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# PREPARING OUR COMMUNITIES FOR ELECTRIC VEHICLES: FACILITATING DEPLOYMENT OF DC FAST CHARGERS

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## BACKGROUND

To close the electric vehicle (EV) charging gap and keep pace with increasing demand, states recently identified streamlining permitting for charging stations as a high priority in the Multi-State Zero Emission Vehicle Action Plan<sup>1</sup> and the Northeast Corridor Regional Strategy for Electric Vehicle Charging Infrastructure.<sup>2</sup> Because local municipal and county governments are the authorities having jurisdiction (AHJs) over permitting charging stations, the purpose of this document is to present information about EVs, charging equipment, and common issues that arise when permitting Direct Current Fast Charging (DCFC) stations.

## AN INTRODUCTION TO ELECTRIC VEHICLES

There are two types of electric vehicles that use an external power source to charge an onboard battery, battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). BEVs use an electric motor that is powered solely by a battery. The range of BEVs varies from 80 to 335 miles, depending on the model. PHEVs contain both electric motors and gasoline engines. They use the electric motor, at times selectively, until the battery is depleted, and then the vehicle switches to the gasoline engine. PHEVs have all-electric ranges that vary from 10 to 50 miles. Both BEVs and PHEVs, which will be collectively referred to as electric vehicles or EVs, use electricity to charge their batteries.

Electric vehicles offer benefits both to the environment and to the consumer. Because they have no tailpipe emissions when running on electricity, EVs reduce pollutants, such as nitrogen oxides, that lead to the formation of ground level ozone, the main ingredient of smog. Additionally, EVs emit fewer greenhouse gases (GHGs) than gasoline powered vehicles<sup>3</sup>, and the GHG reductions from EVs will become even greater as a higher portion of electricity is produced by renewable resources. This is why

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<sup>1</sup> ZEV Task Force, "Multi-State ZEV Action Plan: 2018-2021." 2018. Available at: <https://www.nescaum.org/topics/zero-emission-vehicles/multi-state-zev-action-plan-2018-2021-accelerating-the-adoption-of-zero-emission-vehicles>

<sup>2</sup> NESCAUM, "Northeast Corridor Regional Strategy for Electric Vehicle Charging Infrastructure 2018-2021." May 2018. Available at: <https://www.nescaum.org/documents/northeast-regional-charging-strategy-2018.pdf>

<sup>3</sup> Union of Concerned Scientists, "Cleaner Cars from Cradle to Grave." 2015. Available at: <https://www.ucsusa.org/clean-vehicles/electric-vehicles/life-cycle-ev-emissions#.XDeNwVxKiUk>

transportation electrification is a key strategy for achieving air quality and climate goals and for integrating renewable energy into the transportation sector. EVs are also significantly quieter than gasoline powered vehicles, which reduces noise pollution. In addition to the environmental benefits, EVs are fun to drive, cheaper to fuel and maintain, and provide added convenience when they can be charged overnight at home.

Electric vehicles are a new and fast-growing market. There are over one million EVs on the road in the United States today. This number will continue to rise as more charging infrastructure is deployed, the cost of EVs decreases, the range of the vehicles increases, and consumers become increasingly aware of the benefits of driving electric. Some forecasts indicate that 20% of new cars sold will be electric by 2030, which will result in over 18 million EVs on the road in that year.<sup>4</sup> Consumer acceptance will also continue to grow as new and diverse models are introduced. In 2018, there were over 40 different models of electric cars available for sale in the U.S., including sports cars, sedans, SUVs, and minivans. Most major vehicle manufacturers have invested significantly in electrification and have announced that exciting new products are on the way, including more EVs with four-wheel drive, longer ranges, and electric pickup trucks.

## ELECTRIC VEHICLE CHARGING EQUIPMENT

Electric vehicles need to be charged with electricity to “fuel” their batteries. While most charging can be done at home or at work, public charging plays a vital role in driving EV adoption needed to meet mid-term and long-term GHG reduction goals. Charging an EV is a different experience than fueling a car at a gas station. Rather than waiting until the fuel gauge is near empty, EV drivers often take advantage of opportunities to “top off.” While it takes longer to charge your car with electricity, it can be accomplished while you are doing something else. In fact, public charging can provide a boost to local businesses because EV drivers often seek out chargers they can use while enjoying a cup of coffee, dining or shopping nearby.

There are three levels of charging: Level 1, Level 2, and Direct Current Fast Charging (DCFC). Level 1 charging consists of plugging the cord that comes with the car into a standard 120-volt AC wall outlet. Level 1 typically provides about 5 miles of range per hour and is best for overnight charging. Both Level 2 and DCFC require higher voltage power and the installation of electric vehicle supply equipment (EVSE). Level 2 charging requires a 240-volt outlet, the same kind used by a clothes dryer or stove, and delivers 10 to 20 miles of range per hour of charging. DCFC requires a three-phase 480-volt AC electric circuit (with the DCFC equipment converting AC to DC) and delivers a significantly faster charge. Most existing DCFC stations are 50 kilowatts (kW), delivering 60 to 80 miles of range in 20 minutes and are used primarily to charge BEVs. However, there are now much faster DCFC stations, including ones that deliver up to 350-kW, a wattage capable of delivering 200 miles of range in 10 minutes. Beyond delivering a faster charge, one major factor that differentiates DCFC from Level 2 chargers is the need for an

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<sup>4</sup> The Edison Foundation and Edison Electric Institute, “Electric Vehicle Sales Forecast and the Charging Infrastructure Required Through 2030.” November 2018. Available at: [http://www.edisonfoundation.net/iei/publications/Documents/IEI\\_EEI%20EV%20Forecast%20Report\\_Nov2018.pdf](http://www.edisonfoundation.net/iei/publications/Documents/IEI_EEI%20EV%20Forecast%20Report_Nov2018.pdf)

equipment pad to mount the DCFC equipment. For all levels of charging, it is important to point out that no electricity flows from the charger until it is securely plugged into the vehicle and that the EVSE then communicates with the vehicle to deliver a safe flow of electricity.

## DC FAST CHARGERS

Unlike Level 1 and 2 charging, there are different types of connector plugs for DCFC. There are currently three different DCFC plug types that are associated with different automobile manufacturers. Tesla uses its own plug that can only be used by Tesla vehicles. European and American manufacturers (e.g., BMW, GM, VW) typically use the SAE Combined Charging System (CCS) plug. Lastly, some manufacturers (e.g., Nissan, Mitsubishi) use the CHAdeMO plug. Except for Tesla stations, many new DCFC stations come equipped with both CCS and CHAdeMO plugs. Finally, no matter which connector is used, it is important to note that DCFC is a safe technology that is built to code and follows rigorous safety standards.<sup>5</sup>

DCFC stations are an essential component of the EV charging ecosystem. While it is generally understood that DCFC is needed to facilitate long distance travel, there are many DCFC applications for local EV drivers as well. DCFC stations provide a viable charging option for people without the ability to charge at home, such as those who live in apartment buildings, and are also used by EV drivers looking to “top off.” In addition, DCFC stations play a critical role in facilitating the electrification of ride-hailing fleets, such as taxis, Uber, and Lyft, by offering a quick way for drivers to charge their EVs.

While it may seem obvious, it’s worth noting there are several characteristics that differentiate gas stations from DCFC. The most obvious difference is that one involves gas, a toxic substance that can cause environmental harm when spilled or leaked and emits fumes that are hazardous to breathe, while the other uses electricity. When gas stations are developed, they typically include a store, which requires HVAC and plumbing equipment, and gas pumps that require canopies, underground storage tanks, and fire suppression systems. In addition, gas stations and their associated stores are normally stand-alone enterprises. On the other hand, as of now, DCFC stations are usually added to existing developments as an accessory use, and can be installed in a variety of locations, including gas stations, rest stops, malls, etc. Also, DCFC stations do not require underground storage tanks to store fuel and, except for those with solar canopies, do not have canopies. While there are other differences that could be mentioned, the point is that gas stations should not be used as a blueprint for how to permit DCFC.

## SITING CHARGING EQUIPMENT

Choosing a site for DCFC is resource intensive. When selecting a site, station developers consider several factors, such as: local traffic patterns, EV adoption in surrounding areas, proximity to major roadways, nearby services (e.g., stores, coffee shops, etc.), safety, and appropriate lighting (i.e., well-lit at night). Station developers also need to work with electric utilities to ensure adequate electrical infrastructure to accommodate DCFC. Available grid connections and electrical capacity may limit charger placement

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<sup>5</sup> See for example: [https://standardscatalog.ul.com/standards/en/standard\\_2202\\_2](https://standardscatalog.ul.com/standards/en/standard_2202_2); [https://standardscatalog.ul.com/standards/en/standard\\_2231-2\\_2](https://standardscatalog.ul.com/standards/en/standard_2231-2_2); and [https://standardscatalog.ul.com/standards/en/standard\\_2251\\_4](https://standardscatalog.ul.com/standards/en/standard_2251_4)

at a site. Sometimes easements from utilities and others are needed, which can add additional time and costs to securing a site and place restrictions on where the charger can be located at the site. Lastly, the station developer and site host enter into a contract, which often restricts or dictates the specific on-site location of the chargers. It is important to keep in mind that station developers must complete this resource-intensive process for siting DCFC stations before submitting a permit application to the AHJ.

## PERMITTING DCFC STATIONS: AN EMERGING ISSUE FOR AHJS

There are currently over 2,700 DCFC locations in the United States.<sup>6</sup> This number is expected to grow as automakers bring more EVs to the market and the demand for fast charging increases. Moreover, there are billions of dollars of planned investment in EV charging equipment from electric utilities, states, and private EVSE companies. Therefore, AHJs will likely see more applications for DCFC stations in the coming months and years. While many AHJs have experience permitting Level 2 charging, most AHJs have little or no experience permitting DCFC stations. Compared to Level 2 charging, DCFC requires more space and power and the installation of an equipment pad. Additionally, electrical upgrades are often needed to bring more power to the site for DCFC, thus permitting DCFC may pose some unique issues for AHJs. However, with a structured and well-defined permitting process, these issues can easily be overcome.

## RECOMMENDED PRACTICES TO STREAMLINE PERMITTING FOR DCFC STATIONS

According to EVSE providers, the permitting process for DCFC stations is sometimes lengthy and fraught with delays due to unfamiliarity with the technology, protracted zoning reviews, and undefined requirements for permitting DCFC. As a result, the DCFC permitting process can be resource-intensive for both applicants and AHJs. In some extreme instances, station developers have withdrawn permit applications and found new charging station sites in neighboring towns, shifting potential economic opportunities to other locations. Based on conversations with EVSE providers and by reviewing the practices and recommendations in leading jurisdictions, there are some clear steps that AHJs can take to encourage DCFC station deployment and make the permitting process more efficient for everyone involved, from zoning boards to permitting staff to station developers to inspectors.

### STANDARDIZE THE PERMIT REVIEW AND INSPECTION PROCESS FOR DCFC STATIONS.

EVSE providers report that when required, zoning reviews are usually the lengthiest part of the approval process and are not always necessary. Often, zoning reviews are unnecessary because DCFC stations are an accessory use to the principal use of the site – that is, DCFC stations are usually added to existing parking areas for already developed sites. Some towns find that amending their zoning ordinance to clarify that DCFC is an accessory use that does not require further zoning board approval, and to clearly identify any exceptions, can save time and resources for both zoning boards and applicants.<sup>7</sup> AHJs can

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<sup>6</sup> U.S. Department of Energy, Energy, Efficiency and Renewable Energy, “Alternative Fuels Data Center.” Accessed May 9, 2019: [https://afdc.energy.gov/fuels/electricity\\_locations.html#/find/nearest?fuel=ELEC&ev\\_levels=dc\\_fast&country=US](https://afdc.energy.gov/fuels/electricity_locations.html#/find/nearest?fuel=ELEC&ev_levels=dc_fast&country=US)

<sup>7</sup> For examples of model ordinance language defining EV charging stations as an “accessory use,” see Table 1 in the Appendix.

further streamline the review process by providing concurrent reviews for building, electric, and any other reviews necessary for the approval of a permit.

It is also important to standardize the building/electrical permit review and inspection process and to make the grounds for rejecting a permit application clear up front.<sup>8</sup> For example, the state of California limits permit reviews to health and safety issues so aesthetic issues, such as landscaping, are not grounds for rejecting a permit application.<sup>9</sup> In addition, developing a concise checklist for inspections<sup>10</sup> sets clear expectations about what will be inspected, which documents must be brought to the inspection, and who should be present. During the inspection process, inspectors should ensure that the project is consistent with the issued permits and avoid adding additional requirements at that point. Some AHJs also find that they can consolidate the number of required inspections for DCFC stations by conducting multiple inspections simultaneously.

#### MAKE THE PROCESS FOR PERMITTING DCFC STATIONS CLEAR AND TRANSPARENT.

As a first step, it is helpful for AHJs to clearly identify required application materials, where to find the permit application, permitting steps and associated timelines, any fees involved, and points-of-contact. Fact sheets are a convenient way to convey this information.<sup>11</sup> Some jurisdictions even have a permit application specifically for EV charging that addresses both Level 2 charging and DCFC.<sup>12</sup> Prominently featuring permits and fact sheets online makes it easy for station developers to locate this information and will reduce the time staff spends responding to questions and dealing with incomplete applications.

#### OFFER OPTIONS TO SUBMIT PERMIT APPLICATIONS ELECTRONICALLY.

Providing permit application forms online, ideally in a fillable PDF application that accepts electronic signatures, and allowing permit applications to be submitted online or via email makes it easier for station developers to submit applications and for permitting staff to receive and process them. Some online permitting platforms can also assist with internal reviews and communicate externally about the status of the review. Online permitting, or providing the option to obtain applications online and submit them via email when online permitting is not available, allows applicants to avoid unnecessary trips (and

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<sup>8</sup> For examples of model ordinance language to expedite the building/electrical permit review, see Table 2 in the Appendix.

<sup>9</sup> See California Assembly Bill No. 1236, Chap. 598: Local Ordinances: Electric Vehicle Charging Stations (2015). Available at: [https://leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=201520160AB1236](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1236)

<sup>10</sup> Sample inspection checklists and corrections sheets, developed by the Center for Sustainable Energy, are available in appendices in the “Electric Vehicle Charging Station Permitting Inspection and Best Practices: A Guide for San Diego Regional Local Governments.” June 2016. Available at: [https://energycenter.org/sites/default/files/docs/nav/transportation/plug-in\\_sd/Plug-in%20SD%20Permitting%20and%20Inspection%20Report.pdf](https://energycenter.org/sites/default/files/docs/nav/transportation/plug-in_sd/Plug-in%20SD%20Permitting%20and%20Inspection%20Report.pdf)

<sup>11</sup> For example, see the factsheet developed by Fairfax County, Virginia, available at: <https://www.fairfaxcounty.gov/landdevelopment/sites/landdevelopment/files/assets/documents/pdf/publications/electric-vehicle-station.pdf>

<sup>12</sup> For example, see City of Santa Monica, Submittal Requirements for Permitting of EVSE and EVSE Permit Application, available at: [https://www.smgov.net/uploadedFiles/Departments/PCD/Applications-Forms/EVSE%20Permit%20Application%20Packet%20\(10-2017\).pdf](https://www.smgov.net/uploadedFiles/Departments/PCD/Applications-Forms/EVSE%20Permit%20Application%20Packet%20(10-2017).pdf)

associated GHG emissions and costs) to the permitting office and cuts down on lines at the permit counter.

#### AMEND LOCAL ORDINANCES TO COUNT SPACES FOR EV CHARGING TOWARD MINIMUM PARKING REQUIREMENTS.

In some locations, minimum parking requirements are a barrier to siting charging stations because EV charging spaces are not counted as parking spaces. This can make it more difficult for station developers to find a site host. AHJs can address this issue by updating local ordinances to clarify that spaces for EV charging count toward meeting minimum parking space requirements. In fact, as a way to incentivize the deployment of charging stations, some jurisdictions are adopting ordinances that count charging station spaces as more than one parking space for zoning purposes.<sup>13</sup>

#### DEVELOP EXPERTISE AND SHARE KNOWLEDGE WITH STATION DEVELOPERS AND OTHER AHJS.

Offering pre-permitting meetings during the siting phase for DCFC stations, especially for complex projects, allows AHJs and station developers to learn from one another. Pre-permitting meetings provide an opportunity for staff to become familiar with the proposed project and to identify potential issues for station developers to consider. In addition, larger jurisdictions may benefit from developing in-house expertise and designating an “EVSE Expert,” who is the point person on EV charging applications. Finally, it can be useful for AHJ staff to coordinate with neighboring AHJs to share best practices. Exchanging knowledge, sharing resources, and creating some consistency across jurisdictions will ultimately improve the process for both AHJs and station developers.

### CONCLUSION

The number of EVs on the road is expected to grow exponentially over the next decade, and more charging infrastructure will be needed to support these vehicles. As interest in EVs grows, so will the desire for more and faster public charging. Automobile manufacturers have announced plans to introduce more long-range battery electric vehicles in a variety of body styles and price points. At the same time, utilities, states and private companies are planning to invest billions of dollars in deploying EV charging equipment. Thus, communities are likely to see an increasing number of requests to install DC fast charging stations in the coming months and years. In addition to becoming familiar with the technology, there are clear steps local authorities can take to prepare for this burgeoning market. While permitting DCFC stations may pose some unique and novel issues, AHJs can address these issues by establishing a structured and well-defined permitting process.<sup>14</sup>

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<sup>13</sup> For examples of model ordinance language counting EV charging spaces toward or reducing minimum parking requirements, see Table 3 in the Appendix.

<sup>14</sup> A number of jurisdictions have begun this process and offer some resources that may be useful to others. For example: GO-Biz, “Electric Vehicle Charging Station Permitting Guidebook.” Publication expected June 2019. Link TBD.

## ACKNOWLEDGMENTS

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## APPENDIX

**TABLE 1: EXAMPLES OF LOCAL ORDINANCES DESIGNATING EV CHARGING AS A PERMITTED ACCESSORY USE**

AHJ	Designating EV Charging as Accessory Use	Reference	Link
Montpelier, VT	“Electric vehicle charging stations may be provided within parking areas as an allowed accessory use in any zoning district.”	City of Montpelier Zoning and Subdivision Regulations §3011.I(6)	<a href="https://www.montpelier-vt.org/DocumentCenter/View/4803/Final-Montpelier-UDR-2018-01-03-w-cover?bidId=">https://www.montpelier-vt.org/DocumentCenter/View/4803/Final-Montpelier-UDR-2018-01-03-w-cover?bidId=</a>
Atlanta, GA	<p><b>“Permitted accessory uses and structures</b> Uses and structures which are customarily accessory and clearly incidental to permitted principal uses and structures shall be permitted in this district. Devices for the generation of energy, such as solar panels, wind generators and similar devices, as well as electric vehicle charging stations equipped with Level 1, Level 2, and/or DC Fast Charge EVSE are allowed.”</p> <p>Electric vehicle charging stations equipped with Level 1 or Level 2 are allowed as a permitted accessory use and structure in all zoning districts, and charging stations equipped with DC Fast Charging are allowed as a permitted accessory use and structure in the following zoning districts: Commercial; Industrial; SPI -11, -15, -16, -18, -20; PD-MU, -OC, and – BP; Martin Luther King, Jr. Landmark; Neighborhood Commercial; Live Work; and Mixed Residential Commercial.</p>	Atlanta, Code of Ordinances, Part 16 (Zoning), see e.g., §16-19B.004. - Permitted accessory uses and structures.	<p><a href="https://library.municode.com/ga/atlanta/codes/code_of_ordinances?nodeId=PTIIICOORANDECO_PT16ZO">https://library.municode.com/ga/atlanta/codes/code_of_ordinances?nodeId=PTIIICOORANDECO_PT16ZO</a></p> <p>See also fact sheet describing provisions: <a href="https://www.atlantaga.gov/Home/ShowDocument?id=16991">https://www.atlantaga.gov/Home/ShowDocument?id=16991</a></p>
Baltimore, MD	“Notwithstanding § 2-201 {“Application of Code”} of this subtitle, this Code does not apply to the following uses and structures, unless otherwise specifically provided in this Code: . . . (8) automobile charging stations, whether electric or solar.”	Baltimore City Code, Zoning §2-202. Exempt utility and governmental uses.	<a href="http://ca.baltimorecity.gov/codes/Art%2032%20-%20Zoning.pdf">http://ca.baltimorecity.gov/codes/Art%2032%20-%20Zoning.pdf</a>



**TABLE 2: EXAMPLES OF LOCAL ORDINANCES STREAMLINING PERMITTING PROCESS FOR ALL TYPES OF EV CHARGING**

AHJ	Expediting Permit Process for EV Charging	Reference	Link
Otto, NY	<p>“The permitting process for EVSE will be streamlined by:</p> <ol style="list-style-type: none"> <li>1. Providing a single permit for EVSE’s</li> <li>2. Shall have a two day turn around time for permits</li> <li>3. Shall eliminate reviews that do little to validate the safe and efficient operation of a proposed EVSE system. Only one initial inspection shall be required for this facility.”</li> </ol>	Town of Otto Zoning Ordinance, §6.6 Electric Vehicle Supply Equipment (EVSE).	<a href="http://www.otto.ny.org/pdfs/Zoning%20Ordinance%20dated%20June%202015.pdf">http://www.otto.ny.org/pdfs/Zoning%20Ordinance%20dated%20June%202015.pdf</a>
Sacramento, CA	<p>“A. Applicability. This section applies to applications for expedited building permits for electric vehicle charging stations pursuant to California <a href="#">Government Code</a> Section 65850.7.</p> <p>B. Process.</p> <ol style="list-style-type: none"> <li>1. The building official shall adopt a checklist of all requirements for an application for an expedited building permit for electric vehicle charging stations. The checklist shall substantially conform to the checklist and standard plans contained in the most current version of the “Plug-In Electric Vehicle Infrastructure Permitting Checklist” of the “Zero-Emission Vehicles in California: Community Readiness Guidebook” published by the Governor’s Office of Planning and Research.</li> <li>2. If the building official determines that the application for an expedited building permit is complete and meets the requirements of the checklist, the building official shall issue the expedited building permit.</li> <li>3. If the application for an expedited building permit is incomplete, the building official shall provide a written correction notice of the deficiencies and the additional information required to be eligible for expedited building permit issuance.</li> <li>4. The checklist, application form, and any other documents required by the building official shall be published on the city’s website.</li> <li>5. An application for an expedited building permit for electric vehicle charging stations may be filed by email.</li> <li>6. If the chief building official finds, based on substantial evidence, that an electric vehicle charging station could have a specific adverse impact upon the public health or safety, the city may require the applicant to apply for a conditional use permit pursuant to Title 17.”</li> </ol>	Sacramento City Code §15.08.190 Expedited building permit process for electric vehicle charging stations.	<a href="http://www.qcode.us/codes/sacramento/view.php?frames=on&amp;topic=15-15_08-15_08_190#0">http://www.qcode.us/codes/sacramento/view.php?frames=on&amp;topic=15-15_08-15_08_190#0</a>

**TABLE 3: EXAMPLES OF LOCAL ORDINANCES COUNTING SPACES FOR EV CHARGING TOWARD MINIMUM PARKING REQUIREMENTS**

AHJ	Counting EV Charging Toward Parking Requirements	Reference	Link
Montgomery County, MD	“A parking space that provides an electric charging station must count toward the minimum number of parking spaces required.”	Montgomery County Zoning Ordinance, Article 59-6, §6.2.3. Calculation of Required Parking	<a href="https://www.montgomerycountymd.gov/DOT-Parking/Resources/Files/Article59-6.pdf">https://www.montgomerycountymd.gov/DOT-Parking/Resources/Files/Article59-6.pdf</a>
Montpelier, VT	“Additional parking shall not be required when parking is converted and reserved for charging vehicles and such spaces shall count towards the minimum parking required under this section.”	City of Montpelier Zoning and Subdivision Regulations §3011.I(6)	<a href="https://www.montpelier-vt.org/DocumentCenter/View/4803/Final-Montpelier-UDR-2018-01-03-w-cover?bidId=">https://www.montpelier-vt.org/DocumentCenter/View/4803/Final-Montpelier-UDR-2018-01-03-w-cover?bidId=</a>
Stockton, CA	“Electric vehicle charging stations are permitted in all required and non-required off-street parking spaces. As an incentive for the provision of electric vehicle charging stations, a reduction in required parking is permitted up to two required parking spaces for each electric vehicle charging space provided, up to a maximum reduction of 10 percent of the total required parking.”	Stockton Municipal Code §16.64.030	<a href="https://qcode.us/codes/stockton/view.php?topic=16-3-16_64-16_64_030&amp;frames=off">https://qcode.us/codes/stockton/view.php?topic=16-3-16_64-16_64_030&amp;frames=off</a>
Sacramento County, CA	“Parking spaces designated for electric vehicle charging stations shall be counted toward meeting the minimum parking requirement.”  “Each electric vehicle charging station shall be permitted to substitute for two (2) vehicular parking spaces. The area needed for charging equipment shall count toward meeting the parking space requirements.”	Sacramento County Zoning Code §5.9.3.A.8.  Sacramento County Zoning Code §5.9.5.C.1.f.	<a href="http://www.per.saccounty.net/LandUseRegulation/Documents/Pages/Sacramento%20County%20Zoning%20Code.aspx">http://www.per.saccounty.net/LandUseRegulation/Documents/Pages/Sacramento%20County%20Zoning%20Code.aspx</a>