



DEPARTMENT OF  
PLANNING AND DEVELOPMENT

CITY OF SACRAMENTO  
CALIFORNIA

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SACRAMENTO, CA

ADMINISTRATION  
ROOM 300  
95814-2987  
916-449-5571

ECONOMIC DEVELOPMENT  
ROOM 300  
95814-2987  
916-449-1223

NUISANCE ABATEMENT  
ROOM 301  
95814-3982  
916-449-5918

July 12, 1994

Law and Legislation Committee  
Sacramento, California

Honorable Members in Session:

**SUBJECT:** AN ORDINANCE ADDING SECTION 9.06.339 TO THE CITY CODE FOR ELECTRIC VEHICLE CHARGING DEVICES.

**RECOMMENDATION:** This report recommends that the Law and Legislation committee recommend the City Council Approve the ordinance requiring provisions for an electric vehicle charging device in all new one and two unit dwellings effective January 1, 1995.

**CONTACT PERSON:** Tim Sullivan, Manager, Building Inspections Division, Department of Planning and Development. 264-5956

**SUMMARY:** This ordinance requires provisions for future electric vehicle charging in new single family homes. The ordinance has been revised to address concerns of the Construction Codes Advisory and Appeals Board.

**BACKGROUND INFORMATION:**

The Sacramento Municipal Utilities District requested that provisions be provided for in new homes for electric vehicle charging devices. State law mandates that by 1998 two (2) per cent of all motor vehicles be emissions free; by 2001 five (5) per cent, and by 2003 10 % of vehicles be emission free. At this time the electric vehicle is the only type that will meet this standard.



The proposed ordinance would merely require an empty conduit between the electrical service and the garage to allow for the easy installation of an electrical conductor in the conduit if the homeowner purchases an electric vehicle. The cost of the conduit in a new home is approximately \$40.00.

In a joint meeting with the County Building Board, the City of Sacramento construction Codes Advisory and Appeals Board voted 4 to 2 against a somewhat different ordinance proposal. That ordinance would have required the circuit in place.

The following were the Boards' concerns:

1. *To what extent will the electrical service panel size need to be increased to provide for the additional circuit?*

Response: The panel ampacity will not have to be increased as SMUD will regulate the use of this circuit so that the charging will occur off-hours.

2. *Does the ordinance over-regulate by making it mandatory that all new single family dwellings provide an electrical charging circuit?*

Response: The only additional requirement of this revised proposal is to provide conduit from the service panel to a dedicated blank box in the garage to be available for the future circuit. The estimated cost for labor and material would average \$40.00. SMUD feels this is a low cost requirement with a long time benefit. In 1998 2 per cent of all major car manufacturer sales are required to be zero emission vehicles; in 2001, it will be 5 per cent; and, by 2003, it will be 10 per cent of all sales. This installation would help meet the future need for this circuit.

3. *Why is mechanical ventilation not installed with the initial construction of the dwelling?*

Response: SMUD reports that battery systems labeled "safe for indoor charging" do not require ventilation. It is assumed that this will apply to the majority of batteries in the future; therefore, it is not reasonable to require this extra cost for all dwellings.

All of the major concerns of the Board have been addressed with the modifications made since the Construction Codes Advisory and Appeals Board meeting.

#### FINANCIAL CONSIDERATIONS:

There will be no budget impact by the implementation of this ordinance.

POLICY CONSIDERATIONS:

Recommendation of approval of this ordinance is consistent with the City Council's policy of energy conservation. Adoption of the ordinance will be consistent with Sacramento County as the Board of Supervisors has adopted the same ordinance.

MBE/WBE:

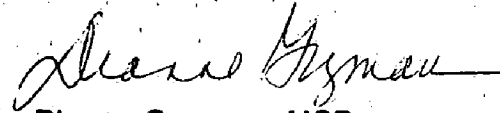
No Impact



Respectfully submitted,  
Tim Sullivan  
Building Inspections Manager



ROBERT THOMAS  
Deputy City Manager



Dianne Guzman, AICP  
Director of Planning and Development

# ORDINANCE NO.

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON DATE OF \_\_\_\_\_

## AN ORDINANCE ADDING SECTION 9.06.339 TO CHAPTER 9.06 OF TITLE 9 OF THE SACRAMENTO CITY CODE TO REQUIRE ELECTRICAL VEHICLE CHARGING CIRCUITS IN GROUP R-3 OCCUPANCY BUILDINGS

**BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:**

### SECTION 1.

Section 9.06.339 is hereby added to Chapter 9.06 of Title 9 of the Sacramento City Code, to read as follows:

9.06.339 Electrical Vehicle Charging Circuit.

Every new Group R-3 occupancy building shall provide for a future electric vehicle charging circuit by providing a 3/4-inch raceway from the service panel to a 2-gang box located in the garage in a location acceptable to the Chief Building Official.

### SECTION 2.

In connection with the amendment to the National Electrical Code, 1990 edition, enacted by Section 1, the City Council makes the following findings pursuant to Health and Safety Code sections 17958.5(a) and 17958.7(a), that the change is reasonably necessary to provide a practical solution to reducing Sacramento's air pollution caused by the following local climatic and topographical conditions:

1. Topographically, the City of Sacramento is located at the southern end of the Sacramento Valley, which is bounded by the Coast and Diablo ranges on the west and the Sierra Nevada on the east. Sacramento is 55 miles northeast of the Carquinez Strait, a sea-level gap between the Coast Range and the Diablo Range; the intervening terrain is flat.

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2. Climatically, the prevailing wind is from the south, primarily because of marine breezes through the Carquinez Strait; although, during the winter, the sea breezes diminish and winds from the north occur more frequently. Between late spring and early fall, a layer of warm air often overlays a layer of cool air from the Delta and San Francisco Bay, resulting in an inversion. Typical winter inversions are formed when the sun heats the upper layers of air, trapping them below the air that has been cooled by contact with the colder surface of the earth during the night. Although each inversion type predominates at certain times of the year, both types can occur at any time of the year. Local topography produces many variations that can affect the inversion base and thus influence local air quality.
3. Sacramento County's air quality currently exceeds the state and federal ambient standards for ozone, carbon monoxide (CO), and particulate matter 10 microns or less in diameter (PM<sub>10</sub>). Ozone is a regional air pollutant that is not directly emitted into the air but is generated through photochemical reactions between nitrogen oxides and reactive organic gases. Mobile sources (vehicles) represent the primary source of these ozone precursors in the Sacramento area. CO is generated by incomplete fuel combustion. Mobile sources also constitute a major portion of CO emissions in the Sacramento area.

**SECTION 3.**

This ordinance shall apply to all Group R-3 occupancy buildings for which a building permit application is submitted on or after January 1, 1995.

DATE PASSED FOR PUBLICATION:

DATE ENACTED:

DATE EFFECTIVE:

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
CITY CLERK

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\_\_\_\_\_  
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DATE ADOPTED: \_\_\_\_\_

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