

SUBJECT: ZONE TEXT AMENDMENT TO REQUIRE A MINIMIUM PERCENTAGE OF PARKING SPACES IN NEW CONSTRUCTION AND MAJOR REMODELS TO BE PLUG-IN ELECTRIC VEHICLES (PEV) READY OR EQUIPPED WITH CHARGING STATIONS

INITIATED BY: CITY COUNCIL

PREPARED BY: DEPARTMENT OF COMMUNITY DEVELOPMENT
(Bianca Siegl, Long Range & Mobility Planning Manager)
(Robyn Eason, Senior Sustainability Planner)
(Sami Taylor, Assistant Sustainability Planner)
(Jerry Hittleman, Senior Contract Planner)

STATEMENT ON THE SUBJECT

The Planning Commission will consider a request for an amendment to Sections 19.28.170 - Alternative Fuel Vehicles, 19.34.110, and 19.90.020 (Definitions of Specialized Terms and Phrases) of Title 19 of the West Hollywood Municipal Code to adopt new policies regulating Electric Vehicle (EV) Charging readiness for new and certain remodeled structures and parking lots in the City of West Hollywood.

RECOMMENDATION

Staff recommends that the Planning Commission hold the public hearing, consider all pertinent testimony, and recommend approval to the City Council by adopting the following:

- 1) Draft Resolution No. PC 17-1216: **A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WEST HOLLYWOOD, RECOMMENDING THAT THE CITY COUNCIL APPROVE AN ORDINANCE AMENDING SECTIONS §19.28.170, ALTERNATIVE FUEL VEHICLES, §19.34.110, AND §19.90.020 (DEFINITIONS OF SPECIALIZED TERMS AND PHRASES) OF TITLE 19 OF THE WEST HOLLYWOOD MUNICIPAL CODE TO ADOPT NEW POLICIES TO REQUIRE A MINIMIUM PERCENTAGE OF PARKING SPACES IN NEW CONSTRUCTION AND MAJOR REMODELS TO BE PLUG-IN ELECTRIC VEHICLES (PEV) READY OR EQUIPPED WITH CHARGING STATIONS CITYWIDE, WEST HOLLYWOOD, CALIFORNIA. (EXHIBIT A)**

BACKGROUND

Policy History

The City of West Hollywood has historically kept pace with the evolving market on electric vehicles, beginning with the introduction and adoption of municipal code requirements on electric vehicle charging stations in the mid-1990s. In 2005, in response to the changing technology, these requirements were replaced with preferential parking spaces for alternative fuel vehicles.

On May 2, 2016, the City Council directed staff to pursue several electric vehicle charging readiness initiatives in West Hollywood. This included new requirements for installing electric vehicle charging stations and infrastructure in new development, seeking EV Charger grants, increased lobbying efforts for EV charger readiness in Sacramento, and parking incentives for electric vehicle owners. The City Council staff report with the specific directives is included as Exhibit B to this report.

All of these efforts are ongoing, and the adoption of the proposed EV Charger Readiness Ordinance will implement directive Nos. 1, 2, 3, 4, and 7, by the City Council. This will be accomplished by amending the City's Zoning Ordinance to require EV chargers and infrastructure or conduit for new and certain remodeled structures and parking lots in the City. In addition, upon adoption of the ordinance, staff will create materials that outline the permitting, inspection, and approval process for a property or business owner, or tenant, who plans to install conduit and EV charging stations. Directive Nos. 5, 6, and 8 are currently being addressed by various City departments and the City's lobbyist, as appropriate.

This staff report requests the Planning Commission provide a recommendation to the City Council on whether or not the change in zoning appropriately addresses EV charger readiness in new construction, major remodels, and existing buildings, as directed by the City Council. Upon the Planning Commission's recommendation, the City Council will review this proposed text amendment.

Background Research

EV Charging Ordinances have been adopted in other forward-thinking California cities as shown in Exhibit C. This exhibit shows some of the cities in the San Francisco Bay Area and in Los Angeles County that currently require new residential and non-residential (commercial) development to install conduit for EV chargers for up to 100 percent of parking spaces and EV chargers for a certain percentage of parking spaces in new and remodeled development projects in their cities. For instance, San Francisco's EV Charger Readiness Ordinance, adopted in 2016, requires conduit for EV chargers to be installed for 100 percent of the parking spaces in new single family, multi-family (3 units or more), and nonresidential developments. Ordinances such as these allow cities to keep up with the growing electric vehicle market, and mitigate the need for properties to retrofit their parking areas at a later time, which can be a very costly endeavor.

Proposed EV Charger Readiness Standards

Under West Hollywood's current zoning regulations, new building construction and major remodels of existing structures are not required to install electrical conduit or EV Chargers for use of residents and visitors who own or rent electric vehicles. The 2016 CALGreen California Green Building Standards Code requires EV charger conduit to be installed in some new residential and nonresidential projects (See Exhibit C). Certain developers and businesses have installed conduit and EV Chargers on a voluntary basis, but not enough to keep pace with the current and anticipated future EV market demand described above. Exhibit D is a map showing existing off-street EV Charger locations available for public use in West Hollywood. These EV Chargers accommodate some of the electric charging needs of local EV owners; however, additional EV Chargers for residents, shoppers, and visitors to West Hollywood are needed.

The proposed zoning ordinance amendment will require specific residential and non-residential development projects to install a certain percentage of conduit and EV Chargers as described below. The recommended zoning amendment addresses the following:

Applicability: Electric vehicle charging readiness will be required through a combination of installation of electrical conduit and EV Chargers for the following types of development projects:

1. All new residential and non-residential buildings;
2. Any major remodel (typically 50 percent or more of the existing building square footage) of commercial, multi-family, and other non-residential buildings as defined by Section 19.48.020 (Development Permit Applicability)
3. An addition of more than 500 square feet to a single family dwelling or duplex;
4. An addition of more than 1,000 square feet to a commercial, multi-family, or other non-residential building;
5. Any new surface parking lot or structure with 10 or more parking spaces; and
6. An addition of more than 50 percent in square feet to any existing surface parking lot or structure.

Certain development projects will be exempt from the EV Charger Readiness regulations and include temporary parking lots, buildings that do not have parking, and commercial uses utilizing the City's Parking Credits Program, except for some on-site parking spaces as provided in Section 19.28.080. In addition, other exemptions may be granted at the discretion of the Community Development Director, where compliance with the requirements is found to be technically infeasible.

Proposed Electric Vehicle Charging Readiness Requirements: The current and future EV Charging needs of West Hollywood residents and visitors, as well as the costs of installing EV Chargers and/or conduit were considered when drafting the EV Charging Readiness requirements. The requirements specify two conditions: EV Charger-Conduit Only parking spaces and EV Charger parking spaces. EV Charger-Conduit Only spaces are those are constructed with the electrical capability (e.g.

raceway, panel, wiring, etc.) of supplying power for future EV Chargers at any given time, while EV Charger spaces are those equipped with EV Charging stations by project completion. The following table shows the proposed EV charging readiness requirements for applicable development projects:

Proposed EV Charging Readiness Requirements

Type of Land Use	Requirements
Single-family dwelling, Duplexes (including additions)	1 EV Charger - Conduit Only or 1 EV Charger
Multi-family dwellings, condominiums, townhouses (including additions)	Resident Parking: 100% of total resident spaces shall be equipped with EV Charger - Conduit Only and at least 3% (and no less than one space) shall be equipped with an EV Charger.
	Guest Parking: 100% of total guest spaces shall be equipped with EV Charger - Conduit Only or EV Chargers and at least 3% (and no less than one space) shall be equipped with an EV Charger.
Non-residential land use, commercial parking lots and structures (including additions)	100% of spaces shall be equipped with EV Charger - Conduit Only or EV Chargers and at least 3% (and no less than one space) shall be equipped with an EV Charger.
Mixed-use projects	As required for each residential and non-residential use.

The above table instructs the installation of Level 2 EV Chargers at minimum. Level 2 chargers supply 240 volts to a vehicle, allows for a wide range of charging speeds, and the purchase and installation costs are not prohibitive. Alternatively, EV Fast Chargers--the fastest type of charging currently available--provides up to 40 miles of range for every 10 minutes of charging. As these stations are expensive (up to \$100,000), require more power, and can charge more cars daily than Level 2 EV Chargers, the proposed standards relaxes the number of EV Charger equipped spaces required if an EV Fast Charger is installed through inclusion of the following ordinance provision:

Installation of one EV Fast Charger may reduce the number of EV Charger equipped spaces required in Table 3-11 by up to three spaces.

Various development project scenarios were analyzed to ensure that the EV Charger readiness regulations are consistent with the objective of supporting electric vehicle ownership and use in the City. The following table shows the amount of required conduit and EV Chargers for various development scenarios for residential, non-residential, and public projects consistent with the regulations above:

Project Examples

Project Type	Required Parking	Accessible Parking	“EV Ready” Parking 100% Conduit Only*	“EV Only” Parking 3% EV Charger	Fast Charger Replacement Requirements
15 Unit MFR Project (all 2-3 bedroom units)	Resident: 30	1	30	3% = 1	3% = 1
	Guest: 4		4	3% = 1	3% = 1
Non-residential Project (20,000 sf grocery store)	70	3	70	3% = 2	3% = 1
50 Room Hotel	50	2	50	3% = 2	3% = 1
150 Space Commercial Parking Lot/Structure	150	5	150	3% = 5	3% = 2
Multi-tenant Retail with Shared Parking (20,000 sf)	Required: 70	3	60	3% = 2	3% = 1
	Reduced: 60				

*Number includes accessible parking spaces

EV Charger readiness will be applied and ensured concurrent with development review for both discretionary permit applications for new structures (residential, non-residential, and public) and over the counter building permits. Upon approval of the ordinance, staff will prepare policy guidance documents for the public and developers to assist them in processing discretionary projects and building permits in conformance with the ordinance.

Location, Design, Signage: All EV Charger parking spaces or future conduit only spaces will be required to meet certain location, design, and signage requirements to ensure that they are safe and recognizable to EV owners. These regulations include specific EV Charger signage for all non-residential parking spaces and multi-family residential guest parking spaces that are equipped with EV Chargers. The signs are required to comply with Section 19.34.110(C)(14) of the West Hollywood Municipal Code as follows:

Electric Vehicles. Signs required by Section 19.28.170(C) shall be limited to three square feet in size each, and limited to one sign per parking space. No other advertising copy or logos shall be allowed. Maximum sign height shall be four feet.

EV parking spaces will be required to be striped with green paint to distinguish the spaces as electric vehicle parking spaces in accordance with the most current California Building Code requirements. Typical EV Charging parking space signage and striping would be the following:



Safety and accessibility requirements for EV Chargers have been included in the ordinance. These include a requirement that EV Chargers and associated equipment or materials shall not encroach on the minimum required clearance areas from driveways, parking spaces, and vehicle maneuvering areas. Accessibility of the EV spaces is also required to comply with all applicable California Building Code requirements for accessible electric vehicle parking.

Parking Spaces with EV Chargers Installed by Auto Manufacturers: The ordinance has a provision to address parking spaces that are equipped with EV Chargers for a specific auto manufacturer such as Tesla. Since the EV Charger equipment for these spaces may not be able to be used by all electric vehicle users, these spaces would not count toward required parking under per the City's Zoning Ordinance.

Existing Buildings: The proposed ordinance includes a provision to allow retrofitted EV Charger equipped parking spaces to continue to count toward parking requirements under the Zoning Ordinance. The reason for this stipulation is to ensure that property owners are not penalized for allowing existing parking spaces to be equipped, and in some cases, dedicated to electric vehicles for parking and electrical charging purposes.

PUBLIC OUTREACH

City staff presented the proposed EV Charger Readiness ordinance to the West Hollywood Chamber of Commerce Government Affairs Committee (GAC) meeting on May 9, 2017.

City staff also received input from two electric vehicle providers, an electric vehicle owner, and residential/commercial developers in the City to determine the unique needs of EV Charger Readiness in West Hollywood. These parties have been generally supportive of the EV Charger readiness regulations in the City of West Hollywood and have provided valuable input to improve the draft ordinance. To address their comments, staff made minor changes or clarifications to the ordinance, as needed.

PUBLIC NOTICE

The City published a legal notice in the Beverly Press and West Hollywood Independent on August 3, 2017. In addition to the noticing required by the Municipal Code, the Planning Division noticed all West Hollywood neighborhood groups by August 3, 2017.

ENVIRONMENTAL REVIEW

The proposed zone text amendment is Categorical Exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15061 of the CEQA Guidelines. Section 15061 states that CEQA applies only to projects that 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 adoption of the EV Charger Ordinance will not require developers or homeowners to provide any additional parking spaces beyond those required in Section 19.28 (parking regulations) of the WHMC. In addition, the provision of EV Chargers and supporting conduit in newly constructed buildings, in conjunction with major remodel projects, and at the discretion of property owners will support the growth of electric vehicles as an economically viable and environmentally sustainable means of transportation in West Hollywood.

The zone text changes are also exempt pursuant to Section 15308, which involves regulatory processes and procedures undertaken to protect the environment, because introducing new standards to require electrical conduit and EV charger equipment improvements in new development and major remodels has the potential to reduce local CO₂ emissions by enabling and encouraging the increased use of electric vehicles in West Hollywood that do not emit CO₂ or other greenhouse gasses.

NEXT STEPS

Planning Commission comments will be forwarded to the City Council for review. Once the City Council has approved the ordinance, staff will prepare a guidance document for the public and developers to assist them in processing projects to include EV Chargers and conduit in conformance with the new regulations.

EXHIBITS

- A. Draft Resolution No. PC 17-1216
- B. May 2, 2016, City Council Report – Initiatives in Electric Vehicle Charging Readiness
- C. EV Charger Ordinance Requirements in Other Jurisdictions
- D. West Hollywood EV Charging Stations Map

RESOLUTION NO. PC17-1216

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF WEST HOLLYWOOD, RECOMMENDING THAT THE CITY COUNCIL APPROVE AN ORDINANCE AMENDING SECTIONS §19.28.170, ALTERNATIVE FUEL VEHICLES AND §19.90.020 (DEFINITIONS OF SPECIALIZED TERMS AND PHRASES) OF TITLE 19 OF THE WEST HOLLYWOOD MUNICIPAL CODE TO ADOPT NEW POLICIES TO REQUIRE A MINIMUM PERCENTAGE OF PARKING SPACES IN NEW CONSTRUCTION AND MAJOR REMODELS TO BE PLUG-IN ELECTRIC VEHICLES (PEV) READY OR EQUIPPED WITH CHARGING STATIONS, CITYWIDE, WEST HOLLYWOOD, CALIFORNIA.

The Planning Commission of the City of West Hollywood hereby finds, resolves, and orders as follows:

SECTION 1. The City of West Hollywood initiated amendments to the Zoning Ordinance, Article 19 of the Municipal Code to adopt new policies to require a minimum percentage of parking spaces in new construction and major remodels to be electric vehicles ready or equipped with charging stations.

SECTION 2. A public hearing was duly noticed for the Planning Commission meeting of August 17, 2017 by publication in the Beverly Press newspaper, the West Hollywood Independent Newspaper, and the City website and by announcement on City Channel 6 by August 3, 2017.

SECTION 3. The proposed zone text amendment is Categorically Exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15061 of the CEQA Guidelines. Section 15061 states that CEQA applies only to projects that 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 zone text changes are also exempt pursuant to Section 15308, which involves regulatory processes and procedures undertaken to protect the environment, because introducing new standards to require electrical conduit and EV charger equipment improvements in new development and major remodels has the potential to reduce local CO₂ emissions by enabling and encouraging the increased use of electric vehicles in West Hollywood that do not emit CO₂ or other greenhouse gasses.

SECTION 4. The Planning Commission of the City of West Hollywood hereby finds that Zone Text Amendment 2017-0007 is consistent with the City Council adopted directives regarding electric vehicle charging readiness in May 2016, which included requirements for installing electric vehicle charging stations and infrastructure in new development. These amendments will help to increase

the number of electric vehicle chargers available to residents and the public while serving to reduce greenhouse gas emissions in West Hollywood and the greater Los Angeles Basin.

SECTION 5. Based on the foregoing, the Planning Commission of the City of West Hollywood hereby recommends approval to the City Council of Zoning Text Amendment 2017-0007, which is attached hereto as Attachment A.

DRAFT

PASSED, APPROVED AND ADOPTED by the Planning Commission of the City of West Hollywood at a regular meeting held this 17th day of August, 2017 by the following vote:

AYES: Commissioner:

NOES: Commissioner:

ABSENT: Commissioner:

ABSTAIN: Commissioner:

SUE BUCKNER, CHAIRPERSON

ATTEST:

BIANCA SIEGL, PLANNING MANAGER
LONG RANGE AND MOBILITY PLANNING

Decisions of the Planning Commission are subject to appeal in accordance with the procedures set forth in West Hollywood Municipal Code Chapter 19.76. Any action to challenge the final decision of the City of West Hollywood made as a result of the public hearing on this application must be filed within the time limits set forth in Code of Civil Procedure Section §1094.6.

Attachment A

ZONE TEXT AMENDMENT 17-0007 WEST HOLLYWOOD MUNICIPAL CODE SECTIONS TO BE MODIFIED

(New text indicated with underlining, deleted text with strikethrough.)

Section 1: Section 19.28.170, Alternative Fuel Vehicles of Title 19 of the West Hollywood Municipal Code is amended to read as follows:

19.28.170 Alternative Fuel Vehicles.

~~A. *Where Required.* Preferential parking for alternative fuel vehicles shall be provided for all new non-residential parking areas containing twenty-five or more parking spaces, and to parking areas of mixed-use projects where the non-residential portion of the project requires twenty-five or more parking spaces. The parking spaces shall be striped with green paint to distinguish the spaces as preferential parking spaces, and in accordance with the Department of Transportation requirements.~~

~~B. *Required Number of Spaces.* Two percent (2%) of all parking spaces in parking lots containing twenty-five or more parking spaces shall be designated for preferential parking for alternative fuel vehicles.~~

~~C. *Location of Parking Spaces.* The required preferential parking spaces shall be located as close as possible to the primary entrance without conflicting with the Americans with Disability Act requirements.~~

~~D. *Signage Required.* Each space shall be provided with a sign that identifies the parking space as designated for use by alternative fuel vehicles. The sign shall be in compliance with Section 19.34.110(C)(14).~~

~~F. *Existing Vehicle Recharging Stations.* For those sites already containing parking spaces with vehicle recharging stations, those spaces may be dually designated as vehicle recharging stations and as preferential parking for alternative fuel vehicles.~~

19.28.170 Electric Vehicle Charging Readiness

A. Applicability. This Section applies to:

1. All new residential and non-residential buildings.
2. Any major remodel of commercial, multi-family and other non-residential buildings as defined by Section 19.48.020 (Development Permit Applicability).
3. An addition of more than 500 square feet to a single family dwelling or duplex.
4. An addition of more than 1,000 square feet to a commercial, multi-family, or other non-residential building.
5. Any new surface parking lot or structure with 10 or more parking spaces.
6. An addition of more than 50 percent in square feet to any existing surface parking lot or structure.
7. Exemptions.
 - a. The Section shall not apply to the following:
 - 1) Temporary Parking Lots (Section 19.28.140).
 - 2) Buildings that do not have parking.
 - 3) Commercial uses utilizing the Parking Credits Program (Section 19.28.080), except for on-site surface parking spaces, which are subject to the requirements listed in Table 3-11.
 - b. Other exemptions may be granted at the discretion of the Director, where compliance with the requirements of this Section is technically infeasible.

B. Number of Parking Spaces Required. EV Charger - Conduit Only or EV Charger equipped parking spaces shall be provided as follows:

Table 3-11

Electric Vehicle Charging Readiness Requirements

<u>Type of Land Use</u>	<u>Requirements</u>
<u>Single-family dwelling, Duplexes (including additions)</u>	<u>1 EV Charger - Conduit Only or 1 EV Charger</u>
<u>Multi-family dwellings, condominiums, townhouses (including additions)</u>	<u>Resident Parking: 100% of total resident spaces shall be equipped with EV Charger - Conduit Only and at least 3% (and no less than one space) shall be equipped with an EV Charger.</u>
	<u>Guest Parking: 100% of total guest spaces shall be equipped with EV Charger - Conduit Only or EV Chargers and at least 3% (and no less than one space) shall be equipped with an EV Charger.</u>
<u>Non-residential land use, commercial parking lots and structures (including additions)</u>	<u>100% of spaces shall be equipped with EV Charger - Conduit Only or EV Chargers and at least 3% (and no less than one space) shall be equipped with an EV Charger.</u>
<u>Mixed-use projects</u>	<u>As required for each residential and non-residential use.</u>

1. Installation of one EV Fast Charger may reduce the number of EV Charger equipped spaces required in Table 3-11 by up to three spaces.

C. Location, Design, Signage. All EV Charger - Conduit Only or EV Charger parking spaces shall meet the following location, design, and signage requirements.

1. Signage. For all non-residential parking spaces and multi-family residential guest parking spaces, signage shall be installed designating all EV Charger equipped parking spaces for electric vehicles only. The sign shall be in compliance with Section 19.34.110(C)(14).
2. Striping. Parking spaces with EV Chargers shall be striped with green paint to distinguish the spaces as electric vehicle charging spaces, and in accordance with the most current California Building Code requirements.

3. For all buildings excluding single-family residential, EV Chargers and associated equipment or materials shall not encroach on the minimum required clearance areas from driveways, parking spaces, and vehicle maneuvering areas. This standard may be modified by the Director in the case where compliance would demonstrably reduce the operating efficiency or performance of the EV Chargers and compliance will not adversely impact public health and safety.
4. Accessible EV Chargers. Electric vehicle charging stations, including related equipment, shall comply with all applicable California Building Code requirements for accessible electric vehicle parking.

D. *Parking Spaces with EV Chargers installed by Auto Manufacturer.* Except for single-family dwellings, parking spaces equipped with an EV Charger for the exclusive use of a particular vehicle or vehicle model either installed by the car manufacturer or property owner shall not count toward required parking under Section 19.28.170 (Electric Vehicle Charging Readiness).

E. *Existing Buildings: Retrofitted EV Charger equipped parking spaces shall count toward parking requirements under Section 19.28.040 (Number of Parking Spaces Required).*

Section 2: Subsection (C)14 of Section 19.34.110 in Chapter 19.34 of Title 19 of the West Hollywood Municipal Code is amended to read as follows:

- ~~14. Alternative Fuel Vehicles~~ Electric Vehicle Charging. Signs required by Section 19.28.170(C) shall be limited to three square feet in size each, and limited to one sign per parking space. No other advertising copy or logos shall be allowed other than those of the charging company itself. Maximum sign height shall be four feet. Each EV charger will be allowed 1.5 square feet for information and instructions regarding charging station use.

Section 3: New definitions are added to Section 19.90.020 (Definitions of Specialized Terms and Phrases) in Chapter 19.90 of Title 19 of the West Hollywood Municipal Code as follows:

EV Charger - Conduit Only. At minimum: (1) a panel capable to accommodate a dedicated branch circuit and service capacity to install a 208/240 volts, 50 amperes grounded AC outlet; (2) raceway or wiring with capacity to accommodate a 100 ampere circuit; terminating in (3) a listed cabinet, box, enclosure, or National Electrical Manufacturers Association (NEMA) receptacle. The raceway shall be installed so that minimal removal of materials is necessary to complete final installation.

Electric Vehicle (EV) Charger. An EV Charging station with at minimum an installed “Level 2 Electric Vehicle Service Equipment (EVSE)” capable of charging at 30 amperes or higher at 208 or 240 Volts Alternating Current (VAC). An EV Charger capable of simultaneously charging at 30 amperes for each of two vehicles shall be counted as two EV Chargers.

EV Fast Charger. Off-board charging equipment with a minimum direct current or alternating current power output of 24 kW, for the purpose of providing an electric vehicle charge in significantly less time than a level 2 or 1 electric vehicle charger.

DRAFT

CITY COUNCIL
CONSENT CALENDAR

MAY 2, 2016

SUBJECT: **INITIATIVES TO PROMOTE ELECTRIC VEHICLE CHARGING
READINESS**

INITIATED BY: **COUNCILMEMBER JOHN D'AMICO**

PREPARED BY: Andi Lovano, Project Development Administrator *AL*
 Cally Hardy, City Council Intern *CH*

STATEMENT ON THE SUBJECT:

The City Council will consider adopting initiatives to improve electric vehicle charging readiness in the City including requirements for installing electric vehicle charging stations and infrastructure in new development, grant applications and lobbying efforts in Sacramento and parking incentives for electric vehicle owners.

RECOMMENDATIONS:

1. Amend the City's Zoning Code to require a minimum percentage of parking spaces in new construction to be plug-in electric vehicle (PEV) ready or equipped with electric vehicle charging stations.
2. Amend the City's Zoning Code to allow the installation of electric vehicle charging stations without considering the loss of parking.
3. Create materials that outline the permitting, inspection, and approval process for a property or business owner, or tenant, who plans to install a PEV charging station; move the permitting process online; and waive the permit fee for residential charging station installation.
4. Direct the City Attorney to review the possibility of requiring a property or business owner to allow tenants in residential and commercial buildings to install electric vehicle charging stations. In addition, investigate the possibility that property owners may install neighborhood accessible PEV charging stations.
5. Develop a plan for charging station installation in order to have PEV charging stations within one-eighth mile of every residence and business in the City.
6. Direct staff to work with the Transportation Commission to explore parking incentives for electric vehicle owners such as reduced residential parking permit fees or free metered parking.

ITEM 10.D. EXHIBIT B

7. Develop an EV charging outreach strategy that includes sending information to EV retailers and car dealers to explain our regulations for installing charging stations and other city EV incentives.
8. Direct staff to work with the City's lobbyist and grant writing consultants to pursue lobbying efforts and investigate grant options to help promote pilot projects that target electric vehicle charging station penetration and distribution in the City and region.

BACKGROUND / ANALYSIS:

Technological advancements in recent years along with changes in California law have led to major automakers developing a new generation of electric vehicles that have accelerated the popularity and growth of the market. The benefits of electric vehicle ownership are environmental and economic. Each gallon of gasoline burned in a fuel-powered car generates approximately 14 pounds of carbon dioxide (CO₂), the major greenhouse gas contributing to climate change. Electric Vehicle (EV) technology eliminates tailpipe emissions, reduces regional air pollution, and helps to combat climate change. In addition, fuel cost savings, tax credits, and incentives often make ownership costs of electric vehicles more affordable than conventional fuel-powered vehicles.

There are over 420,000 electric vehicles registered nationwide as of March 2016. Californians own almost 200,000 of these registered vehicles, which is more than 40% of all electric vehicles in the United States. The Los Angeles region has the largest number of registered electric vehicles in the State. Currently, there are a total of 327 electric vehicles registered to residents of West Hollywood, which is about 179 electric vehicles per square mile, and significantly more within a close vicinity of the City.

	Battery Electric Vehicles (BEVs)	Plug-In Hybrid Electric Vehicles (PHEVs)	TOTAL Plug-In Electric Vehicles (PEVs)
West Hollywood	153	174	327
Census tracts within 5 miles	3,628	3,543	7,171
Census tracts within 10 miles	8,746	9,159	17,905

Source: Polk.com, October 2015

The number of EV owners continues to increase in West Hollywood and throughout California. Each month, approximately 1,000 new EVs are sold in California. The number of EVs on the road has increased ten times in just the last four years. Adoption of new clean vehicles has been shown to be greater and more rapid in high density areas such as West Hollywood. Chargepoint projects a growth from about 400,000 EVs today to at least one million EVs on the road by the year 2020, and Governor Jerry Brown has set a goal of 1.5 million electric cars on the road by 2025. Demand for EVs may exceed these projections as the State advances its CO₂ emissions reduction

mandate and EV rebates become more prevalent. In addition, several manufacturers are planning to introduce EVs with a range of over 200 miles and at a lower price point. This is widely expected by automotive experts to spike the sales of EVs.

Nationwide there are about 11,900 publicly available PEV charging stations, compared to approximately 114,000 gas stations. It is critical for PEV charging infrastructure to be more widely available to accommodate increasing demand for PEVs and to allow drivers the ability to reliably charge their vehicles.

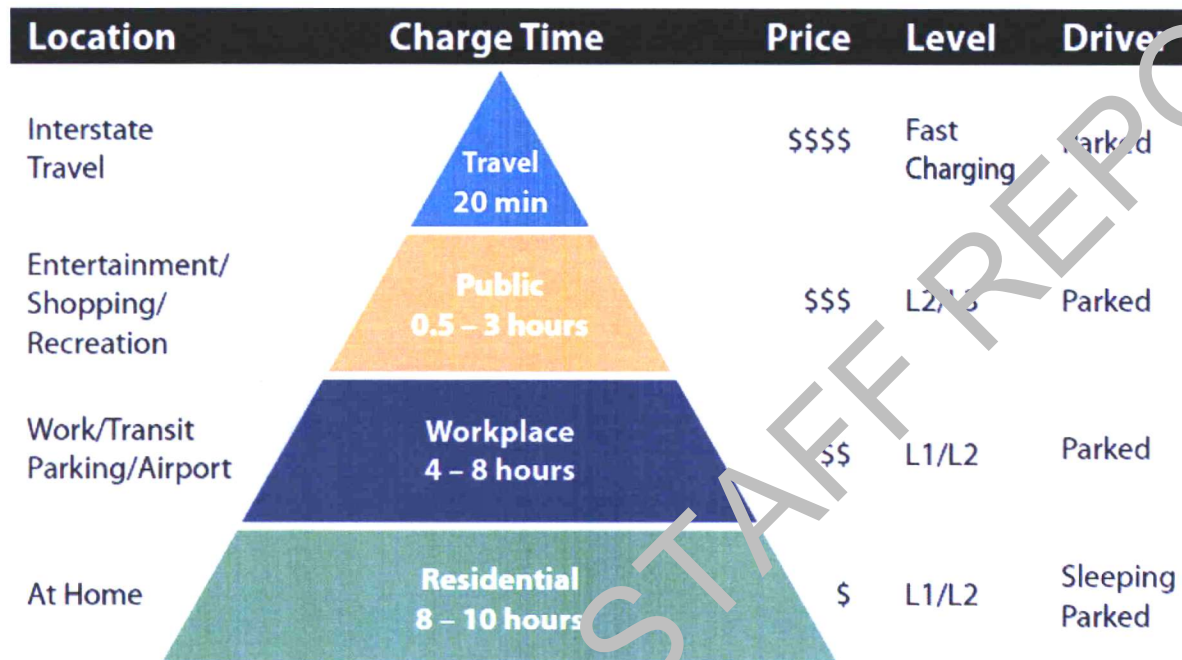
Increasing the supply of PEV charging infrastructure will be accomplished through joint efforts by utility companies, retailers, property owners, and government agencies. For example, Southern California Edison (SCE) just received approval to develop a \$22-million pilot program to increase the number of electric vehicle charging stations by as many as 1,500. SCE plans to target workplaces, multi-unit dwellings and popular public destinations such as parks and shopping malls. This pilot program was approved by the California Public Utilities Commission in January 2016 and at the conclusion of the pilot program, SCE hopes to expand the program to bring the total number of charging stations to about 30,000 for total estimated cost of \$355 million.

Local municipalities in the Southern California region have recently made significant commitments to promoting PEV charging technology. The City of Los Angeles has established a goal of achieving 7-day permitting, inspection and approval process for home PEV charging installations, and has moved the permitting process online. LA also offers incentives of up to \$2,000 per household for charging installation, and has made building code amendments to require PEV charging in new construction. San Diego was awarded the United States Department of Energy Electric Vehicle Project award for its plan to install over 100 public access charging stations, and also has the first all-electric car sharing program in North America. The Cities of Hermosa Beach and Santa Monica have implemented free metered parking for PEVs. In addition, the Southern California Association of Governments (SCAG) recently received a grant to support the deployment of multi-unit dwelling plug-in electric vehicle readiness strategies. The primary goal of the project is to implement electric vehicle charging station infrastructure in multi-family housing. The Westside Cities Council of Governments (WSCCOG) will receive approximately \$15,000 of the grant funding to conduct outreach to cities, building owners, and developers focusing on retrofitting existing multi-unit buildings.

Charging stations at hotels, retailers and restaurants are important to accommodate the needs of EV drivers while they are shopping, eating, and visiting West Hollywood. Research shows that there are several motivating factors for retailers to install public charging infrastructure including customer goodwill, positive public relations, contributes to the business's brand, and can bring additional revenue. Businesses view the option to provide charging stations as a way to keep customers and attract new ones as more consumers seek businesses that provide charging convenience.

Increasing the number of PEV charging stations in West Hollywood and streamlining the installation process is necessary to support the continued growth of EV owners in the City. Between 80 and 90 percent of all electric vehicle charging happens at home,

especially overnight when drivers leave their cars parked for long periods of time, electric costs are lower and efficiency is higher. Charging at the workplace is the second highest priority location. The “charging pyramid” below illustrates this prioritization. The “levels” shown in the pyramid refer to the type of charging and are based on the amount of electricity that is transferred in a certain period of time.



Source: Governor’s Office of Planning and Research, *Zero-Emission Vehicles in California: Community Readiness Guidebook*

A 2012 survey completed by the California Center for Sustainable Energy (CCSE) and the California Air Resources Board (ARB) showed that 91% of EV owners in California live in a single-family detached home. Yet, approximately 88% of West Hollywood’s housing stock is comprised of multi-family dwellings. In order to make this technology more accessible to all types of households, strategies to facilitate installation of PEV charging technology in multi-family dwellings are needed. Furthermore, in order to reach the City’s and the State’s EV and emissions reductions goals, there is a need for significantly more charging stations to be installed throughout the City.

Recommendation 1: This item directs the City to amend its Zoning Code to require a minimum percentage of parking spaces in new construction to be PEV ready.

In 1994, the City Council adopted an ordinance to require electric vehicle charging stations in all covered parking structures or areas containing twenty-five or more parking spaces in the amount of two percent of the total number of parking spaces. Only electric vehicles were allowed to park in the spaces equipped with the charging stations. At the time this ordinance was passed, there were 1,500 registered electric vehicles in the state of California, but it was expected that automakers would introduce electric vehicles on a commercial scale within a few years and the infrastructure would be in place.

Several years later, because of technological advances, other types of alternative fuel vehicles such as hybrids became more available and more popular. In 2006, the City Council voted to replace the requirement for vehicle charging stations with preferential parking spaces for alternative fuel vehicles.

The City's Zoning Code currently requires "alternative fuel vehicles" to have preferential parking in all new non-residential parking areas containing 25 or more parking spaces and in new mixed-use projects where the non-residential portion of the project requires 25 or more parking spaces. The requirement for preferential parking is two percent of all parking spaces required. There is currently no requirement for PEV readiness or charging stations; however, a zone text amendment to address electric vehicle charging is already on the Long Range and Mobility Planning Division's work plan, and is anticipated to start this fall.

The following recommended requirements are adapted from the State of California Governor's Office of Planning and Research report, *Zero-Emission Vehicles in California: Community Readiness Guidebook*.

1. **Single Family Dwellings and Duplexes:** Garages serving each new single-family residence and each unit of a duplex shall be constructed with a listed cabinet, box or enclosure connected to a race way linking the garage to the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide an PEV charging station for use by the resident.
2. **Multifamily Developments of 10 or Fewer Units:** In new multiple-family projects of 10 dwelling units or less, 20% of the total parking spaces required shall be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces or garages with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide PEV charging stations at such time as it is needed for use by residents.
3. **Multifamily Developments of More than 10 Units:** In new multiple-family projects of more than 10 dwelling units, 20% of the total parking spaces required shall be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces or garages with the electrical service, in a manner approved by the building and safety official. Of the total listed cabinets, boxes or enclosures provided, 50% shall have the necessary electric vehicle supply equipment installed to provide active PEV charging stations ready for use by residents. The remainder shall be installed at such time as they are needed for use by residents.
4. **Commercial Developments:** New commercial, retail, and other nonresidential developments shall provide the electrical service capacity necessary and all conduits and related equipment necessary to ultimately serve 2% of the total parking spaces with PEV charging stations in a manner approved by the building and safety official. Of these parking spaces, one half shall initially be provided

with the equipment necessary to function as online PEV charging stations upon completion of the project. The remainder shall be installed at such time as they are needed for use by customers, employees, or other users.

Recommendation 2: Update the City's Zoning Code to explicitly allow the installation of electric vehicle charging stations in any parking space without considering it a "loss of parking" and waive the permit fee for residential parking spot charging station installations.

Currently, the City considers conversion of an existing parking space to an electric vehicle charging station a loss of a parking space. This can be a significant barrier to growing the City's electric vehicle charging network because properties that only meet the minimum parking requirement or are underparked are not able to convert an existing parking space without bringing the property out of compliance with current parking requirements.

This recommendation would change the City's Zoning Code to allow the conversion of the parking space without considering this a loss of parking. In new developments, it would also count charging spaces designated for PEVs to count toward meeting minimum parking requirements for business owners and developers.

Recommendation 3: Create materials that outline the permitting, inspection, and approval process for a property or business owner, or tenant, who plans to install a PEV charging station; move the permitting process online; and waive the permit fee for residential charging station installation.

Currently, as long as there is no loss of parking, installing a PEV charging station requires a Zone Clearance permit. A Zone Clearance is an over-the-counter planning permit with a current fee of \$106.47. The applicant submits plans showing the location and specifications of the proposed charging station(s), along with a completed one-page application. The application is reviewed by a planner and can be approved within 10 to 15 minutes.

Once the Planning Division approval is obtained, then the applicant would go to the Building & Safety Division for the appropriate permits. Building & Safety requires a site plan showing the location of charging stations, attachment details of stations, proof of Planning approval, and a fee which is based on the construction costs before issuing an electrical permit. The electrical permit required will vary based on the number of circuits and stations the applicant requests. This process can also be completed over the counter and the applicant can have the permits necessary to start installation same day. The Community Development Department is currently in the process of developing a program for online permitting. This will make the application process more accessible and efficient.

This is an efficient permitting process, but it can be complicated for a property owner or tenant who is unfamiliar with the City's processes. The City should develop materials

targeted to property owners or tenants to be made available online and in City Hall. Examples of such materials are provided as Attachment 1 and Attachment 2.

In order to eliminate any barriers, the City should work to move the permitting process online and waive the permit fee for residential charging station installation. These recommendations will have fiscal impacts once they are initiated.

Recommendation 4: This item directs the City Attorney to review the possibility of requiring a property or business owner to allow tenants in residential and commercial buildings to install electric vehicle charging stations at the tenant's expense.

Since charging electric vehicles at home is a top priority for drivers, it is important to have the infrastructure in place in multifamily developments. In 2014, the California Legislature passed AB 2565 (Muratsuchi) which states that a property owner cannot deny a tenant the ability to install a charging station if the tenant is willing to pay for all expenses related to the installation and operation of the station. The costs of permits, supervision, and construction should be paid for by the lessee. This legislation specifically exempts dwellings that are subject to residential rent control ordinances, which eliminates two-thirds of West Hollywood's rental inventory from the requirements.

When AB 2565 was first introduced, it did not include the rent control exemption. The City Council supported AB 2565, and after the exemption amendment was added to the bill, the City Council chose to continue to support the bill because it still represented progress for the state.

This recommendation directs the City Attorney to review the state legislation and determine if it precludes any local regulation when it comes to rights of lessees to install charging stations. If it does not preclude any local regulation, the City Attorney should draft an ordinance to provide the residential and commercial lessees in West Hollywood with the same rights as provided in AB 2565.

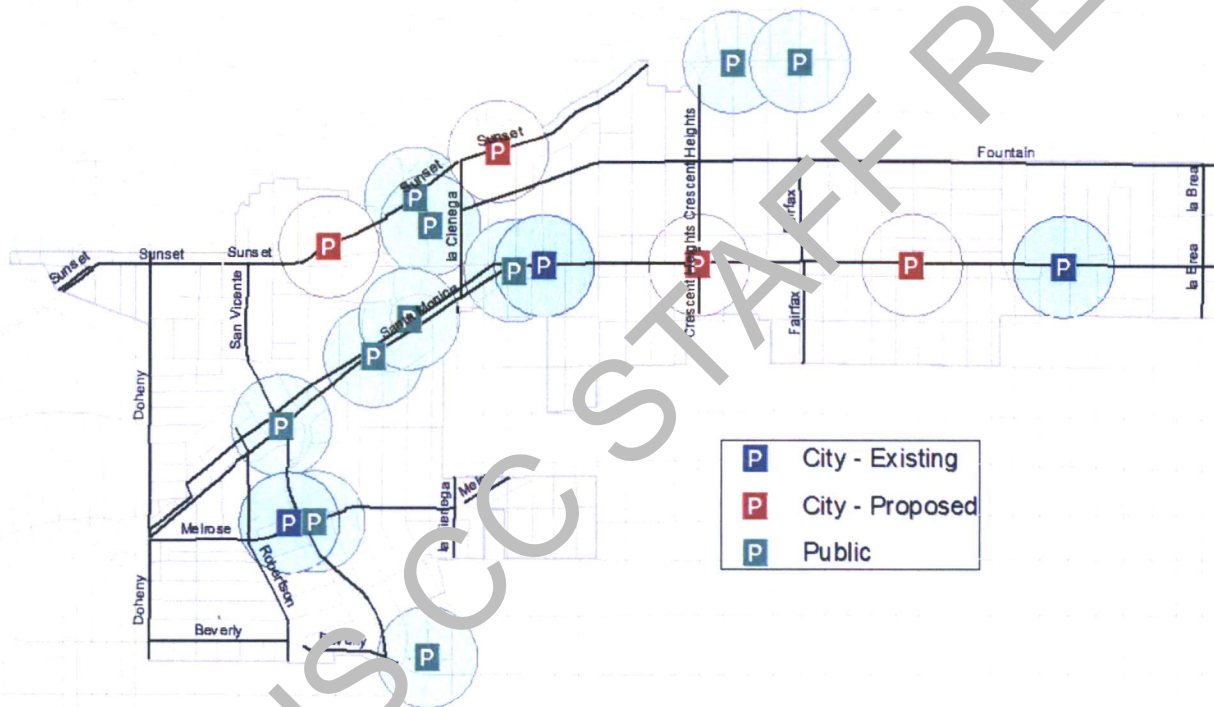
The City Attorney should also evaluate how private charging stations in residential and commercial uses can be used by neighbors if owners choose to make it available on a wider scale. This could further extend the availability of charging stations, specifically in residential neighborhoods.

Recommendation 5: This item directs the City to develop a plan to install electric vehicle charging stations within one-eighth of a mile (approx. 660 feet / two football fields / one city block) of every residence and business in the City.

There are currently public charging stations available at 13 locations in West Hollywood. Three of the locations are City-owned parking structures and provide eight charging stations. The City recently released a Request for Proposals (RFP) for a vendor to furnish, install, manage and maintain the eight charging stations and potentially expand the number available in the coming years. The vendor selection resulting from this RFP is also on agenda for the May 2, 2016 City Council meeting.

To help accommodate people who live, work, and visit West Hollywood, this recommendation would direct the City to expand the number and location of the electric vehicle charging stations to be within one-eighth of a mile of every residence and business in the City. The map below provides the location of the publicly accessible charging stations available in West Hollywood. The blue markers are the three current locations of electric vehicle charging stations in City-owned parking lots. The green markers are the currently available public charging stations in lots such as the Sheriff's Department, hotels, or retail locations. The orange markers are proposed future charging stations in City-owned lots. The circles around the charging stations represent the one-eighth mile radius.

Figure: PEV Charging Locations in West Hollywood



Santa Monica Boulevard and Sunset Boulevard have the highest concentration of electric vehicle charging stations. The City should work with the vendor it selects as a result of the RFP process to target areas that have gaps in service, specifically some of the commercial corridors on the eastside of the City, to make sure that residents and visitors with electric vehicles can be accommodated.

Recommendation 6: This item directs the Parking Services Division to work with the Transportation Commission to explore parking incentives for electric vehicle owners such as reduced residential parking permit fees or free metered parking.

Several cities provide parking incentives to electric vehicle owners. As mentioned in this report, the cities of Santa Monica, Hermosa Beach, and San Jose provide free metered parking for electric vehicles. In these jurisdictions, vehicles may park free for the maximum time limit posted on the meter per trip. The City of Sacramento offers free

parking for some types of electric vehicles in City parking lots. These parking incentives are additional options local governments can use to encourage electric vehicles ownership.

One of the City's Core Values is "Responsibility for the Environment" and the City has a history of prioritizing innovative policies to protect the environment and increase sustainability. In 2006, the City adopted one of the first Green Building Ordinances, which mandated a certain level efficiency for new developments. The City's General Plan and Climate Action Plan also provide goals and policy objectives designed to address climate change and reduce the community's greenhouse gas emissions. The recommendations outlined in this report are intended to continue this emphasis on environmental stewardship by putting West Hollywood on the path to becoming one of the most electric vehicle ready jurisdictions in the State. By eliminating barriers for property owners, residents, and visitors, the City can encourage the use of electric vehicles and plan for future projected demand in the region.

CONFORMANCE WITH VISION 2020 AND THE GOALS OF THE WEST HOLLYWOOD GENERAL PLAN:

This item is consistent with the Primary Strategic Goal(s) (PSG) and/or Ongoing Strategic Program(s) (OSP) of:

- OSP-1: Adaptability to Future Change.
- OSP-9: Upgrade Existing Buildings & Infrastructure.

In addition, this item is compliant with the following goal(s) of the West Hollywood General Plan:

- M-5: Create an environmentally and financially sustainable transportation network that provides for the mobility and livability needs of West Hollywood residents, businesses and visitors.
- IRC-6: Reduce the City's contribution to global climate change and adapt to its effects.

EVALUATION PROCESSES:

The recommendations in this report should be evaluated by staff to determine if property and business owners, as well as tenants, are utilizing available incentives to build the necessary electric vehicle infrastructure.

ENVIRONMENTAL SUSTAINABILITY AND HEALTH:

According to the Department of Energy, point source pollution originating from gasoline powered cars and trucks account for 29% of greenhouse gas emissions in the United States. By installing a robust charging network for Electric Vehicles the City is encouraging the adoption of EV technology and may reduce greenhouse gas emissions originating in West Hollywood.

COMMUNITY ENGAGEMENT:

Staff should continue to perform community engagement as part of the evaluation process for this program. Several of the recommendations in this report will need to be vetted through the City's Planning Commission and/or Transportation Commission to receive greater community input and approval.

OFFICE OF PRIMARY RESPONSIBILITY:

COMMUNITY DEVELOPMENT DEPARTMENT / LONG RANGE & MOBILITY
PLANNING DIVISION

DEPARTMENT OF PUBLIC WORKS

FISCAL IMPACT:

None at this time. Staff will incorporate activities related to this program into currently budgeted work plans. There may be unknown or unanticipated costs and/or revenue losses that result from the recommendations regarding 1) charging station installation within one-eighth mile of every residence and business in the City, 2) removing the fee for an EV Zone Clearance Permit and 3) providing parking incentives to electric vehicle owners including reduced residential parking permit fees and free metered parking. Such costs would be estimated during the development of the plans.

ATTACHMENTS:

1. Plug-in Electric Vehicle Charging Guide
2. Sample Permit Requirements from City of Sunnyvale

PREVIOUS CC EXHIBIT

**Attachment 1
Plug-in Electric Vehicle Charging Guide**

Plug-in Electric Vehicle Charging Guide for Property Owners, Managers and Homeowner Associations of Multi-unit Dwellings

Plug-in electric vehicles powered by electricity have arrived! More than 15 models are currently in showrooms and more are on the way. As a multi-unit dwelling owner, manager or member of a homeowners association board, you may have received resident requests for charging stations or seen a charging cord plugged into an outlet in your garage.

Property Benefits

- Charging stations will give the property a positive “green” image, which can be used for marketing.
- Charging stations can help make the property a leader in sustainable practices.
- As the plug-in electric vehicle (PEV) market grows, the number of requests for charging will undoubtedly grow.
- Charging stations can provide Leadership in Energy & Environmental Design (LEED) points for the property.

Getting Started

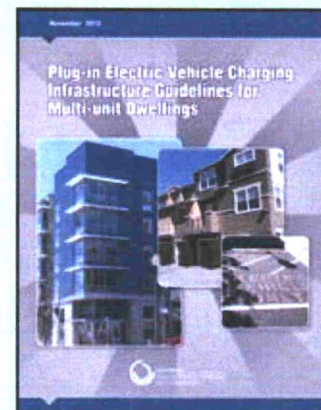
Start by learning about the many considerations and charging options for MuDs:

- **Demand.** A resident survey is a good way to find out how many residents already have PEVs or plan to buy them. Find a link to a sample survey in the Additional Resources section.
- **Logistics.** Whether parking is assigned, dedeed or first-come, first-served, each option has its own set of considerations.
- **Electrical capacity.** Do resident units have their own electric meters, are they accessible from the parking area, and is there spare electrical capacity? Do common area meters, such as those for security lighting or laundry rooms, have spare electrical capacity? Are new service meters needed for the chargers?
- **Charging choices.** There are several different levels of charging and dozens of brands of equipment, ranging from simple wall boxes to communicating units with networking capability. The units and features you choose will depend on your specific property's requirements and will determine associated costs.
- **Cost recovery.** Properties seeking to recover costs for residential charging installation and operation can either assign chargers to individual drivers or use charging equipment with a payment system.
- **Incentives.** Local and regional incentives for charging station installations may be available. See the Additional Resources section to search for incentives.

More than 75 percent of all PEV charging occurs at home because it is a convenient and cost-effective way to fuel a PEV. But, PEVs can present some unique challenges for multi-unit dwellings (MuDs).

Guidelines for Multi-unit Dwellings

Plug-in Electric Vehicle Charging Infrastructure Guidelines for Multi-unit Dwellings is a comprehensive guide for property owners, managers and HOAs. It provides details on all the topics discussed here. See Additional Resources.



Implementation

You've done a resident survey and found strong interest in these vehicles and become familiar with some of the options. How do you implement the plan? Figure 1 summarizes the steps you may take to install charging at your property.

Legal Obligations

California Senate Bill 880 sets out the rights and responsibilities of common-interest developments in providing charging for residents. Property managers cannot prohibit the installation of charging, but they can set requirements and conditions.

California Assembly Bill 1092 requires the California Building Standards Code to include mandatory standards for the installation of future electric vehicle charging infrastructure in multi-unit dwellings and nonresidential developments. See Additional Resources.

MULTI-UNIT DWELLINGS CHARGING INSTALLATION GUIDE

For Property Owners, Property Management Companies, Tenant Associations and Home Owner Associations

Property owners benefit from installing charging through environmental leadership, attracting residents and enhancing property desirability.



Figure 1. Typical PEV charging station installation process flow in MuDs.

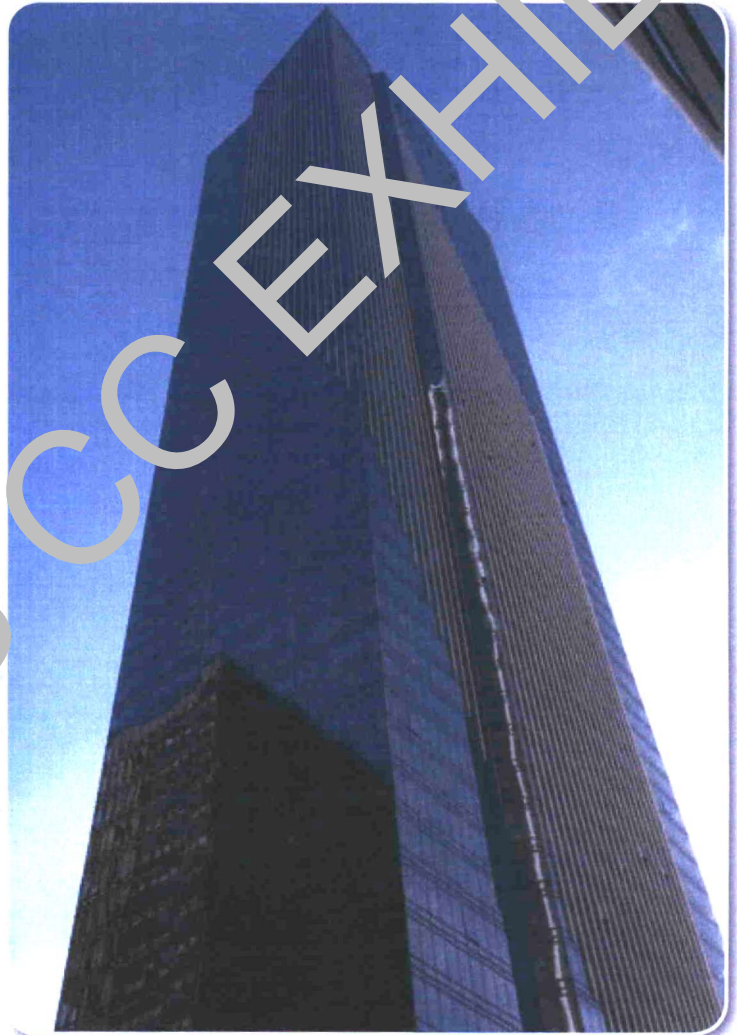
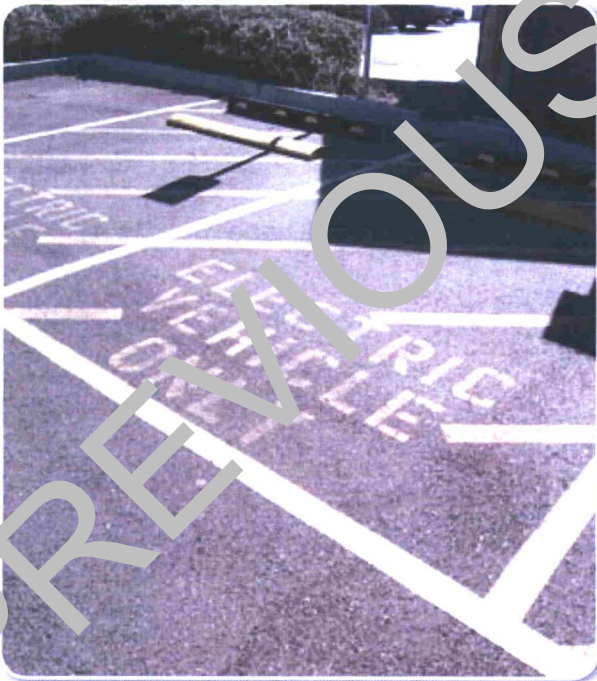
Source: California Plug-In Electric Vehicle Collaborative. Original source materials developed by San Diego Gas & Electric and Sacramento Municipal Utility District for the Electric Power Research Institute.



Think Outside the Box

Installing charging in MuDs can be challenging. No two properties are alike and many have constraints on electrical capacity or parking spaces. Since not every property will be able to accommodate charging, here are some alternative solutions.

- **Shared charging.** Charging stations in mixed-use garages can be used by businesses during the day and residents at night.
- **Electrical capacity.** You could employ energy-efficiency measures to free up electrical capacity.
- **Low-level charging.** Regular 110-volt outlets may serve some residents' needs.
- **Workplace charging.** Residents may have the option to charge their cars at work.
- **Third-party vendors.** You could contract with a third party, which would make all or most of the capital investment, own the charging units and bill the driver directly via a subscription.



Millennium Tower in San Francisco installed PEV chargers for their tenants. See Appendix D in the *Plug-in Electric Vehicle Charging Infrastructure Guidelines for Multi-unit Dwellings* to read this and other case studies for MuD charger installations.



Additional Resources

- California AB 1092
http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB1092&search_keywords=
- California Plug-In Electric Vehicle Collaborative Communication Guide *How Do Multi-unit Dwellings Become PEV Ready?*
http://www.pevcollaborative.org/sites/all/themes/pev/files/Comm_guide6_122308.pdf
- California Plug-In Electric Vehicle Collaborative, *Plug-in Electric Vehicle Charging Infrastructure Guidelines for Multi-Unit Dwellings* (2013)
http://www.driveclean.ca.gov/pev/Charging/Home_Charging/MUD_Guidelines.pdf
- California Plug-In Electric Vehicle Collaborative Resources for MuDs
<http://www.pevcollaborative.org/MuD>
- California SB 880
http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml;jsessionid=c37613110254f85c3b33641d0664?bill_id=201120120SB
- Plug-in Electric Vehicle Resource Center Incentives Search
<http://www.driveclean.ca.gov/pev/Incentives.php>
- Plug-in Electric Vehicle Resource Center, Multi-unit Dwellings (MuD)
http://www.driveclean.ca.gov/pev/Charging/Home_Charging/Multi-unit_Dwellings.php
- Plug-in Electric Vehicle Resource Center, Sample Resident Survey
http://www.driveclean.ca.gov/pev/Charging/Home_Charging/Multi-unit_Dwellings.php#survey

PREVIOUS CC EXHIBIT

Attachment 2
Sample Permit Requirements from City of Sunnyvale



ELECTRIC VEHICLE CHARGERS

THESE REQUIREMENTS APPLY TO BUILDING PERMITS SUBMITTED ON OR AFTER JANUARY 1, 2011

BUILDING DIVISION REQUIREMENTS

An electrical permit is required for installation of electric vehicle chargers. Following is a listing of the general requirements for electric vehicle charging equipment based on the 2010 California Electrical Code, California Building Code, and Sunnyvale Municipal Code. This brochure is intended to provide general information, contact the Building Safety Division for any questions or additional information.

General Requirements

- The electric vehicle charging system shall be listed by a nationally recognized testing laboratory (i.e., UL) in compliance with UL 2202 "Standard for Electric Vehicle (EV) Charging System Equipment." (CEC 90.7)
- Provide size of the existing electrical panel, existing load on the panel, and proposed load/circuits from the electric vehicle charging system in order to determine if there is adequate capacity in the existing panel. (CEC 220)
- The electric vehicle charging system shall be installed in accordance with manufacturer's guideline and shall be suitable for the environment (indoor/outdoor). If installed indoors, the charging station shall be labeled "Ventilation Not Required" in a location clearly visible after installation. (CEC 625.15)
- If installed indoors, the electric vehicle charging coupling (the nozzle) shall be located between 18" and 48" above the finished floor. If installed outdoors, the electric vehicle charging coupling (the nozzle) shall be located between 24" and 48" above the finished grade. (CEC 625.29, 625.30)
- If the electric vehicle charging equipment is located in an area subject to vehicular damage, an adequate barrier must be installed (e.g. 4" diameter steel pipe filled with concrete, a minimum of 40" above the finished floor/grade, installed in a footing measuring 12" in diameter and 3' deep). (CEC 110.27)
- If the project site is in an AE or AO Flood Zone, the charging equipment shall be elevated or designed according to the flood requirement (Sunnyvale Municipal Code 16.62). Flood zone information is available on-line at www.e-onestop.net.

Single Family Residential Requirements

- If the electric vehicle charging system will be located outside of the garage or carport, review and approval by the Planning Division may be required prior to issuance of the building permit.
- If a dedicated electrical meter is to be installed for the electric vehicle charging system, provide an approval letter from PG&E prior to obtaining the building permit. The new meter shall be installed between 48" and 66" above the ground. Additionally, if a single mast will continue to be used to serve the meters, ensure that the service entrance conductors are sized for the sum of the two meters, based on the table below (CEC Table 310.5(b)(6) and Chapter 9 Table 1):

SERVICE ENTRANCE CONDUCTORS SIZE AND RATING			
Service or Feeder Rating	Copper Conductors	Aluminum or Copper-Clad Aluminum	Minimum Conduit Size
100 Amps	#4 AWG	#2 AWG	1 ¼ inch
125 Amps	#2 AWG	#1/0 AWG	1 ¼ inch
150 Amps	#1 AWG	#2/0 AWG	1 ¼ inch
200 Amps	#2/0 AWG	#4/0 AWG	1 ½ inch

Note: PG&E prohibits new meters to be installed on exterior walls adjacent to bedrooms or bedroom closets (due to noise concerns).

Non-Residential and Multi-Family Requirements

- The electric vehicle charging spaces may be counted towards the number of required low-emitting/fuel efficient parking in the CALGreen or LEED, as applicable.
- A sign shall be posted at the electric vehicle charging spaces stating “Electrical Vehicle Charging Only.”

Accessibility Requirements (CBC Chapter 11B)

- A minimum of one accessible electric vehicle charging space shall be provided for each group of charging stations. However, these spaces shall not be counted as required accessible parking spaces, as required by California Building Code, because the charging spaces are not dedicated exclusively for disabled accessible use.
- The size of the accessible electric vehicle charging space shall be a minimum of 9' wide and 18' in length and the loading area shall be a minimum of 8' wide and 18' in length. The loading area shall be located on the passenger side of the parking space and be striped (not using blue paint). These spaces do not need to include signage dedicating them for disabled access use.
- Operational controls for the charging station controls (i.e. on/off buttons, payment readers, etc.) shall meet all applicable reach range provisions as noted below:
 - If the equipment is accessed only from a forward approach, the operating buttons shall be located between 15” and 48” from the finished floor/grade.
 - If the equipment is available from a parallel approach, the operating buttons shall be located between 9” and 54” from the finished floor/grade.
 - Any receptacles that may be provided shall be located a minimum of 15” above the finished floor/grade.

PERMIT PROCESS

1. Prior to submittal for a building permit, contact the Planning Division to determine if a separate permit is required.

Building Permit Review

2. Building permits for electrical vehicle chargers in single-family detached residential buildings are available on-line at www.one-stop.net or at the One-Stop Permit Center. For all other locations, the permit can be obtained at the One-Stop Permit Center, which is open between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.

Inspections

3. A maximum of one final inspection is required after the electric vehicle charger is installed. However, additional inspections may be required depending on the scope of work (i.e. underground conduit installation, footing for pedestals).
 - The manufacturer’s installation guidelines shall be available for the building inspector at the job site during the inspection.

Building Permit Application Requirements

- A completed Building Permit Worksheet application.
- An approval letter from the Homeowner’s Association (if applicable).
- Provide the type of electric vehicle charging system: Level 1 (120 VAC, 15/20 A), Level 2 (240 VAC, 40 A), or Level 3 (208-240 VAC, 40 A)
- For non-residential and multi-family locations, provide a site plan showing the following:
 - site plan showing the location of the electric vehicle chargers and accessibility requirements
 - electrical plan showing how the new charging units will be powered
- If the main electrical panel is to be relocated, provide a letter of approval from PG&E for the new location.

Attachment C: EV Charging Ordinance Requirements

	SFR	MFR	Non-residential																
CALGreen	Conduit Only	17+ units – 3% of total spaces Conduit Only, 1 in common area	<table border="1"> <tr><td>0-10 parking spaces</td><td>0 Conduit Only</td></tr> <tr><td>11-25</td><td>2</td></tr> <tr><td>26-50</td><td>3</td></tr> <tr><td>51-75</td><td>5</td></tr> <tr><td>76-100</td><td>6</td></tr> <tr><td>101-200</td><td>12</td></tr> <tr><td>201 or more</td><td>6% of total parking spaces</td></tr> </table>	0-10 parking spaces	0 Conduit Only	11-25	2	26-50	3	51-75	5	76-100	6	101-200	12	201 or more	6% of total parking spaces		
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101-200	12																		
201 or more	6% of total parking spaces																		
Contra Costa County	Conduit Only	All 5% Conduit Only	CALGreen requirements																
City of Los Angeles	Conduit Only	All 5% Conduit Only	CALGreen requirements																
Santa Monica	Conduit Only	All 5% Conduit Only	5% Conduit Only; spaces located on first level																
Mountain View	Conduit Only	3+ units – 10% Conduit Only	<table border="1"> <tr><td>1-10 parking spaces</td><td>1 Conduit Only</td></tr> <tr><td>11-25</td><td>2</td></tr> <tr><td>26-50</td><td>4</td></tr> <tr><td>51-75</td><td>6</td></tr> <tr><td>76-100</td><td>9</td></tr> <tr><td>101-150</td><td>12</td></tr> <tr><td>151-200</td><td>17</td></tr> <tr><td>201 or more</td><td>10% total parking spaces</td></tr> </table>	1-10 parking spaces	1 Conduit Only	11-25	2	26-50	4	51-75	6	76-100	9	101-150	12	151-200	17	201 or more	10% total parking spaces
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51-75	6																		
76-100	9																		
101-150	12																		
151-200	17																		
201 or more	10% total parking spaces																		
Berkeley	Conduit Only	All 10% Conduit Only and at least 1 EV Charger	20+ spaces – 3% Conduit Only																
San Mateo	--	- 3-16 units – 1 Conduit Only space - 17+ units – 10% Conduit Only	6+ spaces – 10% Conduit Only																
San Francisco	Conduit Only	3+ units – 100% Conduit Only	100% Conduit Only																
West Hollywood	Conduit Only or 1 EV Charger (includes duplexes)	- All 1 Conduit Only per unit - Guest parking – 100% Conduit Only, 3% of those equipped with EV charger	100% Conduit Only, 3% of those equipped with EV Charger																
Palo Alto	Conduit Only or 1 EV Charger	- All 1 Conduit Only per unit - Guest parking – 25% Conduit Only, 5% of those equipped with EV charger	25% Conduit Only, 5% of those equipped with EV Charger																

Stringency of Local Code

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Exhibit D: Existing Publicly Available EV Charging Stations in West Hollywood

