



EV READINESS AND CHARGING ROADMAP FOR STOWE, VT

VERMONT CLEAN
COMMUNITIES COALITION

DATE
May 2025

PREPARED BY:
Lorelei Gennett, Project Coordinator
Peggy O'Neill-Vivanco, Director



TABLE OF CONTENTS

03

EXECUTIVE SUMMARY

08

EV BASICS

14

DEMOGRAPHICS OF STOWE

20

EV CHARGING LOCATIONS

44

CONCLUSION

06

KEY TAKEAWAYS

11

CONTEXT OF EVS IN STOWE

16

IMPLEMENTATION

39

PLANNING AND FUNDING

46

REFERENCES



EXECUTIVE SUMMARY

Vermont Clean Communities Coalition (VTCCC) is a U.S. Department of Energy (DOE) designated coalition based at the University of Vermont (UVM) Transportation Research Center (TRC). The coalition supports towns, businesses, municipalities, and other stakeholders to deploy alternative and renewable fuels, idle-reduction measures, emerging technologies, and efficient transportation options.

Vermont Clean Communities received funding from the National Renewable Energy Laboratory (NREL) to develop the Electric Vehicle Readiness and Charging Roadmap (EVRCR) and provide resources to the town of Stowe, Vermont to plan for the implementation of electric vehicle supply equipment (EVSE), or EV charging infrastructure. This roadmap is the result of outreach and engagement conducted by VTCCC staff in collaboration with the Stowe Electric Department (SED) to develop a plan for Stowe to expand electric vehicle (EV) charging infrastructure by balancing the interests and capabilities of the town and the utility with the interests of Stowe's residents, community organizations, and businesses. VTCCC and SED's collaboration on this document is part of a larger implementation project, Energy to Communities Stowe, funded by NREL. This document will:

- Provide insights to the town of Stowe and SED to meet infrastructure and energy goals to include in the Town Plan.
- Provide the Stowe Energy Committee (SEC) with information on EV Charging locations, infrastructure, and planning to advise the Stowe Planning Commission and Selectboard on site selection for installing EV Charging.
- Share input collected from businesses and residents about EVs, charging priorities and preferred charging locations in the community.
- Outline VTCCC support of Stowe in their commitment to providing charging options and opportunities for all members of the community, visitors and tourists.
- Share the current state of EVs in Stowe, the future of EVs and EV charging infrastructure, and outline potential phases of implementation and options for future funding.



This roadmap will be presented to the SEC and the Stowe Selectboard in May 2025, and shared with the Stowe Planning Commission for consideration to be included in the Stowe 2050 community planning for the 2026 Town Plan.

The intention of this roadmap is to further town goals in EV readiness and adoption, as outlined in the 2025 Stowe Town Plan draft. Specifically, the Town Plan's Enhanced Energy Plan[1] outlines policies regarding Stowe's energy future. EVs are addressed in Policy #30, #31, and #32. The work in this roadmap predominantly addresses the goals outlined in Policy #32b, which are:

“The Town will develop a plan of preferred locations for EV charging that can focus on traffic and pedestrian patterns, transformer capacity and assist, where appropriate with both tourism and local charging ability” (page 171).

Further, the work in this roadmap is in direct alignment with the outlined “Energy Tasks” in the Town Plan, specifically tasks #4 and #5. Task #4, undertaken by the Director of Planning, Stowe Energy Committee, and SED, looks to “Develop a map of preferred locations for electric vehicle charging that can focus on traffic and pedestrian patterns, transformer capacity, and serves both tourism and local charging” (page 172). Our project team collaborated with these entities, local stakeholders, and community members to develop a map of preferred locations for EV charging. Task #5, a medium-term task undertaken by the Planning Commission, Director of Planning, and the Selectboard, “Encourages the Town to purchase and install a new charger that the Town or Electric Department can operate and maintain—a second fast charger and/or a charger at Stowe Elementary School/Memorial Park area” (page 172). Our project outreach identified these charging recommendations with input from the community. Information from the town plan, including a broad goal towards improved EV access (page 108), was at the forefront in the development of this roadmap, and serves as the basis for VTCCC's work in Stowe.[2]

It is important to note that the findings in this report are region specific and a result of engagement with the local Stowe community and stakeholders, and a catalogue of their needs, interests and preferences in the town's EV charging future. The findings consider local travel patterns and tourism impacts, geographical constraints and demographics, as well as specific

[1] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts>.

[2] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts>.

infrastructure needs for Stowe. The recommendations in this document were gathered from such events as:

- **An EV Ride and Drive event**, where community members had the opportunity to test drive electric vehicles and ask VTCCC representatives about EVs and EV charging.
- **Three listening sessions**, where community members discussed their visions for Stowe's EV future, EV charging locations, views on the current EV charging in Stowe and how it impacts their community, and possible EV charger ownership models. The listening sessions included Stowe residents, Stowe faith-based organizations, and Stowe businesses.
- **A survey** that asked participants to list potential charging locations in Stowe and outline who they believe to be responsible for planning, funding, and maintaining future EVSE in Stowe.



KEY TAKEAWAYS

1

Residents and tourists alike rely on EV charging and a variety of charging options. Local businesses, as both pillars of the local community and draws for increased tourism, benefit from EV charging.

2

Community members and stakeholders express a need for a variety of charging opportunities in Stowe. This includes strategic placement of DCFC and Level 2 public charging options across a broad range of destinations and businesses in Stowe.

3

Incorporating the charging maps and community feedback from this roadmap into the 2026 Town Plan can help the SEC make decisions on EV charging that correspond with short- and medium-term plans, help the local business community thrive and fulfill town goals set out by the Stowe 2050 community planning for the 2026 Town Plan.

4

Increases in short-term rental (STR) numbers in Stowe mirror a state-wide trend of increased STRs and tourism numbers. This includes an increase in EV drivers as tourists. EV charging serves as a draw for increased tourism, especially for overnight lodgers.



5

Housing and commuting demographics for Stowe indicate a strong tourism industry and a heavy reliance on personal vehicles as a primary mode of transportation.

6

Recent years have seen an increase in electric vehicle registrations across the state, including in Lamoille County. To accommodate these growing numbers, more EV charging is required to support these drivers.

7

Public-private partnerships can be a vital tool for accelerating EV infrastructure and managing limited funding. Collaboration with community members, businesses, and shareholders can provide opportunities to benefit from a wider range of funding incentives and opportunities.

8

A barrier for rural towns such as Stowe is the evolving tech landscape for EVSE. Community members expressed concerns about investing in tech that may become outdated in a short amount of time. Incorporating maintenance into the plan for EV infrastructure and investing in making infrastructure “EV ready” and “EV capable” will be necessary for future infrastructure success.

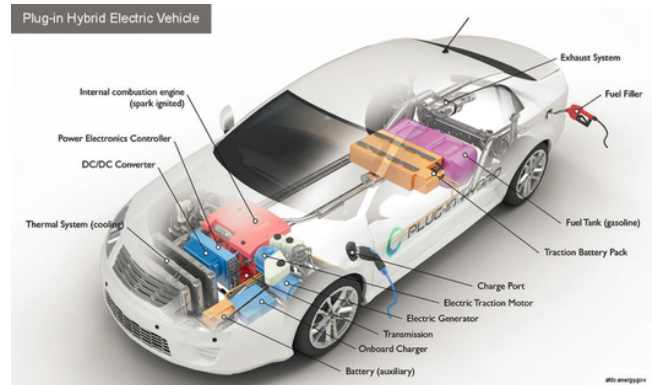
EV BASICS

VEHICLE TYPES

There are two types of electric vehicles: **(1) all-electric vehicles** and **(2) plug-in hybrid electric vehicles (PHEVs)**.

All-electric vehicles are also sometimes referred to as **battery electric vehicles (BEVs)**. For the purpose of this roadmap, the term **EV** is used to refer to both BEVs

and PHEVs as a general term. BEVs are fueled by electricity from an external source, through charging, and that energy is stored in an onboard battery. BEVs are typically considered zero-emission vehicles (zero tailpipe emissions). PHEVs are powered by a hybrid system, with an onboard battery and additional fueling, such as a gasoline-powered internal combustion engine. Typically, PHEVs have a shorter electric range than BEVs.[3]



CHARGING INFRASTRUCTURE






Electric vehicle charging systems are categorized both by the amount of power they can provide and their connector that is used to charge the vehicle. There are three different levels of charging:

Level 1 (L1) chargers are more suitable for at-home or overnight charging, as they take the longest to charge a vehicle. These chargers use a standard three-pronged 120V outlet.

Level 2 (L2) chargers can be used in residential, workplace, and public charging locations. Level 2 offers AC charging through 240V (in residential applications) or 208V (in commercial applications) and adds 4-35 miles of range per hour of charging. A BEV takes from 4-10 hours to charge from empty to 80 percent and a PHEV charges in about 1-2 hours.

Direct Current Fast Chargers (DC Fast Chargers or DCFC) offer rapid charging and are generally installed along high traffic corridors. They can charge a BEV to 80 percent in 20 minutes to 1 hour. Most PHEVs currently on the market do not work with fast chargers. DCFCs require more electric infrastructure and are more expensive to install.

[3] King's County Association of Governments. King's County electric vehicle readiness plan. 2020, 18-26.
https://www.kingscog.org/vertical/Sites/%7BC427AE30-9936-4733-B9D4-140709AD3BBF%7D/uploads/KCAG_EVRP_FINAL.pdf.

	Level 1	Level 2	DC Fast Charging
Connector Type²	J1772 connector 	J1772 connector 	CCS connector  CHAdEMO connector  Tesla connector 
Voltage³	120 V AC	208 - 240 V AC	400 V - 1000 V DC
Typical Power Output	1 kW	7 kW - 19 kW	50 - 350 kW
Estimated PHEV Charge Time from Empty⁴	5 - 6 hours	1 - 2 hours	N/A
Estimated BEV Charge Time from Empty⁵	40 - 50 hours	4 - 10 hours	20 minutes - 1 hour ⁶
Estimated Electric Range per Hour of Charging	2 - 5 miles	10 - 20 miles	180 - 240 miles
Typical Locations	Home	Home, Workplace, and Public	Public

(Source: U.S. Department of Transportation)[4]

[4] U.S. Department of Transportation. Charger Types and Speeds. Rural EV Toolkit.
<https://www.transportation.gov/rural/ev/toolkit/ev-basics/charging-speeds>.

Another type of charger is the **Tesla Charger**, which is unique to Tesla vehicles and operates similarly to a DC Fast Charger. Tesla vehicles have a unique connector that works for all charging speeds, including at Tesla's Supercharger DCFC stations. Non-Tesla vehicles require adapters at these stations. However, "Supercharger stations now provide Magic Dock adapters that allow most BEVs from other auto manufacturers with Combined Charging Standard (CCS) outlets to plug into chargers that use Tesla's unique North American Charging Standard (NACS)".[5]

While residential charging is available to some individuals, many EV owners rely on public charging. Residential electric infrastructure requirements can limit at-home charging if electrical updates are needed or landlords of multi-dwelling units are not willing to invest in EV charging. In these cases, public EV charging is vital to EV owners without home charging.

[5] Linkov, Jon; Bartlett, Jeff S.; Knizek, Alex; Barry, Keith. How well do Tesla Superchargers work for non-Tesla EVs? Consumer Reports. November 4, 2024. <https://www.consumerreports.org/cars/ev-chargers/how-well-do-tesla-superchargers-work-for-non-tesla-evs-a4713673565/>.

CONTEXT OF EVS IN STOWE



Stowe, Vermont is located in Lamoille County in the northern part of the state. It is a small New England ski town, with several places of interest including a historic main street, the nearby Green Mountains, a historic and compact village settlement, and several well-known resorts, as well as other attractions.[6]

According to the 2020 Decennial Census by the United States Census Bureau, Stowe's population is 5,223, distributed across 2,462 households and 3,814 housing units. The average annual household income is \$86,304.[7] Short-term rental units have increased exponentially over the last ten years, coinciding with an increase in tourism.[8] Stowe Area Association reports that fiscal year 2024 saw 20,000 tourists visit the Stowe visitor center from across the U.S. and over 80 countries, a 6% increase from 2023. Although exact tourist numbers cannot be given, it is estimated that Stowe sees anywhere from 750,000 to 2 million tourists per year. Tourism numbers and vehicle congestion vary from season to season, with significant differences between the summer and winter. Summer traffic is more dispersed due to an increase in outdoor recreation, and winter traffic is directed towards resorts and ski areas.[9]

Tourists visiting Stowe are generally divided into two groups: daytime visitors and overnight guests. Many of these individuals utilize electric vehicles. Daytime visitors are more likely to search for charging at tourist destinations, including the downtown Stowe area and hiking trails in the summer, and at ski areas during the winter. Overnight guests are more likely to need charging at their lodging establishments, including hotels, lodges, or short-term rental units, such as Airbnb or VRBO (Vacation Rental by Owner). Considering the flow of tourists and

[6] Town of Stowe. 2024 annual report. 2024.

<https://www.stowevt.gov/files/assets/town/v/1/administration/documents/town-reports/2024-stowe-annual-town-report-and-audit.pdf>.

[7] U.S. Department of Commerce. Stowe town, Lamoille County, Vermont. United States Census Bureau.

https://data.census.gov/profile/Stowe_town,_Lamoille_County,_Vermont?g=060XX00US5001570525#populations-and-people.

[8] Berlin, Carly. Short-term rentals are on the rise in Vermont. So are debates over how to regulate them. VTDigger. November 15, 2023. <https://vtdigger.org/2023/11/15/short-term-rentals-are-on-the-rise-in-vermont-so-are-debates-over-how-to-regulate-them/>.

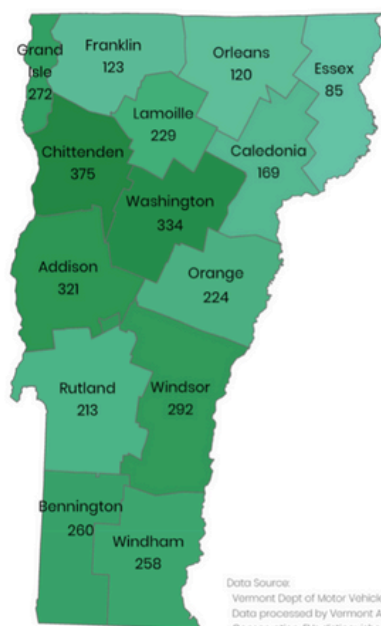
[9] Stowe Area Association. Stowe Area Association FY 2024 annual report. 2024. <https://gostowe.com/wp-content/uploads/2024/11/Stowe-Area-Association-FY-24-Annual-Report.pdf>.

daytime visitors, it is important to attempt to forecast the implications of transportation electrification for those who do not live in Stowe but come to visit, work, shop, or recreate and will need to charge their EV. As stated above, this influx increases Stowe's population exponentially and must be considered when attempting to project future charging demands and locations for chargers – with a mix of EV charging for multi-unit dwellings, single-unit housing, businesses, town-owned properties, recreation locations, tourist destinations, workplace charging, municipal fleet charging, and transit charging. The scope of this project does not dive into forecasting assumptions but rather relies on state and visitor EV trends. For a more granular look at EVSE forecasting, Stowe and SED can reach out to NREL for more information on the Electric Vehicle Infrastructure – Projection (EVI-Pro) tool that estimates how much EV charging infrastructure is needed in a designated area to meet a given demand.

Statewide, the number of STRs has increased tenfold, with less than 1000 STRs reported in 2015 and more than 11,747 STRs reported in 2023.[10,11] Lamoille County mirrors this statewide trend with a steady annual increase in STRs, and Stowe reportedly contains more than half of the STRs in Lamoille County, with 24% of their housing stock being dedicated to STRs.[11] Hotel and

lodging units are not included in these numbers. Some short-term rental websites, such as VRBO, offer an EV charging filter for their properties. Others, such as Airbnb, do not. Hotels

Vermont Electric Vehicles Per 10,000 People By County as of January 2025



County	2020 Population	All-Electric	Plug-in Hybrid	Total EVs	EVs per 10,000 People
Addison	37,363	748	450	1,198	321
Bennington	37,347	622	348	970	260
Caledonia	30,233	270	241	511	169
Chittenden	168,323	3,878	2,431	6,309	375
Essex	5,920	20	30	50	84
Franklin	49,946	325	291	616	123
Grand Isle	7,293	109	89	198	271
Lamoille	25,945	339	254	593	229
Orange	29,277	379	278	657	224
Orleans	27,393	162	166	328	120
Rutland	60,572	838	451	1,289	213
Washington	59,807	1,257	738	1,995	334
Windham	45,905	645	538	1,183	258
Windsor	57,753	949	737	1,686	292

This material is based upon work supported by the Vermont Public Service Department, Vermont Agency of Natural Resources, Vermont Agency of Transportation, and the Vermont Department of Buildings and General Services.

Data Source:
Vermont Dept of Motor Vehicles vehicle registration database as of 1/4/2025.
Data processed by Vermont Agency of Natural Resources Dept of Environmental Conservation. EVs distinguished by fuel type, model and/or VIN.
County data summarized from zip code geography. Population from 2020 US Census.
Does not include 356 vehicles with registration ZIP codes outside of Vermont.



[10] Berlin, Carly. Short-term rentals are on the rise in Vermont. So are debates over how to regulate them. VTDigger. November 15, 2023. <https://vtdigger.org/2023/11/15/short-term-rentals-are-on-the-rise-in-vermont-so-are-debates-over-how-to-regulate-them/>.

[11] Vermont Housing Finance Agency. Vermont housing needs assessment. 2023-2024, 283-303. https://www.stowevt.gov/files/assets/town/v/1/boards-amp-commissions/housing-tf/statewide_housing_needs_assessment_-_lamoille_county_chapter.pdf.

in the area have stated that customers call specifically to ask if they have EV charging, and other customers have left reviews indicating that a lack of EV charging will cause them to take their business elsewhere.

The number of private EV charging stations in Stowe cannot be accurately reported, but SED reports that from 2019-2024 they distributed 118 rebates in their Lifetime Participation Tier III for EV owners. Further information about these rebates can be found on their website.[12]

As of January 2025, Drive Electric Vermont reports 17,939 registered EVs (10,731 BEVs and 7,208 PHEVs). In Lamoille County, there are 229 electric vehicles per 10,000 people as of January 2025, with a [projected] total of 593 (339 BEVs and 254 PHEVs). Exact data for the number of EVs in Stowe is not available.[13]

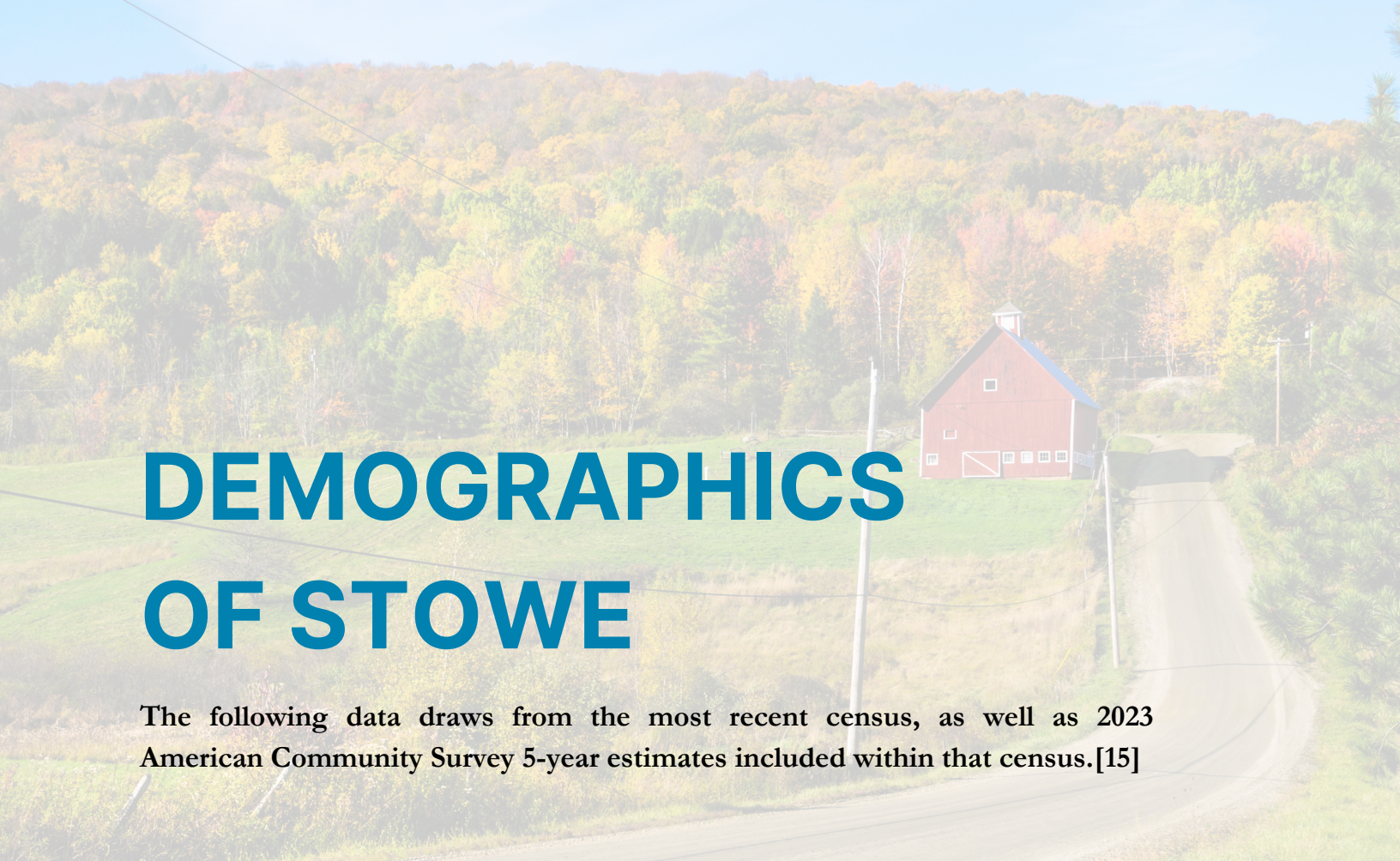
For more information on Stowe's energy consumption and distribution, generating capacity, and metering, please refer to the segment on Energy Infrastructure in the Enhanced Energy Plan of Stowe's 2025 Town Plan.[14]

[12] Stowe Electric Department. Rebates and Incentives. 2025. <https://www.stoweelectric.com/rebates>.

[13] Drive Electric Vermont. January 2025 EV registration updates. 2025.

https://www.driveelectricvt.com/uploads/media/Documents/Maps/vt_ev_registration_trends.pdf.

[14] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts>.



DEMOGRAPHICS OF STOWE

The following data draws from the most recent census, as well as 2023 American Community Survey 5-year estimates included within that census.[15]

PROPERTY OWNERSHIP AND RENTER DEMOGRAPHICS

The median annual income in Stowe town of \$86,304 is above the average of Lamoille County, which has a median income of \$69,897. The median gross rent in Stowe is \$1,349 per month, which is also above the average of Lamoille County at \$1,123 per month. 73.6% of homes are owned and 26.4% are rentals. Of the 3,814 total housing units, 2,261 occupied and 1,553 are vacant. The housing units in Stowe account for 27.5% of all housing units in Lamoille County (3,814/13,878).

With a mix of private homes, rentals and short-term rental units, residents and visitors would benefit from investments in residential and multi-unit dwelling EV charging.

[15] U.S. Department of Commerce. Stowe town, Lamoille County, Vermont. United States Census Bureau. https://data.census.gov/profile/Stowe_town,_Lamoille_County,_Vermont?g=060XX00US5001570525#populations-and-people.

COMMUTING DEMOGRAPHICS

Average time for a Stowe resident to travel to work in Stowe town:

21.4 minutes

The means of transportation are listed below:



Drove alone
66.2%



Carpool
3.9%



Public
transport
0.4%



Walked
3.3%



Other means
2.6%



Worked from
home
23.6%

Commuting demographics show the prevalence of single occupancy vehicles as the primary mode of transportation for Stowe residents. Given that Lamoille County accounts for 3% of the state's EV numbers,[16] and Stowe accounts for 20% of Lamoille County's population, it can be concluded that some of the 66.2% of those who drove alone and 3.9% that carpooled did so in an EV.

[16] U.S. Department of Energy: Energy Efficiency & Renewable Energy. Vermont Transportation Data for Alternative Fuels and Vehicles. Alternative Fuels Data Center. <https://afdc.energy.gov/states/vt>.

IMPLEMENTATION

Based on the feedback gathered at the three listening sessions about the need for more charging infrastructure for residents and visitors alike, the project team recommends the following:

ADEQUATE CHARGING LEVEL DISTRIBUTION

Throughout our mapping exercises, participants indicated that Stowe would benefit from (a) more charging stations and (b) more variety in charging levels. At the time of this report, only one DCFC exists in Stowe at Thompson Park. Participants stated that with the growing number of EVs and growth in tourism, Stowe needs additional DC Fast Chargers. The Town Plan also outlines the desire to invest in another DCFC for Stowe Town.[17] The limitations of one DC Fast Charger include long queues of cars waiting to charge and forced reliability on slower L1 and L2 chargers.

While DC Fast Chargers are the quickest charging option, they are also the most expensive to install and require more electricity to charge vehicles quickly. Some participants believe that DC Fast Chargers should exist in extremely large numbers in Stowe, almost as a replacement for Level 2s. While this is technically possible, it is not necessarily feasible. It is important in implementing electric vehicle charging to find a balance in level distribution depending on factors such as location, utilization, cost of installation and load on the electric grid. While Level 2 charging may be slower, the equipment is less expensive to install and has a lesser grid drain, making it more suitable across a range of locations.[18,19]

CENTRAL LOCATIONS

A key factor across the course of this project was convenient and accessible charging locations. Participants stated that finding parking in Stowe is already difficult, and with an electric vehicle it becomes more challenging due to sporadic charging locations. Participants stated that they would like to see both Level 2 and DCFCs at centralized locations in downtown Stowe, particularly in locations where access to amenities and services is readily available. This

[17] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts>.

[18] King's County Association of Governments. King's County electric vehicle readiness plan. 2020, 18-26. https://www.kingscog.org/vertical/Sites/%7BC427AE30-9936-4733-B9D4-140709AD3BBF%7D/uploads/KCAG_EVRP_FINAL.pdf.

[19] U.S. Department of Transportation. Charger Types and Speeds. Rural EV Toolkit. <https://www.transportation.gov/rural/ev/toolkit/ev-basics/charging-speeds>.

would also benefit the local business community. According to the U.S. Department of Transportation:

“Given current limits on the range of EVs, those drivers may be especially attuned to the availability of charging stations along their routes and will plan their stops accordingly. Given the significant time required even when using fast charging infrastructure, EV drivers may also be inclined to combine their refueling stops with other activities, including visits to local stores, restaurants, casinos, parks, and attractions in the vicinity. Providing EV charging stations can thus enable rural communities to draw regional travelers driving EVs and to stay connected to the broader EV charging network, benefiting both local residents and outside visitors, as well as bringing in revenue for local businesses.”[20]

Further, EV infrastructure spurs development of more community jobs, both those generated by increased consumer traffic due to EV customers and those generated in fields related to EV development, such as EVSE maintenance and EV repair.[20,21]

PUBLIC-PRIVATE OWNERSHIP MODELS

Across all listening sessions and survey responses, participants agreed that public-private partnerships are essential to accelerating charging infrastructure. This means striking a balance in planning, funding and maintenance. Participants noted that they would like to see active engagement from the Planning Commission, the Energy Committee, the Selectboard, and SED. Business owners also expressed that if they installed public charging, they would like to share the cost and responsibility of installation and maintenance with the town, state, Stowe Electric or other organizations. Business owners stated that they would like to see the town take the initiative on planning and investing in public EV charging projects. Once business owners see the town invest in public EV charging infrastructure, businesses will be more willing to invest in public charging projects.

As a rural town, Stowe faces some limitations to EV infrastructure development, including geographic spread and community size. Thus, public-private partnerships become more essential towards spearheading EV development. Many paths forward are possible and typically depend on the desires of the region. The U.S. Department of Transportation outlines the following as possible options for partnerships in rural communities:[21]

[20] U.S. Department of Transportation. Benefits to Communities. Rural EV Toolkit.

<https://www.transportation.gov/rural/ev/toolkit/ev-benefits-and-challenges/community-benefits>.

[21] U.S. Department of Transportation. Charging forward: A toolkit for planning and funding rural electric mobility infrastructure. 2022, 15. https://www.transportation.gov/sites/dot.gov/files/2022-01/Charging-Forward_A-Toolkit-for-Planning-and-Funding-Rural-Electric-Mobility-Infrastructure_Feb2022.pdf.

- Statewide partners, which include state environmental, energy, and transportation agencies, and organizations planning EV charging corridors can assist with providing technical assistance and identifying key stakeholders.
- Local and regional planning partners, such as VTCCC and other similar organizations, can help rural communities start EV planning initiatives and EVSE projects. Transportation planning agencies can help with broader transportation planning and navigating available funding.
- Electric utilities, such as SED, are critical partners. They provide technical advice on siting and connecting EVSE to the grid. They also serve as long-term partners and may take ownership of EVSE installation, either in part or as a whole.
- Charging network providers can provide technical expertise as well as own, operate, and maintain charging stations.[22]

FOCUS ON RESIDENTS AND TOURISTS

Many individuals with EVs depend on public charging infrastructure to charge their vehicles, often due to a lack of charging installation and/or capabilities at residential dwellings. A common assumption is that tourists are the predominant users of public charging infrastructure; however, according to SED, more residents than tourists are responsible for the majority of public charging infrastructure use. A town such as Stowe that depends simultaneously on local community members and larger tourism would benefit from charging infrastructure that supports both groups. This means providing accessible charging in both residential and commercial areas, making EV charging more readily available downtown, installing a combination of Level 2 and some DCFC, and evaluating community feedback surrounding charging needs.

FUTURE PLANNING

As a participant in our business listening session said: EV charging is fast becoming the new high-speed internet. In ten to fifteen years, organizations and locations without accessible EV charging will be at a disadvantage compared to those who provide it. With recent building

[22] U.S. Department of Transportation. Charging forward: A toolkit for planning and funding rural electric mobility infrastructure. 2022, 15. https://www.transportation.gov/sites/dot.gov/files/2022-01/Charging-Forward_A-Toolkit-for-Planning-and-Funding-Rural-Electric-Mobility-Infrastructure_Feb2022.pdf.

code updates and requirements, steps are being taken to ensure that newly renovated and constructed locations have the capability to be EV ready.[23] Continuing to expand upon and provide avenues for business and residential developments to install EV charging infrastructure will assist in future implementation that will inevitably support future EV growth and charging demands.



[23] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts>.

EV CHARGING LOCATIONS

The keystone of this roadmap was developing a comprehensive list of possible future charging locations. This serves to fulfill the goals for EV charger mapping as outlined in the most recent Stowe Town Plan.[24] Listening session participants and survey respondents suggested locations for charging stations in mapping exercises. Participants specified the address, business name (if applicable), and the charger level (Level 2 or DCFC). There were 51 unique locations recommended for EV charging; some locations were recommended for both Level 2 and DCFC, and some locations were not viable and have not been included due to conflicts.

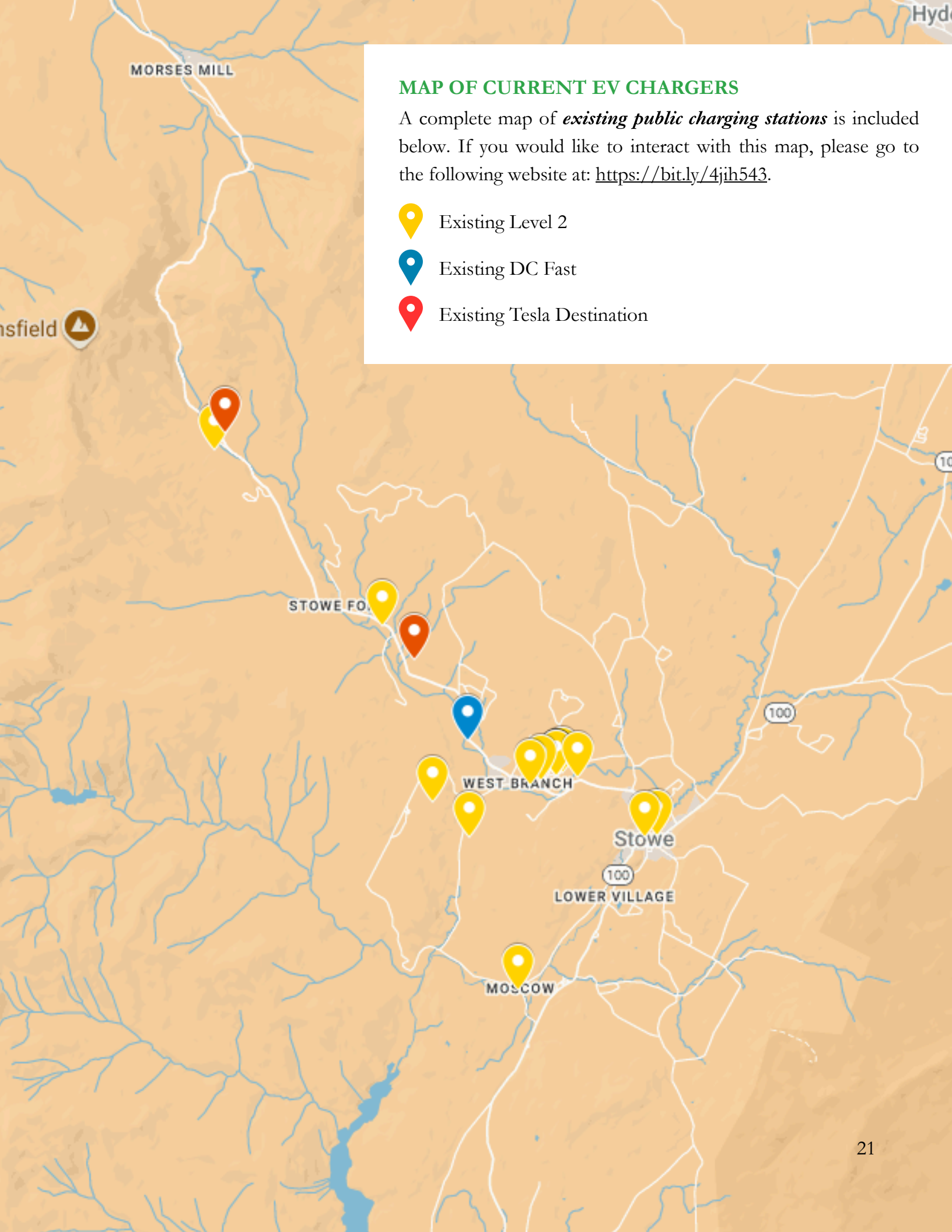
There are currently 9 existing SED charging stations in Stowe, as outlined in the Enhanced Energy Plan. They can be found at the following locations:

- Green Mountain Inn – Level 2
- American Flatbread – Level 2
- Stoweflake Mountain Resort and Spa – Level 2
- Stowe High School – Level 2
- Stowe Living – Level 2
- Stowe Rec Path behind the Akeley Building – Level 2
- Stowe Electric’s administrative office – Level 2
- von Trapp Bierhall – Level 2
- Thompson Park – DCFC

The Enhanced Energy Plan lists a Level 2 charger at Sun and Ski Inn and Suites. However, this information is outdated. SED states that the charger at Sun and Ski Inn and Suites is no longer in operation; thus, they are using the results from this roadmap in their consideration for where to move this charger. Additional locations exist that are not owned or operated by SED.




[24] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts>.





MAP OF CURRENT EV CHARGERS

A complete map of *existing public charging stations* is included below. If you would like to interact with this map, please go to the following website at: <https://bit.ly/4jih543>.

-  Existing Level 2
-  Existing DC Fast
-  Existing Tesla Destination

The complete addresses, counts, and charging levels of the stations can be found in the table below:

LIST OF CURRENT EV CHARGERS WITH NETWORK

Location:	Street Address:	Level 2 Count:	DCFC Count:	EV Network:
SED Green Mountain Inn	2 Park Place	2		ChargePoint Network
SED von Trapp Bierhall	1333 Luce Hill Road	2		ChargePoint Network
SED Mills of Moscow	431 Moscow Road	2		ChargePoint Network
SED Rec Path	137 Main Street Stowe Rec Path	2		ChargePoint Network
SED Snowflake	1208 Cape Cod Road	2		ChargePoint Network
SED American Flatbread	1190 Mountain Road	2		ChargePoint Network
Stowe Mountain Lodge	7412 Mountain Road	2		Tesla Destination
Topnotch Resort & Spa	4000 Mountain Road	5		Tesla Destination
Northern Lights Lodge	4441 Mountain Road	2		Non-networked
Topnotch Resort & Spa 2	4000 Mountain Road	3		Tesla Destination
SED Thompson Park	2699 Mountain Road		1	ChargePoint Network
SED Stowe High School	413 Barrows Road	2		ChargePoint Network

LIST OF CURRENT EV CHARGERS WITH NETWORK (CONT.)

Location:	Street Address:	Level 2 Count:	DCFC Count:	EV Network:
SED Stowe Kitchen	1813 Mountain Road	2		ChargePoint Network
Stowe Mountain Lodge 2	7412 Mountain Road	4		Tesla Destination
Stowe Mountain Resort	5402 Mountain Road	2		AMPUP
Stowe Mountain Resort 2	5402 Mountain Road	2		AMPUP
Village Green Station 1	146 Village Green Drive	1		ChargePoint Network
Village Green Station 2	1003 Cape Cod Road	1		ChargePoint Network
Village Green Station 3	1003 Cape Cod Road	1		ChargePoint Network
Village Green Station 4	1003 Cape Cod Road	1		ChargePoint Network

(Source: U.S. Department of Energy[25])

[25] U.S. Department of Energy: Energy Efficiency & Renewable Energy. Vermont Transportation Data for Alternative Fuels and Vehicles. Alternative Fuels Data Center. <https://afdc.energy.gov/states/vt>.

MAP OF CHARGING PROPOSED BY COMMUNITY MEMBERS

The map below outlines the charging stations proposed by community members. If you would like to interact with this map, please go to the following website at: <http://bit.ly/4mnezMB>.

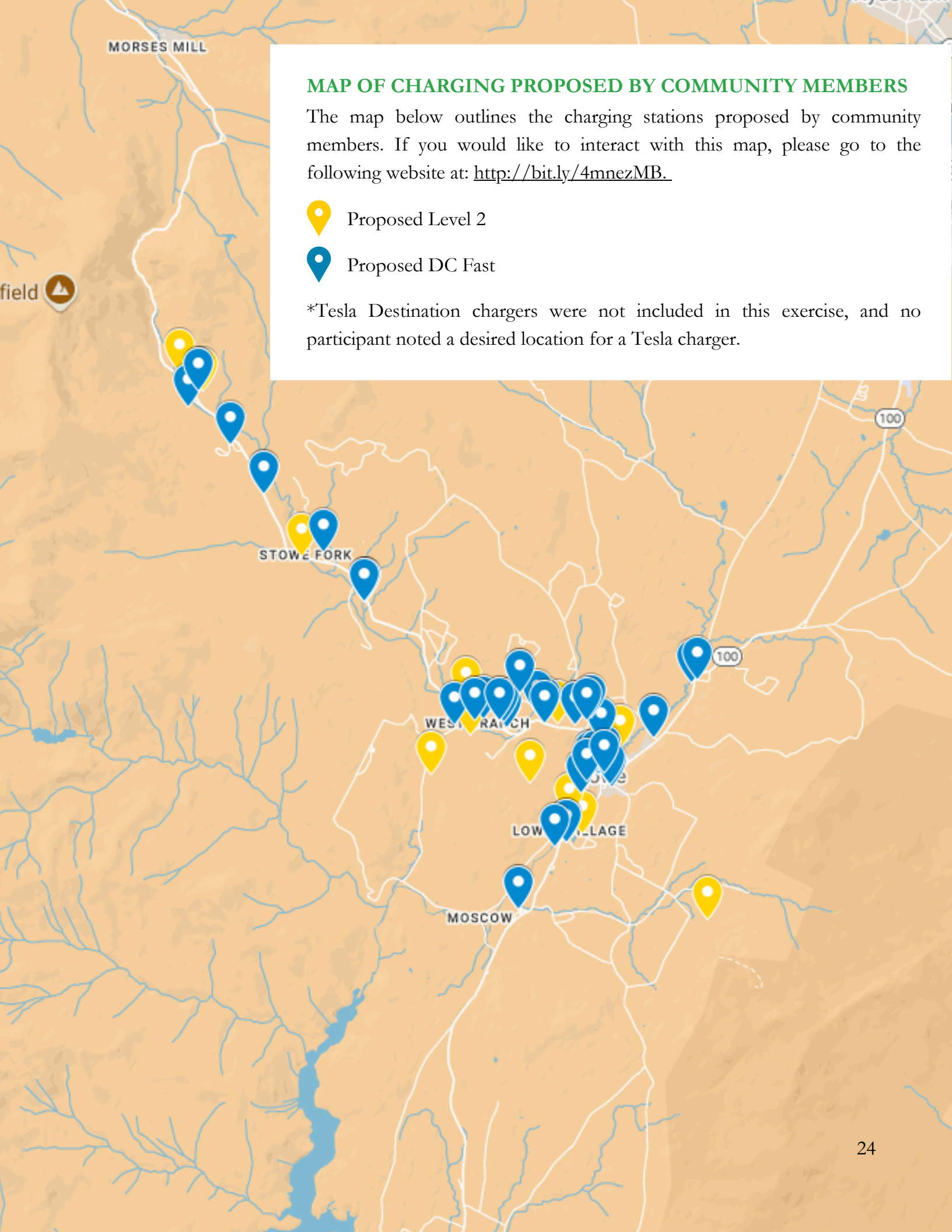


Proposed Level 2



Proposed DC Fast

*Tesla Destination chargers were not included in this exercise, and no participant noted a desired location for a Tesla charger.



The two following tables show a more complete catalogue for both Level 2 and DCFC charger location recommendations. Both tables include:

- Full address.
- What type of location is listed (religious, recreation, resort/lodge, etc.).
- If a charger already exists at the provided location (as per the information in the initial map and table).
- If it is possible to install a charger at the location (some locations may exist in a flood plain or have another reason why EVSE would not be possible to install).
- If there is prerequisite electrical work.
- If off-street parking exists at the location.

The rows highlighted in green are locations which are recommended for both Level 2 and DCFC charging. Any blank cell is information not provided to the VTCCC project team.

Rows that are bolded are considered “preferred locations”. The Joint Office of Energy and Transportation outlines the steps for site selection for EV charging stations. These steps can be used to guide stakeholders in the EVSE adoption process. They are listed as follows:

- 1) **Target:** Target high priority EV charging stations.
- 2) **Identify:** Identify locations suitable for users to spend time while waiting for their vehicle to charge. Plan for a variety of locations with Level 2 and DCFC.
- 3) **Engage:** Is the site host willing to add EV charging stations to the site? If the answer is no, restart the checklist.
- 4) **Power:** Does local utility have enough power available for charging stations? If the answer is no, restart the checklist.
- 5) **Service:** Confirm wireless internet, cellular service, and lighting.
- 6) **Expansion:** Consider future site expansion.
- 7) **Cost:** Estimate cost. Are costs anticipated to be within the allocated funding for the project? If the answer is no, restart the checklist.

Based on the checklist above,[26] community input from our listening sessions, electrical infrastructure, and location relative to preexisting charging stations, the project team suggests the locations in bold in our table as preferred high priority sites for EV charging installation.

[26] Joint Office of Energy and Transportation. Public EV charging station site selection checklist. DriveElectric. 2023.
<https://driveelectric.gov/files/ev-site-selection.pdf>.

LIST OF CHARGING PROPOSED BY COMMUNITY MEMBERS - LEVEL 2

Location Name:	Location Address:	Category:	Preexists y/n:	Possible to install? y/n:	Prerequisite work? y/n:	Off-street parking y/n:
Alfie's Wild Ride	942 Mountain Road	Recreation & Leisure	No	Yes	Yes - Sized-up transformer	Yes
Area between Weeks Hill Road and Village Center	Mountain Road	Other	No			No
Barnes Camp Visitor Center	Mountain Road, Stowe	Outdoor	No	Yes	Yes - Conduit to parking	Yes
Blessed Sacrament Church	728 Mountain Road	Religious	No	Yes	Yes - Conduit to parking	Yes
Cady Hill parking lot	Stowe, VT	Outdoor	No	Needs land-owner permission	Yes - Overhead service	Yes
Gold Brook Camp-ground	1900 Waterbury Road	Outdoor	No	Yes	No	Yes
Green Goddess Café	618 South Main Street	Commodities	No	Yes	Yes - Conduit to parking	No

**LIST OF CHARGING PROPOSED BY COMMUNITY MEMBERS - LEVEL 2
(CONT.)**

Location Name:	Location Address:	Category:	Preexists y/n:	Possible to install? y/n:	Prerequisite work? y/n:	Off-street parking y/n:
Green Mountain Inn	18 Main Street	Lodge/Resort	Yes (x2)	Yes, already installed		Yes
Jewish Community of Greater Stowe	1189 Cape Cod Road	Religious	No	Yes	Yes - Conduit to parking	Yes
Mac's Market	88 South Main Street	Commodities	No	Yes	Yes - Conduit to parking	Yes
Mansfield Base Area Parking	Route 109 past The Lodge at Spruce Peak, 7412 Mountain Road	Outdoor	No	Yes	Yes - Conduit to parking	Yes
Maplefields/Mobil	14 South Main Street	Commodities	No	Yes		Yes
Mount Mansfield Equestrian Center	4081 Mountain Road	Recreation & Leisure	No	Yes	Yes - Service from pole	Yes
Mountainside Resort at Stowe	21 Mountain-side Avenue	Lodge/Resort	No	Yes	Yes - Transformer	Yes

**LIST OF CHARGING PROPOSED BY COMMUNITY MEMBERS - LEVEL 2
(CONT.)**

Location Name:	Location Address:	Category:	Preexists y/n:	Possible to install? y/n:	Prerequisite work? y/n:	Off-street parking y/n:
Pinnacle Trail Head	Upper Hollow Road/ Pinnacle Heights Road	Outdoor	No	Yes	Yes - Conduit to parking	Yes
Public Safety Building (for fleet use & public during off hours)	350 South Main Street	Government/ Town	No	Yes, but issue with parking access	Yes - Conduit to parking	Yes
Quiet Path Parking Lot	358 Weeks Hill Meadows	Outdoor	No	Yes	Yes - Conduit to parking	Yes (parking lot)
Ranch Brook Trail parking	15 Turner Mill Lane	Outdoor	No	Yes	No	Yes
Residential Area	Sylvan Park Road	Residential	No	Yes		Yes
rK Miles	785 Sylvan Park Road	Commodities	No	Yes	No	Yes
Shaw's	751 Maple Street	Commodities	No	Yes	Yes - Conduit to parking	Yes

**LIST OF CHARGING PROPOSED BY COMMUNITY MEMBERS - LEVEL 2
(CONT.)**

Location Name:	Location Address:	Category:	Preexists y/n:	Possible to install? y/n:	Prerequisite work? y/n:	Off-street parking y/n:
St. John's in the Mountains Church	1994 Mountain Road	Religious	No	Yes	Yes - Sized-up transformer	Yes
Stonybrook Homeowner's Association	201 Stonybrook Lane	Other	No	Yes	Yes - Conduit to parking	N/A
Stowe Country Club	744 Cape Cod Road	Recreation & Leisure	No	Yes	Yes - Sized-up transformer	Yes
Stowe High School	413 Barrows Road	Education	Yes (x2)	Yes, already installed		Yes
Stowe Recreation Path	67 Main Street	Outdoor	Yes (x2) located at the parking lot at base of the rec path, 137 Main Street	Yes, already installed		Yes
Stowe-flake Mountain Resort & Spa	1746 Mountain Road	Lodge/Resort	Yes (x2)	Yes, already installed		Yes

**LIST OF CHARGING PROPOSED BY COMMUNITY MEMBERS - LEVEL 2
(CONT.)**

Location Name:	Location Address:	Category:	Preexists y/n:	Possible to install? y/n:	Prerequisite work? y/n:	Off-street parking y/n:
Sushi Yoshi	1128 Mountain Road	Comm-odities	No	Yes	Yes - Conduit to parking	Yes
The Lodge at Spruce Peak	7412 Mountain Road	Lodge/Resort	Yes (x6) (Tesla)	Yes, already installed		Yes
Topnotch Tennis Academy	4000 Mountain Road	Recreation & Leisure	Yes (x5) (part of the Resort)/ Yes (x3) (part of the Resort) (Tesla)	Yes, already installed		Yes

LIST OF CHARGING PROPOSED BY COMMUNITY MEMBERS - DCFC

Location Name:	Location Address:	Category:	Preexists y/n:	Possible to install? y/n:	Prerequisite work? y/n:	Off-street parking y/n:
Mount Mansfield Equestrian Center	4081 Mountain Road	Recreation & Leisure	No	Yes	Yes - Service from pole	Yes
Area between Weeks Hill Road and Village Center	Mountain Road	Other	No			No
Blessed Sacrament Church	728 Mountain Road	Religious	No	Yes	Yes - Conduit to parking	Yes
Chase Park	Luce Hill Road	Outdoor	No			Yes
Coldwell Banker Carlson Real Estate	91 Main Street	Other	No	Yes	Yes - Sized-up transformer	Yes
Commodities Natural Market	1650 Mountain Road	Commodities	No	Yes	Yes - Conduit to parking	Yes
Gale Farm Center	1880 Mountain Road	Other	No			Yes

LIST OF CHARGING PROPOSED BY COMMUNITY MEMBERS - DCFC (CONT.)

Location Name:	Location Address:	Category:	Preexists y/n:	Possible to install? y/n:	Prerequisite work? y/n:	Off-street parking y/n:
Gold Brook Camp-ground	1900 Waterbury Road	Outdoor	No	Yes		Yes
Green Mountain Inn	18 Main Street	Lodge/Resort	Yes (as LEVEL 2) (x2)	Yes, already installed		Yes
Jewish Community of Greater Stowe	1189 Cape Cod Road	Religious	No	Yes	Yes - Conduit to parking	Yes
KW Vermont-Stowe	1056 Mountain Road Unit 1	Other	No	Yes	Yes - Transformer	Yes
Linthilhac Park	89 Main Street	Outdoor	No			Yes
Mac's Market	88 South Main Street	Commodities	No	Yes	Yes - Conduit to parking	Yes
Maple-fields/Mobil	14 South Main Street	Commodities	No	Yes		Yes
Public Safety Building	350 South Main Street	Government/Town	No	Yes	Yes - Conduit to parking	Yes

LIST OF CHARGING PROPOSED BY COMMUNITY MEMBERS - DCFC (CONT.)

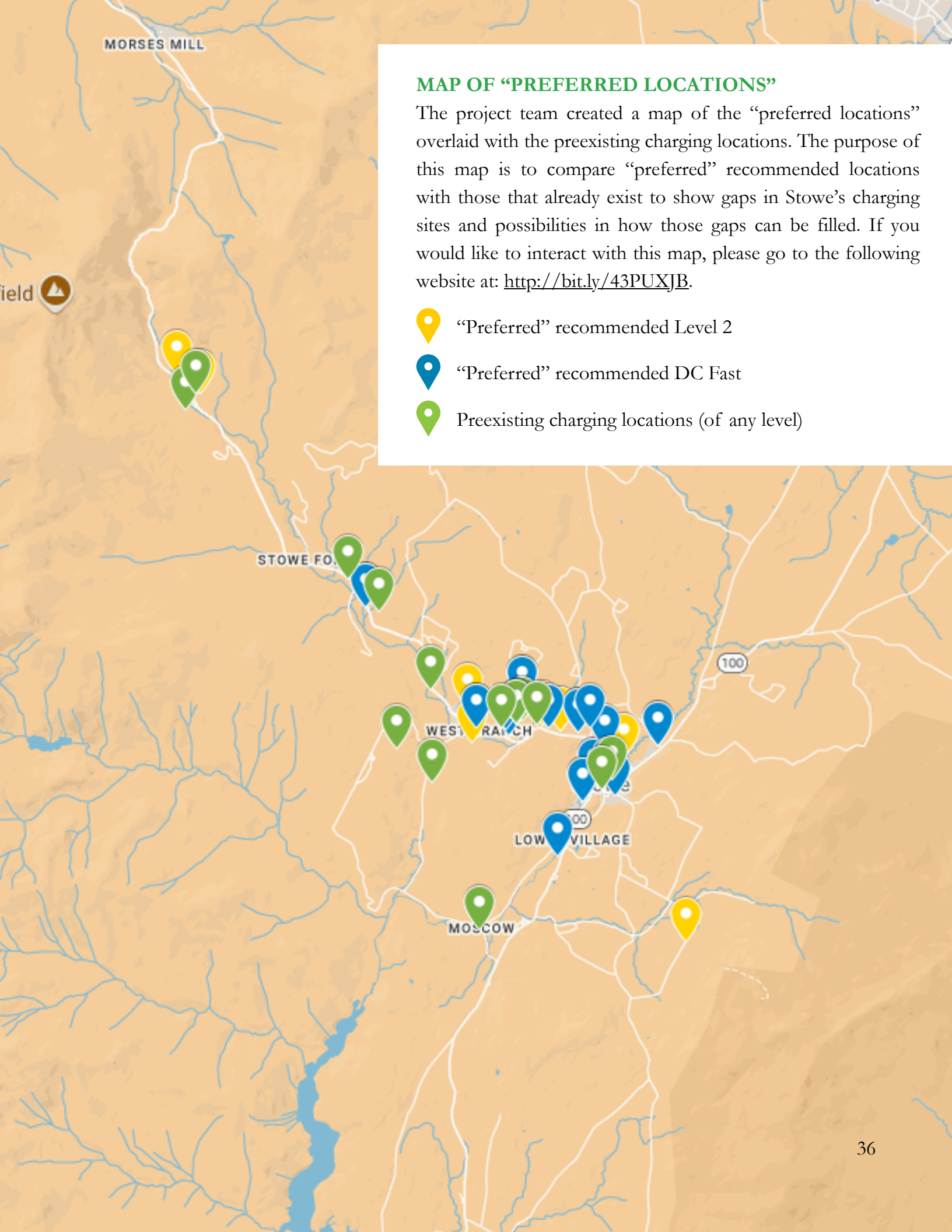
Location Name:	Location Address:	Category:	Preexists y/n:	Possible to install? y/n:	Prerequisite work? y/n:	Off-street parking y/n:
Rim-rock's Tavern	394 Mountain Road	Other	No	Yes	Yes - Conduit to parking	Yes
rK Miles	785 Sylvan Park Road	Comm-odities	No	Yes	No	Yes
Shaw's	751 Maple Street	Comm-odities	No	Yes	Yes - Conduit to parking	Yes
Smuggler's Notch State Park Camp-ground	6443 Mountain Road	Outdoor	No	Yes		Yes
St. John's in the Mountains Church	1994 Mountain Road	Religious	No	Yes	Yes - Sized-up transformer	Yes
Stowe Cider	17 Town Farm Lane	Comm-odities	No	Yes	No	Yes
Stowe Country Club	744 Cape Cod Road	Recreation & Leisure	No	Yes	Yes - Sized-up transformer	Yes
Stowe Elementary School (public lot)	254 Park Street	Education	No	Yes	Yes - Conduit to parking	Yes

LIST OF CHARGING PROPOSED BY COMMUNITY MEMBERS - DCFC (CONT.)

Location Name:	Location Address:	Category:	Preexists y/n:	Possible to install? y/n:	Prerequisite work? y/n:	Off-street parking y/n:
Stowe Events Field	Quiet Path-Week Hill Road	Outdoor	No			Yes
Stowe Family Dentistry	1593 Pucker Street	Health	No	Not SED territory		Yes
Stowe Free Library	90 Pond Street	Government/Town	No	Yes		Yes
Stowe Mountain Resort	5781 Mountain Road	Lodge/Resort	Yes (as LEVEL 2) (x4) at 5402 Mountain Road	Yes, already installed		Yes
Stowe Realty	166 South Main Street Suite 4	Other	No	Yes		Yes
Stowe Recreation Path	67 Main Street	Outdoor	Yes (as LEVEL 2) (x2) located at the parking lot at base of rec path, 137 Main Street	Yes, already installed		Yes
Stowe Town Clerk	67 Main Street	Government/Town	No	Yes	Yes - Sized-up transformer	Yes




LIST OF CHARGING PROPOSED BY COMMUNITY MEMBERS - DCFC (CONT.)

Location Name:	Location Address:	Category:	Preexists y/n:	Possible to install? y/n:	Prerequisite work? y/n:	Off-street parking y/n:
Stowe Veterinary Clinic	1606 Pucker Street	Health	No	Not SED territory		Yes
Stowe-flake Mountain Resort & Spa	1746 Mountain Road	Lodge/Resort	Yes (as LEVEL 2) (x2)	Yes, already installed		Yes
The Lodge at Spruce Peak	7412 Mountain Road	Lodge/Resort	Yes (as LEVEL 2) (x6) (Tesla)	Yes, already installed		Yes
The Swimming Hole	75 Weeks Hill Road	Recreation & Leisure	No	Yes	Yes - Conduit to parking	Yes
Topnotch Tennis Academy	4000 Mountain Road	Recreation & Leisure	Yes (as LEVEL TWO) (x5) (part of the Resort) / Yes (as LEVEL TWO) (x3) (part of the Resort) (x3)	Yes, already installed		Yes
UPS Store	998 South Main Street	Government/ Town	No	Yes	Yes - Overhead to parking	Yes
Vermont Real Estate Company at Stowe	431 Pine Street #118	Other	No	Yes	No	Yes

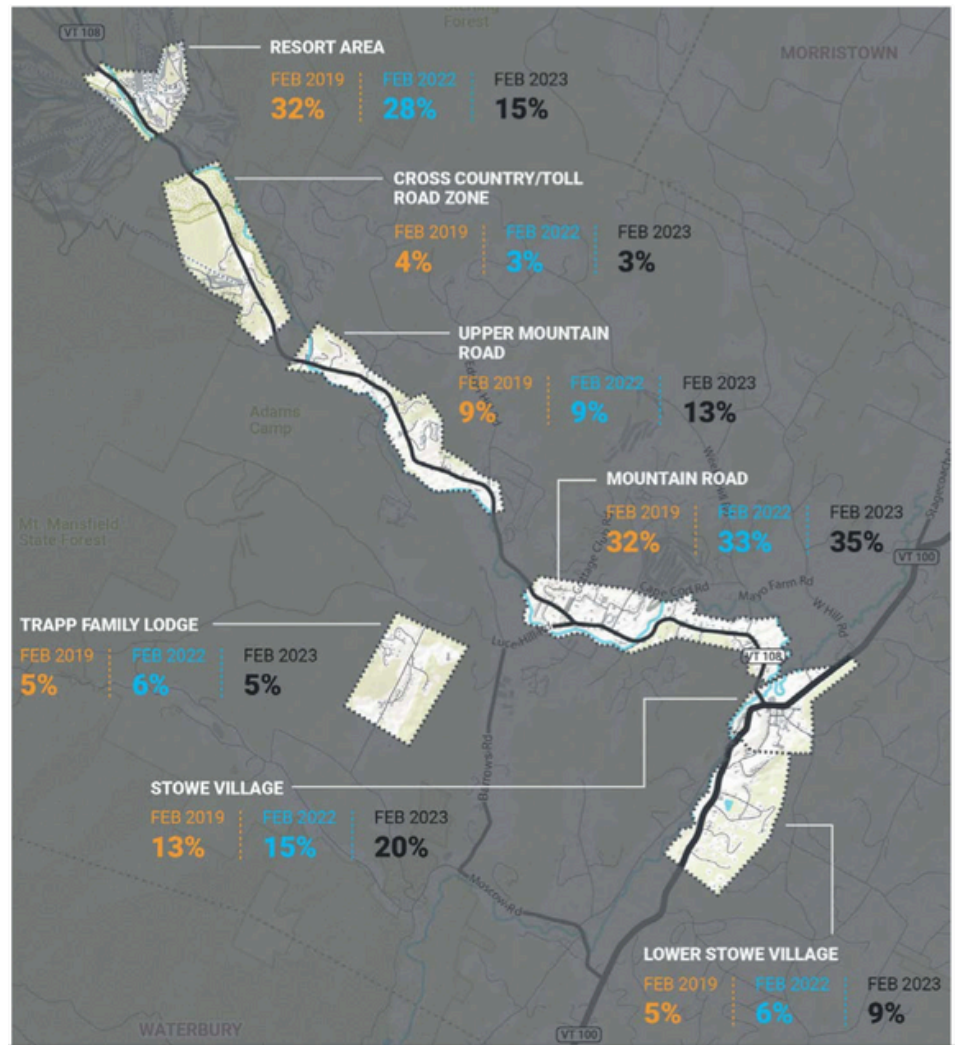


MAP OF “PREFERRED LOCATIONS”

The project team created a map of the “preferred locations” overlaid with the preexisting charging locations. The purpose of this map is to compare “preferred” recommended locations with those that already exist to show gaps in Stowe’s charging sites and possibilities in how those gaps can be filled. If you would like to interact with this map, please go to the following website at: <http://bit.ly/43PUXJB>.

-  “Preferred” recommended Level 2
-  “Preferred” recommended DC Fast
-  Preexisting charging locations (of any level)

In 2023, Stantec Consulting Service, Inc. released a report entitled *Town of Stowe Highway Capacity and Congestion Evaluation*. [27] Through their analysis, they drew conclusions on various traffic patterns, including characterizing Stowe visitor trips. They determined the percentage distribution of trip destinations to Stowe by zone. According to their analysis, 48% of Stowe destination trips ended in the Mountain Road and Upper Mountain Road area, 29% ended in Stowe village and Lower Stowe village, and 15% ended in the resort area in the north.



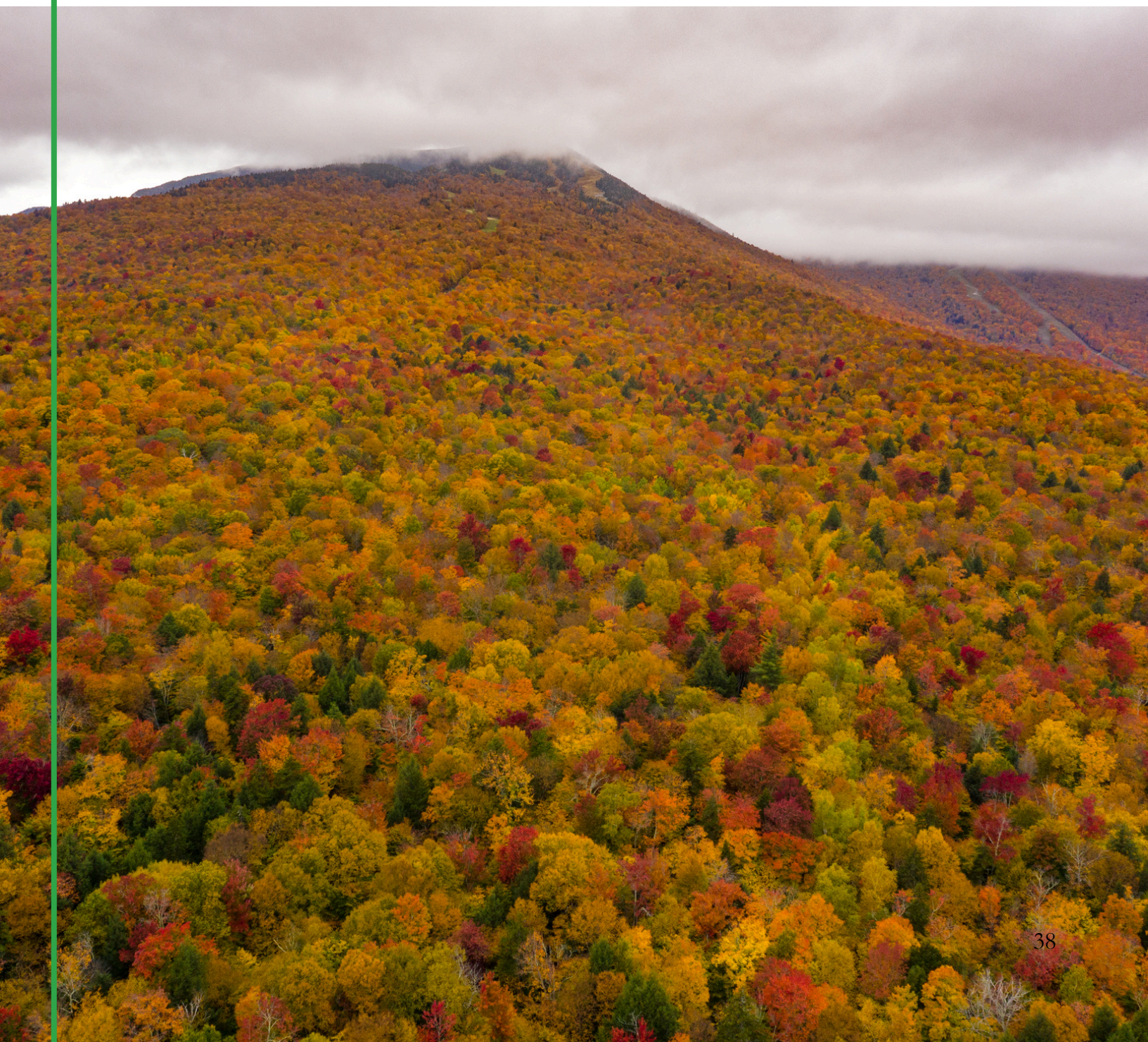
Most recommended charging locations gathered by the VTCCC project team are in Stowe Village and Lower Stowe Village, and along Mountain Road. According to Stantec, these areas account for more than half of the trip destinations in Stowe. These are areas with large tourist traffic, residential traffic, and many services, amenities, and tourist destinations. Focusing charging in these areas on a larger scale would benefit the largest distribution of EV drivers. Implementing charging infrastructure in the other zones—the Resort Area, the Cross Country/Toll Road Zone, and near von Trapp Family Lodge and Resort—would also prove beneficial and would be optimal locations for Stowe's EV charging.

Additionally, Task #5 in the Enhanced Energy Plan looks to “Encourage the Town to purchase and install a new charger that the Electric Department can operate and maintain a second fast

[27] Stantec Consulting Services, Inc. Town of Stowe highway capacity and congestion evaluation. 2023. <https://www.stowevt.gov/files/assets/town/v/2/boards-amp-commissions/selectboard-meetings/packets/2023-packets/15-july-12-2023/item-b-2-traffic-study-update.pdf>.

charger and/or a charger at Stowe Elementary School/Memorial Park area” (page 172).[28] Feedback from community members across the listening sessions and survey supports the installation of more DCFCs, with 37 separate locations proposed and 31 of those locations being new (i.e., without a preexisting charger). Further, Stowe Elementary School was listed as a preferable location for a DCFC, and Stowe Free Library was also listed as a preferable location for both a DCFC or a Level 2 charger.

[28] Town of Stowe. Enhanced energy plan & maps (draft). 2025.
<https://www.stowevt.gov/Government/PlanningCommission/Town-Plan-Drafts>.



PLANNING AND FUNDING

SHORT-TERM AND LONG-TERM PLANNING

Many funding opportunities are first-come, first-serve, making advanced planning for infrastructure implementation increasingly important to capitalize on those funding calls.

As outlined by the Planning Commission, Stowe's most recent town plan is looking forward to 2050 and planning towards the town's future. Beginning EV planning now will set up Stowe for success for the next 25 years of EV infrastructure. This includes short-term, medium-term, and long-term plans. As mentioned previously, this roadmap works towards fulfilling several short-term and medium-term plans outlined in the Enhanced Energy Plan.[29]

One of the barriers to EV adoption, especially for small and rural communities, is the rapidly shifting EV tech landscape.[30] EV technology evolves quickly and requires regular maintenance to ensure that EVSE is functioning optimally. Many individuals voiced concerns about investing in EVSE if it will be less efficient in a few years' time. But maintenance is an integral part of any infrastructure, and part of the EV planning process includes budgeting for maintenance, technological upgrades, potential damage, and replacements. This also includes investing in EV safety and maintenance training programs to ensure that the Stowe workforce is equipped to manage EVSE and EVs.

PROJECT DEVELOPMENT

Some ways that communities can start EV planning for the future include:

- Investing in EV parking spaces by ensuring that EVSE can be readily installed at a given point in the future.
- Raise a bond to fund EV charging.

[29] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts>.

[30] U.S. Department of Transportation. Charging forward: A toolkit for planning and funding rural electric mobility infrastructure. 2022, 15. https://www.transportation.gov/sites/dot.gov/files/2022-01/Charging-Forward_A-Toolkit-for-Planning-and-Funding-Rural-Electric-Mobility-Infrastructure_Feb2022.pdf.

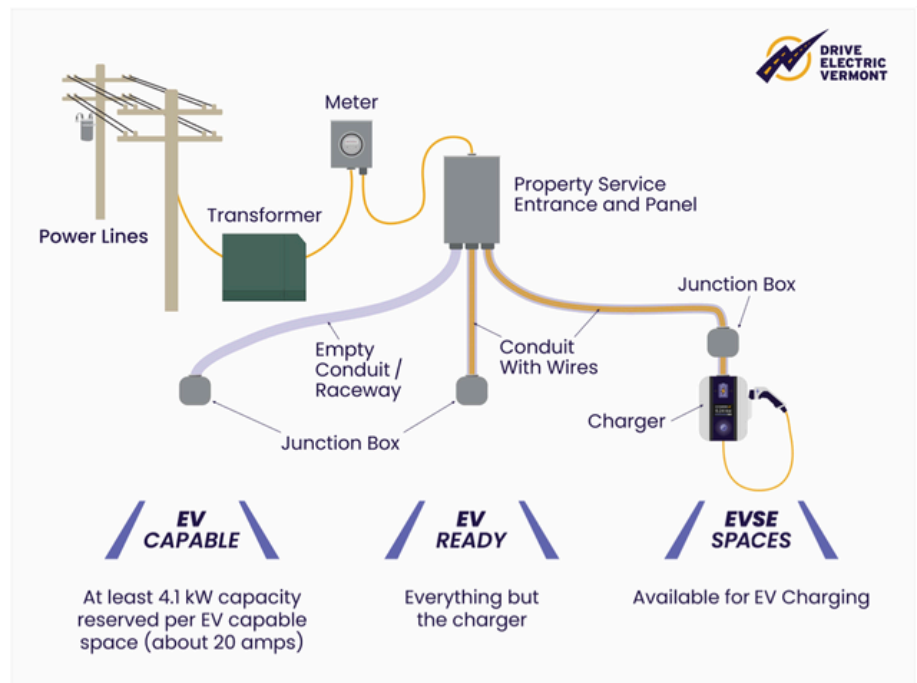
- Explore public-private partnerships towards spearheading EV charging.[31]
- Use taxes from EV charging revenue to direct towards EV charging.
- Use funds raised by local option tax to direct towards EV charging.
- Invest in EV workforce development.

INSTALLATION PLANNING

There are varying degrees of readiness for EVSE installation that range from preparing conduits to operational charging equipment. The three different classifications are:

- **EV capable:** Has at least 4.1 kW capacity reserved per EV capable space (about 20 amps). These spaces have a junction box, and an empty conduit/raceway connected to the property's service entrance and panel.
- **EV ready:** Has everything but the charger. These spaces have a junction box and a conduit with wires that connect to the property service entrance and panel.
- **EVSE spaces:** Is available for EV charging. It has a charger, junction box, and a conduit with wires that connect to the property service entrance and panel.

Each classification prepares community spaces for future infrastructure readiness. All sites should include accessibility, adequate lighting, signage, cellular service for payment, and troubleshooting. In rural areas, available public Wi-Fi is also crucial if cellular service is poor.[32]



[31] U.S. Department of Transportation Federal Highway Administration. State of the practice and emerging practices in P3s for EV charging infrastructure. 2024. https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.fhwa.dot.gov/ipd/pdfs/p3/state_of_the_practice_of_p3s_for_ev_charging_infrastructure.pdf&ved=2ahUKEwjAz_KW-aWNAxUOLFKFHwaeFqwQFnoECAMQAQ&usq=AOvVaw0Hm4H2sChimtZ9CO_wwnf2.

[32] Vermont Energy Investment Corporation (VEIC). Vermont's 2024 energy code: electric vehicle supply equipment (EVSE) requirements. Drive Electric Vermont. 2025. <https://www.driveelectricvt.com/uploads/media/Documents/Resources/VT-2024-EVSE-Building-Energy-Code-Overview.pdf>.

OPERATIONAL PLANNING

According to the US DOT Rural EV Toolkit, EVSE owners and operators have a range of options for pricing (e.g., per kWh, per unit time); payment (e.g., at the charging unit, over the phone, at a nearby establishment); and access (membership-based or open access).[33] EV charging owners can cover their costs by adding an energy-based user fee, session fee, unit time, etc. For example, SED charges \$0.2010/kWh for Level 2 and DCFC. However, the Level 2 chargers have a \$1.00 session fee for the first 4 hours, and then \$1.00/hour for each hour after that. For the DCFC, there is a \$2.00 session fee for the first hour, then \$2.00/ hour after that. Some establishments may not want to charge for EV charging, such as a hotel offering complimentary charging to their guests.

Another aspect to consider is whether to install non-networked (dumb) or networked (smart) chargers. The differences between these two options are highlighted below:[34]

- **Non-networked (dumb) chargers:** These are not connected to a central network and cannot communicate with other devices. They are typically installed by property owners and straightforward to use. Since they do not require any special software or apps, they can be accessed by anyone with an EV. They are less expensive to install and maintain, making them a good option for some small businesses. SED does not offer rebates for non-networked chargers.

Limitations with non-networked chargers include:

- o No payment charging capabilities unless the site host installs radio-frequency identification (RFID) capabilities, mobile applications, or in-person payments.
- o Inability to provide real-time data on usage, limiting the ability of EV owners to monitor their charging habits.
- o Inability to integrate with other smart building systems, limiting their potential for energy optimization.

[33] U.S. Department of Transportation. EV Infrastructure Project Planning Checklist. EV Rural Toolkit.

<https://www.transportation.gov/rural/ev/toolkit/ev-infrastructure-planning/project-planning-checklist#utility-planning>.

[34] Tennessee Clean Fuels. What's The Difference Between "Networked" and "Non-Networked" Charging Stations?

Empower Workplace Charging. <https://www.tncleanfuels.org/2023/05/15/whats-the-difference-between-networked-and-non-networked-charging-stations/>.

- **Networked (smart) chargers:** These are connected to a central network and communicate with other devices, such as smartphones and building management systems. These chargers are typically operated by third-party companies who offer service and maintenance contracts. Some benefits of smart chargers include:
 - o Ability to provide real-time data on usage, number of charging sessions, amount of energy consumed, and the cost of charging.
 - o Ability to provide alerts when a charging station is available, in use, or out of service.
 - o Ability to integrate with other smart building systems.

FUNDING OPPORTUNITIES

Funding is often a major barrier to installing EV charging, particularly in rural areas.[35] The following funding recommendations are based on findings from this project and previous recommendations in EVRCRs across the nation.

Many existing programs and incentives target individuals who buy or lease an electric vehicle. By coordinating with individuals, businesses and other organizations, Stowe would be able to strategize traffic patterns and charging locations.

Collaboration with local businesses and stakeholders is necessary for successful implementation. Businesses can often apply for EVSE incentives and work with local organizations to strategize funding arrangements

[35] U.S. Department of Transportation. Charging forward: A toolkit for planning and funding rural electric mobility infrastructure. 2022, 15. https://www.transportation.gov/sites/dot.gov/files/2022-01/Charging-Forward-A-Toolkit-for-Planning-and-Funding-Rural-Electric-Mobility-Infrastructure_Feb2022.pdf.

and navigate ideal charging locations that benefit both the private and public sector.[36] A public-private partnership for Stowe can leverage private funding or financing for a charging project and minimize the risk for the town. You can find more information on public-private partnerships in the Rural EV Toolkit.[37]

The following are some examples of state and utility rebates:

- **Charge Vermont EV Installation Grant** made possible by the Department of Housing and Community Development. This grant provides funds to cover EVSE installation at a business, multi-dwelling unit, or a public attraction.[38]
- **SED rebates:** SED offers rebates on EVSEs. As stated on their website:
 - o Level 2 or DCFC charging stations that are installed at a workplace, public building or parking lot, or commercial location and available for customers, visitors, and public users.
 - o Level 2 EV charging stations are eligible for a \$250 rebate per charger for multifamily homes or \$500 per charger for workplace or public chargers accessible to the public, employees, or visitors.
 - o DCFC stations are eligible for a \$1,000 rebate per charger (maximum of \$2,000 per year per customer) if the stations are available to public users and connected to a network with an operation and maintenance portal and/or fee-based portal. These stations can limit public charging to a defined time period during normal business hours and after-hours.[39]

[36] King's County Association of Governments. King's County electric vehicle readiness plan. 2020, 18-26. https://www.kingscog.org/vertical/Sites/%7BC427AE30-9936-4733-B9D4-140709AD3BBF%7D/uploads/KCAG_EVRP_FINAL.pdf.

[37] U.S. Department of Transportation. Site Hosts. EV Rural Toolkit. <https://www.transportation.gov/rural/ev/toolkit/ev-partnership-opportunities/site-hosts>.

[38] Green Mountain Power and the State of Vermont. Apply: help grow electric vehicle chargers and electric transportation across Vermont. Charge Vermont. 2025. <https://www.chargevermont.com/apply/>.

[39] Stowe Electric Department. Rebates and Incentives. 2025. <https://www.stoweelectric.com/rebates>.

CONCLUSION

According to the Stowe 2050 community planning for the 2026 Town Plan, Stowe is targeting an expansion of EV infrastructure in their goals for 2050.[40] As such, strategic planning to inform electric vehicle readiness is essential. Given Stowe's rural nature, this planning is increasingly important, due to potential limited infrastructure and funding resources. Further, given that Stowe is a popular destination that depends on yearly tourism, the commercial benefits of EV charging capabilities underscore a broader service towards community and economic growth.[41,42]

VTCCC's EVRCR is intended to serve as a resource to support the planning of EV infrastructure across the town of Stowe. This is to ensure that Stowe is well-equipped to meet their goals of developing "a plan of preferred locations for EV charging that can focus on traffic and pedestrian patterns, transformer capacity and assist, where appropriate with both tourism and local charging ability" (171). [43] The roadmap was developed by engaging with local stakeholders and community members to gather feedback on ideal charging locations as well as navigating public priorities regarding EV infrastructure. The roadmap also took into consideration the capabilities and priorities of the Town of Stowe and SED. The EVRCR was developed with a focus on planning for future EV readiness while navigating the uniqueness of Stowe.

The roadmap demonstrates the importance of public charging infrastructure for both residents and tourists, and opportunities that focus on public-private partnerships and fostering local investment in EV infrastructure. Further, the vibrant tourist industry and the prevalence of short-term rental properties demonstrates a community's reliance on increased public charging, as many residential and multi-unit dwelling units do not yet have EV charging capabilities. Additionally, the findings of this report indicate the importance of both short-term and long-term EVSE planning, including navigating EV ready, EV capable, and EV community spaces

[40] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts>.

[41] King's County Association of Governments. King's County electric vehicle readiness plan. 2020, 18-26. https://www.kingscog.org/vertical/Sites/%7BC427AE30-9936-4733-B9D4-140709AD3BBF%7D/uploads/KCAG_EVRP_FINAL.pdf.

[42] U.S. Department of Transportation. Charging forward: A toolkit for planning and funding rural electric mobility infrastructure. 2022, 15. https://www.transportation.gov/sites/dot.gov/files/2022-01/Charging-Forward_A-Toolkit-for-Planning-and-Funding-Rural-Electric-Mobility-Infrastructure_Feb2022.pdf.

[43] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts>.

and investing in equipment maintenance.[44]

This report also highlights the rich community feedback regarding Stowe's goals. Each group shared both individual needs and those corresponding to the larger community. It is important to consider these needs in balance to create a plan that services the broader community in the best and most efficient way possible. The findings in this roadmap and the supplemental information gathered indicate that the keystones put forth by Stowe in their most recent Town Plan[45] are both feasible and advantageous to the larger community and its future growth.

[44] Vermont Energy Investment Corporation (VEIC). Vermont's 2024 energy code: electric vehicle supply equipment (EVSE) requirements. Drive Electric Vermont. 2025. [24] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts..>

[45] Town of Stowe. Enhanced energy plan & maps (draft). 2025. [24] Town of Stowe. Enhanced energy plan & maps (draft). 2025. <https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts..>

REFERENCES

Berlin, Carly. Short-term rentals are on the rise in Vermont. So are debates over how to regulate them. VTDigger. November 15, 2023. <https://vtdigger.org/2023/11/15/short-term-rentals-are-on-the-rise-in-vermont-so-are-debates-over-how-to-regulate-them/>

Drive Electric Vermont. *January 2025 EV registration updates*. 2025. https://www.driveelectricvt.com/uploads/media/Documents/Maps/vt_ev_registration_trends.pdf

Green Mountain Power and the State of Vermont. Apply: help grow electric vehicle chargers and electric transportation across Vermont. Charge Vermont. 2025. <https://www.chargevermont.com/apply/>

Green Mountain Power and the State of Vermont. Charge Vermont. 2025. <https://www.chargevermont.com>

King's County Association of Governments. King's County electric vehicle readiness plan. 2020, 18-26. https://www.kingscog.org/vertical/Sites/%7BC427AE30-9936-4733-B9D4-140709AD3BBF%7D/uploads/KCAG_EVRP_FINAL.pdf

Linkov, Jon; Bartlett, Jeff S.; Knizek, Alex; Barry, Keith. *How well do Tesla Superchargers work for non-Tesla EVs?* Consumer Reports. November 4, 2024. <https://www.consumerreports.org/cars/ev-chargers/how-well-do-tesla-superchargers-work-for-non-tesla-evs-a4713673565/>

Sabet, Habib. Vermont is racing to meet its own electric vehicle targets. VTDigger. January 12, 2024. <https://vtdigger.org/2024/01/12/vermont-is-racing-to-meet-its-own-electric-vehicle-targets/>

Stantec Consulting Services, Inc. Town of Stowe highway capacity and congestion evaluation. 2023. https://www.stowevt.gov/files/assets/town/v/2/boards-and-commissions/_selectboard-meetings/packets/2023-packets/15.-july-12-2023/item-b-2-traffic-study-update.pdf

Stowe Area Association. *Stowe Area Association FY 2024 annual report*. 2024.

<https://gostowe.com/wp-content/uploads/2024/11/Stowe-Area-Association-FY-24-Annual-Report.pdf>

Stowe Electric Department. Rebates and Incentives. 2025.

<https://www.stowelectric.com/rebates>

Tennessee Clean Fuels. What's The Difference Between "Networked" and "Non-Networked" Charging Stations? Empower Workplace Charging.

<https://www.tncleanfuels.org/2023/05/15/whats-the-difference-between-networked-and-non-networked-charging-stations/>

Town of Stowe. 2024 annual report. 2024.

<https://www.stowevt.gov/files/assets/town/v/1/administration/documents/town-reports/2024-stowe-annual-town-report-and-audit.pdf>

Town of Stowe. Enhanced energy plan & maps (draft). 2025.

<https://www.stowevt.gov/Government/Planning-Commission/Town-Plan-Drafts>

Town of Stowe. Town of Stowe Parcel and Zoning Map.

<https://mangomap.com/stowezoning/maps/63313/town-of-stowe-parcel-and-zoning-map?preview=true#>

U.S. Department of Commerce. Stowe town, Lamoille County, Vermont. United States Census Bureau. https://data.census.gov/profile/Stowe_town,_Lamoille_County,_Vermont?g=060XX00US5001570525#populations-and-people

U.S. Department of Energy: Energy Efficiency & Renewable Energy. Vermont Transportation Data for Alternative Fuels and Vehicles. Alternative Fuels Data Center.

<https://afdc.energy.gov/states/vt>

U.S. Department of Transportation. Benefits to Communities. Rural EV Toolkit.

<https://www.transportation.gov/rural/ev/toolkit/ev-benefits-and-challenges/community-benefits>

U.S. Department of Transportation. Charger Types and Speeds. Rural EV Toolkit.

<https://www.transportation.gov/rural/ev/toolkit/ev-basics/charging-speeds>

U.S. Department of Transportation. *Charging forward: A toolkit for planning and funding rural electric mobility infrastructure*. 2022, 15. https://www.transportation.gov/sites/dot.gov/files/2022-01/Charging-Forward_A-Toolkit-for-Planning-and-Funding-Rural-Electric-Mobility-Infrastructure_Feb2022.pdf

U.S. Department of Transportation. EV Infrastructure Project Planning Checklist. EV Rural Toolkit. <https://www.transportation.gov/rural/ev/toolkit/ev-infrastructure-planning/project-planning-checklist#utility-planning>

U.S. Department of Transportation. Site Hosts. EV Rural Toolkit. <https://www.transportation.gov/rural/ev/toolkit/ev-partnership-opportunities/site-hosts>

Vermont Energy Investment Corporation (VEIC). Vermont's 2024 energy code: electric vehicle supply equipment (EVSE) requirements. Drive Electric Vermont. 2025. <https://www.driveelectricvt.com/uploads/media/Documents/Resources/VT-2024-EVSE-Building-Energy-Code-Overview.pdf>

Vermont Housing Finance Agency. Vermont housing needs assessment. 2023-2024, 283-303. https://www.stowevt.gov/files/assets/town/v/1/boards-amp-commissions/housing-tf/statewide_housing_needs_assesment_-_lamoille_county_chapter.pdf

ADDITIONAL RESOURCES

Drive Electric USA. Project Advisory Committee. <https://www.driveelectricusa.org/projectstate-plans-docs/>

Images, unless connected to a cited source, are stock images