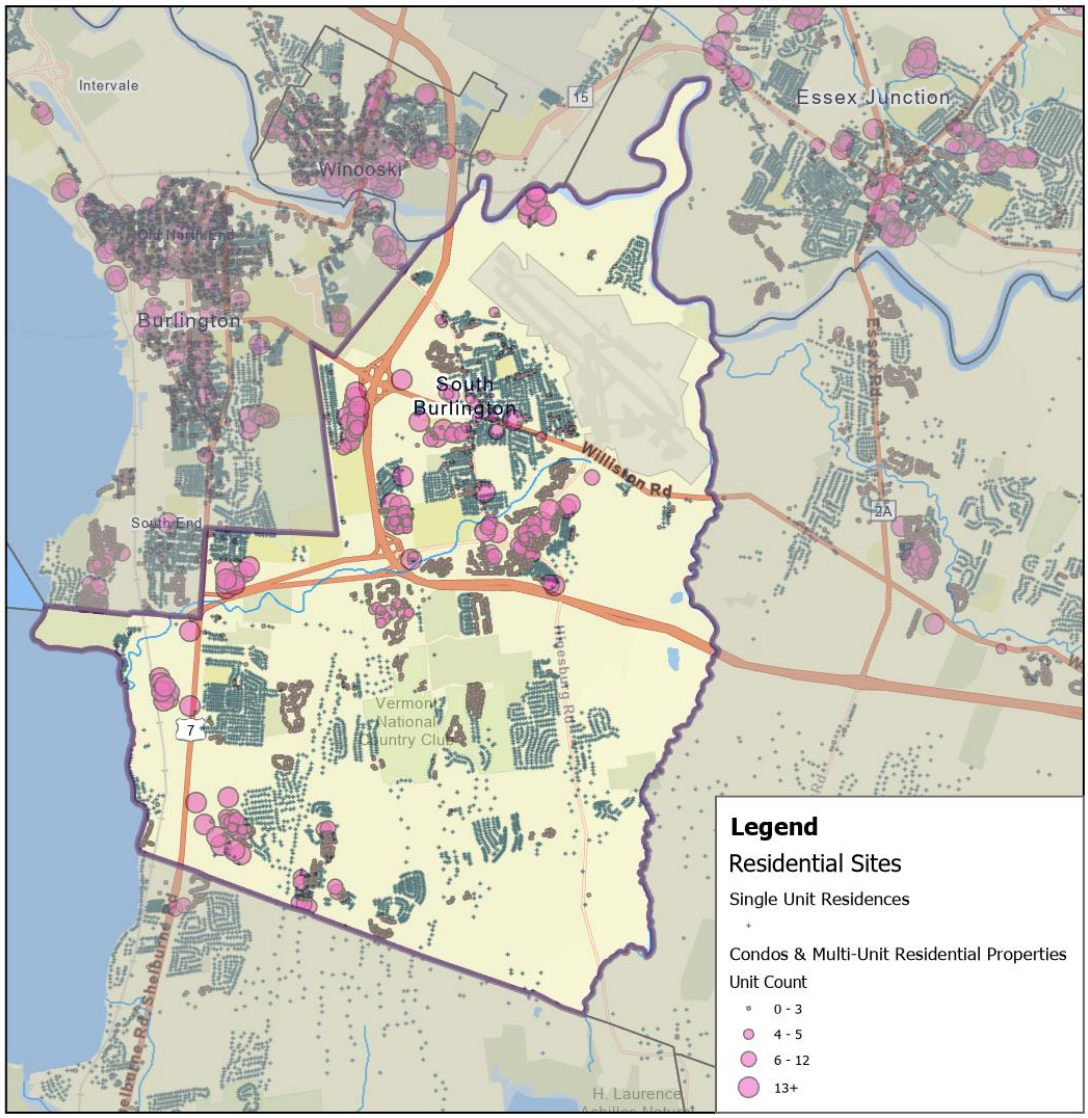
Figure 4. South Burlington Housing Types and Tenure



[9] US Census. American Community Survey 2023 5 Year Sample Data. Table B25032.

The map in Figure 5 below shows housing unit counts per location based on E911 site data from the State of Vermont. There are several areas in the City showing high concentrations of multi-unit residential housing, including Shelburne Road, Williston Road, Kennedy Drive, Dorset Street, and Market Street. Figure 12 below summarizes this data in uniform grid cells spanning the city as part of the charging prioritization analysis.

Figure 5. South Burlington Area Housing Types[10]



Existing Public EV Charging

South Burlington has approximately 36 locations offering ***charging to the public***. Neighboring communities also have charging available for public use. Table 3 below summarizes the number

[10] Vermont Center for Geographic Information. E911 Esite Points. March 20, 2025.

and type of charging by municipality as of December 2025. The map in Figure 6 shows locations of this charging infrastructure.

South Burlington City Hall has the largest concentration of public Level 2 charging in the City with six dual-port units, offering charging for up to 12 vehicles at the same time.

For Level 3 Charging, there are several options in the City or nearby:

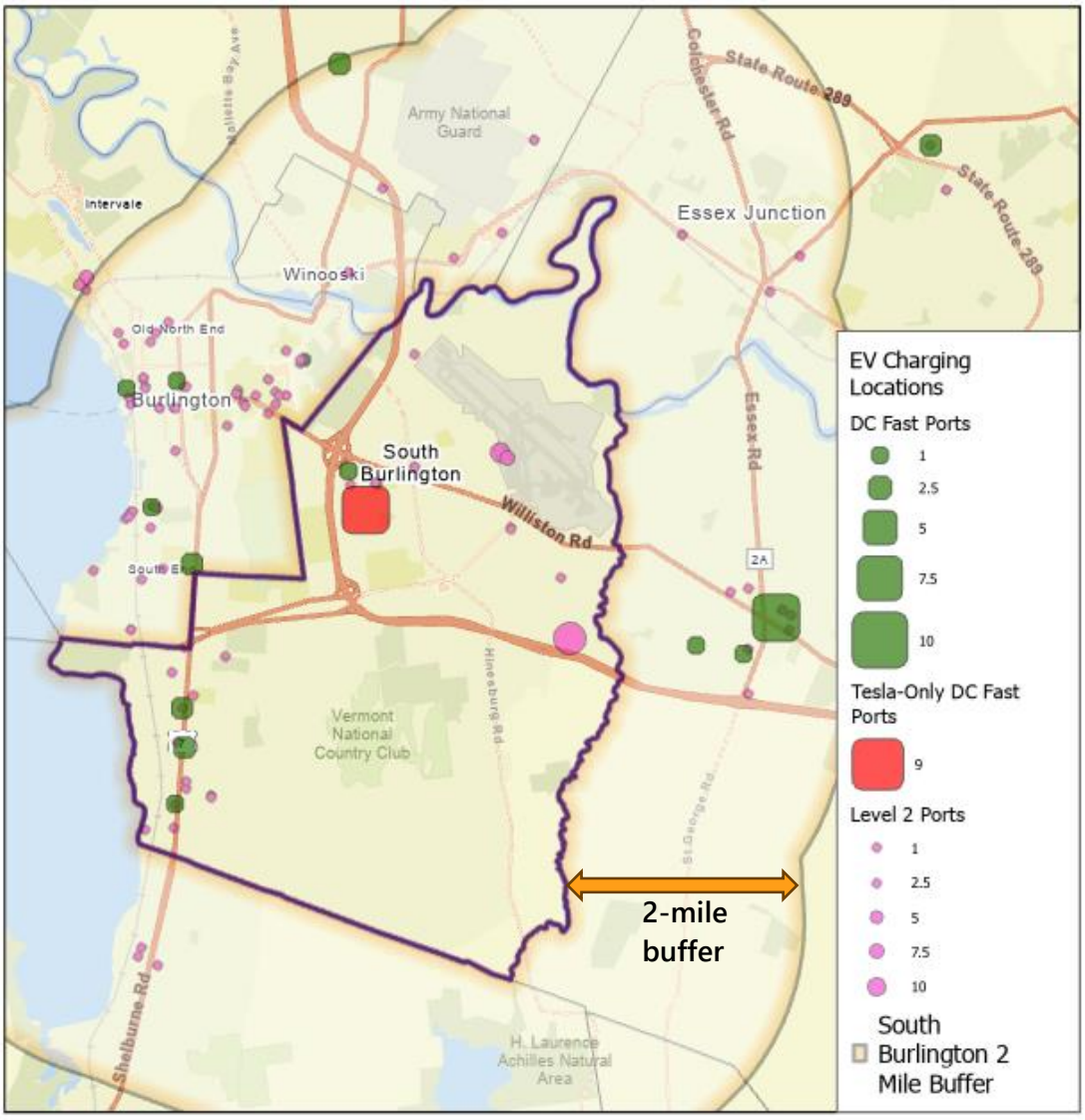
- 2 units open to all EVs at Homewood Suites on Dorset St owned by SunCommon (near CVS Pharmacy)
  - 8 Tesla-only units at Healthy Living on Dorset St
  - 2 units open to all EVs at IDX drive (near Talbots)
  - Several additional locations at auto dealers along Shelburne Road

Table 3. EV Charging Within 2 Miles of South Burlington, by Municipality as of December 2025[11]

Municipality	# of Locations	L1 Ports	L2 Ports	DCFC Ports
Burlington	82	0	137	5
Colchester	6	0	7	3
Essex	1	0	1	0
Essex Junction	3	0	4	0
Shelburne	3	0	5	0
South Burlington	36	2	88	19
Williston	11	0	15	10
Winooski	1	0	1	0
Total	**143**	**2**	**258**	**37**

[11] US Dept of Energy Alternative Fuels Data Center Station Locator Database, processed by VEIC. December 23, 2025.

Figure 6. Public EV Charging Locations in South Burlington and Neighboring Communities[12]



[12] US Dept of Energy Alternative Fuels Data Center Station Locator Database. December 23, 2025.

Future EV Charging Needs

EV Ownership Forecast

An analysis of future EV ownership was developed for this study to inform the amount of charging needed. The chart in Figure 7 below illustrates logistic forecasts of EV registrations based on current vehicle ownership, anticipated annual population growth of 1.5% over the next 25 years, and City energy planning goals.

Due to significant uncertainty in the future uptake of EV technology there are three scenarios representing different potential EV futures in the City:

Low Scenario – EVs reach 60% of total registered vehicles by 2050, reflecting the potential challenges of multi-unit residential homeowners accessing charging and lower availability of EVs in the marketplace.

High Scenario – EVs reach 98% of registered vehicles by 2050, reflecting the State of Vermont's energy goals which are included in the City's updated enhanced energy plan.[13]

Medium Scenario – EVs reach 75% of registered vehicles. This is intended as a middle ground between the low and high scenarios with the understanding there may be added challenges to electrification above 75% of total vehicles if home charging availability is limited, the purchase and operating costs for long-range EVs suitable for South Burlington residents limit market acceptance, and some vehicle needs, such as long-distance towing, are not adequately addressed by cost-effective EV options. ***This is the scenario used for the EV charging demand estimates described in the next section of this report.***

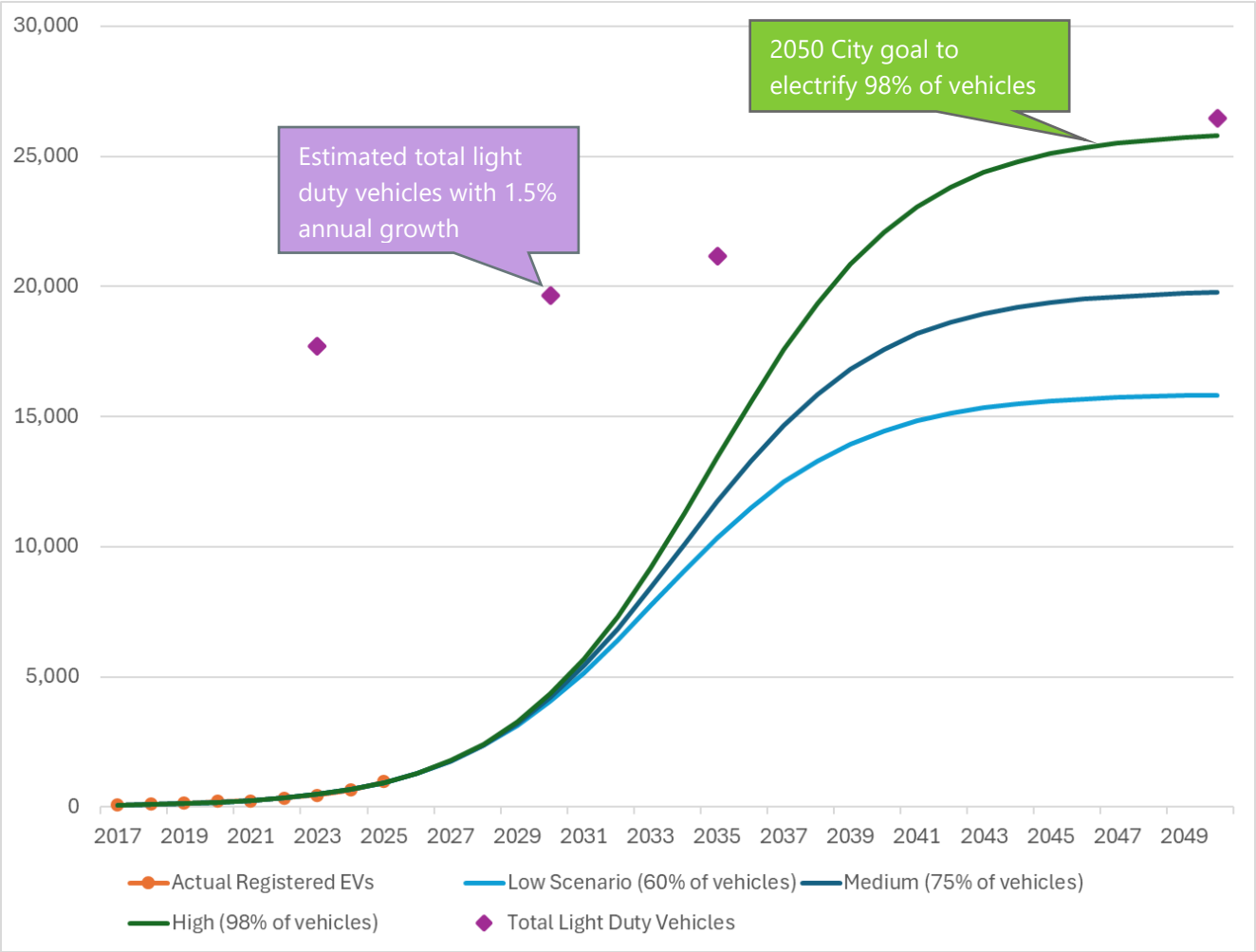
The values in Table 4 below are the forecasted estimates of EV ownership for each of the above scenarios for key years in the development of this plan.

Table 4. South Burlington EV Ownership Forecasts

	Actual Total EVs	Low Scenario	Medium Scenario	High Scenario
2025	979	940	945	945
2030		4,060	4,205	4,350
2035		10,350	**11,740**	13,434
2050		15,832	19,770	25,790

[13] CCRPC. S Burlington Energy Data Guide for Energy Planning. May 2025. https://www.ccrpcvt.org/wp-content/uploads/2025/05/SouthBurlington_NewEnergyDataGuide_20250501.pdf

Figure 7. South Burlington EV Ownership Scenarios



The City's Climate Action Plan and Transportation Sector Implementation Plan include strategies designed to reduce automobile vehicle travel, including increasing biking, walking, and public transit use. These shifts may decrease local vehicle ownership over time. At the same time South Burlington is expected to remain a regional destination for goods and services as well as a stopover for long-distance travel. Ongoing EV charging planning should incorporate these possible long-term shifts.

South Burlington EV Charging Need

Local demand for public EV charging depends on many factors, including:

- The types of vehicles in use, including AEVs and PHEVs as well as their battery range and efficiency;
- The amount of vehicle travel in and around the community;
- The availability of home and workplace charging options; and

- The amount and type of existing public EV charging.

VEIC used a tool developed by the National Renewable Energy Laboratory (NREL, now referred to as the National Laboratory of the Rockies) to estimate the needed number and type of EV charging to support the medium forecast scenario described in the prior section of this report.

This tool, EVI-Pro Lite, leverages NREL's research and expertise in vehicle electrification to estimate charging needs. There are many parameters associated with the above-mentioned factors that can affect the type and number of charging ports needed to serve EV drivers. VEIC consulted with South Burlington City staff to confirm the approach to the use of the EVI-Pro Lite system. Table 5 below summarizes the output for the different types of charging to meet demands for the Medium Scenario of EV ownership in the City. The appendix to this report contains more detailed information on the assumptions and outputs of the EVI-Pro tool.[14]

Table 5. South Burlington EV Charging Need (Medium Scenario)

Year	Estimated EVs	Private Single Family Home L1 and L2 Charging Ports	Private Shared L1 and L2 Charging Ports	Public Level 2 Ports	Public Level 3 Fast Charging Ports
2035	11,740	8,150	550	590	70
2050	19,770	13,100	875	910	80

Potential EV Charging Analysis

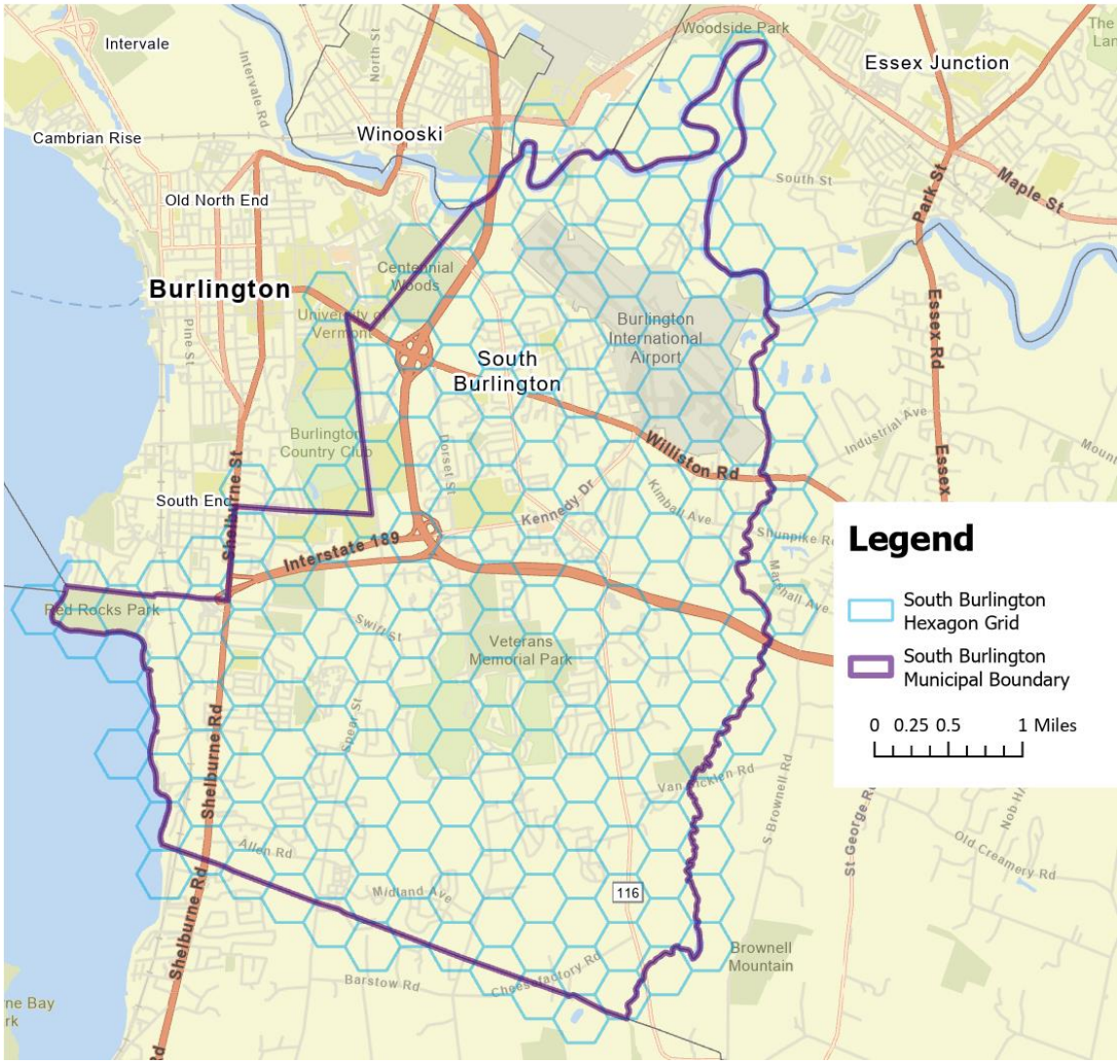
To prioritize and map potential EV charging locations across the City VEIC used Geographic Information Systems (GIS) software. The City was divided into a series of hexagonal "cells" to facilitate granular analysis of EV charging-related factors as described in the prioritization framework detailed in the following section.

As shown in Figure 8 below, there are 229 grid cells that have some portion of their area within the South Burlington City boundary. Each of these cells has an area of about 60 acres and an edge length of about 3/8th (0.375) mile.

Where grid cells overlap into neighboring communities the prioritization analysis considered the characteristics of those communities recognizing the demand for EV charging will cross municipal boundaries.

[14] US Department of Energy Alternative Fuels Data Center EV Infrastructure Toolbox – EVI Pro Lite. Available at: https://afdc.energy.gov/evi-x-toolbox#/evi-pro-ports

Figure 8. South Burlington 60 Acre Hexagonal Grid Cell Reference



Charging Prioritization Factors

VEIC consulted with South Burlington City staff to develop a list of prioritization elements and associated weighting intended to reflect the potential need for EV charging and local suitability. Table 6 below contains a listing of these elements and the associated scale factors used for each in the overall prioritization analysis. There are separate factors for Level 2 and 3 charging since the longer dwell time and lower cost of Level 2 charging shifts the need and suitability compared to faster charging options. These factors were refined in consultation with the City's advisory committee for this project. Figures 9 and 10 below illustrate the relative scale of the factors for Level 2 and 3 charging, respectively.

Environmental justice (EJ) was a key consideration in setting the prioritization factors for this plan. Vermont's Environmental Justice Law (Act 154 of 2022) establishes a statewide policy ensuring that no group of residents, regardless of racial, cultural, or economic identity, faces disproportionate environmental burdens or is denied equitable access to environmental benefits. The State is currently developing an official EJ mapping tool to support implementation of this policy. That tool was not yet available for this analysis, so this study used proxy indicators such as multi-unit residential housing, non-white population, and affordable housing to help identify areas where public EV charging can support EJ objectives.

The subheadings below contain maps of each individual element with more information on why these factors were used to assess EV charging demand and suitability. The map symbology for these elements uses decile categorization, where each color shade represents approximately 10% of the total grid cells within the City.

Table 6. Charging Prioritization Elements

Prioritization Element	Scale Factors	
	Level 2	Level 3 (DCFC)
Total Employment	0.75	0.25
Multi-unit Residential Housing	0.75	0.25
Parking-centric Businesses	0.10	0.75
Non-White Population	0.5	0.10
Affordable Housing	0.25	0.10
Average Annual Daily Traffic	0	0.30
Single-Family Housing	0.25	0

Figure 9. Level 2 Charging Prioritization Elements

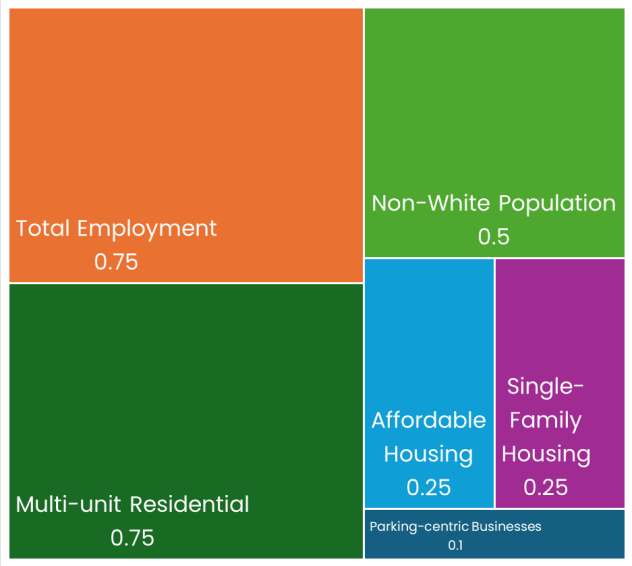
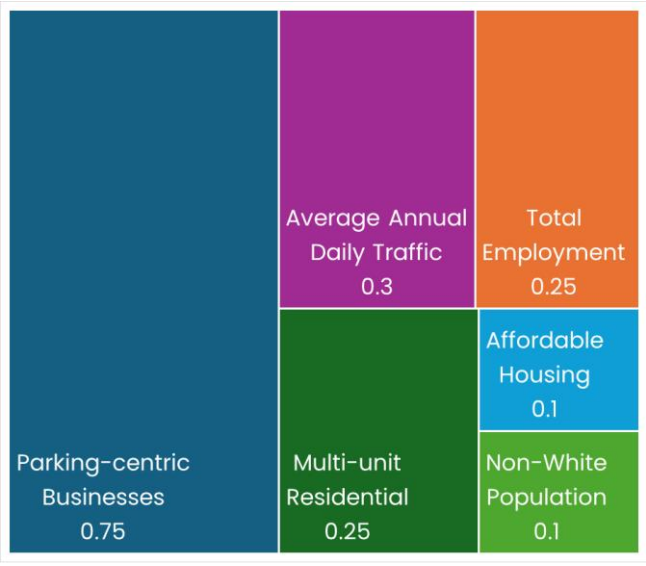


Figure 10. Level 3 Charging Prioritization Elements



Total Employment

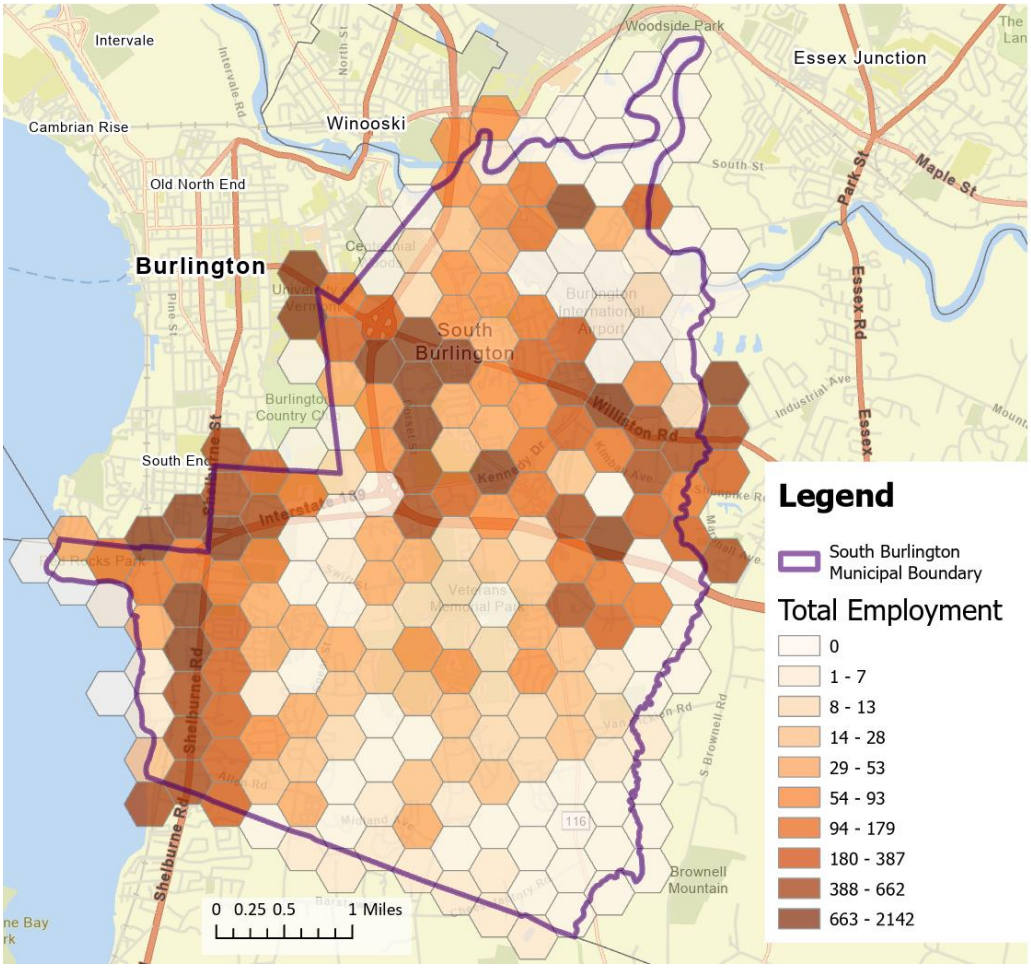
Element Scale Factors: Level 2 0.75, Level 3 0.25

Areas with high total employment attract significant daily traffic from both workers and visitors. These locations often have longer dwell times, making them well-suited for Level 2 public charging stations. Supporting EV charging near employment centers helps address the needs of employees who lack access to home charging, especially helpful in communities like South Burlington, where a significant number of residents live in multi-unit residential and rental housing.

Figure 11 below illustrates the distribution of jobs in the City as of 2020. This is the most recent information available at the scale needed for this analysis.

City schools are significant employers and can be good candidates for workplace charging to support staff and students. While public charging near schools can be helpful, schools should not be prioritized for *public* charging investments to avoid increasing non-school-related visitor traffic on school property.

Figure 11. Total Employment (2020)

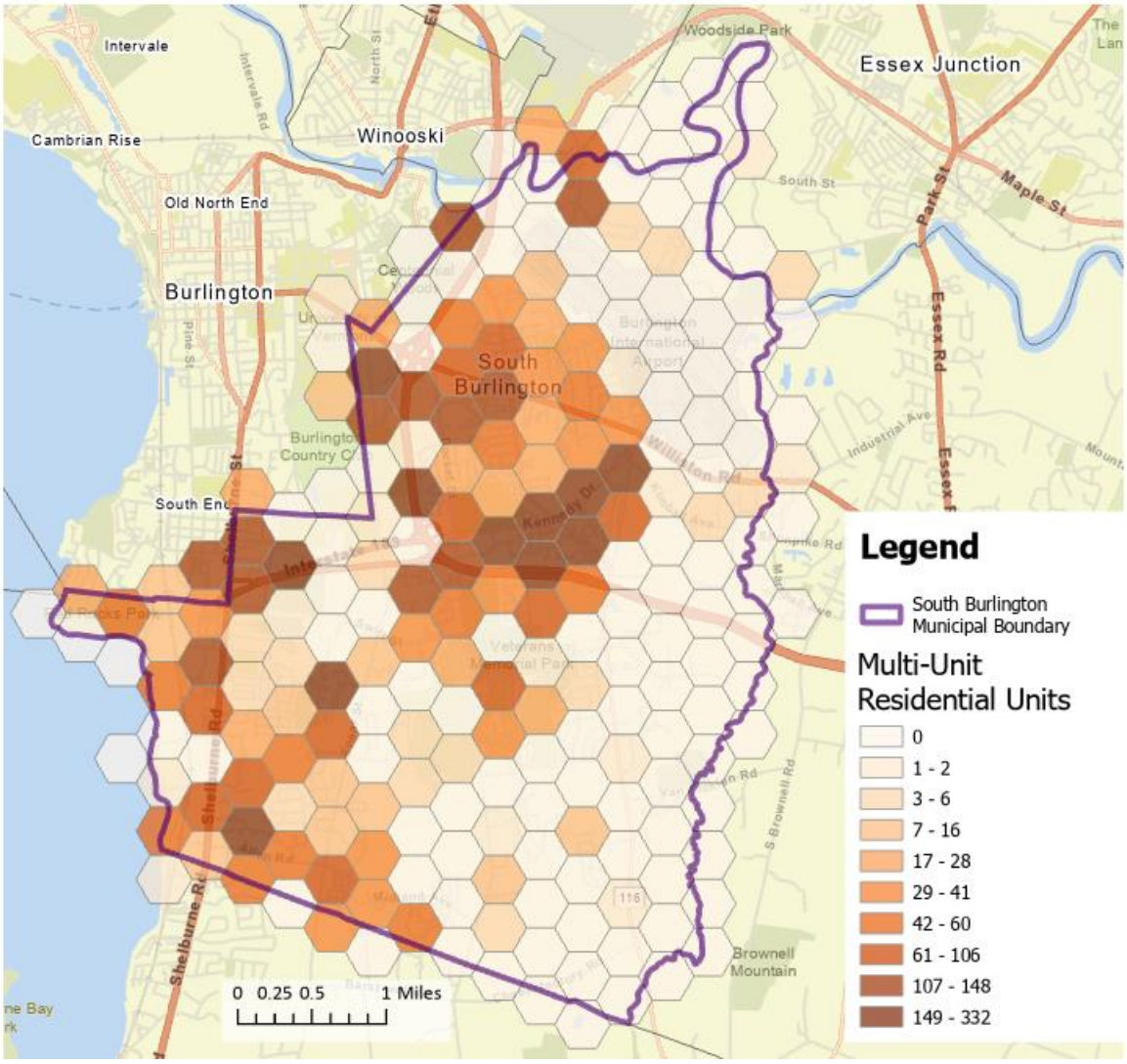


Multi-Unit Residential Housing

Element Scale Factors: Level 2 0.75, Level 3 0.25

Areas with higher shares of multi-unit residential housing units are prioritized for public EVSE due to the challenges residents face installing home chargers. Renters and condo owners often lack control over electrical infrastructure, making public charging infrastructure essential to equitable EV access.

Figure 12. All Multi-Unit Residences - condos and apartments, including neighboring communities (2025)



Parking-centric Business Employment

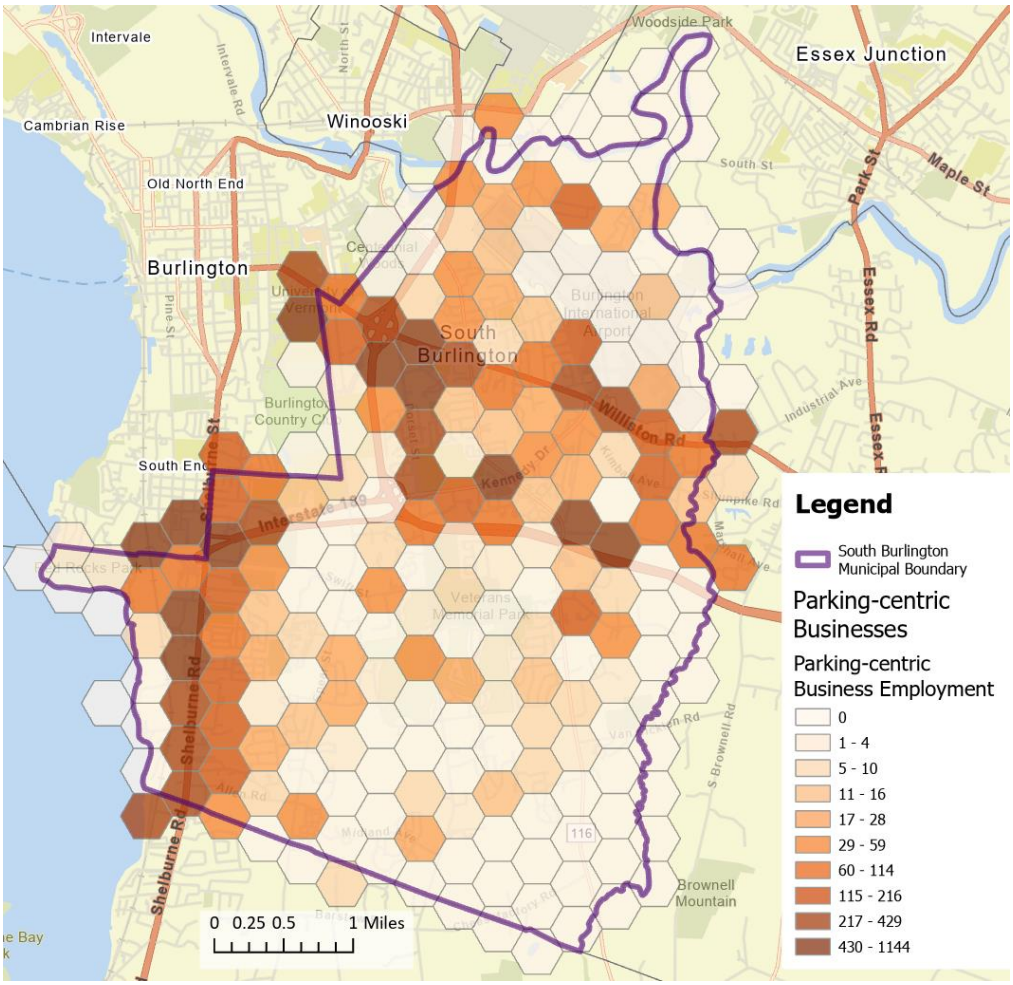
Element Scale Factors: Level 2 0.10, Level 3 0.75

Parking-centric business employment represents employees working in retail, arts and recreation, accommodation and food services, health care services, and public administration. These sectors, identified using **NAICS** codes 44, 45, 62, 71, 72, and 92, tend to generate more travel and higher parking demand throughout the day than typically found at employment locations, making the surrounding areas more suitable candidates for public EV charging infrastructure, especially Level 3 charging.

Siting EVSE in areas with amenities such as lighting, restrooms, and shelter helps ensure safe and efficient stops for EV drivers. These features are often co-located with parking-centric job centers.

Figure 13 below shows the distribution of these jobs within the City and in adjoining communities where grid cells overlap.

Figure 13. Parking-centric Business Employment (2020)



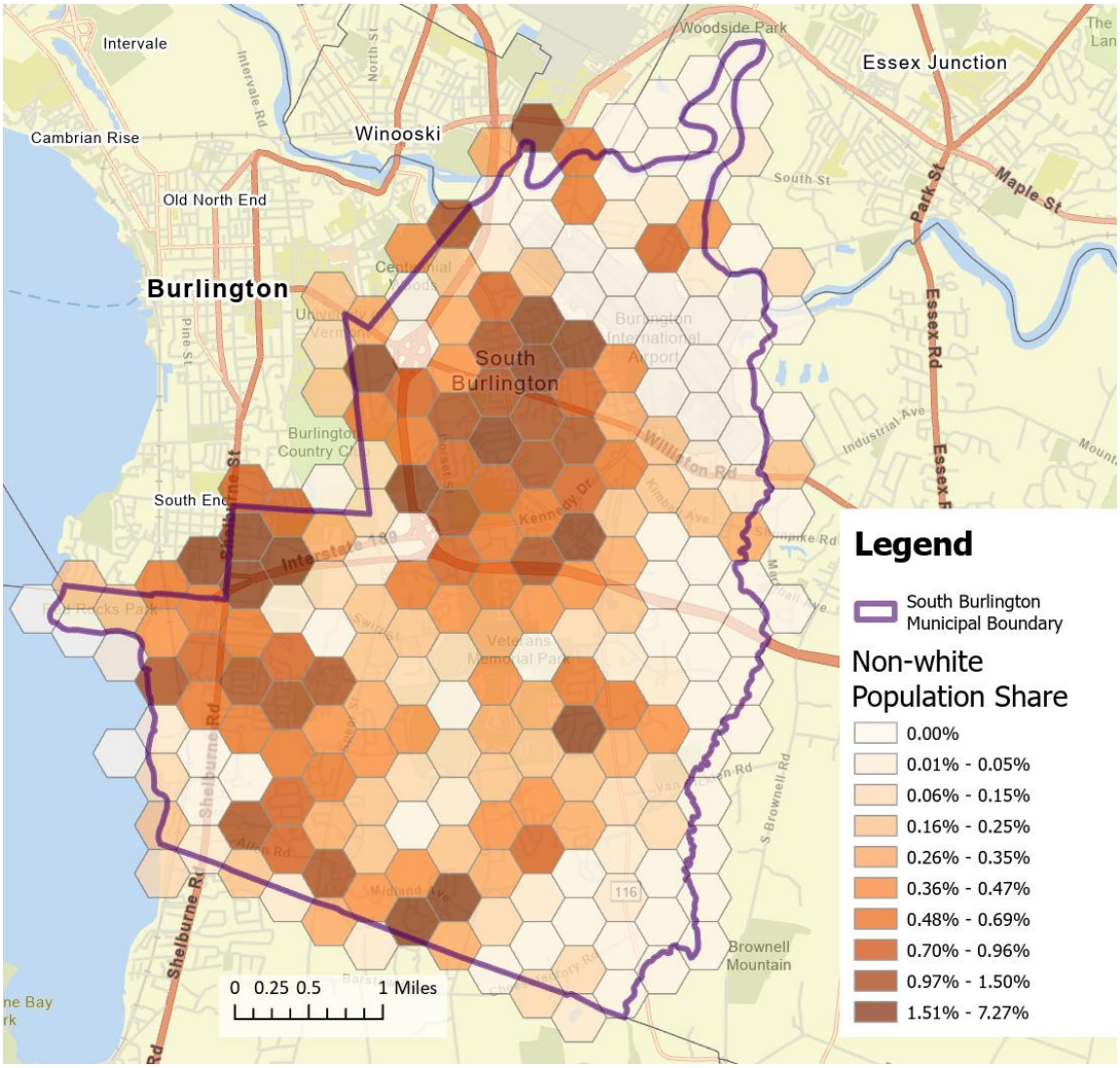
Non-White Population

Element Scale Factors: Level 2 0.50, Level 3 0.10

This element reflects areas in the City with higher percentages of non-white residents. Prioritizing EV charging in these areas supports equitable access and aligns with Vermont's environmental justice goals. It also helps ensure underserved communities benefit from clean transportation investments.

The percentages in the legend included in Figure 14 below reflect the percentage of non-white population in the grid cell relative to the entire non-white population across the City and areas in neighboring communities where grid cells overlap. This is based on apportioning population data from the 2020 US Census at the Census block level of geography using total housing units to weigh population when census blocks span more than one hexagonal grid cell.

Figure 14. Non-White Population (2020)



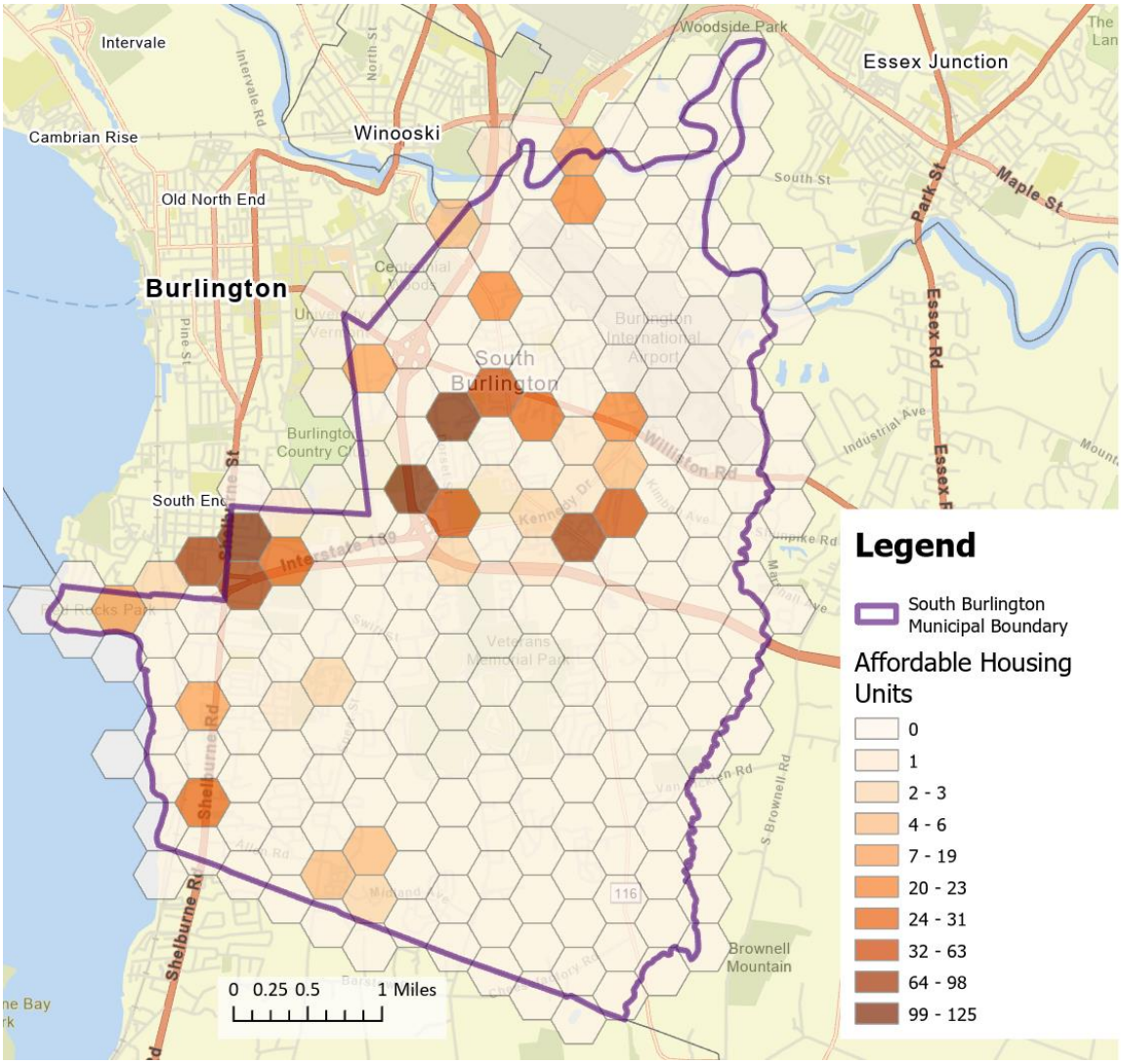
Affordable Housing

Element Scale Factors: Level 2 0.25, Level 3 0.10

This element reflects designated affordable housing locations, which are key to ensuring equitable access to EV infrastructure. This data is sourced from the Chittenden County Regional Planning Commission's regional housing data.

Residents in affordable housing have increased barriers to EV charging relative to market-rate multi-unit residential housing due to higher rental rates and less financial resources to support home charging installations and as such often face additional challenges to EV ownership. Prioritizing public charging in these areas supports Vermont's environmental justice goals.

Figure 15. Affordable Housing Units (2024)

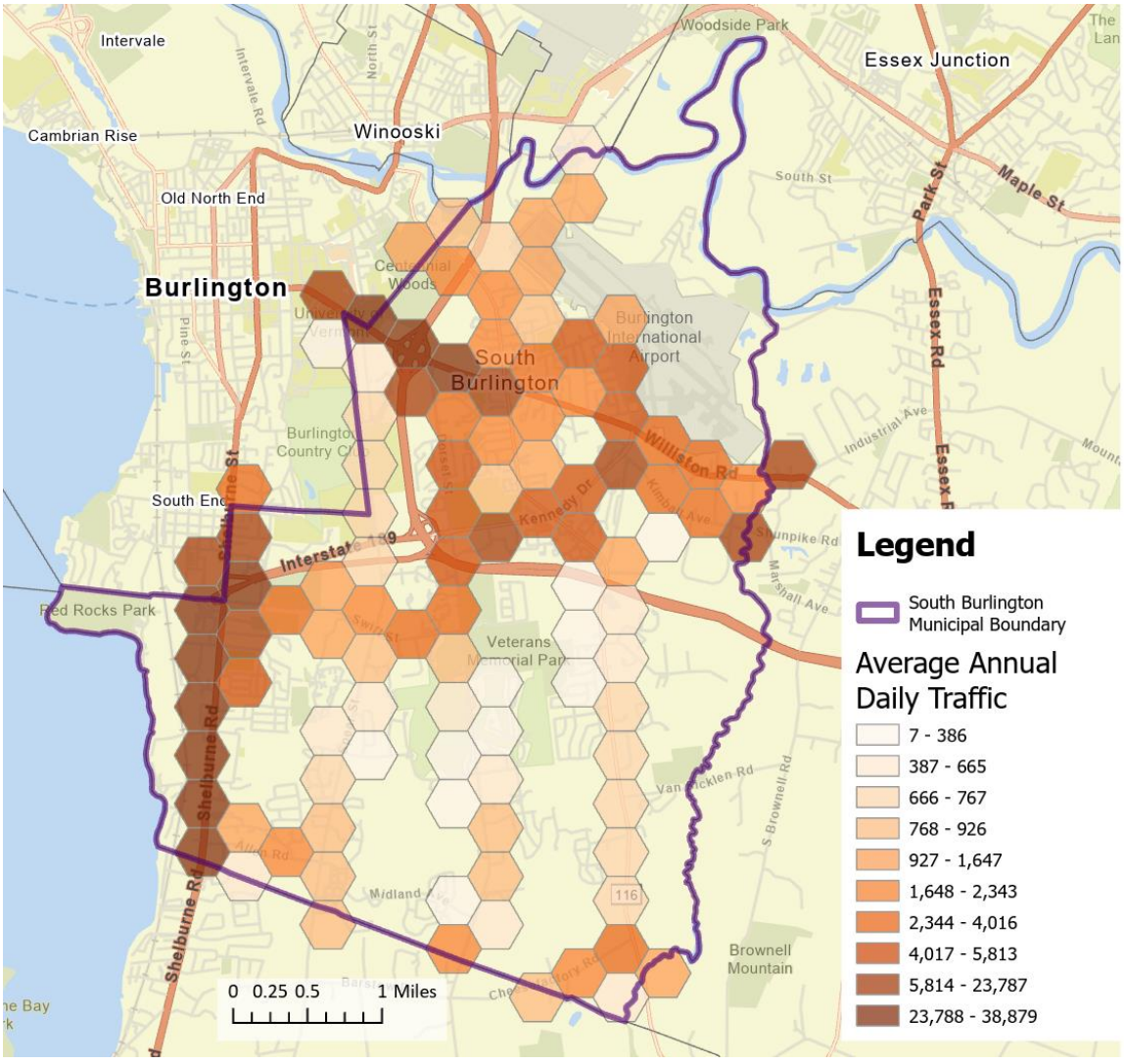


Average Annual Daily Traffic

Element Scale Factors: Level 2 0.0, Level 3 0.30

Traffic volume data is used to identify corridors with high vehicle throughput. These areas are ideal for Level 3 charging stations due to frequent vehicle turnover and potential for regional travel. High AADT locations also support economic development by attracting EV-driving visitors.

Figure 16. Average Annual Daily Traffic Volume (major roads, 2022)

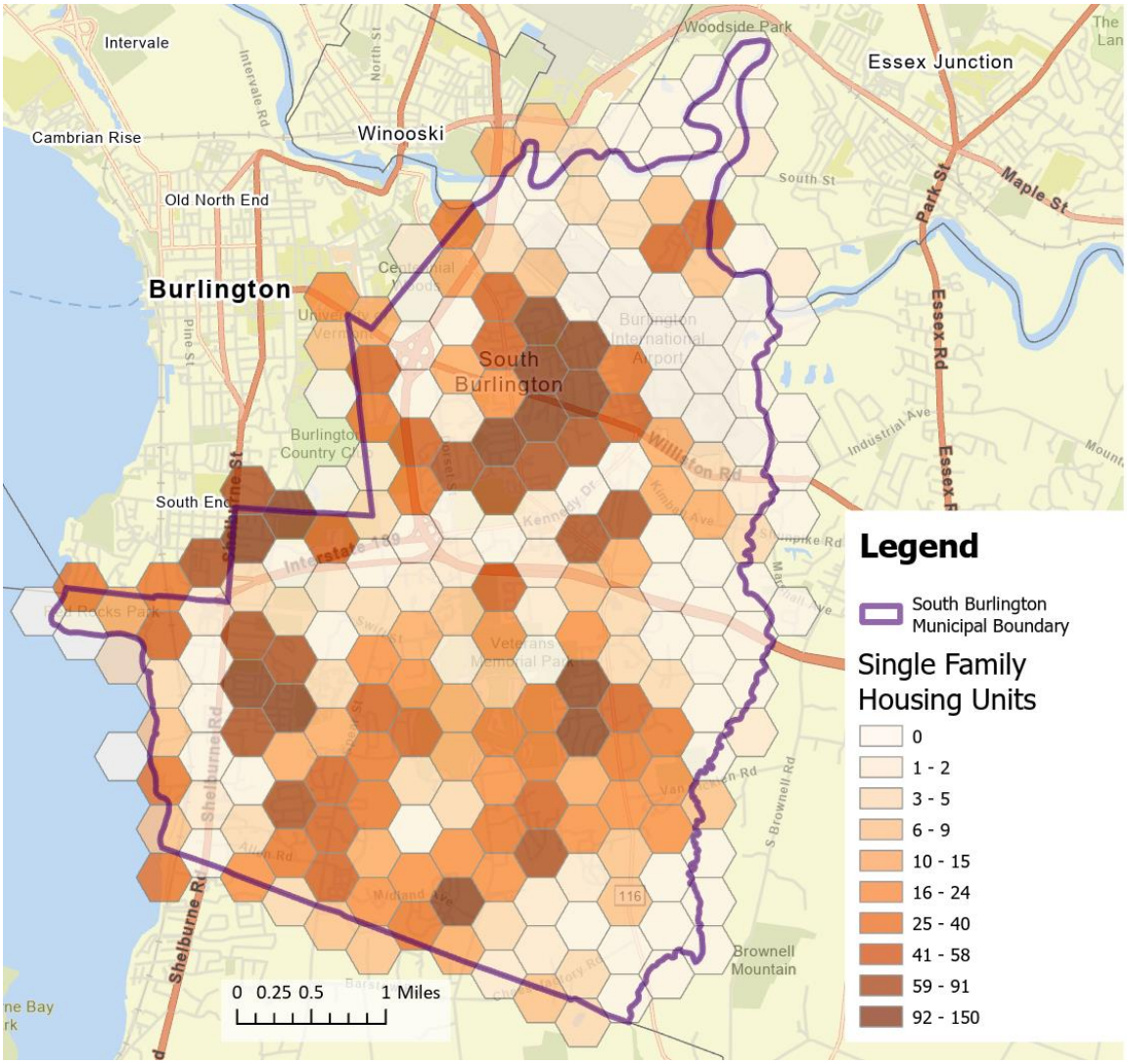


Single-Family Housing

Element Scale Factors: Level 2 0.25, Level 3 0.0

Single-family homes typically have better access to home charging, but public Level 2 charging nearby may still be important for visitors, renters, and households with limited electrical capacity.

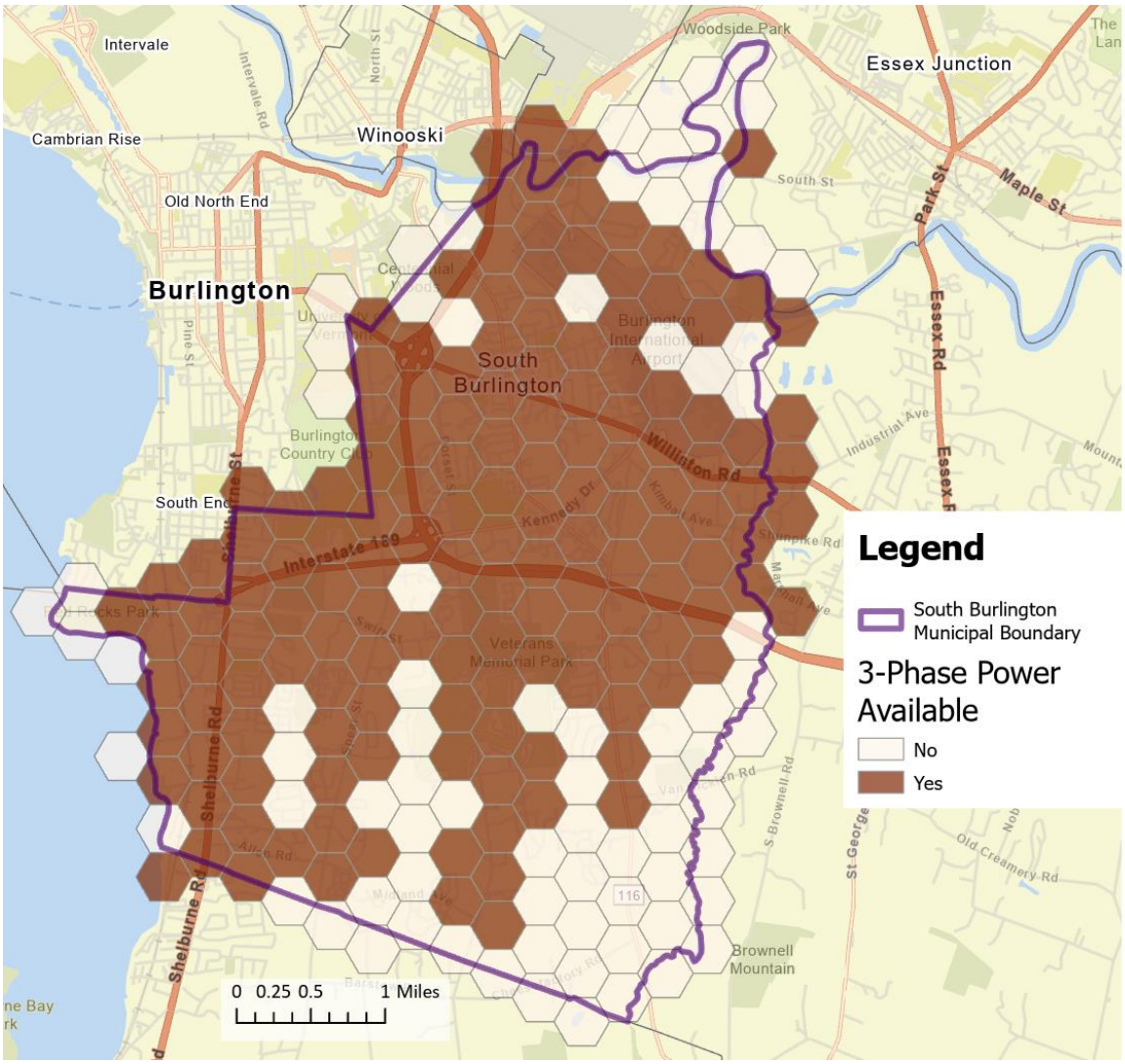
Figure 17. Single-Family Residences (2025)



3-Phase Power

Three-phase power availability is a key technical requirement for higher powered EV charging and is commonly required for Level 3 charging installations. The map below reflects where 3-phase infrastructure is in place, which will generally reduce installation costs and accelerate deployment timelines. This element was not factored into the prioritization analysis since it relates to the feasibility of charging installation more than the demand for charging services, but the map is included here as a consideration for future implementation.

Figure 18. 3-Phase Power Availability (2025)



Overall Prioritization Results

To create a common reference to calculate an overall prioritization score for each grid cell the individual elements were normalized by taking the square root of the element's value for an individual cell and then dividing by the square root of the maximum value across all the cells in the City. This resulted in a fractional value between 0-1 for each element.

Then the scaling factors included in Table 6 above were applied and the results summed across all the prioritization elements. Finally, the tally was multiplied by 10 to create the overall prioritization score for the cell. Figure 19 below shows the scores for the Level 2 charging prioritization and Figure 20 shows the Level 3 charging prioritization results.

Figure 19. Level 2 EV Charging Prioritization Results

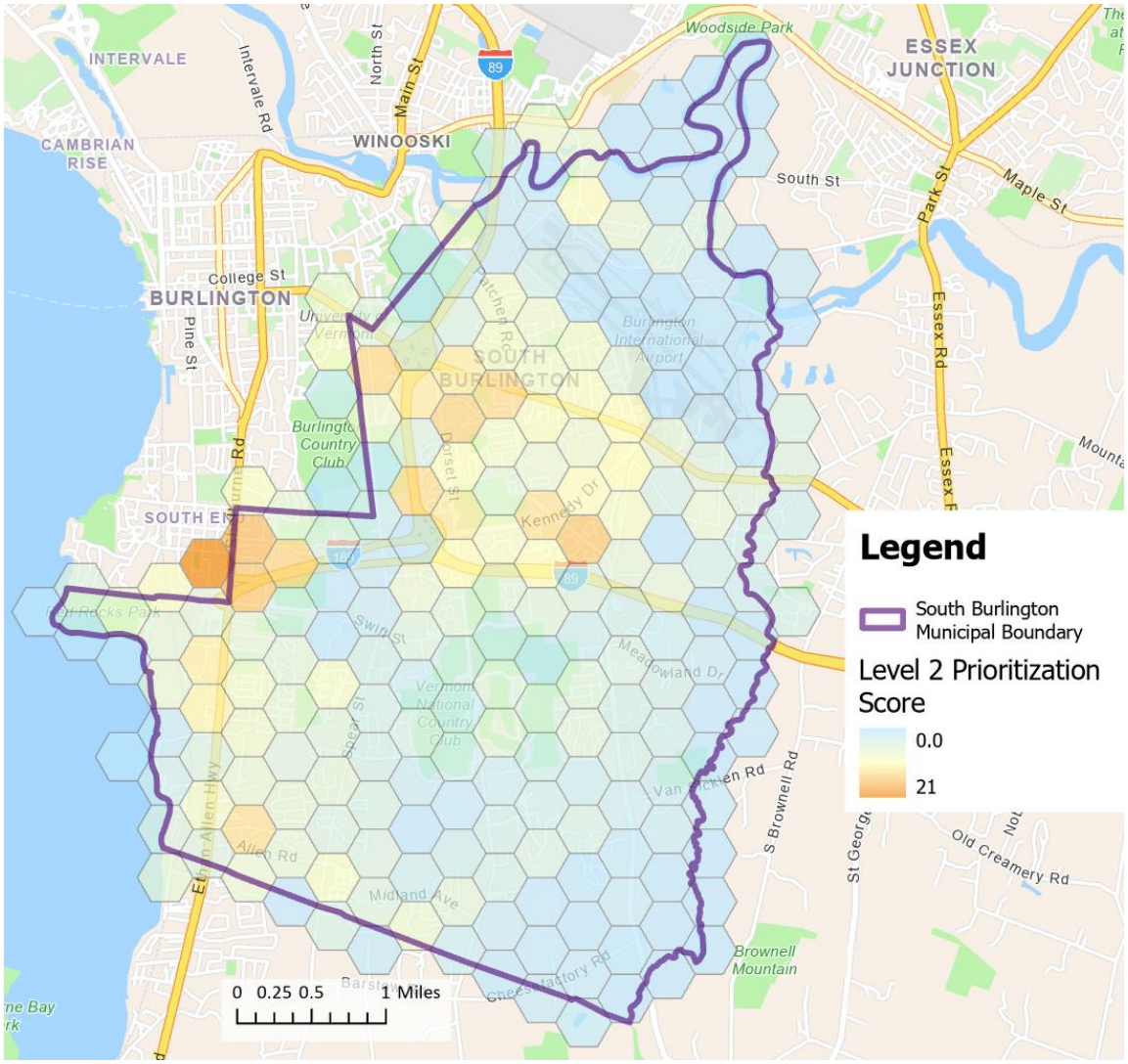
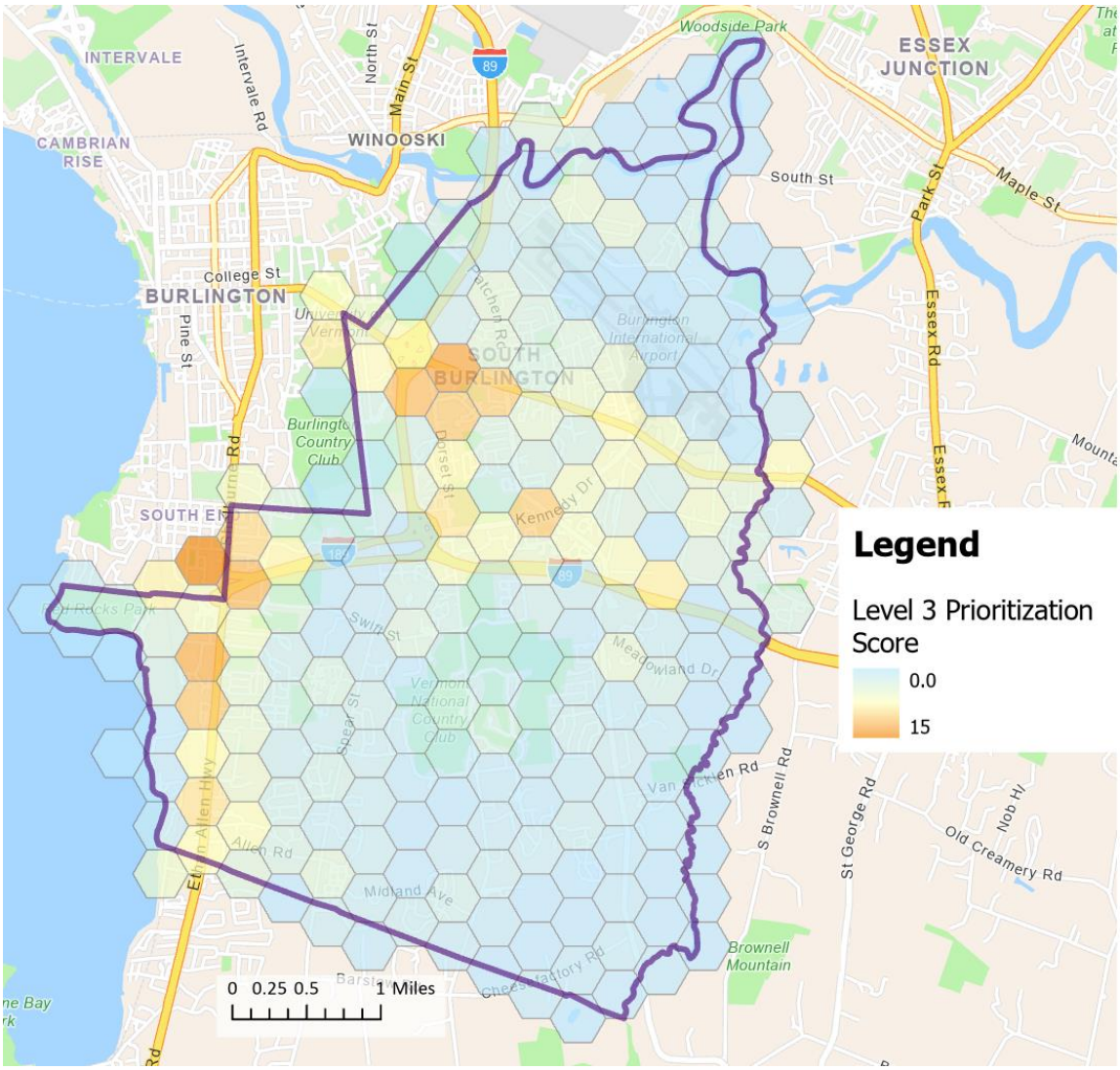


Figure 20. Level 3 EV Charging Prioritization Results



Future Charging Areas

Following the results of the prioritization analysis, VEIC used the Level 2 and Level 3 Charging prioritization scores to create clusters for future public EV charging planning. The clusters represent larger areas with similar priority scores and were used to distribute the estimated future public charging needs based on the EV forecast.

The clustering resulted in five areas for the Level 2 prioritization and four areas for Level 3 Charging. The maps in Figure 21 and Figure 22 below show the clustered areas by color and number for Level 2 and Level 3 Charging. The areas are ranked according to the average prioritization score for the individual cells, illustrated by the size of the grey circular symbols within the cells (larger symbols mean higher priority). The priority score cluster averages do not include individual grid cells with zero values to reduce the influence of areas that are in undevelopable areas (such as Lake Champlain) in the future distribution of charging ports needed in the City.

The tables below the cluster maps summarize the number of grid cells in each cluster ranking area, the percentage of the total number of cells across the city for each cluster, and the average prioritization score for the cells within the cluster.

The clustering analysis was used to distribute the estimated Level 2 and Level 3 charging ports needed in 2035. Level 2 ports were distributed across clusters 1-4 according to their weighted scores as described below. Cluster 5 had significantly lower prioritization scores and are generally not ideal locations for public charging investments. Given the wide distribution of these cells across the city and expected development of charging we have assumed that about 10% of the overall Level 2 charging needed would be located in the Cluster 5 area.

Level 3 charging ports were distributed across clusters 1-3. Similar to Level 2, cluster 4 cells had lower priority scores for fast charging so a baseline assumption was made that 10% of total Level 3 charging needs would be in this area. The distribution of charging ports among clusters shown in Table 7 and Table 8 below was determined by:

1. Multiplying the average priority score for the cluster by the number of cells within the cluster to create a weighted cluster score.
2. These weighted cluster scores were then divided by the total weighted cluster scores for clusters 1-4 for Level 2 charging, or clusters 1-3 for Level 3 Charging, leaving 10% of the total weight for the lowest priority clusters – cluster 5 for Level 2, and cluster 4 for Level 3.
3. The percentage weighted score was then multiplied by the number of public charging ports as described in Table 5 above to arrive at the 2035 ports needed.

4. Existing charging ports as of December 2025 are also included in the cluster results tables, and were subtracted from the estimated 2035 need to arrive at the additional ports needed in the right-most columns of each table.

Figure 21. Level 2 Prioritization Clusters

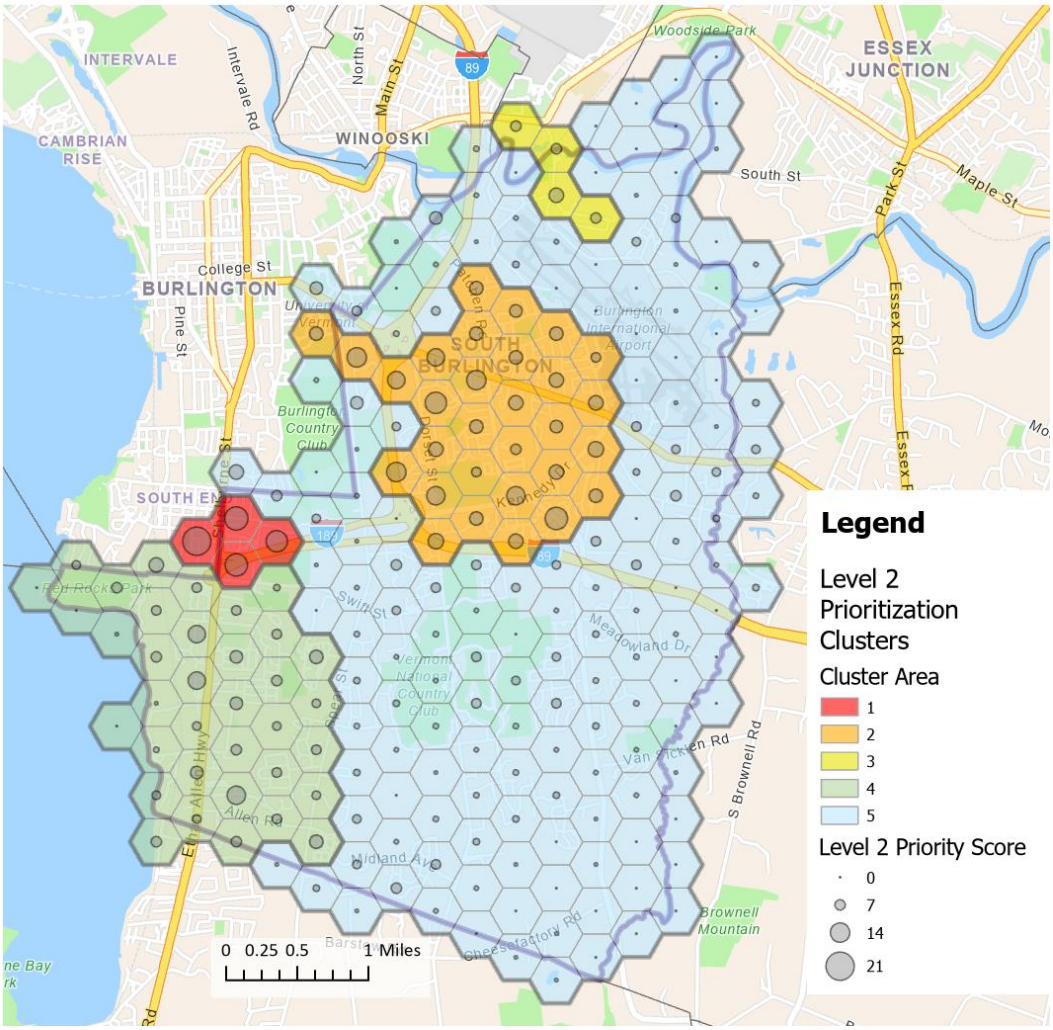


Table 7. Public Level 2 Charging Ports by Cluster (2035)

Cluster Rank	Number of Cells	% of Total Cells	Average Priority Score	Weighted Cluster Score	% of Weighted Score for Level 2	Existing 2025 Level 2 Ports	2035 Level 2 Ports	Additional Ports Needed by 2035
1	4	2%	17.1	69	10%	0	56	**56**
2	30	13%	10.4	311	43%	38	255	**217**
3	4	2%	7.7	31	4%	0	25	**25**
4	36	16%	6.6	237	33%	26	195	**169**
5	*155*	*68%*	*3.3*	-	*10%*	*39*	*59*	***20***
Total	**229**	**100%**	**8.7**	**647**	**100%**	**103**	**590**	**487**

Figure 22. Level 3 Charging Prioritization Clusters

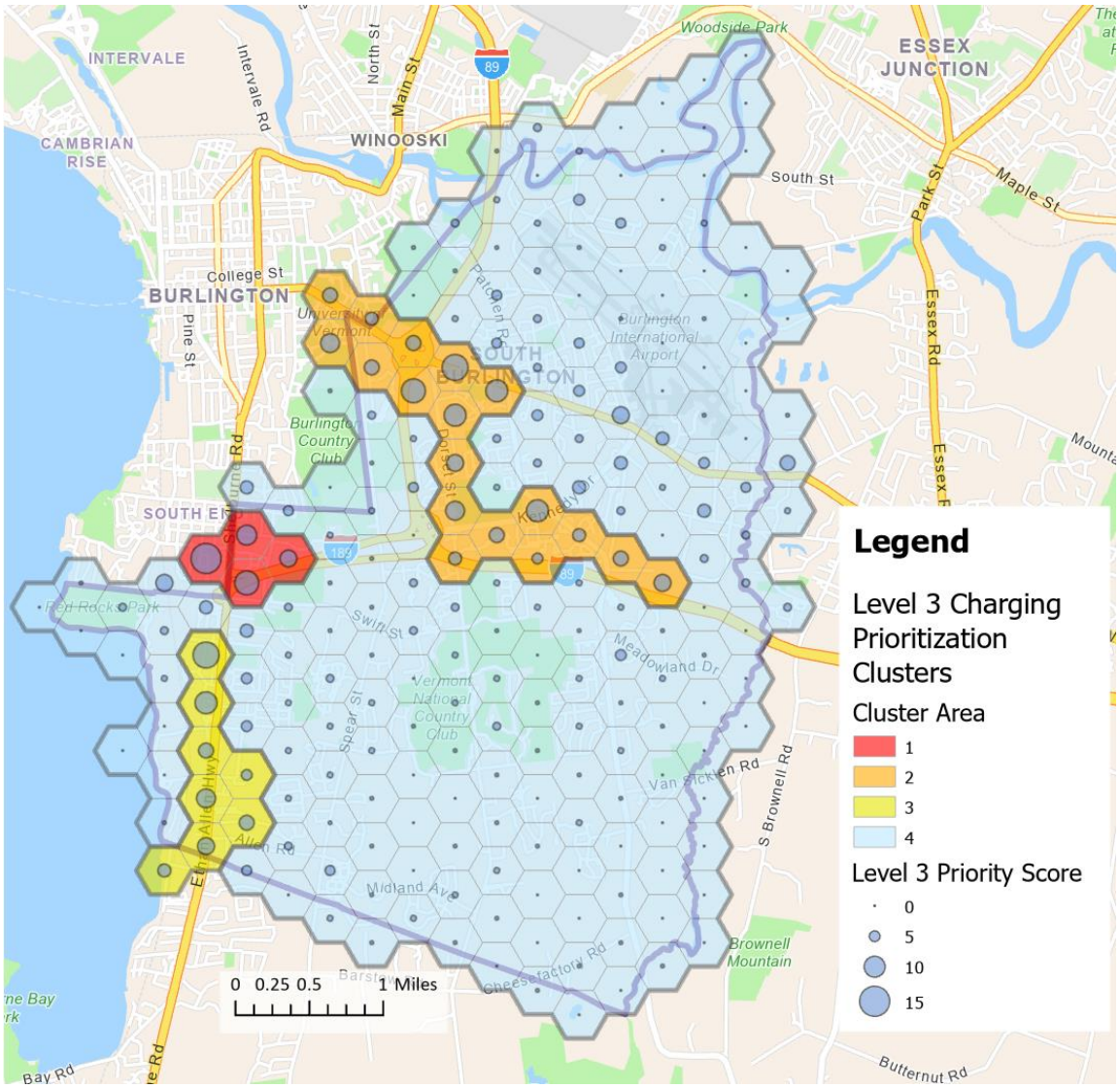


Table 8. Public Level 3 Charging Ports by Cluster (2035)

Cluster Rank	Number of Cells	% of Total Cells	Average Priority Score	Weighted Cluster Score	% of Weighted Score for Level 3	Existing 2025 Level 3 Ports	2035 Level 3 Ports	Additional Ports Needed by 2035
1	4	2%	11.3	45	16%	0	11	**11**
2	18	8%	8.3	149	52%	10	36	**26**
3	8	3%	8.2	66	23%	5	16	**11**
4	*199*	*87%*	*2.1*	-	*10%*	*6*	*7*	***1***
Total	**30**	**100%**	**8.7**	**260**	**100%**	**21**	**70**	**49**

As shown in the above figures, some of the clusters span large areas of the City. While siting of actual charging installations will depend on many factors, the intention is that charging installations would be spread relatively evenly across the clusters to increase the convenience of charging and reduce any localized impacts to parking availability or grid infrastructure. This approach to distributing public charging needs across higher priority areas in the City could be updated in the future to meet the forecasted charging need in 2050 or other interim years as EV adoption grows.

Implementation

Advancing charging in the priority areas described above will take coordinated efforts among many parties. The sections below detail potential costs, ownership models, and funding options associated with City-supported public charging. A large-scale charging installation across South Burlington would quickly boost availability, but incrementally installing a few ports at a time is the more common approach used by municipalities. A variety of implementation and funding models will likely be needed to reduce up-front capital costs borne by the City, estimates of which are included below.

Capital Costs

The cost of new charging equipment varies widely depending on the type of equipment and the location of the installation. For public charging locations the costs associated with accessing power, preparing the site, and installation labor can equal or exceed the cost for the charging equipment.

Table 9 below provides a range of estimated costs for public Level 2 charging, and 150 kW Level 3 Charging, broken out by equipment and installation costs. The public Level 2 costs are drawn from recently completed Level 2 charging installations funded through the Charge Vermont program.[15] The Level 3 costs are from a 2023 National Renewable Energy Lab (NREL) report estimating national charging needs and associated costs.[16]

For purposes of this report 150 kW Level 3 equipment was deemed the most likely option the City would support in the near term. Higher powered Level 3 charging options are available at additional cost.

[15] Charge Vermont. Nov 2025. Completed Project Funding Amounts. Accessed at: https://www.chargevermont.com/news-updates-2/

[16] NREL. 2023. The 2030 National Charging Network: Estimating US Light Duty Vehicle Electric Vehicle Charging Infrastructure. p 33. Accessed at: https://docs.nrel.gov/docs/fy23osti/85654.pdf

Table 9. EV Charging Capital Costs (Charge Vermont, NREL)

Type of Charging	Ranges	Equipment Cost per Port	Install Cost per Port	Total Cost per Port
Level 2 - Public	Low: High: **Average:**	$690 $7,100 **$3,340**	$275 $22,470 **$5,400**	$1,800 $25,485 ***$8,750***
Level 3 DCFC – Public **150 kW**	Low: High: **Average:**	$66,400 $102,200 **$84,300**	$45,800 $94,000 **$69,900**	$112,200 $196,200 ***$154,200***

To estimate total implementation costs, the cost ranges above were multiplied by the number of additional public EV charging ports needed under the 2035 medium adoption scenario from Table 7 and Table 8 above. As shown in Table 10 below, this results in an estimated total cost of approximately **$11.8 million** using average per-port values, with a possible range of $6.4 million on the low end to $22 million using the highest potential costs.

Table 10. 2035 South Burlington Public Charging Need Capital Cost Estimate (Rounded 2025 $)

Type of Charging	Low Costs	High Costs	Average Costs
Level 2 – Public ***487 Ports***	$875,000	$12,410,000	**$4,260,000**
Level 3 – Public **150 kW** ***49 Ports***	$5,500,000	$9,615,000	**$7,555,000**
Total	$6,375,000	$22,025,000	**$11,815,000**

Understanding the City's resources are constrained, the expectation is the City would seek external funding and/or partner with other entities to minimize any City taxpayer investments in charging. The ownership options described in the next section cover several options for this.

Ownership

A robust ownership and maintenance strategy is critical to the long-term success of South Burlington's public EV charging network. It will ensure reliability, equitable access, and alignment with municipal goals.

Several ownership models for EV charging infrastructure are summarized in

Table 11 below. The relative costs provide a general assessment of the capital construction costs and operating & maintenance (O&M) costs that would be borne by the City under the different models.

In a **city-owned model**, the municipality retains full control over the chargers, including setting pricing, providing accessibility, and upkeep of EVSE maintenance. This approach aligns with public interest goals and ensures consistent service but requires upfront capital investment, long-term budget planning and would add to the workload of city employees. Staffing requirements could be mitigated to some degree by using EVSE network providers to handle customer service and other issues. The existing Level 2 charging at City Hall was installed with this approach and the future publicly available Level 2 chargers at the Police Department (under contract) will also follow this model.

The type of charging significantly affects potential City ownership strategies. Level 2 stations are comparatively low-cost to install and operate and resemble other municipal services. In contrast, Level 3 stations require much higher capital investment and more specialized operational expertise, making partnerships or alternative ownership models more likely.

City-owned charging installed for municipal fleet use can also serve the broader community when appropriate. As an example, the City recently installed Level 2 charging at the Fire Station property on Dorset Street. This will primarily serve City fleet charging needs, but the City is evaluating making charging available to the public at this location. Residents at several multi-unit residential properties nearby might benefit from public charging at this location.

In a **utility-owned model**, Green Mountain Power (GMP), would install, own, and operate the EVSE, managing all aspects of site selection, equipment installation, and ongoing maintenance. This approach would reduce the operational burden on City staff but would also limit the City's control over pricing, access, and other operational decisions, as utilities typically retain all revenue generated through user fees. The Level 3 charging off Shelburne Road near Talbots (IDX Dr) is GMP-owned and they have indicated a willingness to consider additional charging investments in the region.

The **private-ownership model** requires no direct City investment. Private entities bear the full cost of installing and operating the charging, and set user fees according to their business needs. City permitting processes may offer limited opportunity to influence the quantity and/or location of privately-owned charging infrastructure.

The **third-party ownership model** often involves a contract between the City (site host) and a charging network provider (i.e. ChargePoint, EVgo, Blink, etc.). The third party owns and operates the equipment on municipal property, typically with a long-term lease agreement. The contract may include revenue sharing and/or network fees and maintenance agreements. This reduces upfront costs for the site host, and all the technical support and maintenance is handled by the provider.

Alternatively, **public-private partnerships (PPPs)** allow the city to share ownership and operational responsibilities with private entities (e.g., local businesses). This model can reduce capital burden and leverage private expertise in installation, maintenance, and customer service.

However, it requires detailed host agreements to define roles, responsibilities, and revenue-sharing arrangements. This can increase equity and accessibility, while reducing the cost-burden of the site owner. Both parties share the risks and rewards.

Table 11. EV Charging Ownership Models

Ownership Model	Description	Relative Costs		Additional considerations
		Capital	O&M	
City-Owned	City would own and operate the equipment and would be responsible for all maintenance and servicing. The City would retain all revenue collected through charging fees.	$$$	$$$	- Capital costs could be funded by grants (if available) - City maintains full control, including ability and responsibility to service & set prices - City could earn revenue - Added responsibilities for city employees - Greater risk of stranded assets if charging isn't used or technology evolves
Utility-Owned	Electric utility owns and operates the equipment, typically including all revenue. City or private partners may need to provide no-cost access to property / right-of-way for siting.	$	$	- Green Mountain Power has limited capacity to invest in public charging infrastructure - City not responsible for price setting, maintenance, servicing - City will likely not earn revenue
Private Host-Owned	A private business or residential property installs charging on their property. Access may be limited to workers / residents.	$	$	- Limited opportunities for this to support public charging based on current market conditions - City would only be involved in initial permitting process
Third-Party-Owned	A charging provider installs, owns, and operates the equipment with a contract through the site-host. Depending on the contract terms, the provider may offer revenue sharing based on charger usage and site lease terms.	$	$	- Typically requires higher user fees to make private investment viable - Ability to share costs/revenue with 3rd party
Public-Private Partnership (PPP)	The city would share ownership with a private entity. A shared revenue structure may be included in this to incentivize investment and offset ongoing costs.	$	$	- Typically requires higher user fees to make private investment viable - Challenging to find private partners in current economic climate - Could be structured as a franchise/concession agreement to install charging on city property / right-of-way

Maintenance

Maintenance and software update responsibilities should be clearly defined in all ownership models involving the City. Routine maintenance includes hardware inspections, software and network updates, snow removal, signage upkeep, nighttime lighting, weights & measures compliance, and ADA compliance.

If charging is located within the City's right-of-way the City should develop a policy that allows for continued City access to the right-of-way for maintenance, multimodal use, or other critical needs. This policy should be reflected in access agreements with charging providers.

If grant funds are accessed to support implementation, then recipients are typically required to maintain chargers in good working order and meet program obligations for several years; this includes both state and federally funded grants. Failure to do so may result in the loss of funding or future eligibility.

EV chargers typically have a lifespan of 10–15 years, depending on usage and environmental conditions. DCFC stations, which have higher power loads and additional cooling components, typically require more frequent servicing.

User fees

User fees for public EV charging in South Burlington should be structured to balance affordability, cost recovery, and long-term sustainability. Based on community feedback and level of charging, recommended fees for 2026 range from $0.25 to $0.60 per kilowatt-hour (kWh), which aligns with regional norms and reflects what residents consider reasonable for public charging access[17].

Level 2 chargers are typically priced lower due to slower charging speeds and lower installation costs, while Level 3 chargers often incur higher rates due to their rapid charging capabilities and need to recoup the higher capital costs.

To ensure equitable access, South Burlington may consider implementing tiered pricing models, time-of-use rates, and subsidized access for qualifying users at charging locations with City involvement. Free or reduced-cost charging at priority locations—such as affordable housing, community centers, and neighborhood hubs—can help ensure that low-income residents and renters benefit from the city's EV infrastructure investments. A tiered pricing model or time-of-use rate may be available through the utility as well.

Funding Opportunities

The funding landscape for electric vehicle charging has been dynamic at the federal and state level. What follows is a description of some funding opportunities as of January 2026.

To reduce the financial burden on users and hosts, South Burlington may pursue funding through Vermont's Charge Vermont program and the federal National Electric Vehicle Infrastructure (NEVI) Program. Charge Vermont is currently fully subscribed for Chittenden County communities but may reopen in the future. If it does, grants covering 90–100% of installation costs for Level 1 and Level 2 chargers at workplaces, multi-unit residences, and public attractions may be available. For-profit applicants could be eligible for up to 90% funding, non-profits and government agencies for up to 95%, and women- and minority-owned businesses up to 100%.

The NEVI Program, funded through the Infrastructure Investment and Jobs Act, provides Vermont with $21.2 million between 2022 and 2026 to deploy DCFC stations along key corridors. NEVI funds cover 80% of project costs, with the remaining 20% match eligible to be met through private investment or in-kind contributions. These funds can significantly reduce user fees by offsetting capital and operational costs, especially for high-traffic or equity-priority locations[18].

The most recent NEVI plan developed by VTrans indicates a contract award of approximately $1 million for Level 3 charging in South Burlington to support travel along the I-89 corridor.[19] A Dorset St location is currently moving through permitting and will not require any direct City investment as the non-federal cost share will be provided by the State's contracted service provider, Gridwealth.

Implementation Next Steps

The following points offer potential next steps to advance public charging in South Burlington. These were reviewed and refined in consultation with the EV Charging in Public Spaces Advisory Group, membership of which is detailed on page 3 of this report. The South Burlington City Council also reviewed and accepted this report in February 2026.

- Advocate for state-funding opportunities with the City's legislative delegation
    - To support statewide geographic equity, the Charge Vermont program capped funding levels at the county level. No county could receive more than 10% of the statewide funds available. Chittenden County quickly reached this cap after the

[18] Governor Phil Scott Announces $7 Million in Funding Available for Electric Vehicle Charging Stations | Agency of Commerce and Community Development

[19] Vermont Agency of Transportation. Vermont FFY26 2025 NEVI State Plan. Aug 2025. Page 11. https://vtrans.vermont.gov/sites/aot/files/climate/Vermont%20FFY26%202025%20NEVI%20State%20Plan.pdf

program launched in 2024 and currently no applications from Chittenden County can be funded, despite the large concentration of population, employment, and tourist activity in the region.

    - The Vermont Legislature oversees the Vermont Agency of Commerce and Community Development (ACCD) in funding Charge Vermont and other state-supported programs.
    - The City may wish to discuss the significant need for public charging investments through other equity lenses noted above with South Burlington's legislative delegation to inform their deliberations on State-funded charging programs.

- Consider increasing City zoning bonus for EV charging infrastructure. This could also include a mechanism to support charging in areas where no existing public charging options are nearby (within about ¼ mile walking distance).
- Continue coordination with Green Mountain Power on charging installations.
- Continue coordination with VTrans on NEVI opportunities.
- Consider City funding options, including:
    - Potentially increase user fees at existing city-owned L2 equipment to start building funds for ChargePoint subscriptions and longer-term grant match, etc. This could provide a small but consistent funding stream,
    - Possible use of City's energy efficiency revolving loan fund to support EVSE.
        - Currently intended for municipal operations, so may not apply to public EVSE.
    - Institute dedicated funding for EVSE (similar to current City Program "Penny for Paths", being used for new shared use paths and sidewalks, which is funded by one extra penny on the tax rate).
        - Penny is about $450k right now, its value rises with inflation of grand list (primarily new development).
    - Explore setting specific requirements for charging that provide developers with an option to pay the City a fee per parking spot in lieu of installing charging. The City could use the proceeds of any funds collected in this way to support more public charging.
    - Consider funding public EV charging from broader local impact fees associated with development activity.

    - Review opportunities for the City to provide funding to a private landowner installing EV chargers in their parking lot if they allow public access to those chargers.
    - Explore using a short-term bond for EVSE installation and using one of the above-mentioned funding sources to service debt.
- Consider projects to include in capital plan (CIP), such as:
    - Charging at Veterans Park (Dorset Park) is a potential priority due to visitor traffic and city ownership.
    - Other City owned land as potential good opportunities for installing EV charging.

Appendix

Figure 23. 2035 EVI-Pro Lite Daily Charging Need Estimate for South Burlington Medium Scenario

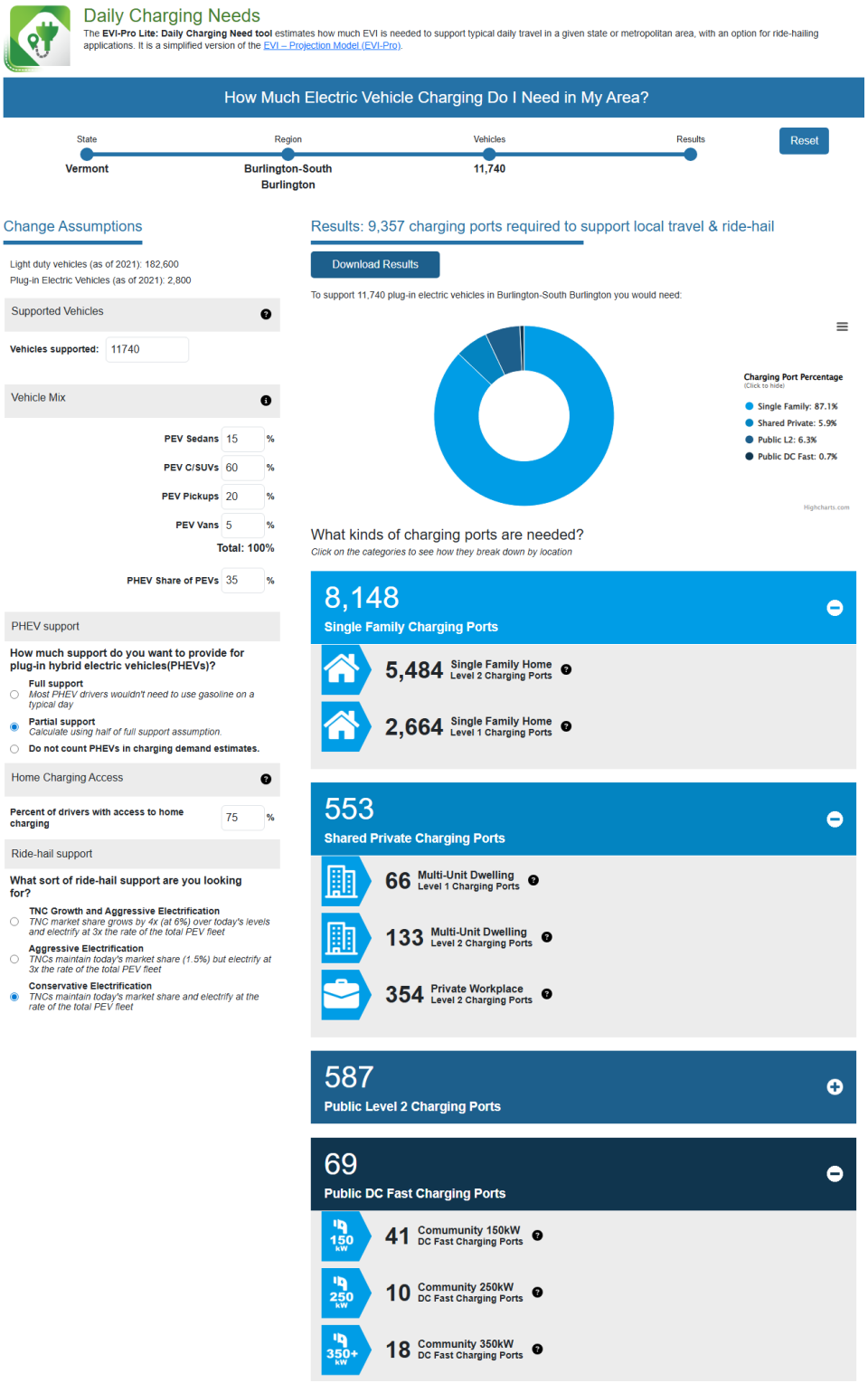
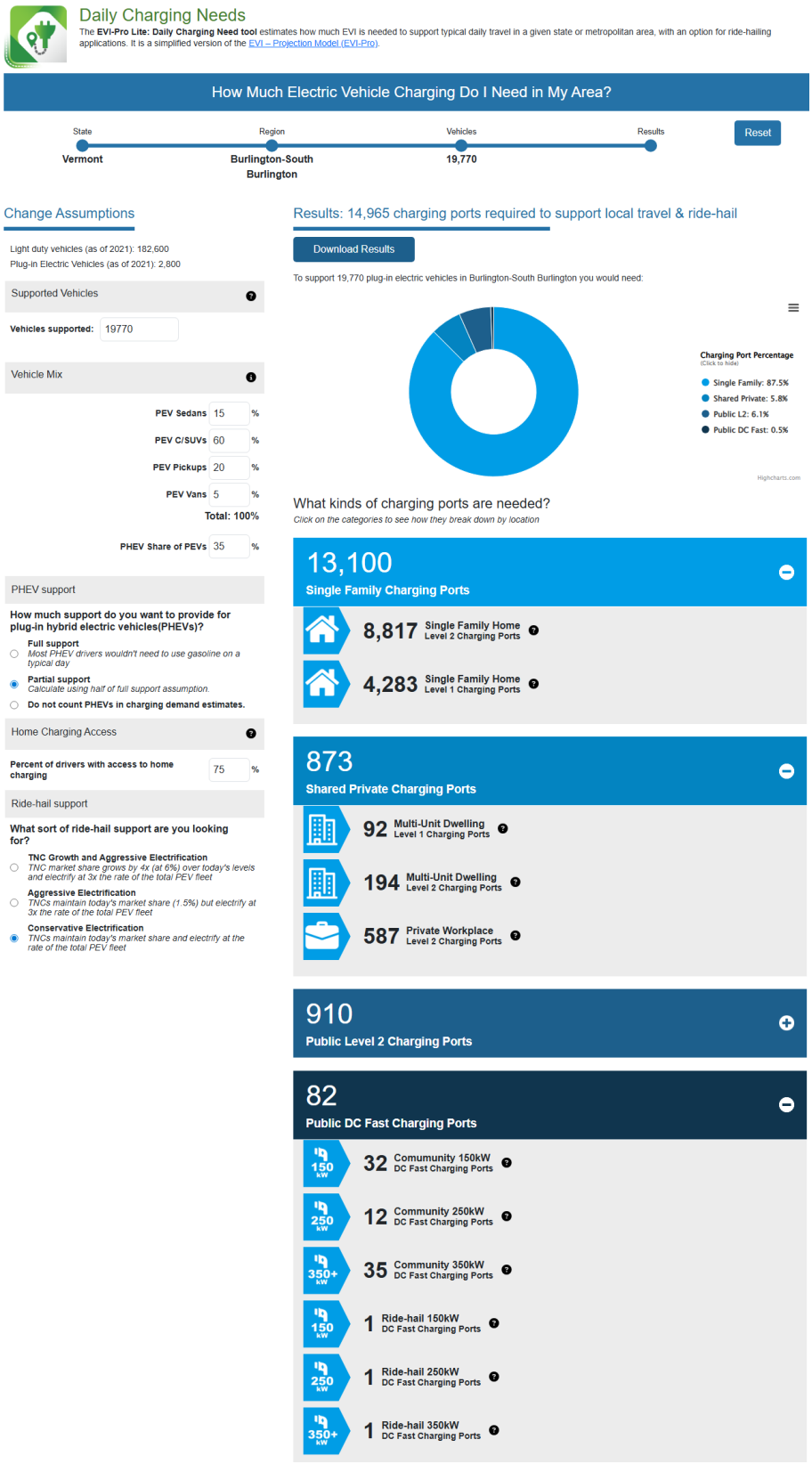



Figure 24. 2050 EVI-Pro Lite Daily Charging Need Estimate for South Burlington Medium Scenario