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BOARD OF SUPERVISORS' MEETING November 17, 2020

Proposed ordinance amendment would add Chapter 12.10 (Electric Vehicle Charging System) to Lassen County Code to create an expedited permitting process for electric vehicle charging stations as required by Government Code Section 65850.7 AB 1236)

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County of Lassen
Department of Planning and Building Services

• Planning • Building Permits • Code Enforcement • Surveyor • Surface Mining

November 5, 2020

Maurice L. Anderson, Director
707 Nevada Street, Suite 5
Susanville, CA 96130-3912
Phone: 530 251-8269
Fax: 530 251-8373
email: landuse@co.lassen.ca.us
website: www.co.lassen.ca.us

TO: Board of Supervisors
Agenda Date: November 17, 2020

Zoning & Building
Inspection Requests
Phone: 530 257-5263

FROM: Maurice L. Anderson, Director

SUBJECT: The proposed ordinance amendment would add chapter 12.10 (Electric Vehicle Charging Systems) to the Lassen County Code to encourage the use of electric vehicles by creating an expedited, streamlined permitting process for electric vehicle charging stations while promoting public health and safety and preventing specific adverse impacts in the installation and use of such charging stations.

ACTION REQUESTED:

1. Receive report; and
2. Introduce the ordinance and read (or waive); and
3. Continue until December 8, 2020, for adoption.

Summary:

The purpose of this action is to adopt an ordinance to add Chapter 12.10 to the Lassen County Code to provide an expedited, streamlined permitting process for electrical vehicle charging stations. Applicants within the unincorporated County will be eligible for expedited permits for qualifying systems.

Background and Discussion

In 2015, Governor Brown signed into law Assembly Bill 1236, requiring cities and counties to adopt ordinances providing for the expedited permitting of electric vehicle charging stations. This bill added Section 65850.7 to the California Government Code. Cities and counties with a population of less than 200,000 were required to adopt such an ordinance by September 30, 2017. All other cities and counties were required to have such an ordinance in place by September 30, 2016. In addition to adopting an ordinance, local jurisdictions are required to publish a "Plug-In Electric Vehicle Infrastructure Permitting Checklist." The intent of AB 1236 was to encourage electric vehicle charging station infrastructure and minimize the costs associated with their installation. Since AB 1236 went into effect, few cities and counties (either rural or urban) have taken action to adopt an ordinance for streamlined electric vehicle charging permit processing.

The intent of this statute is to promote and encourage the use of electric vehicle charging stations and to limit regulatory obstacles to their use. The proposed ordinance implements the statute in unincorporated Lassen County by establishing Chapter 12.10 (Electric Vehicle Charging

Systems) to the Lassen County Code. The proposed ordinance lays out the requirements to receive expedited review and approval. The statute requires jurisdictions provide for electronic submittal of applications, when possible, and establish a checklist informing applicants of the requirements that must be complied with in order for proposals to be deemed complete by the County Building Official.

The draft ordinance requires that electric vehicle charging stations be placed on a parcel appropriately zoned for such use. Said determination would be made by the Planning and Building Services Department Director, in accordance with authority already delegated in accordance with Chapter 18.122 (Interpretive Action) of the Lassen County Code. Any such determination may be appealed to the Board of Supervisors in accordance with said chapter.

Finally, it should be noted that the new California Building Code that became effective in January 2020, requires new businesses install conduit and provide space in electric panels for future electric vehicle charging when nine or fewer parking spaces are required and incrementally requires that physical charging stations be installed once 10 or more parking spaces are needed.

Board Alternatives

No viable alternative recommendations are available. Government Code Section 65850.7 requires cities and counties adopt ordinances consistent with the statute and declares that installation of charging stations is not a municipal affair but is instead a subject of statewide concern.

County Counsel has reviewed the proposed ordinance has not indicated any inconsistencies with the statute or Assembly Bill.

Fiscal Impact

There will be a minor fiscal impact due to the staff training required to implement the ordinance. Further, there may be fiscal impact associated with formatting the Department's permit tracking software and developing the required public resources. However, no long-term impact to the General Fund is expected. Building permit fees will pay for staff time associated with implementing the ordinance for specific applications.

California Environmental Quality Act

The Lassen County Environmental Review Officer (ERO) has made a determination that adoption of the proposed ordinance to provide an expedited, streamlined permitting process for electric vehicle charging stations is independently exempt from the California Environmental Quality Act (CEQA) pursuant to section 15301 (Existing Facilities) and 15061(b)(3) (General Rule Exemption) of the CEQA Guidelines. Further, the statute is mandatory and Lassen County has no discretion and is required to adopt an ordinance.

Building permit issuance for electric vehicle charging stations is an existing function of the Planning and Building Services Department and therefore qualifies for an exemption pursuant to CEQA Guidelines section 15301. Further, section 15061(b)(3) of the CEQA Guidelines states that CEQA only applies to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

The amendments to the Lassen County Code do not approve any physical development, only the processing of ministerial uses already allowed without discretion. The ordinance does not permit or authorize new or increased intensity of uses. The electric vehicle permit streamlining process detailed in the ordinance does not have the potential to result in individually or cumulatively significant effects on the environment. Therefore, the proposed ordinance is not subject to CEQA and is exempt from CEQA review under the General Rule and no further environmental review is necessary.

In accordance with the Lassen County Environmental Review Guidelines (Board Resolution 01-043), the ERO recommends that the Board affirm this determination if the ordinance is ultimately adopted and direct the ERO to file a Notice of Exemption with the Lassen County Clerk's Office.

Proposed Assembly Bill 2168

Assembly Bill 2168 (attached) has not been adopted yet, but, if adopted, would require acceptance of an application for a charging station as complete within 5 business days of submittal. Applications would then be deemed approved 15 days from acceptance. Electrify America sponsored this bill and is being opposed by RCRC (Representing California's Rural Counties). If adopted section 65850.75 would be added to the California Government Code.

The attached proposed ordinance was drafted so that the above time limitations do not become applicable unless AB 2168 is adopted. Specifically, if adopted, subsection "(d)" of section 12.10.060, to read as follows, would require compliance with any newly established time limits:

"If an application is deemed incomplete, a written plan check correction notice will be available to the applicant within ten (10) working days, detailing all deficiencies in the application and any additional information or documentation required to be eligible for expedited permit issuance shall be given to the applicant for resubmission. If, at any time, legislation is adopted that requires review for acceptance and issuance a permit in less time than indicated in this subsection, the chief building official shall comply with said legislation. The checklist provided by the planning and building services department pursuant to section 12.10.050, and any other pertinent information pertaining to submittal of an application, shall indicate any new time limits that may be established by the legislature after adoption of this ordinance."
(Emphasis Added)

The intent of the above language is that the ordinance not have to be amended if the above Assembly Bill is ultimately adopted. That said, if necessary pursuant to any future legislation that may be adopted, a revised ordinance will be presented.

MLA:gfn

Enclosures:

- Proposed Ordinance Adding Lassen County Code Chapter 12.10 (Electric Vehicle Charging Systems).
- Assembly Bill 1236 (Section 65850.7 of the California Government Code).
- RCRC (Representing California's Rural Counties) Report: Assembly Bill 1236 Electric Vehicle Charging Compliance.
- Proposed Assembly Bill 2168 (to add Section 65850.75 to the California Government Code).
- California Electrical Code Article 625 (Electrical Vehicle Charging System)

s/pla/admin/files/322.13/Board letter gfn May 2018

ORDINANCE NO. _____

Ordinance revising Lassen County Code Title 12 (Buildings and Construction) to add Chapter 12.10 (Electric Vehicle Charging Systems)

The following ordinance, consisting of three sections, was duly and regularly passed and adopted by the Board of Supervisors of the County of Lassen, State of California, at a special meeting of the Board of Supervisors held on the ____th day of _____, 20____, by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

Chairman of the Board of Supervisors,
County of Lassen, State of California

Attest: JULIE BUSTAMANTE
Clerk of the Board

By: _____
MICHELE J. YDERRAGA, Deputy Clerk of the Board

I, MICHELE J. YDERRAGA, Deputy Clerk of the Board of the Board of Supervisors, County of Lassen, do hereby certify that the foregoing ordinance was adopted by the said Board of Supervisors at a special meeting thereof held on the ____th day of _____, 20____.

Deputy Clerk of the County of Lassen Board of Supervisors

THE BOARD OF SUPERVISORS OF THE
COUNTY OF LASSEN ORDAINS AS FOLLOWS:

SECTION ONE: This ordinance shall take effect thirty (30) days after its passage, and before the expiration of fifteen (15) days after its passage a summary shall be published with the names of the members voting for and against the same, once in a local newspaper of the County of Lassen, State of California.

SECTION TWO: Chapter 12.10 is added to the Lassen County Code to read as follows:

Chapter 12.10 Electric Vehicle Charging Systems

12.10.010 Definitions.

- (a) Electric Vehicle Charging Station or Charging Station: Means any level of electric vehicle supply equipment station that is designed and built in compliance with article 625 of the California Electric Code and delivers electricity from a source outside an electric vehicle into a plug-in vehicle.
- (b) Electronic Submittal; Means the utilization of one or more of either electronic mail, the internet, or facsimile.
- (c) Feasible Method to Satisfactorily Mitigate or Avoid the Specific Adverse Impact: Includes, but is not limited to, any cost-effective method, condition or mitigation imposed by the County on another similarly situated application in a prior successful application for a similar permit.
- (d) Specific Adverse Impact: Means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified, and written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.

12.10.020 Purpose

The purpose of this chapter is to promote and encourage the use of electric vehicles by creating an expedited, streamlined permitting process for electric vehicle charging stations while promoting public health and safety and preventing specific adverse impacts in the installation and use of such charging stations.

12.10.030 Applicability

Section 65850.7 of the California Government Code provides that every city, county or city and county shall adopt an ordinance that creates an expedited, streamlined permitting process for electric vehicle Charging Stations.

- (a) This chapter applies to the permitting of all electric vehicle-charging systems in the unincorporated areas of the County.
- (b) Electric vehicle charging systems legally established or permitted prior to the effective date of the chapter are not subject to the requirements of this chapter unless physical modifications or alterations are undertaken that materially change the size, type or components of an electric vehicle charging system in such a way as to require new permitting. Routine operation and maintenance or like-kind replacements shall not require a permit.

12.10.040 Electric Vehicle Charging System Requirements

- (a) All electric vehicle-charging systems shall meet the requirements of the California Electrical Code, the Society of Automotive Engineers, the National Electric Manufacturers Association, and accredited testing laboratories such as Underwriters Laboratories, and rules of Public Utilities Commission regarding safety and reliability.
- (b) Installation of electric vehicle charging stations shall be incorporated into load calculations of all new or existing electrical services and shall meet the requirements of the California Electric Code. Electric vehicle charging equipment shall be considered a continuous load.
- (c) Anchorage of either floor-mounted or wall-mounted electric vehicle charging stations shall meet the requirements of the California Building or Residential Code as applicable per occupancy, and the provisions of the manufacturer's installation instructions. Mounting of charging stations shall not adversely affect building elements.
- (d) Electric vehicle-charging stations shall be located on a parcel appropriately zoned for such use, as determined by the director of the planning and building services department. Any determination by the planning and building services department director that an electric vehicle charging station is not allowed on a particular parcel as a result of that parcel's zoning is appealable to the board of supervisors in accordance with chapter 18.122 (Interpretive Action). The requirements detailed in chapter 12.10 for the acceptance and issuance of a building permit application for an electric vehicle charging station shall not commence until after the board of supervisors has rendered its decision on said appeal filed pursuant to Chapter 18.122.

12.10.050 Duties of the Chief Building Official

- (a) All documents required for the submission of an electric vehicle charging system application shall be made publically available on the County's website.
- (b) Within 30 days of the effective date of this ordinance, the planning and building services department shall make a checklist of all requirements with which electric

Ordinance No. _____

vehicle charging systems shall comply to be eligible for expedited review available to the public.

- (c) The electric vehicle charging system permit process and checklist shall substantially conform to the recommendations contained in the most recent version of the Plug-in Electric Vehicle Infrastructure Permitting Checklist contained in the Zero-Emission Vehicles in California: Community Readiness Guidebook adopted by the Governor's Office of Planning and Research.
- (d) The chief building official shall allow the electronic submittal of the electric vehicle charging station application.

12.10.060 Permit Review Requirements

- (a) Review of the permit application shall be limited to the chief building official's review of whether the application meets local, State, and Federal health and safety requirements. The application shall be administratively reviewed by the chief building official as a nondiscretionary permit.
- (b) The County shall not condition approval of an application on the approval of an association, as that term is defined by Civil Code section 4080.
- (c) An application for an electric vehicle charging station shall be deemed complete and the permit available for issuance, when the chief building official determines that the application satisfies all requirements found in the checklist.
- (d) If an application is deemed incomplete, a written plan check correction notice will be available to the applicant within ten (10) working days, detailing all deficiencies in the application and any additional information or documentation required to be eligible for expedited permit issuance shall be given to the applicant for resubmission. If, at any time, legislation is adopted that requires review for acceptance and issuance of a permit in less time than indicated in this section, the chief building official shall comply with said legislation. The checklist provided by the planning and building services department pursuant to section 12.10.050, and any other pertinent information pertaining to submittal of an application, shall indicate any new time limits that may be established by the legislature after adoption of this ordinance.
- (e) The chief building official, in consultation with the director of the planning and building services department, may require an applicant to apply for a use permit if the chief building official finds, based on substantial evidence, that the electric vehicle charging station could have a specific, adverse impact upon the public health and safety. Any such use permit shall be submitted and will be considered in accordance with chapter 18.112 (Use Permits) of this code.
 - i. If the applicant is not satisfied with the chief building official's determination that a use permit is required, s/he may, within thirty days

after such action, appeal in writing to the planning commission by filing an appeal with the planning and building service department and paying the fee established by the board of supervisors for appeals to the planning commission.

- A. Public Hearing. Within sixty days of filing an appeal with the planning and building services department, the appeal shall be scheduled for public hearing before the planning commission. Notice of the hearing shall be given by publication at least one time in a newspaper of general circulation, and by mail or delivery to the subject property owner and applicant and to all record owners of property immediately adjacent to the subject property, at least ten days prior to the hearing. If there is no newspaper in general circulation, the notice will be posted in at least three public locations, as determined by the director of the planning and building services department. Any appeal hearing shall be de novo.
 - B. Appeal to the board of supervisors. Any interested party not satisfied with the planning commission's decision may appeal to the board of supervisors within ten days of the planning commission's action regarding the appeal. Such an appeal shall be submitted in writing to the county clerk, along with the appropriate fee established by the board of supervisors for appeals, and shall detail the basis for the appeal. Whenever possible, the board shall hold a public hearing on the appeal within sixty days of receipt by the clerk. Notice of the hearing shall be given by publication at least one time in a newspaper of general circulation, and by mail or delivery to the subject property owner and to all record owners of property immediately adjacent to the subject property, at least ten days prior to the hearing. If there is no newspaper in general circulation, the notice will be posted in at least three public locations, as determined by the director of the planning and building services department. Any appeal hearing shall be de novo.
- (f) If a use permit is required, the application for the use permit may be denied if the planning commission, or board of supervisors on appeal, makes written findings, based on substantial evidence in the record, that the proposed installation would have a specific, adverse impact upon the public health or safety and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. Such findings shall include the basis for the rejection of potential feasible alternatives for preventing the specific, adverse impact.

SECTION THREE: If any section, subsection, sentence, clause, or phase of this ordinance is for any reason held to be unconstitutional and invalid, such decision shall

10 Ordinance No. _____

not affect the validity of the remaining portion of this ordinance. The Board of Supervisors hereby declares that it would have passed this ordinance and every section, subsection, sentence, clause or phrase thereof, irrespective of the fact any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional or invalid.

Pla/admin/fiels/322.18

Assembly Bill No. 1236

CHAPTER 598

An act to add Section 65850.7 to the Government Code, relating to local ordinances.

[Approved by Governor October 8, 2015. Filed with
Secretary of State October 8, 2015.]

LEGISLATIVE COUNSEL'S DIGEST

AB 1236, Chiu. Local ordinances: electric vehicle charging stations.

The Planning and Zoning Law, among other things, requires the legislative body of each county and city to adopt a general plan for the physical development of the county or city and authorizes the adoption and administration of zoning laws, ordinances, rules, and regulations by counties and cities. Existing law, the Electric Vehicle Charging Stations Open Access Act, prohibits the charging of a subscription fee on persons desiring to use an electric vehicle charging station, as defined, and prohibits a requirement for persons to obtain membership in any club, association, or organization as a condition of using the station, except as specified.

The bill would require a city, county, or city and county to approve an application for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless the city or county makes specified written findings based upon substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill would provide for appeal of that decision to the planning commission, as specified. The bill would provide that the implementation of consistent statewide standards to achieve the timely and cost-effective installation of electric vehicle charging stations is a matter of statewide concern. The bill would require electric vehicle charging stations to meet specified standards. The bill would require a city, county, or city and county with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that creates an expedited and streamlined permitting process for electric vehicle charging stations, as specified. The bill would require a city, county, or city and county with a population of less than 200,000 residents to adopt this ordinance by September 30, 2017. The bill would authorize the city, county, or city and county, in developing the ordinance, to refer to guidelines contained in a specified guidebook. The bill would also authorize the adoption of an ordinance that modifies the checklists and standards found in the guidebook due to unique conditions. By increasing the duties of local officials, this bill would create a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

The people of the State of California do enact as follows:

SECTION 1. Section 65850.7 is added to the Government Code, to read: 65850.7. (a) The Legislature finds and declares all of the following:

(1) The implementation of consistent statewide standards to achieve the timely and cost-effective installation of electric vehicle charging stations is not a municipal affair, as that term is used in Section 5 of Article XI of the California Constitution, but is instead a matter of statewide concern.

(2) It is the intent of the Legislature that local agencies not adopt ordinances that create unreasonable barriers to the installation of electric vehicle charging stations and not unreasonably restrict the ability of homeowners and agricultural and business concerns to install electric vehicle charging stations.

(3) It is the policy of the state to promote and encourage the use of electric vehicle charging stations and to limit obstacles to their use.

(4) It is the intent of the Legislature that local agencies comply not only with the language of this section, but also the legislative intent to encourage the installation of electric vehicle charging stations by removing obstacles to, and minimizing costs of, permitting for charging stations so long as the action does not supersede the building official's authority to identify and address higher priority life-safety situations.

(b) A city, county, or city and county shall administratively approve an application to install electric vehicle charging stations through the issuance of a building permit or similar nondiscretionary permit. Review of the application to install an electric vehicle charging station shall be limited to the building official's review of whether it meets all health and safety requirements of local, state, and federal law. The requirements of local law shall be limited to those standards and regulations necessary to ensure that the electric vehicle charging station will not have a specific, adverse impact upon the public health or safety. However, if the building official of the city, county, or city and county makes a finding, based on substantial evidence, that the electric vehicle charging station could have a specific, adverse impact upon the public health or safety, the city, county, or city and county may require the applicant to apply for a use permit.

(c) A city, county, or city and county may not deny an application for a use permit to install an electric vehicle charging station unless it makes written findings based upon substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The findings shall include the basis

for the rejection of potential feasible alternatives of preventing the adverse impact.

(d) The decision of the building official pursuant to subdivisions (b) and (c) may be appealed to the planning commission of the city, county, or city and county.

(e) Any conditions imposed on an application to install an electric vehicle charging station shall be designed to mitigate the specific, adverse impact upon the public health or safety at the lowest cost possible.

(f) (1) An electric vehicle charging station shall meet applicable health and safety standards and requirements imposed by state and local permitting authorities.

(2) An electric vehicle charging station shall meet all applicable safety and performance standards established by the California Electrical Code, the Society of Automotive Engineers, the National Electrical Manufacturers Association, and accredited testing laboratories such as Underwriters Laboratories and, where applicable, rules of the Public Utilities Commission regarding safety and reliability.

(g) (1) On or before September 30, 2016, every city, county, or city and county with a population of 200,000 or more residents, and, on or before September 30, 2017, every city, county, or city and county with a population of less than 200,000 residents, shall, in consultation with the local fire department or district and the utility director, if the city, county, or city and county operates a utility, adopt an ordinance, consistent with the goals and intent of this section, that creates an expedited, streamlined permitting process for electric vehicle charging stations. In developing an expedited permitting process, the city, county, or city and county shall adopt a checklist of all requirements with which electric vehicle charging stations shall comply to be eligible for expedited review. An application that satisfies the information requirements in the checklist, as determined by the city, county, or city and county, shall be deemed complete. Upon confirmation by the city, county, or city and county of the application and supporting documents being complete and meeting the requirements of the checklist, and consistent with the ordinance, a city, county, or city and county shall, consistent with subdivision (b), approve the application and issue all required permits or authorizations. However, the city, county, or city and county may establish a process to prioritize competing applications for expedited permits. Upon receipt of an incomplete application, a city, county, or city and county shall issue a written correction notice detailing all deficiencies in the application and any additional information required to be eligible for expedited permit issuance. An application submitted to a city, county, or city and county that owns and operates an electric utility shall demonstrate compliance with the utility's interconnection policies prior to approval.

(2) The checklist and required permitting documentation shall be published on a publicly accessible Internet Web site, if the city, county, or city and county has an Internet Web site, and the city, county, or city and county shall allow for electronic submittal of a permit application and associated documentation, and shall authorize the electronic signature on

all forms, applications, and other documentation in lieu of a wet signature by an applicant. In developing the ordinance, the city, county, or city and county may refer to the recommendations 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 Office of Planning and Research. A city, county, or city and county may adopt an ordinance that modifies the checklists and standards found in the guidebook due to unique climactic, geological, seismological, or topographical conditions. If a city, county, or city and county determines that it is unable to authorize the acceptance of an electronic signature on all forms, applications, and other documents in lieu of a wet signature by an applicant, the city, county, or city and county shall state, in the ordinance required under this subdivision, the reasons for its inability to accept electronic signatures and acceptance of an electronic signature shall not be required.

(h) A city, county, or city and county shall not condition approval for any electric vehicle charging station permit on the approval of an electric vehicle charging station by an association, as that term is defined in Section 4080 of the Civil Code.

(i) The following definitions shall apply to this section:

(1) “A feasible method to satisfactorily mitigate or avoid the specific, adverse impact” includes, but is not limited to, any cost-effective method, condition, or mitigation imposed by a city, county, or city and county on another similarly situated application in a prior successful application for a permit.

(2) “Electronic submittal” means the utilization of one or more of the following:

- (A) Email.
- (B) The Internet.
- (C) Facsimile.

(3) “Electric vehicle charging station” or “charging station” means any level of electric vehicle supply equipment station that is designed and built in compliance with Article 625 of the California Electrical Code, as it reads on the effective date of this section, and delivers electricity from a source outside an electric vehicle into a plug-in electric vehicle.

(4) “Specific, adverse impact” means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified, and written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.

SEC. 2. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because a local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the program or level of service mandated by this act, within the meaning of Section 17556 of the Government Code.

O



To: RCRC Board of Directors

From: Leigh Kammerich, Regulatory Affairs Specialist
Paul A. Smith, Senior Vice President Governmental Affairs

Date: March 3, 2020

Re: Assembly Bill 1236 Electric Vehicle Charging Compliance

Summary

This memo provides context for the RCRC Board of Director's discussion from our guest speaker, Tyson Eckerle. Mr. Eckerle is the Deputy Director of the Zero Emission Vehicle (ZEV) Infrastructure Unit within the Governor's Office of Business and Economic Development (GO-Biz).

Background

Assembly Bill 1236 (Chiu; 2015) mandated all municipalities to streamline electric vehicle charging station permits in order to expedite the availability of electric vehicle (EV) charging stations. Cities and counties with a population of less than 200,000 were required to adopt such an ordinance by September 30, 2017. All other cities and counties were required to have such ordinances in place by September 30, 2016. In addition to adopting an ordinance, local jurisdictions are required to publish a "Plug-In Electric Vehicle Infrastructure Permitting Checklist." The intent of AB 1236 was to encourage EV charging station infrastructure and minimize the costs associated with their installation.

Under an Executive Order issued by Governor Brown in 2018, California has established a goal of having 5 million ZEVs by 2030, necessitating the ambitious targets of having 200 hydrogen fueling stations and 250,000 plug-in electric chargers by 2025 to support 1.5 million ZEVs. The GO-Biz ZEV unit works to achieve California's climate, air quality, and clean energy goals by addressing barriers in the deployment of the fueling infrastructure needed to power these vehicles.

Transportation is the largest source of Greenhouse Gas Emissions (GHG) in California. In September 2019, the United States Environmental Protection Agency (EPA) accused California of systematically failing to comply with pollution reduction measures under the Clean Air Act. The EPA threatened to withhold federal funding for California's highway projects unless a State Implementation Plan for California's 35 local air districts was submitted. Since then, in January 2020 the EPA has announced California has made "great progress" toward compliance by reducing the decades-long backlog of State Implementation Plans by the California Air Resources Board (CARB).

Issue

Since AB 1236 went into effect, few cities and counties have taken action to adopt a model ordinance for a streamlined EV charging permitting process, including urbanized areas. Approximately seven RCRC member counties have taken steps to comply with AB 1236, including Butte, Calaveras, Humboldt, Monterey, Napa, Nevada, San Luis Obispo, Sonoma, Tuolumne, and Yolo Counties.

GO-Biz has been tracking AB 1236 compliance and assembled an Electric Vehicle Charging Station Permitting Guidebook, in addition to a mapping tool that provides clarity and implementation guidance on streamlining requirements, such as best practices, for local jurisdictions. California Building Officials (CALBO) have also created toolkits that include templates for these model ordinances as well as sample permitting checklists. To access these toolkits, please visit <https://www.calbo.org/post/electric-vehicle-charging>.

Due to the lack of compliance with AB 1236's requirements, Electrify America is sponsoring legislation this year to further expedite permitting applications for EV charging stations. AB 2168 would deem EV charging applications approved 15 business days after submittal to a city or county if the building official has not made a finding that the installation of EV charging infrastructure would not have an adverse impact upon public health and safety. AB 2168 would apply to all local jurisdictions, including those that have complied with AB 1236's streamlined permitting process. AB 2168 would go into effect immediately if signed into law by the Governor. RCRC is opposed to AB 2168 and will be fully engaged on this issue in the Legislature.

Lastly, pursuant to Senate Bill 498 (Skinner; 2017) CARB is compiling a report to the Legislature on programs that affect the adoption of light-, medium-, and heavy-duty ZEVs and will identify policy recommendations in the near future for lawmakers. Similarly, as reported in the January 2020 RCRC Board of Directors meeting, CARB is also poised to take future action on Advanced Clean Truck (ACT) surveys and procurement mandates for public and private fleets. Such actions would require a robust specialty fueling and EV charging infrastructure across California to support these vehicles.

Staff Recommendation

Information only. For questions or guidance on AB 1236 compliance, please contact zev@gobiz.ca.gov.

Attachment

- AB 1236 (Chiu) of 2015
- AB 1236 Compliance Status (as of March 3, 2020)
- CALBO AB 1236 Sample Model Ordinance for Small Jurisdictions
- CALBO AB 1236 Sample Permitting Checklist for Small Jurisdictions
- AB 2168 (McCarty, Chiu and Reyes)

AMENDED IN ASSEMBLY MAY 4, 2020

CALIFORNIA LEGISLATURE—2019–20 REGULAR SESSION

ASSEMBLY BILL

No. 2168

Introduced by Assembly Members McCarty, Chiu, and Reyes
(Principal coauthor: Assembly Member Kalra)
(Coauthors: Assembly Members Cooley and Ting)
 (Coauthors: Senators Beall, Lena Gonzalez, and Wieckowski)

February 11, 2020

An act to add Section 65850.75 to the Government Code, relating to zoning, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

AB 2168, as amended, McCarty. Planning and zoning: electric vehicle charging stations: permit application: approval.

Existing law requires a city, county, or city and county to administratively approve an application to install an electric vehicle charging station through the issuance of a building permit or similar nondiscretionary permit subject to a limited review by the building official of that city, county, or city and county. Existing law allows the building official to require the applicant to apply for a use permit if the official finds that the station could have a ~~specific~~, *specific* adverse impact upon the public health or ~~safety~~, *safety* and prohibits the city, county, or city and county from denying the application for a use permit to install an electric vehicle charging station unless it makes written findings that the proposed installation would have a ~~specific~~, *specific* adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the ~~specific~~, *specific* adverse impact.

Existing law requires every city, county, and city and county to create an expedited, streamlined permitting process for electric vehicle charging stations and to adopt a checklist pursuant to which an applicant that satisfies the information requirements shall be deemed complete and therefore eligible for expedited review.

This bill would require an application to install an electric vehicle charging station to be deemed complete if, 5 business days after the application was submitted, the ~~city, county, or city and county building official of the city, county, or city and county~~ *building official of the city, county, or city and county* has not deemed the application ~~to be incomplete, complete, as specified, specified, and if the building official has not issued a one-written correction notice, as specified.~~ The bill would require an application to install an electric vehicle charging station to be deemed approved ~~if, if~~ 15 business days after the application was submitted, ~~deemed complete certain conditions are met, including that the building official of the city, county, or city and county has not approved the application through the issuance of a building permit or similar nondiscretionary permit, application, as specified,~~ and the building official has not made findings that the proposed installation could have an adverse impact, as described above, and required the applicant to apply for a use permit.

This bill would declare that it is to take effect immediately as an urgency statute.

Vote: $\frac{2}{3}$. Appropriation: no. Fiscal committee: no.
State-mandated local program: no.

The people of the State of California do enact as follows:

- 1 SECTION 1. Section 65850.75 is added to the Government
- 2 Code, to read:
- 3 65850.75. (a) The Legislature finds and declares both of the
- 4 following:
- 5 (1) An electric vehicle charging station has a significant
- 6 economic impact in California and is not a municipal affair, as the
- 7 term is used in Section 5 of Article XI of the California
- 8 Constitution, but is instead a matter of statewide concern.
- 9 (2) Table 3 of the Governor's Office of Business and Economic
- 10 Development (GO-Biz) Electric Vehicle Charging Station
- 11 Permitting Guidebook, published July 2019, recommends best
- 12 practices for electric vehicle supply equipment permitting that

1 would establish a ~~15-day~~ timeline and satisfy the intent of
 2 Assembly Bill 1236 (Chapter 598 of the Statutes of 2015).

3 (b) An application to install an electric vehicle charging station
 4 submitted to the building official of a city, county, or city and
 5 county shall be deemed complete ~~if five business days after the~~
 6 ~~application was submitted, the city, county, or city and county has~~
 7 ~~not, consistent with the checklist created by the city, county, or~~
 8 ~~city and county pursuant to subdivision (g) of Section 65850.7,~~
 9 ~~deemed the application to be incomplete. if, five business days~~
 10 ~~after the application was submitted to the city, county, or city and~~
 11 ~~county, both of the following are true:~~

12 (1) *The building official of the city, county, or city and county*
 13 *has not deemed the application complete, consistent with the*
 14 *checklist created by the city, county, or city and county pursuant*
 15 *to subdivision (g) of Section 65850.7.*

16 (2) *The building official of the city, county, or city and county*
 17 *has not issued a one-time written correction notice detailing all*
 18 *deficiencies in the application and identifying any additional*
 19 *information explicitly necessary for the building official to complete*
 20 *a review limited to whether the electric vehicle charging station*
 21 *meets all health and safety requirements of local, state, and federal*
 22 *law, consistent with subdivisions (b) and (g) of Section 65850.7.*

23 (c) An application to install an electric vehicle charging station
 24 ~~submitted to a city, county, or city and county shall be deemed~~
 25 ~~approved if 15 business days after the application was submitted~~
 26 ~~both of the following are met: deemed complete, all of the following~~
 27 ~~are true:~~

28 (1) *The building official of the city, county, or city and county*
 29 *has not administratively approved the application through the*
 30 *issuance of a building permit or similar nondiscretionary permit*
 31 *pursuant to subdivision (b) of Section 65850.7.*

32 (2) *The building official of the city, county, or city and county*
 33 *has not made a finding, based on substantial evidence, that the*
 34 *electric vehicle charging station could have a specific adverse*
 35 *impact upon the public health or safety or required the applicant*
 36 *to apply for a use permit pursuant to subdivision (b) of Section*
 37 *65850.7.*

38 ~~(2)~~

39 (3) *The building official of the city, county, or city and county*
 40 ~~has not made findings based upon substantial evidence that the~~

1 ~~proposed installation could have a specific, adverse impact upon~~
2 ~~the public health or safety and required the applicant to apply for~~
3 ~~a use denied a permit pursuant to subdivision (b) (c) of Section~~
4 ~~65850.7.~~

5 *(4) An appeal has not been made to the planning commission*
6 *of the city, county, city or county, pursuant to subdivision (d) of*
7 *Section 65850.7.*

8 SEC. 2. This act is an urgency statute necessary for the
9 immediate preservation of the public peace, health, or safety within
10 the meaning of Article IV of the California Constitution and shall
11 go into immediate effect. The facts constituting the necessity are:

12 In order to achieve the goals of Executive Order No. B-48-18,
13 signed by Governor Edmund G. Brown, Jr. on January 26, 2018,
14 which provides for the target of 5,000,000 zero-emissions vehicles
15 (ZEVs) in California by 2030, and 250,000 ZEV charging stations,
16 including 10,000 direct current fast charge stations by 2025, it is
17 necessary for this act to take effect immediately.

O

and dumbwaiters associated with wind turbine tower elevators, on the platforms or in the runways and machinery spaces of platform lifts and stairway chairlifts, and in escalator and moving walk wellways shall be of the ground-fault circuit-interrupter type.

All 125-volt, single-phase, 15- and 20-ampere receptacles installed in machine rooms, control spaces, and control rooms shall have ground-fault circuit-interrupter protection for personnel.

A single receptacle supplying a permanently installed sump pump shall not require ground-fault circuit-interrupter protection.

Part X. Emergency and Standby Power Systems

620.91 Emergency and Standby Power Systems. An elevator(s) shall be permitted to be powered by an emergency or standby power system.

Informational Note: See ASME A17.1-2013/CSA B44-13, *Safety Code for Elevators and Escalators*, 2.27.2, for additional information.

(A) **Regenerative Power.** For elevator systems that regenerate power back into the power source that is unable to absorb the regenerative power under overhauling elevator load conditions, a means shall be provided to absorb this power.

(B) **Other Building Loads.** Other building loads, such as power and lighting, shall be permitted as the energy absorption means required in 620.91(A), provided that such loads are automatically connected to the emergency or standby power system operating the elevators and are large enough to absorb the elevator regenerative power.

(C) **Disconnecting Means.** The disconnecting means required by 620.51 shall disconnect the elevator from both the emergency or standby power system and the normal power system.

Where an additional power source is connected to the load side of the disconnecting means, which allows automatic movement of the car to permit evacuation of passengers, the disconnecting means required in 620.51 shall be provided with an auxiliary contact that is positively opened mechanically, and the opening shall not be solely dependent on springs. This contact shall cause the additional power source to be disconnected from its load when the disconnecting means is in the open position.

ARTICLE 625

Electric Vehicle Charging System

Part I. General

625.1 Scope. This article covers the electrical conductors and equipment external to an electric vehicle that connect an electric vehicle to a supply of electricity by conductive, inductive, or wireless power transfer (contactless inductive charging)

means, and the installation of equipment and devices related to electric vehicle charging.

Informational Note No. 1: For industrial trucks, see NFPA 505-2013, *Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operation*.

Informational Note No. 2: UL 2594-2013, *Standard for Electric Vehicle Supply Equipment*, is a safety standard for conductive electric vehicle supply equipment. UL 2202-2009, *Standard for Electric Vehicle Charging System Equipment*, is a safety standard for conductive electric vehicle charging equipment.

625.1.1 [HCD 1][BSC-CG] Electric Vehicle (EV) Charging for New Construction. In addition to requirements in this Article, electric vehicle charging shall comply with the California Green Building Standards Code (CALGreen) Chapter 4, Division 4.1., (CALGreen) Chapter 5, Division 5.1.

625.2 Definitions.

Cable Management System. An apparatus designed to control and organize the output cable to the electric vehicle or to the primary pad.

Charger Power Converter. The device used to convert energy from the power grid to a high-frequency output for wireless power transfer.

Electric Vehicle. An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For the purpose of this article, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.

Electric Vehicle Connector. A device that, when electrically coupled (conductive or inductive) to an electric vehicle inlet, establishes an electrical connection to the electric vehicle for the purpose of power transfer and information exchange. This device is part of the electric vehicle coupler.

Informational Note: For further information, see 625.48 for interactive systems.

Electric Vehicle Coupler. A mating electric vehicle inlet and electric vehicle connector set.

Electric Vehicle Inlet. The device on the electric vehicle into which the electric vehicle connector is electrically coupled (conductive or inductive) for power transfer and information exchange. This device is part of the electric vehicle coupler. For the purposes of this Code, the electric vehicle inlet is considered

to be part of the electric vehicle and not part of the electric vehicle supply equipment.

Informational Note: For further information, see 625.48 for interactive systems.

Electric Vehicle Storage Battery. A battery, comprised of one or more rechargeable electrochemical cells, that has no provision for the release of excessive gas pressure during normal charging and operation, or for the addition of water or electrolyte for external measurements of electrolyte-specific gravity.

Electric Vehicle Supply Equipment. The conductors, including the ungrounded, grounded, and equipment grounding conductors, and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

Informational Note No. 1: For further information, see 625.48 for interactive systems.

Informational Note No. 2: Within this article, the terms *electric vehicle supply equipment* and *electric vehicle charging system equipment* are considered to be equivalent.

N Fastened in Place. Mounting means of an EVSE in which the fastening means are specifically designed to permit periodic removal for relocation, interchangeability, maintenance, or repair without the use of a tool.

N Fixed in Place. Mounting means of an EVSE attached to a wall or surface with fasteners that require a tool to be removed.

Output Cable to the Electric Vehicle. An assembly consisting of a length of flexible EV cable and an electric vehicle connector (supplying power to the electric vehicle).

N Output Cable to the Primary Pad. A multi-conductor, shielded cable assembly consisting of conductors to carry the high-frequency energy and any status signals between the charger power converter and the primary pad.

Personnel Protection System. A system of personnel protection devices and constructional features that when used together provide protection against electric shock of personnel.

Plug-In Hybrid Electric Vehicle (PHEV). A type of electric vehicle intended for on-road use with the ability to store and use off-vehicle electrical energy in the rechargeable energy storage system, and having a second source of motive power.

N Portable (as applied to EVSE). A device intended for indoor or outdoor use that can be carried from charging location to charging location and is designed to be transported in the vehicle when not in use.

Power-Supply Cord. An assembly consisting of an attachment plug and length of flexible cord that connects equipment to a receptacle.

N Primary Pad. A device external to the EV that provides power via the contactless coupling and may include the charger power converter.

Rechargeable Energy Storage System. Any power source that has the capability to be charged and discharged.

Informational Note: Batteries, capacitors, and electromechanical flywheels are examples of rechargeable energy storage systems.

N Wireless Power Transfer (WPT). The transfer of electrical energy from a power source to an electrical load via electric and magnetic fields or waves by a contactless inductive means between a primary and a secondary device.

N Wireless Power Transfer Equipment (WPTE). Equipment consisting of a charger power converter and a primary pad. The two devices are either separate units or contained within one enclosure.

625.4 Voltages. Unless other voltages are specified, the nominal ac system voltages of 120, 120/240, 208Y/120, 240, 480Y/277, 480, 600Y/347, 600, and 1000 volts and dc system voltages of up to 1000 volts shall be used to supply equipment covered by this article.

625.5 Listed. EVSE or WPTE shall be listed.

Part II. Equipment Construction

625.10 Electric Vehicle Coupler. The electric vehicle coupler shall comply with 625.10(A) through (D).

(A) Construction and Installation. The electric vehicle coupler shall be constructed and installed so as to guard against inadvertent contact by persons with parts made live from the electric vehicle supply equipment or the electric vehicle battery.

(B) Unintentional Disconnection. The electric vehicle coupler shall be provided with a positive means to prevent unintentional disconnection.

(C) Grounding Pole. The electric vehicle coupler shall be provided with a grounding pole, unless provided as part of a listed isolated electric vehicle supply equipment system.

(D) Grounding Pole Requirements. If a grounding pole is provided, the electric vehicle coupler shall be so designed that the grounding pole connection is the first to make and the last to break contact.

625.15 Markings. The equipment shall comply with 625.15(A) through (C).

(A) General. All equipment shall be marked by the manufacturer as follows:

FOR USE WITH ELECTRIC VEHICLES

(B) Ventilation Not Required. Where marking is required by 625.52(A), the equipment shall be clearly marked by the manufacturer as follows:

VENTILATION NOT REQUIRED

The marking shall be located so as to be clearly visible after installation.

(C) Ventilation Required. Where marking is required by 625.52(B), the equipment shall be clearly marked by the manufacturer, "Ventilation Required." The marking shall be located so as to be clearly visible after installation.

625.16 Means of Coupling. The means of coupling to the electric vehicle shall be conductive, inductive, or wireless power transfer. Attachment plugs, electric vehicle connectors, and electric vehicle inlets shall be listed or labeled for the purpose.

625.17 Cords and Cables.

(A) Power-Supply Cord. The cable for cord-connected equipment shall comply with all of the following:

- (1) Be any of the types specified in 625.17(B) or hard service cord, junior hard service cord, or portable power cable types in accordance with Table 400.4. Hard service cord, junior hard service cord, or portable power cable types shall be listed, as applicable, for exposure to oil and damp and wet locations.
- (2) Have an ampacity as specified in Table 400.5(A)(1) or, for 8 AWG and larger, in the 60°C columns of Table 400.5(A)(2).
- (3) Have an overall length as specified in 625.17(A)(3)a or b as follows:
 - a. When the interrupting device of the personnel protection system specified in 625.22 is located within the enclosure of the supply equipment or charging system, the power-supply cord shall be not more than 300 mm (12 in.) long,
 - b. When the interrupting device of the personnel protection system specified in 625.22 is located at the attachment plug, or within the first 300 mm (12 in.) of the power-supply cord, the overall cord length shall be a minimum of 1.8 m (6 ft) and shall be not greater than 4.6 m (15 ft).

(B) Output Cable to the Electric Vehicle. The output cable to the electric vehicle shall be Type EV, EVJ, EVE, EVJE, EVT, or EVJT flexible cable as specified in Table 400.4.

Informational Note: Listed electric vehicle supply equipment may incorporate output cables having ampacities greater than 60°C based on the permissible temperature limits for the components and the cable.

(C) Overall Cord and Cable Length. The overall usable length shall not exceed 7.5 m (25 ft) unless equipped with a cable management system that is part of the listed electric vehicle supply equipment.

(1) Not Fastened in Place. Where the electric vehicle supply equipment or charging system is not fastened in place, the cord-exposed usable length shall be measured from the face of the attachment plug to the face of the electric vehicle connector.

(2) Fastened in Place. Where the electric vehicle supply equipment or charging system is fastened in place, the usable length of the output cable shall be measured from the cable exit of the electric vehicle supply equipment or charging system to the face of the electric vehicle connector.

625.18 Interlock. Electric vehicle supply equipment shall be provided with an interlock that de-energizes the electric vehicle connector whenever the electrical connector is uncoupled from the electric vehicle. An interlock shall not be required for portable cord-and-plug-connected electric vehicle supply equipment intended for connection to receptacle outlets rated at 125 volts, single phase, 15 and 20 amperes. An interlock shall not be required for dc supplies less than 60 volts dc.

625.19 Automatic De-Energization of Cable. The electric vehicle supply equipment or the cable-connector combination of the equipment shall be provided with an automatic means to de-energize the cable conductors and electric vehicle connector upon exposure to strain that could result in either cable rupture or separation of the cable from the electric connector and exposure of live parts. Automatic means to de-energize the cable conductors and electric vehicle connector shall not be required for portable electric vehicle supply equipment constructed in accordance with 625.44(A).

625.22 Personnel Protection System. The equipment shall have a listed system of protection against electric shock of personnel. Where cord-and-plug-connected equipment is used, the interrupting device of a listed personnel protection system shall be provided and shall be an integral part of the attachment plug or shall be located in the power-supply cord not more than 300 mm (12 in.) from the attachment plug. A personnel protection system shall not be required for supplies less than 60 volts dc.

Part III. Installation

625.40 Electric Vehicle Branch Circuit. Each outlet installed for the purpose of charging electric vehicles shall be supplied by an individual branch circuit. Each circuit shall have no other outlets.

625.41 Overcurrent Protection. Overcurrent protection for feeders and branch circuits supplying equipment shall be sized for continuous duty and shall have a rating of not less than 125 percent of the maximum load of the equipment. Where noncontinuous loads are supplied from the same feeder, the overcurrent device shall have a rating of not less than the sum of the noncontinuous loads plus 125 percent of the continuous loads.

625.42 Rating. The equipment shall have sufficient rating to supply the load served. Electric vehicle charging loads shall be considered to be continuous loads for the purposes of this article. Where an automatic load management system is used, the maximum equipment load on a service and feeder shall be the maximum load permitted by the automatic load management system.

625.43 Disconnecting Means. For equipment rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. The disconnecting means shall be lockable open in accordance with 110.25.

625.44 Equipment Connection. Equipment shall be connected to the premises wiring system in accordance with one of the following:

(A) Portable Equipment. Portable equipment shall be connected to the premises wiring systems by one of the following methods:

- (1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 125 volts, single phase, 15 or 20 amperes
- (2) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated at 60 volts dc maximum, 15 or 20 amperes

The length of the power supply cord, if provided, between the receptacle outlet and the equipment shall be in accordance with 625.17(A)(3).

(B) Stationary Equipment. Stationary equipment intended to be fastened in place in such a way as to permit ready removal for interchange, facilitation of maintenance or repair, or repositioning shall be connected to the premises wiring system by one of the following methods:

- (1) A nonlocking, 2-pole, 3-wire grounding-type receptacle outlet rated 125 volt or 250 volt, single phase, up to 50 amperes
- (2) A nonlocking, 3-pole, 4-wire grounding-type receptacle outlet rated 250 volt, three phase, up to 50 amperes
- (3) Any of the receptacle outlets in 625.44(A)(1) or (2)

The length of the power supply cord, if provided, between the receptacle outlet and the equipment shall be in accordance with 625.17(A)(3).

(C) Fixed Equipment. All other equipment shall be permanently wired and fixed in place to the supporting surface.

625.46 Loss of Primary Source. Means shall be provided such that, upon loss of voltage from the utility or other electrical system(s), energy cannot be back fed through the electric vehicle and the supply equipment to the premises wiring system unless permitted by 625.48.

625.47 Multiple Feeder or Branch Circuits. Where equipment is identified for the application, more than one feeder or branch circuit shall be permitted to supply equipment.

625.48 Interactive Systems. Electric vehicle supply equipment that is part of an interactive system that serves as an optional standby system, an electric power production source, or a bidirectional power feed shall be listed, evaluated for use with the specific electric vehicles, and marked as suitable for that purpose. When used as an optional standby system, the

requirements of Article 702 shall apply; when used as an electric power production source, the requirements of Article 705 shall apply.

Informational Note: For further information on supply equipment, see ANSI/UL 1741, *Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources*; and ANSI/UL 9741, *Bidirectional Electric Vehicle (EV) Charging System Equipment*; for vehicle interactive systems, see SAE J3072, *Standard for Interconnection Requirements for Onboard, Utility-Interactive Inverter Systems*.

625.50 Location. The electric vehicle supply equipment shall be located for direct electrical coupling of the EV connector (conductive or inductive) to the electric vehicle. Unless specifically listed and marked for the location, the coupling means of the electric vehicle supply equipment shall be stored or located at a height of not less than 450 mm (18 in.) above the floor level for indoor locations or 600 mm (24 in.) above the grade level for outdoor locations. This requirement does not apply to portable electric vehicle supply equipment constructed in accordance with 625.44(A).

625.52 Ventilation. The ventilation requirement for charging an electric vehicle in an indoor enclosed space shall be determined by 625.52(A) or (B).

(A) Ventilation Not Required. Where electric vehicle storage batteries are used or where the equipment is listed for charging electric vehicles indoors without ventilation and marked in accordance with 625.15(B), mechanical ventilation shall not be required.

(B) Ventilation Required. Where the equipment is listed for charging electric vehicles that require ventilation for indoor charging, and is marked in accordance with 625.15(C), mechanical ventilation, such as a fan, shall be provided. The ventilation shall include both supply and exhaust equipment and shall be permanently installed and located to intake from, and vent directly to, the outdoors. Positive-pressure ventilation systems shall be permitted only in vehicle charging buildings or areas that have been specifically designed and approved for that application. Mechanical ventilation requirements shall be determined by one of the methods specified in 625.52(B)(1) through (B)(4).

(1) Table Values. For supply voltages and currents specified in Table 625.52(B)(1)(a) or Table 625.52(B)(1)(b), the minimum ventilation requirements shall be as specified in Table 625.52(B)(1)(a) or Table 625.52(B)(1)(b) for each of the total number of electric vehicles that can be charged at one time.

(2) Other Values. For supply voltages and currents other than specified in Table 625.52(B)(1)(a) or Table 625.52(B)(1)(b),

TABLE 625.52(B)(1)(A) Minimum Ventilation Required in Cubic Meters per Minute (m³/min) for Each of the Total Number of Electric Vehicles That Can Be Charged at One Time

Branch-Circuit Ampere Rating	Branch-Circuit Voltage							
	Single Phase				3 Phase			
	DC ≥ 50 V	120 V	208 V	240 V or 120/240 V	208 V or 208Y/120 V	240 V	480 V or 480Y/277 V	600 V or 600Y/347 V
15	0.5	1.1	1.8	2.1	—	—	—	—
20	0.6	1.4	2.4	2.8	4.2	4.8	9.7	—
30	0.9	2.1	3.6	4.2	6.3	7.2	15	12
40	1.2	2.8	4.8	5.6	8.4	9.7	19	18
50	1.5	3.5	6.1	7.0	10	12	24	24
60	1.8	4.2	7.3	8.4	13	15	29	30
100	2.9	7.0	12	14	21	24	48	36
150	—	—	—	—	31	36	73	60
200	—	—	—	—	42	48	97	91
250	—	—	—	—	52	60	120	120
300	—	—	—	—	63	73	145	150
350	—	—	—	—	73	85	170	180
400	—	—	—	—	84	97	195	210
								240

TABLE 625.52(B)(1)(B) Minimum Ventilation Required in Cubic Feet per Minute (cfm) for Each of the Total Number of Electric Vehicles That Can Be Charged at One Time

Branch- Circuit Ampere Rating	Branch-Circuit Voltage							
	Single Phase				3 Phase			
	DC ≥ 50V	120 V	208 V	240 V or 120/240 V	208 V or 208Y/120 V	240 V	480 V or 480Y/277 V	600 V or 600Y/347 V
15	15.4	37	64	74	—	—	—	—
20	20.4	49	85	99	148	171	342	427
30	30.8	74	128	148	222	256	512	641
40	41.3	99	171	197	296	342	683	854
50	51.3	123	214	246	370	427	854	1066
60	61.7	148	256	296	444	512	1025	1281
100	102.5	246	427	493	740	854	1708	2135
150	—	—	—	—	1110	1281	2562	3203
200	—	—	—	—	1480	1708	3416	4270
250	—	—	—	—	1850	2135	4270	5338
300	—	—	—	—	2221	2562	5125	6406
350	—	—	—	—	2591	2989	5979	7473
400	—	—	—	—	2961	3416	6832	8541

the minimum ventilation requirements shall be calculated by means of the following general formulas, as applicable:

(1) Single-phase ac or dc:

Ventilation_{single-phase ac or dc} in cubic meters per minute (m³/min) =

$$\frac{(\text{volts})(\text{amperes})}{1718} \quad [625.52(B)(2)a]$$

Ventilation_{single-phase ac or dc} in cubic feet per minute (cfm) =

$$\frac{(\text{volts})(\text{amperes})}{48.7} \quad [625.52(B)(2)b]$$

(2) Three-phase ac:

Ventilation_{3-phase} in cubic meters per minute (m³/min) =

$$\frac{1.732(\text{volts})(\text{amperes})}{1718} \quad [625.52(B)(2)c]$$

Ventilation_{3-phase} in cubic feet per minute (cfm) =

$$\frac{1.732(\text{volts})(\text{amperes})}{48.7} \quad [625.52(B)(2)d]$$

(3) Engineered Systems. For an equipment ventilation system designed by a person qualified to perform such calculations as an integral part of a building's total ventilation system,

the minimum ventilation requirements shall be permitted to be determined in accordance with calculations specified in the engineering study.

(4) **Supply Circuits.** The supply circuit to the mechanical ventilation equipment shall be electrically interlocked with the equipment and shall remain energized during the entire electric vehicle charging cycle. Equipment shall be marked in accordance with 625.15. Equipment receptacles rated at 125 volts, single phase, 15 and 20 amperes shall be marked in accordance with 625.15 and shall be switched, and the mechanical ventilation system shall be electrically interlocked through the switch supply power to the receptacle. Equipment supplied from less than 50 volts dc shall be marked in accordance with 625.15(C) and shall be switched, and the mechanical ventilation system shall be electrically interlocked through the switch supply power to the equipment.

(C) **Ventilation Required.** [SFM] Where the electric vehicle supply equipment listed or labeled as suitable for charging electric vehicles that require ventilation for indoor charging and marked in accordance with Section 625.15(C), mechanical ventilation, such as fans, shall be provided as specified in the California Building Code.

Part IV. Wireless Power Transfer Equipment

625.101 Grounding. The primary pad base plate shall be of a non-ferrous metal and shall be grounded unless the listed WPTE employs a double-insulation system. The base plate shall be sized to match the size of the primary pad enclosure.

625.102 Construction.

(A) **Type.** The charger power converter, where integral to the primary pad, shall comply with 625.102(C). The charger power converter, if not integral to the primary pad, shall be provided with a minimum Type 3R enclosure rating.

(B) **Installation.** If the charger power converter is not integral to the primary pad, it shall be mounted at a height of not less than 450 mm (18 in.) above the floor level for indoor locations or 600 mm (24 in.) above grade level for outdoor locations. The charger power converter shall be mounted in one of the following forms:

- (1) Pedestal
- (2) Wall or pole
- (3) Building or structure
- (4) Raised concrete pad

(C) **Primary Pad.** The primary pad shall be installed on the surface, embedded in the surface of the floor with its top flush with the surface, or embedded in the surface of the floor with its top below the surface. This includes primary pad constructions with the charger power converter located in the primary pad enclosure.

- (1) If the primary pad is located in an area requiring snow removal, it shall not be located on or above the surface.

Exception: Where installed on private property where snow removal is done manually, the primary pad shall be permitted to be located on or above the surface.

- (2) The enclosure shall be provided with a suitable enclosure rating minimum Type 3. If the primary pad is located in an area subject to severe climatic conditions (e.g., flooding), it shall be suitably rated for those conditions or be provided with a suitably rated enclosure.

(D) **Protection of the Output Cable.** The output cable to the primary pad shall be secured in place over its entire length for the purpose of restricting its movement and to prevent strain at the connection points. If installed in conditions where drive-over could occur, the cable shall be provided with supplemental protection. Where the charger power converter is a part of the primary pad assembly, the power supply cord to the primary pad shall also be protected.

(E) **Other Wiring Systems.** Other wiring systems and fittings specifically listed for use on the WPTE shall be permitted.

ARTICLE 626

Electrified Truck Parking Spaces

Part I. General

626.1 Scope. The provisions of this article cover the electrical conductors and equipment external to the truck or transport refrigerated unit that connect trucks or transport refrigerated units to a supply of electricity, and the installation of equipment and devices related to electrical installations within an electrified truck parking space.

626.2 Definitions.

Cable Management System (Electrified Truck Parking Spaces). An apparatus designed to control and organize unused lengths of cable or cord at electrified truck parking spaces.

Cord Connector. A device that, by inserting it into a truck flanged surface inlet, establishes an electrical connection to the truck for the purpose of providing power for the on-board electric loads and may provide a means for information exchange. This device is part of the truck coupler.

Disconnecting Means, Parking Space. The necessary equipment usually consisting of a circuit breaker or switch and fuses, and their accessories, located near the point of entrance of supply conductors in an electrified truck parking space and intended to constitute the means of cutoff for the supply to that truck.

Electrified Truck Parking Space. A truck parking space that has been provided with an electrical system that allows truck operators to connect their vehicles while stopped and to use off-board power sources in order to operate on-board systems such as air conditioning, heating, and appliances, without any engine idling.