

Right to Charge

Robb Kidd Vermont Conservation Program Manager robb.kidd@sierraclub.org





Sierra Club Vermont Right to Charge

Most plug-in electric vehicle drivers do more than 80% of their charging at home (source: energy.gov).





Level One Charging (120 Volts)

Level 1 charging uses the same 120-volt current found in standard household outlets and can be performed using the power cord and equipment that most EVs come with. Making this type of charging available on your business property is as simple as installing dedicated 120 volt outlets in your company parking lot.

Slow charging, typically 3-5 miles of range per hour



Level Two Charging (240 Volts)

Level 2 charging uses 240 volt power to enable faster regeneration of an EV's battery system. Providing this type of charging typically requires installation of an EVSE unit and electrical wiring capable of handling higher voltage power. Many utilities are offering free level 2 charging equipment and/or incentives with an electric car purchase. Faster charge time - typically 10 – 20 miles of range per hour of charge

Typically Level 2 charging will cost around \$0.20/kWh

Text from Drive Electric Vermont

**This public charger at Hunger Mountain Coop is free **



Level 3/DC Fast Charging (480 Volts)

DC fast charging provides compatible vehicles with an 80% charge in 30-60 minutes by converting high voltage AC power to DC power for direct storage in EV batteries. Automakers currently use the same Society of Automotive Engineers (SAE) J-1772 plug for level 1 and 2 charging, with the exception of Tesla which has an adapter. For DC fast charging there are three plug types used by different automakers: the CHAdeMO, SAE Combined Charging System (Combo/CCS), and Tesla Supercharger. Nissan and Mitsubishi vehicles use CHAdeMO while current and upcoming vehicles from US and European manufacturers have SAE CCS ports. Tesla's Supercharger plug is only compatible with Tesla vehicles, although they offer an adapter which allows Tesla owners to use SAE CCS equipment and are starting to make some Supercharger locations available to non-Tesla drivers through their Supercharger to CCS "magic dock" adapter.

Typically DC Fast Charging will cost \$0.35-0.50/kWh.

Text from Drive Electric Vermont

EV Charging Rates

GMP-Rate 72

GMP manages the charging during peaks. They alert customers to energy peaks (about 5-7 per month, they last a few hours and usually start around 5pm or 6pm). One can opt out, and still charge during a peak, but will pay more. Charging up during off-peak hours on this rate is like paying about \$1.20/gallon to fill up with gas. \$0.15/kWh

GMP Rate 74

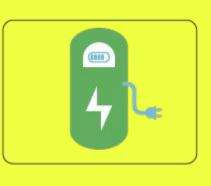
Has regular, set, peak and off-peak hours. Charging during off-peak hours is how customers save. Peak hours are Monday-Friday 1-9:00pm. If one avoid charging then, and choose off-peak charging, it is like paying \$1.15/gallon to fill up with gas. 0.14/kWh



Burlington Electric EV Rate

9 cents per kWh (kilowatt hour), the equivalent of paying 70 cents per gallon

Burlington Electric To receive the monthly EV charging credit, customers must charge their EV during the hours that are specified as EV Charging Hours of 10 PM – 12 PM noon (next day)



Burlington Electric

RESIDENTIAL EV CHARGER Rebate Amount:

\$900 when purchased with a new or pre-owned all-electric vehicle

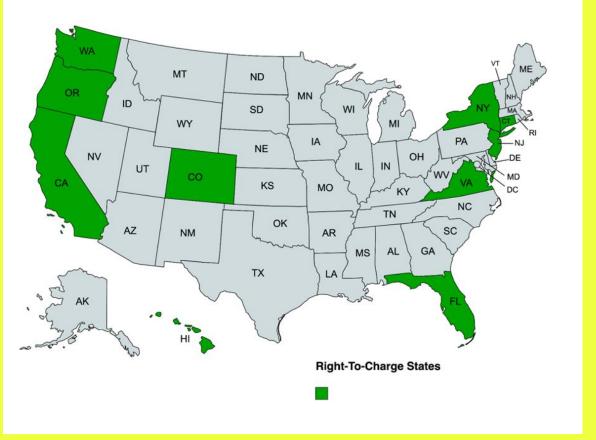
\$700 when purchased with a new or pre-owned plug-in hybrid electric vehicle

Green Mountain Power

Level 2 Charger to install at home and use while they're enrolled in GMP's Home Charging program. Customer must pay for the installation.

Electrician charge begins at approximately \$500-\$1000.

Existing Right to Charge States



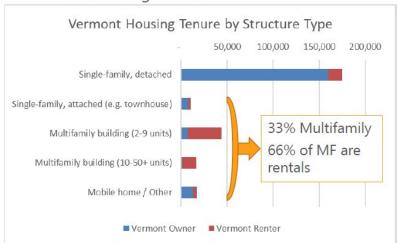
https://pluginamerica.org/policy/right-to-charge-policies/

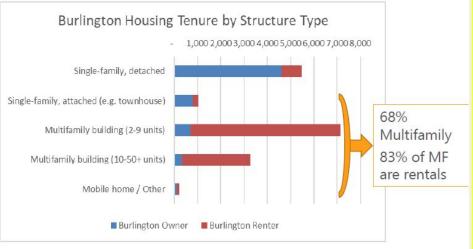
What is Right to Charge?

- Protections for property renters in addition to owners
- Applying policies to various kinds of applicable communities, including co-ops, planned communities, townhouses (collectively known as common interest communities) in addition to condos; and apartments (when renter protections are included).
- Provisions that ensure that designated-space charging is connected to a unit's electricity meter so as to ensure the greatest reliability and preserve consumer choice when choosing charging power levels (Level 1 or Level 2).
- Making relevant common space available for charging if unit-designated parking is not available.

Right to Charge

- Owner has right to pay for their own EV charging installation
- Can apply to condo owners with HOAs as well as renters
- Charging installed at owner-exclusive parking space or shared parking
- California, <u>Colorado</u>, Florida, Hawaii, Maryland, New Jersey, <u>New York</u>, Oregon, and Virginia have all enacted legislation





Source: US Census ACS 2021 5-year data

https://data.census.gov/table?q=B25032&q=0100000US_0400000US50_0600000US5000710675,5000766175&tid=ACSDT5Y2021.B25032

https://www.nescaum.org/documents/ev-right-to-charge.pdf/

https://pluginsites.org/legislation-reference-recharging-equipment-at-multi-unit-housing/

Key Features of S.271 for Renters

- Tenants are allowed to install EVS and landlords shall approve if
 - Tenants pay for the associated installment costs and modifications.
 - Tenants pay for the additional electricity usage
 - Tenants pay additional fee for parking if it in effect gives the tenant a reserved parking space.
 - Tenants purchase liability insurance *Not required if*
 - Installed by licensed electricians
 - EVSE is has been certified by a Nationally Recognized Testing Laboratory that is approved by the Occupational Safety and Health Administration of the U.S. Department of Labor; and

Key Features of S.271 for Condominiums

- Voids out contracts, convenent restrictions or conditions that either effectively prohibits or unreasonably restricts the installation or use of an EVSE or EVSE TOU meter at:
 - a unit owner's unit
 - or in a designated parking space.
- Reasonable restrictions are allowed, however written approval or denial must be given within 60 days,
- The association shall approve the installation if
 - Meets architectural design standards
 - Installed by licensed contractor.
 - Engaged with the Utility providing service
 - Homeowner Obtained Insurance
 - Homeowner Pay for installation and electricity usage



Robb Kidd Vermont Conservation Program Manager robb.kidd@sierraclub.org 802-505-1540



