

# CITY OF LONG BEACH

R-18

DEPARTMENT OF DEVELOPMENT SERVICES

333 West Ocean Blvd., 3rd Floor, Long Beach, CA 90802 (562) 570-5237

May 3, 2016

HONORABLE MAYOR AND CITY COUNCIL City of Long Beach California

#### RECOMMENDATION:

Receive and file the attached Sustainable City Commission staff report, and direct the City Manager's Office and Department of Development Services to implement the recommendations contained within it, relating to electric vehicle (EV) infrastructure, as part of the triennial update to Title 18 of the Long Beach Municipal Code. (Citywide)

### DISCUSSION

On November 3, 2015, the Mayor and City Council requested that the Sustainable City Commission (Commission) prepare a report and recommendations on the current status, and opportunities for expansion, of electric vehicle (EV) infrastructure in the City of Long Beach (City). The request contained specific direction to look at the opportunity to update the City's building code in order to facilitate greater private investment in EV infrastructure when new construction occurs. To fulfill this request, the Commission heard presentations and provided comments on the current status of EV infrastructure in Long Beach at its meetings of December 9, 2015, and January 28, 2016. On March 24, 2016, the Commission approved the attached staff report containing a summary of key findings and three main policy recommendations (Exhibit A).

The recommendations include the formation of an EV Charging Station Task Force comprised of key City staff, the streamlining of EV charging station-related building permits followed by promoting the new process to Long Beach residents and businesses, and the revision of the Long Beach Municipal Code to require some of the highest standards for the inclusion of EV charging station infrastructure in new construction within the State of California.

This matter was reviewed by Deputy City Attorney Monica J. Kilaita on April 11, 2016 and by Budget Management Officer Victoria Bell on April 14, 2016.

## **SUSTAINABILITY**

The proposed recommendations would encourage use of vehicles powered by electricity, which will cumulatively reduce carbon emissions in accordance with the City's sustainability goals.

HONORABLE MAYOR AND CITY COUNCIL May 3, 2016 Page 2 of 2

### TIMING CONSIDERATIONS

City Council action is requested on May 3, 2016, to allow Development Services sufficient time to incorporate the building code recommendations into the triennial update of Title 18 of the Long Beach Municipal Code. The triennial update will be considered by the City Council in October 2016 and go into effect on January 1, 2017.

## FISCAL IMPACT

There is no immediate fiscal impact associated with this recommendation. The formation of a staff EV Charging Station Task Force, the process to streamline EV permitting, and the drafting of new building code language will all be completed by existing staff resources, mainly within the Development Services Department and the Office of Sustainability, utilizing existing appropriations in the Development Services Department's Development Services Fund (EF 337). A new or revised fee could result from the development of a process to streamline EV permitting. Following development of the streamlined process, staff may propose new or revised fees. If any fee changes are proposed, those changes will be brought to the City Council for approval.

There is no known local job impact associated with this recommendation.

## SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,

AMY J. BODEK, AICP

DIRECTOR OF DEVELOPMENT SERVICES

AJB:LR

P:\Sustainability\Transportation\EV Charging 2016\5.03.16 EV Charging Policy Recommendations v4.doc

APPROVED:

Attachments: Exhibit A – Sustainable City Commission 3/24/16 Staff Report on EV Policy



# CITY OF LONG BEACH

OFFICE OF SUSTAINABILITY

333 West Ocean Blvd., 13th Floor & Long Beach, CA 90802 (562) 570-6396 FAX (562) 570-6583

March 24, 2016

CHAIR AND SUSTAINABLE CITY COMMISSIONERS City of Long Beach California

#### RECOMMENDATION:

Forward recommendations on electric vehicle charging infrastructure policy to the City Council for their consideration.

#### DISCUSSION

On November 3, 2015, the City Council requested that the Sustainable City Commission prepare a report and recommendations on the current status, and opportunities for expansion, of electric vehicle (EV) infrastructure in the City of Long Beach. This request contained specific direction to look at the opportunity to update the City's building code in order to facilitate greater private investment in EV infrastructure when new construction occurs. To fulfill this request, the Office of Sustainability has performed research and analysis of key data sources and policy precedents in other jurisdictions to inform customized EV policy recommendations for Long Beach. Key findings from this research are summarized below, followed by three main policy recommendations.

EV use rates in Long Beach are comparable to those in the Los Angeles region and both are growing rapidly. As of March 2016, 1,172 EVs are registered to Long Beach residents, according to data from the California Department of Motor Vehicles. This represents 0.29 percent of all automobiles in Long Beach and is close to the 0.31 percent rate in Los Angeles County and 0.35 percent in all of California. While ownership rates below 1 percent of all automobiles may seem small, the rates are increasing rapidly. Between March 2015 and March 2016 an average of 20 new EVs a month were added in Long Beach. Exhibit A shows comparisons of EV ownership rates in selected locations across California. The rapid growth of EV use in both Long Beach and the Los Angeles region warrants proactive planning for the expansion of associated EV charging infrastructure proportional to this growth.

Existing EV charging stations in Long Beach are widespread, yet relatively underutilized. Long Beach currently has 107 charging stations based on a survey of available sources by the Office of Sustainability (Exhibit B). Almost half, or 51, of these stations are located within 11 City-owned parking structures and parking lots and are maintained and operated by the vendor CarCharging under contract with the City. Utilization data for these 51 stations show a wide range of usage rates, with the highest at the Long Beach Airport and the City Place Shopping Center. While the current usage rates leave significant capacity at almost all locations, strategic expansion of chargers into public lots that do not currently have them would improve coverage Citywide.

The nucleus of the next phase of expansion within public parking lots is already underway. As many as 50 additional EV charging stations at City-owned parking lots are currently being planned for, which could double the total number of public parking stations within five years. Three beach parking lots are slated to receive EV charging stations via the City's vendor CarCharging as the lots are rehabilitated in the next few years. In addition, Long Beach has been selected to receive new charging stations as part of the initial phase of the Southern California Edison (SCE) ChargeReady program. ChargeReady is a massive investment in EV charging infrastructure that is intended to ultimately add 30,000 new charging stations within the SCE service territory. Locations have yet to be selected but City staff will need to coordinate closely with SCE to target new or existing locations that would most benefit from additional charging capacity.

In consideration of these findings, the following broad policy recommendations are offered to ensure Long Beach is prepared to meet future EV expansion needs.

To facilitate the appropriate expansion of EV charging installations at existing City facilities: Form an interdepartmental EV Charging Station (EVCS) Task Force to proactively look for opportunities to expand EV charging stations at City-owned facilities, for use by residents, visitors and also by City employees. Having this Task Force in place will be instrumental to maximizing the opportunities offered by the SCE ChargeReady program in addition to other opportunities. The creation of a prioritized list of new sites and exploration of technical feasibility issues should be pursued initially. Another charge for the Task Force can be to work on amending the Long Beach Municipal Code to allow the City to issue citations to non-EVs parked at EVCS parking spaces and potentially EVs that exceed time limits at EVCS parking spaces.

# To Increase EVCS installations at existing private facilities:

In order to help facilitate the private installation of charging stations, the City should streamline the EVCS permitting process utilizing, where appropriate, recommendations outlined within AB 1236. Once in place, the City should actively promote the new streamlined EVCS permitting process to residents and businesses.

# To Increase EV readiness requirements in all new development:

Using current CALGreen standards as a baseline, amend the Building Code to increase requirements for the number of EV Ready (meaning electrical panel capacity and electrical conduit that connects to a parking space and enables easy installation of wiring and charging equipment at a later time) spaces and, in some instances, require that a minimum number of spaces have Electric Vehicle Supply Equipment (EVSE) installed and ready for use.

- Single family residential
   At least one EV Ready parking space for each residential unit.
- Multi-family residential
   Resident parking: At least one EV Ready parking space for each residential unit.
   Guest parking: 25 percent of guest parking spaces shall be EV Ready, among which
   at least 5 percent (and no less than one) of all guest parking spaces shall have
   EVSE installed.

## CHAIR AND SUSTAINABLE CITY COMMISSIONERS March 24, 2016 Page 3 of 3

- Non-Residential Development
   At least 25 percent of parking spaces shall be EV Ready, among which at least 5 percent (and no less than one) of total parking spaces shall have EVSE installed.
   Example: If a commercial development is required to have 100 parking spaces, at least 20 shall be EV Ready and an additional 5 shall have EVSE installed.
- Hotels
  At least 30 percent of parking spaces shall be EV Ready, among which at least 10 percent (and no less than one) of total parking spaces shall have EVSE Installed. Example: If a new hotel development is required to have 200 parking spaces, at least 40 shall be EV Ready and an additional 20 shall have EVSE installed.

A study by the City of Palo Alto has estimated that new building code requirements like these will raise the cost of constructing a new development by less than 1 percent.

# **TIMING CONSIDERATIONS**

In Long Beach, the triennial update of the Building Code must be adopted by the City Council by November 2016, to go into effect on January 1, 2017. Immediate action on the recommendation will allow the necessary time for consideration of the proposed polices and incorporation into the Building Code update process as appropriate.

#### SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,

LARRY RICH

SUSTAINABILITY COORDINATOR

ÁMY J. BODEK, AICP

DIRECTOR OF DEVELOPMENT SERVICES

LR

Attachments:

Exhibit A – EV Ownership Rates Comparison Exhibit B – Long Beach EV Charging Station Map

**City of Long Beach** 

# **Comparison of Electric Vehicle Ownership Rates**

March 2015	<del></del>			
(% of total autos) (% of total autos) (% of total autos) (% of total autos)  Long Beach 917 (0.24%) 1,172 (0.29%) 27.8%  California 98,841 (0.28%) 135,667 (0.35%) 37.3%  Los Angeles County 22,822 (0.24%) 30,528 (0.31%) 33.8%  Orange County 9,824 (0.35%) 13,578 (0.47%) 38.2%  Santa Monica 824 (0.86%) 1,043 (1.08%) 26.6%  Palo Alto 1,147 (1.76%) 1,780 (2.67%) 55.2%  Long Beach Zip Codes 90802 74 (0.24%) 94 (0.29%) 27.0% 90803 237 (0.75%) 288 (0.91%) 21.5% 90804 46 (0.16%) 55 (0.18%) 19.6% 90805 25 (0.03%) 39 (0.05%) 56.0% 90806 47 (0.13%) 58 (0.16%) 23.4% 90807 91 (0.30%) 128 (0.41%) 40.7% 90808 103 (0.29%) 147 (0.41%) 42.7% 90810 90813 19 (0.05%) 22 (0.06%) 15.8% 90814 62 (0.38%) 87 (0.52%) 40.3%			31 I	2015-2016
Long Beach         917 (0.24%)         1,172 (0.29%)         27.8%           California         98,841 (0.28%)         135,667 (0.35%)         37.3%           Los Angeles County         22,822 (0.24%)         30,528 (0.31%)         33.8%           Orange County         9,824 (0.35%)         13,578 (0.47%)         38.2%           Santa Monica         824 (0.86%)         1,043 (1.08%)         26.6%           Palo Alto         1,147 (1.76%)         1,780 (2.67%)         55.2%           Long Beach         2ip Codes         27.0%         27.0%           90802         74 (0.24%)         94 (0.29%)         27.0%           90803         237 (0.75%)         288 (0.91%)         21.5%           90804         46 (0.16%)         55 (0.18%)         19.6%           90805         25 (0.03%)         39 (0.05%)         56.0%           90806         47 (0.13%)         58 (0.16%)         23.4%           90807         91 (0.30%)         128 (0.41%)         40.7%           90808         103 (0.29%)         147 (0.41%)         42.7%           90810         98 (0.29%)         98 (0.28%)         0.0%           90813         19 (0.05%)         22 (0.06%)         15.8%           9081	Location		# of electric vehicles	Increase
California         98,841 (0.28%)         135,667 (0.35%)         37.3%           Los Angeles County         22,822 (0.24%)         30,528 (0.31%)         33.8%           Orange County         9,824 (0.35%)         13,578 (0.47%)         38.2%           Santa Monica         824 (0.86%)         1,043 (1.08%)         26.6%           Palo Alto         1,147 (1.76%)         1,780 (2.67%)         55.2%           Long Beach Zip Codes         27.0%         288 (0.91%)         21.5%           90802         74 (0.24%)         94 (0.29%)         27.0%           90803         237 (0.75%)         288 (0.91%)         21.5%           90804         46 (0.16%)         55 (0.18%)         19.6%           90805         25 (0.03%)         39 (0.05%)         56.0%           90806         47 (0.13%)         58 (0.16%)         23.4%           90807         91 (0.30%)         128 (0.41%)         40.7%           90810         98 (0.29%)         98 (0.28%)         0.0%           90813         19 (0.05%)         22 (0.06%)         15.8%           90814         62 (0.38%)         87 (0.52%)         40.3%           90815         115 (0.34%)         156 (0.45%)         35.7%		(% of total autos)	(% of total autos)	
Los Angeles County         22,822 (0.24%)         30,528 (0.31%)         33.8%           Orange County         9,824 (0.35%)         13,578 (0.47%)         38.2%           Santa Monica         824 (0.86%)         1,043 (1.08%)         26.6%           Palo Alto         1,147 (1.76%)         1,780 (2.67%)         55.2%           Long Beach             Zip Codes         290802         74 (0.24%)         94 (0.29%)         27.0%           90803         237 (0.75%)         288 (0.91%)         21.5%           90804         46 (0.16%)         55 (0.18%)         19.6%           90805         25 (0.03%)         39 (0.05%)         56.0%           90806         47 (0.13%)         58 (0.16%)         23.4%           90807         91 (0.30%)         128 (0.41%)         40.7%           90808         103 (0.29%)         147 (0.41%)         42.7%           90810         98 (0.29%)         98 (0.28%)         0.0%           90813         19 (0.05%)         22 (0.06%)         15.8%           90814         62 (0.38%)         87 (0.52%)         40.3%           90815         115 (0.34%)         156 (0.45%)         35.7%		917 (0.24%)	1,172 (0.29%)	27.8%
Orange County         9,824 (0.35%)         13,578 (0.47%)         38.2%           Santa Monica         824 (0.86%)         1,043 (1.08%)         26.6%           Palo Alto         1,147 (1.76%)         1,780 (2.67%)         55.2%           Long Beach Zip Codes         290802         74 (0.24%)         94 (0.29%)         27.0%           90803         237 (0.75%)         288 (0.91%)         21.5%           90804         46 (0.16%)         55 (0.18%)         19.6%           90805         25 (0.03%)         39 (0.05%)         56.0%           90806         47 (0.13%)         58 (0.16%)         23.4%           90807         91 (0.30%)         128 (0.41%)         40.7%           90808         103 (0.29%)         147 (0.41%)         42.7%           90810         98 (0.29%)         98 (0.28%)         0.0%           90814         62 (0.38%)         87 (0.52%)         40.3%           90815         115 (0.34%)         156 (0.45%)         35.7%		98,841 (0.28%)	135,667 (0.35%)	37.3%
Santa Monica         824 (0.86%)         1,043 (1.08%)         26.6%           Palo Alto         1,147 (1.76%)         1,780 (2.67%)         55.2%           Long Beach Zip Codes         290802         74 (0.24%)         94 (0.29%)         27.0%           90803         237 (0.75%)         288 (0.91%)         21.5%           90804         46 (0.16%)         55 (0.18%)         19.6%           90805         25 (0.03%)         39 (0.05%)         56.0%           90806         47 (0.13%)         58 (0.16%)         23.4%           90807         91 (0.30%)         128 (0.41%)         40.7%           90808         103 (0.29%)         147 (0.41%)         42.7%           90810         98 (0.29%)         98 (0.28%)         0.0%           90813         19 (0.05%)         22 (0.06%)         15.8%           90814         62 (0.38%)         87 (0.52%)         40.3%           90815         115 (0.34%)         156 (0.45%)         35.7%	Los Angeles County	22,822 (0.24%)	30,528 (0.31%)	33.8%
Santa Monica         824 (0.86%)         1,043 (1.08%)         26.6%           Palo Alto         1,147 (1.76%)         1,780 (2.67%)         55.2%           Long Beach Zip Codes         29802         74 (0.24%)         94 (0.29%)         27.0%           90803         237 (0.75%)         288 (0.91%)         21.5%           90804         46 (0.16%)         55 (0.18%)         19.6%           90805         25 (0.03%)         39 (0.05%)         56.0%           90806         47 (0.13%)         58 (0.16%)         23.4%           90807         91 (0.30%)         128 (0.41%)         40.7%           90808         103 (0.29%)         147 (0.41%)         42.7%           90810         98 (0.29%)         98 (0.28%)         0.0%           90813         19 (0.05%)         22 (0.06%)         15.8%           90814         62 (0.38%)         87 (0.52%)         40.3%           90815         115 (0.34%)         156 (0.45%)         35.7%	Orange County	9,824 (0.35%)	13,578 (0.47%)	38.2%
Palo Alto       1,147 (1.76%)       1,780 (2.67%)       55.2%         Long Beach Zip Codes       290802       74 (0.24%)       94 (0.29%)       27.0%         90803       237 (0.75%)       288 (0.91%)       21.5%         90804       46 (0.16%)       55 (0.18%)       19.6%         90805       25 (0.03%)       39 (0.05%)       56.0%         90806       47 (0.13%)       58 (0.16%)       23.4%         90807       91 (0.30%)       128 (0.41%)       40.7%         90808       103 (0.29%)       147 (0.41%)       42.7%         90810       98 (0.29%)       98 (0.28%)       0.0%         90813       19 (0.05%)       22 (0.06%)       15.8%         90814       62 (0.38%)       87 (0.52%)       40.3%         90815       115 (0.34%)       156 (0.45%)       35.7%	Santa Monica	824 (0.86%)	1,043 (1.08%)	
Long Beach       Zip Codes         90802       74 (0.24%)       94 (0.29%)       27.0%         90803       237 (0.75%)       288 (0.91%)       21.5%         90804       46 (0.16%)       55 (0.18%)       19.6%         90805       25 (0.03%)       39 (0.05%)       56.0%         90806       47 (0.13%)       58 (0.16%)       23.4%         90807       91 (0.30%)       128 (0.41%)       40.7%         90808       103 (0.29%)       147 (0.41%)       42.7%         90810       98 (0.29%)       98 (0.28%)       0.0%         90813       19 (0.05%)       22 (0.06%)       15.8%         90814       62 (0.38%)       87 (0.52%)       40.3%         90815       115 (0.34%)       156 (0.45%)       35.7%	Palo Alto	1,147 (1.76%)		
Zip Codes       90802       74 (0.24%)       94 (0.29%)       27.0%         90803       237 (0.75%)       288 (0.91%)       21.5%         90804       46 (0.16%)       55 (0.18%)       19.6%         90805       25 (0.03%)       39 (0.05%)       56.0%         90806       47 (0.13%)       58 (0.16%)       23.4%         90807       91 (0.30%)       128 (0.41%)       40.7%         90808       103 (0.29%)       147 (0.41%)       42.7%         90810       98 (0.29%)       98 (0.28%)       0.0%         90813       19 (0.05%)       22 (0.06%)       15.8%         90814       62 (0.38%)       87 (0.52%)       40.3%         90815       115 (0.34%)       156 (0.45%)       35.7%			, ,	
90802       74 (0.24%)       94 (0.29%)       27.0%         90803       237 (0.75%)       288 (0.91%)       21.5%         90804       46 (0.16%)       55 (0.18%)       19.6%         90805       25 (0.03%)       39 (0.05%)       56.0%         90806       47 (0.13%)       58 (0.16%)       23.4%         90807       91 (0.30%)       128 (0.41%)       40.7%         90808       103 (0.29%)       147 (0.41%)       42.7%         90810       98 (0.29%)       98 (0.28%)       0.0%         90813       19 (0.05%)       22 (0.06%)       15.8%         90814       62 (0.38%)       87 (0.52%)       40.3%         90815       115 (0.34%)       156 (0.45%)       35.7%	Long Beach			
90803         237 (0.75%)         288 (0.91%)         21.5%           90804         46 (0.16%)         55 (0.18%)         19.6%           90805         25 (0.03%)         39 (0.05%)         56.0%           90806         47 (0.13%)         58 (0.16%)         23.4%           90807         91 (0.30%)         128 (0.41%)         40.7%           90808         103 (0.29%)         147 (0.41%)         42.7%           90810         98 (0.29%)         98 (0.28%)         0.0%           90813         19 (0.05%)         22 (0.06%)         15.8%           90814         62 (0.38%)         87 (0.52%)         40.3%           90815         115 (0.34%)         156 (0.45%)         35.7%	Zip Codes		·	
90803       237 (0.75%)       288 (0.91%)       21.5%         90804       46 (0.16%)       55 (0.18%)       19.6%         90805       25 (0.03%)       39 (0.05%)       56.0%         90806       47 (0.13%)       58 (0.16%)       23.4%         90807       91 (0.30%)       128 (0.41%)       40.7%         90808       103 (0.29%)       147 (0.41%)       42.7%         90810       98 (0.29%)       98 (0.28%)       0.0%         90813       19 (0.05%)       22 (0.06%)       15.8%         90814       62 (0.38%)       87 (0.52%)       40.3%         90815       115 (0.34%)       156 (0.45%)       35.7%	90802	74 (0.24%)	94 (0.29%)	27.0%
90804       46 (0.16%)       55 (0.18%)       19.6%         90805       25 (0.03%)       39 (0.05%)       56.0%         90806       47 (0.13%)       58 (0.16%)       23.4%         90807       91 (0.30%)       128 (0.41%)       40.7%         90808       103 (0.29%)       147 (0.41%)       42.7%         90810       98 (0.29%)       98 (0.28%)       0.0%         90813       19 (0.05%)       22 (0.06%)       15.8%         90814       62 (0.38%)       87 (0.52%)       40.3%         90815       115 (0.34%)       156 (0.45%)       35.7%	90803	237 (0.75%)		····
90805       25 (0.03%)       39 (0.05%)       56.0%         90806       47 (0.13%)       58 (0.16%)       23.4%         90807       91 (0.30%)       128 (0.41%)       40.7%         90808       103 (0.29%)       147 (0.41%)       42.7%         90810       98 (0.29%)       98 (0.28%)       0.0%         90813       19 (0.05%)       22 (0.06%)       15.8%         90814       62 (0.38%)       87 (0.52%)       40.3%         90815       115 (0.34%)       156 (0.45%)       35.7%	90804	46 (0.16%)	55 (0.18%)	
90806       47 (0.13%)       58 (0.16%)       23.4%         90807       91 (0.30%)       128 (0.41%)       40.7%         90808       103 (0.29%)       147 (0.41%)       42.7%         90810       98 (0.29%)       98 (0.28%)       0.0%         90813       19 (0.05%)       22 (0.06%)       15.8%         90814       62 (0.38%)       87 (0.52%)       40.3%         90815       115 (0.34%)       156 (0.45%)       35.7%	90805	25 (0.03%)	39 (0.05%)	
90807       91 (0.30%)       128 (0.41%)       40.7%         90808       103 (0.29%)       147 (0.41%)       42.7%         90810       98 (0.29%)       98 (0.28%)       0.0%         90813       19 (0.05%)       22 (0.06%)       15.8%         90814       62 (0.38%)       87 (0.52%)       40.3%         90815       115 (0.34%)       156 (0.45%)       35.7%	90806	47 (0.13%)	58 (0.16%)	
90808       103 (0.29%)       147 (0.41%)       42.7%         90810       98 (0.29%)       98 (0.28%)       0.0%         90813       19 (0.05%)       22 (0.06%)       15.8%         90814       62 (0.38%)       87 (0.52%)       40.3%         90815       115 (0.34%)       156 (0.45%)       35.7%	90807	91 (0.30%)	128 (0.41%)	
90810     98 (0.29%)     98 (0.28%)     0.0%       90813     19 (0.05%)     22 (0.06%)     15.8%       90814     62 (0.38%)     87 (0.52%)     40.3%       90815     115 (0.34%)     156 (0.45%)     35.7%	90808	103 (0.29%)	147 (0.41%)	
90813     19 (0.05%)     22 (0.06%)     15.8%       90814     62 (0.38%)     87 (0.52%)     40.3%       90815     115 (0.34%)     156 (0.45%)     35.7%	90810	98 (0.29%)		
90814     62 (0.38%)     87 (0.52%)     40.3%       90815     115 (0.34%)     156 (0.45%)     35.7%	90813	19 (0.05%)	· · · · · · · · · · · · · · · · · · ·	
90815 115 (0.34%) 156 (0.45%) 35.7%	90814	62 (0.38%)		
	90815	115 (0.34%)		

Office of Sustainability - 3/17/16

Source: California Department of Motor Vehicles Bi-Annual Motive Report

