DATE: October 8, 2014

TO: City Council

FROM: Matthew Winegar, Director
Development Services Department

SUBJECT: Parking Ordinance Revision and Review of One Year Trial for Free Electric Vehicle Charging at City-Owned Charging Stations

RECOMMENDATION

That City Council:

1. Approve the first reading by title only and subsequent adoption of an ordinance amending the parking regulations for electric vehicle charging at city-owned and operated parking facilities.

2. Adopt a resolution suspending for one additional year until November 14, 2015, the $2.25 per hour fee for electric vehicle charging at city-owned chargers.

DISCUSSION

Background. The City owns and operates three electric vehicle charging stations at two locations: two at 255 E. Fifth Street at the Oxnard Transit Center long-term parking lot, and one at 324 South B Street at the first floor of the downtown parking garage. On July 23, 2013, the City Council held a public hearing and adopted Resolution No. 14,431 establishing a user fee of $2.25 per hour for electric vehicle charging. The charging fee recovers the estimated operational costs (which are the fees from the vendors and electricity costs) in accordance with the financial management policies in City Council Resolution Nos. 14,430 and 14,670. Resolution Nos. 14,430 and 14,670 state the City Council will recover the costs of providing a private benefit to users through the imposition of user fees and charges. On October 15, 2013, the City Council adopted Ordinance No. 2874 amending the City Code to include parking regulations for electric vehicle charging. On November 5, 2013, the City Council adopted Resolution No. 14,442 suspending the fee for electric vehicle charging for a one-year trial, and directed staff to return with the results of the usage at the end of the one-year period. Unless the City Council takes action, the one-year suspension will end at midnight on November 14, 2014.

Parking Ordinance Amendment. Staff recommends the parking ordinance be amended to clarify the language in the City Code to enforce exclusive use of the parking spaces for electric vehicles connected...
Parking Ordinance, Electric Vehicle Charging Fee Suspension
October 21, 2014
Page 2

to charging stations as authorized by the California Vehicle Code Section 22511(a).

Electric Vehicle Charging Fee. Staff recommends the one-year suspension of the hourly fee be extended for one additional year and that City Council direct staff to report on the usage at the end of the second year. Attachment 3 is the summary of estimated costs to operate the electric vehicle chargers that was used to establish the hourly fee. Attachment 4 is an update on the costs for electric vehicle charging in other public agencies. Attachment 5 is the summary report of usage at the three chargers during the one-year trial that started on November 15, 2013. The report does not cover a full year of usage because the trial period ends on November 14, 2014, before the first City Council meeting in November. At approximately 442 hours of requested usage at the three chargers between November 15, 2013, and September 30, 2014, the City has foregone $995.36 of revenue to recover costs during the first ten and a half months of the trial.

Charging Station Operator. ParkMobile USA Inc. operates the electric chargers in conjunction with Liberty Access Technologies Inc. ParkMobile’s contract expires on March 1, 2016 (Agreement No. 6270-13-DS). Without a third party operator, the City cannot collect the fee or data on when and for how long the chargers are used. The cost to terminate the contract without cause before the expiration date is not to exceed $1,300. Liberty Access Technologies’ contract expires on December 31, 2018 (Agreement No. 6191-13-DS). The cost to terminate the Liberty Access Technologies contract may not exceed $1,152, and may be less because it is an annual fee of $216.

ClipperCreek Electric Vehicle Chargers. The City’s electric vehicle charging stations were partially funded by a grant from the Ventura County Air Pollution Control District. The grant agreement (No. 6113-13-DS) requires the City to own, maintain, and be able to operate the charging stations for a minimum of five years. The agreement expires November 13, 2018. Attachment 6 is a description of how to calculate the cost of charging an electric vehicle at home.

FINANCIAL IMPACT

There is no financial impact of amending the City Code for the electric vehicle parking. There is a small charge for advertising the ordinance change in the newspaper. The financial impact of extending the free trial for electric vehicle charging will depend on the amount of the usage. If usage is similar to the first year, the estimated financial impact is a loss of revenue of approximately $2,275 for two years.

CD

Attachment #1 - Ordinance amending City Code Ch. 8 (legislative draft and clean versions)
Attachment #2 - City Council Resolution
Attachment #3 - Table 1 Estimated Cost of Electric Vehicle Charging at City of Oxnard
Attachment #4 - Table 2 Electric Vehicle Charging Fees at Other Public Agencies
Attachment #5 - Table 3 Usage Report November 2013 to September 2014
Attachment #6 - “How Much Does It Cost to Charge an Electric Vehicle?” By Will Barrett
CITY COUNCIL OF THE CITY OF OXNARD

ORDINANCE NO.

ORDINANCE OF THE CITY OF OXNARD, CALIFORNIA, AMENDING DIVISION I OF ARTICLE IV OF CHAPTER 8 OF THE OXNARD CITY CODE CONCERNING THE PARKING OF ELECTRIC VEHICLES AND ELECTRIC VEHICLE CHARGING

WHEREAS, Section 22511(a) of the California Vehicle Code provides that a local authority, by ordinance or resolution, may designate stalls or spaces in an off-street parking facility owned or operated by that local authority for the exclusive purpose of charging and parking a vehicle that is connected for electric charging purposes; and

WHEREAS, Section 22511(f) of the California Vehicle Code provides that Section 22511 does not interfere with existing law governing the ability of local authorities to adopt ordinances related to parking programs within their jurisdiction; and

WHEREAS, the City wishes to ensure that the electric charging stations are available for the fueling of electric vehicles as defined herein.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OXNARD DOES ORDAIN AS FOLLOWS:

Part 1. Section 8-57 is hereby amended to read (additions in italics, deletions in strikeout):

“SEC. 8-57. ELECTRIC VEHICLE CHARGING.

No person shall park a vehicle in an off-street parking facility owned or operated by the city in a stall or space designated exclusively for parking an electric vehicle for charging purposes that is connected for electric charging purposes, which is posted in accordance with California Vehicle Code section 22511, as it may be amended or renumbered from time to time, for any purpose other than to charge an electric vehicle. Nor shall any person connect any device, item, equipment, or thing to an electric charger located at such space or stall other than an electric vehicle, as defined herein. As used in this Section 8-57:

(A) An “electric vehicle” means a plug-in electric vehicle, including an exclusively electric vehicle (“EV”) and a plug-in hybrid electric vehicle (“PHEV”);

(B) An EV means a motor vehicle exclusively powered by an electric propulsion system; and,

(C) A PHEV means a motor vehicle primarily powered by an electric propulsion system and secondarily by an internal combustion system, which powers the electric...
propulsion system when the on-board source of electricity is depleted or discharged.

**Part 2.** Within fifteen days after passage, the City Clerk shall cause this ordinance to be published one time in a newspaper of general circulation, published and circulated in the City. Ordinance No. was first read on , 2014, and finally adopted on , 2014, to become effective thirty days thereafter.

AYES:

NOES:

ABSENT:

ABSTAIN:

Tim Flynn, Mayor

ATTEST:

Daniel Martinez, City Clerk

APPROVED AS TO FORM:

Stephen M. Fischer, Interim City Attorney
CITY COUNCIL OF THE CITY OF OXNARD

ORDINANCE NO.

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NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OXNARD DOES ORDAIN AS follows:

Part 1. Section 8-57 is hereby amended to read:

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No person shall park a vehicle in an off-street parking facility owned or operated by the city in a stall or space designated exclusively for parking an electric vehicle that is connected for electric charging purposes, which is posted in accordance with California Vehicle Code section 22511, as it may be amended or renumbered from time to time, for any purpose other than to charge an electric vehicle. Nor shall any person connect any device, item, equipment, or thing to an electric charger located at such space or stall other than an electric vehicle, as defined herein. As used in this Section 8-57:

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AYES:

NOES:

ABSENT:

ABSTAIN:

______________________________
Tim Flynn, Mayor

ATTEST:

______________________________
Daniel Martinez, City Clerk

APPROVED AS TO FORM:

______________________________
Tim Flynn, Mayor

______________________________
Stephan M. Fischer, Interim City Attorney
CITY COUNCIL OF THE CITY OF OXNARD

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OXNARD SUSPENDING FOR ONE ADDITIONAL YEAR THE FEE FOR SERVICES PROVIDED BY DEVELOPMENT SERVICES DEPARTMENT FOR ELECTRIC VEHICLE CHARGING

WHEREAS, on June 24, 2014, the City Council adopted Resolution No. 14,670 that implements financial management policies ("the policies") to be followed in the development and implementation of the City budget; and

WHEREAS, subsection B of section III of the policies requires annual review of activities supported by user fees and charges to determine costs and effect adjustments sufficient to recover actual costs, requires an attempt to recover the costs of services providing a private benefit to users, and establishes the user fees and charges at a level related to the degree of public versus private benefit; and

WHEREAS, on July 23, 2013 the City Council adopted Resolution No. 14,431 establishing a fee of $2.25 per hour for electric vehicle charging at City-owned charging stations, and

WHEREAS, on October 15, 2013 the City Council reconsidered the public vs. private benefits of a hourly fee for electric vehicle charging, determining that the public benefits of encouraging the use of charging stations in the downtown area justified any private benefit that may result from providing free use of charging stations, and approved offering free electric vehicle charging for a one year trial; and

WHEREAS, the City Council received a report on the first year of the free trial and determines a second year of the free trial justifies any private benefit that may result from providing free use of charging stations; and

WHEREAS, the adoption of this resolution is exempt from the California Environmental Quality Act (CEQA) pursuant to the Section 15273 of the State CEQA Guidelines as the establishment of fees for the purpose of meeting operating expenses.

NOW THEREFORE, the City Council of the City of Oxnard resolves the electric vehicle charging fee is suspended for an additional one-year trial, effective November 15, 2014.
PASSED AND ADOPTED THIS vote:

AYES:

NOES:

ABSENT:

ATTEST:

Daniel Martinez, City Clerk

APPROVED AS TO FORM:

Stephen M. Fischer, Interim City Attorney

Tim Flynn, Mayor
Table 1

Pricing for Electric Vehicle Charging

<table>
<thead>
<tr>
<th>Fixed Costs Per Unit</th>
<th>Amount</th>
<th>Per Day</th>
<th>Per Month</th>
<th>Yearly</th>
<th>Units</th>
<th>One Year Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Liberty Access Technologies administrative fee</td>
<td>$ 6.00</td>
<td>$ 0.20</td>
<td>$ 6.00</td>
<td>$ 72.00</td>
<td>3</td>
<td>$ 216.00</td>
</tr>
<tr>
<td>2. Park Mobile initial set up fee (one time charge)</td>
<td>$ 10.00</td>
<td>$ 0.03</td>
<td>$ 0.90</td>
<td>$ 10.00</td>
<td>3</td>
<td>$ 30.00</td>
</tr>
<tr>
<td>3. Maintenance $180/hr, assume 4 hrs/yr</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>0</td>
<td>$ -</td>
</tr>
<tr>
<td>4. Standby electrical consumption 6 watts</td>
<td>$ 54 kWhr/yr (1)</td>
<td>$ 0.03</td>
<td>$ 0.81</td>
<td>$ 9.72</td>
<td>3</td>
<td>$ 29.16</td>
</tr>
<tr>
<td>5. Park Mobile transaction fee (minimum 100 transactions)</td>
<td>$ 0.35</td>
<td>$ 0.39</td>
<td>$ 35.00</td>
<td>$ 420.00</td>
<td>1</td>
<td>$ 420.00</td>
</tr>
</tbody>
</table>

Subtotal

| Electricity cost per kilowatt-hour (kWhr)                  | $ 0.18 |

Variable Costs Per Unit

6. Cost in kWhr for Model CS-40 EV Charger
uses 7.2 watts/hr (assume 8 hr/day)

<table>
<thead>
<tr>
<th>Amount</th>
<th>Per Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 1.30</td>
<td>$ 10.37</td>
</tr>
</tbody>
</table>

$ 3,766.84

Total $ 4,462.00
Rounded $ 4,600.00

City Electric Vehicle Charging Fee

City Council Resolution No. 14,431

$2.25 Per Hour

Notes:
(1) kWhr is kilowatt-hour. A kilowatt-hour is a unit of energy equivalent to one kilowatt (1 kW) of power expended for one hour.
Table 2

Survey of Other Public Electric Vehicle Charging Stations

<table>
<thead>
<tr>
<th>City</th>
<th>Cost/Hour (Hr)</th>
<th>Type of Charger</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Moorpark</td>
<td>2014: $1/hr, $1 minimum</td>
<td>ChargePoint Level 2</td>
</tr>
<tr>
<td>City of Ojai</td>
<td>2013: Free</td>
<td>ClipperCreek Level 2</td>
</tr>
<tr>
<td></td>
<td>2014 Update: Free</td>
<td></td>
</tr>
<tr>
<td>City of Santa Barbara</td>
<td>2013: $1/hr, $1 minimum to charge</td>
<td>ChargePoint Level 2</td>
</tr>
<tr>
<td></td>
<td>2014 Update: $0.25/kWhr (1) plus parking if over 75 minutes in parking garages (without parking fees, works out to about $0.82/hr for vehicles that charge at 3.3 kW and $1.65 for vehicles that charge at 6.6 kW, the max for most Level 2 chargers according to Community Environmental Council in Santa Barbara)</td>
<td>ChargePoint Level 2</td>
</tr>
<tr>
<td>City of Santa Monica</td>
<td>2013: Free</td>
<td>ChargePoint Level 2</td>
</tr>
<tr>
<td></td>
<td>2014 Update: Free</td>
<td></td>
</tr>
<tr>
<td>City of Solvang</td>
<td>2013: $0.45/hr</td>
<td>ChargePoint Level 2</td>
</tr>
<tr>
<td></td>
<td>2014 Update: $0.35/kWhr</td>
<td></td>
</tr>
<tr>
<td>City of Thousand Oaks</td>
<td>2013: $1-2/hr based on membership</td>
<td>Blink Level 2</td>
</tr>
<tr>
<td></td>
<td>2013: Free</td>
<td>ClipperCreek Level 2</td>
</tr>
<tr>
<td></td>
<td>2014 Update: Market Price for Kilowatt $1-$5 per kilowatt. Clipper Creek chargers to be removed from public areas</td>
<td>Blink Level 2</td>
</tr>
<tr>
<td>City of Ventura</td>
<td>2013: $0.50/hr, $0.50 minimum</td>
<td>ChargePoint Level 2</td>
</tr>
<tr>
<td></td>
<td>2014 Update: $0.50/hr, $0.50 minimum</td>
<td>Requires RFID Card from ChargePoint</td>
</tr>
<tr>
<td>County of Santa Barbara</td>
<td>2014: $0.45/hr, $0.45 minimum</td>
<td>ChargePoint Level 2</td>
</tr>
</tbody>
</table>

Notes:
(1) kWhr is kilowatt-hour. A kilowatt-hour is a unit of energy equivalent to one kilowatt (1 kW) of power expended for one hour. (http://en.wikipedia.org/wiki/Kilowatt_hour#Definition)
Table 3
One Year Usage
3 Chargers

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Total Days/Mo</th>
<th>Number of Transactions</th>
<th>Hours Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-14</td>
<td>16.00</td>
<td>11.00</td>
<td>12.83</td>
</tr>
<tr>
<td>Dec-14</td>
<td>31.00</td>
<td>3.00</td>
<td>7.50</td>
</tr>
<tr>
<td>Jan-15</td>
<td>31.00</td>
<td>12.00</td>
<td>22.84</td>
</tr>
<tr>
<td>Feb-15</td>
<td>28.00</td>
<td>8.00</td>
<td>17.50</td>
</tr>
<tr>
<td>Mar-15</td>
<td>31.00</td>
<td>15.00</td>
<td>32.76</td>
</tr>
<tr>
<td>Apr-15</td>
<td>30.00</td>
<td>11.00</td>
<td>19.83</td>
</tr>
<tr>
<td>May-15</td>
<td>31.00</td>
<td>22.00</td>
<td>38.65</td>
</tr>
<tr>
<td>Jun-15</td>
<td>30.00</td>
<td>32.00</td>
<td>63.96</td>
</tr>
<tr>
<td>Jul-15</td>
<td>31.00</td>
<td>28.00</td>
<td>46.68</td>
</tr>
<tr>
<td>Aug-15</td>
<td>31.00</td>
<td>21.00</td>
<td>48.22</td>
</tr>
<tr>
<td>Sep-15</td>
<td>30.00</td>
<td>59.00</td>
<td>131.61</td>
</tr>
<tr>
<td>Oct-15</td>
<td>31.00</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Nov-15</td>
<td>14.00</td>
<td>Not Available</td>
<td></td>
</tr>
</tbody>
</table>

365.00 222.00 442.38

Foregone Revenue $ 995.36
EV CHARGING: COSTS AND DISTANCES

On October 24, 2012 by Will Barrett

Previously we discussed the 'Three Things you Need to Know to Determine your Electric Vehicle Charging Time'. This week we'll use that information to determine the cost to fully charge your electric vehicle. Please refer to the example below and keep in mind that individual electrical rates will vary.

1. Find your most recent utility bill to obtain your cost per kWh. My residential PG&E rate in September of 2012 was $0.12845 per kWh which is the cost we use in this example.

2. Find your electric vehicle battery capacity using the chart below or the vehicle manufacturers' web site.

3. Multiply the electrical rate from #1 with your battery capacity from #2. Viola! This is the cost to fully charge your electric vehicle at your current electrical rate.

Just for kicks, we've also provided the EPA figures for miles you can expect from a fully charged battery. The "Compare Side-by-Side" feature at the DOE website is helpful, although you'll have to toggle between Electric and Hybrid to really compare BEV's (Battery Electric Vehicle, aka all electric) to PHEV's (Plug In Hybrid Electric Vehicles, which both have an electric and an internal combustion engine). Which one is your favorite?

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Type</th>
<th>Battery Size (kWh)</th>
<th>Cost to charge at $0.12845 per kWh</th>
<th>Expected Electrical Miles on a Charge per EPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 BMW ActiveE</td>
<td>BEV</td>
<td>32</td>
<td>$4.11</td>
<td>102</td>
</tr>
<tr>
<td>2012 Chevy Volt</td>
<td>PHEV</td>
<td>16</td>
<td>$2.06</td>
<td>35</td>
</tr>
<tr>
<td>2013 Chevy Volt</td>
<td>PHEV</td>
<td>16</td>
<td>$2.06</td>
<td>38</td>
</tr>
<tr>
<td>2012 Coda</td>
<td>BEV</td>
<td>31</td>
<td>$3.98</td>
<td>88</td>
</tr>
<tr>
<td>2012 Fisker Karma</td>
<td>PHEV</td>
<td>16</td>
<td>$2.06</td>
<td>33</td>
</tr>
<tr>
<td>2013 Ford Focus EV</td>
<td>BEV</td>
<td>23</td>
<td>$2.95</td>
<td>76</td>
</tr>
<tr>
<td>2012 Mitsubishi i MiEV</td>
<td>BEV</td>
<td>16</td>
<td>$2.06</td>
<td>62</td>
</tr>
<tr>
<td>2012 Nissan Leaf</td>
<td>BEV</td>
<td>24</td>
<td>$3.08</td>
<td>73</td>
</tr>
<tr>
<td>2013 Nissan Leaf Upgrade</td>
<td>BEV</td>
<td>30</td>
<td>$3.85</td>
<td>N/A: not yet released</td>
</tr>
<tr>
<td>2012 Tesla Model S</td>
<td>BEV</td>
<td>60</td>
<td>$7.71</td>
<td>N/A: not yet released</td>
</tr>
<tr>
<td>2010 Tesla Roadster (Model K)</td>
<td>BEV</td>
<td>65</td>
<td>$10.92</td>
<td>265</td>
</tr>
<tr>
<td>2012 Toyota Prius EV</td>
<td>PHEV</td>
<td>4.4</td>
<td>$0.57</td>
<td>11</td>
</tr>
<tr>
<td>2013 Toyota Rav4 EV</td>
<td>BEV</td>
<td>41.8</td>
<td>$5.37</td>
<td>N/A: not yet released (expected 92-113 per Toyota)</td>
</tr>
</tbody>
</table>

*According to the US Energy Information Administration (EIA), the National Average in 2011 for Residential electricity was 11.8c per kWh. You will definitely want to check with your utility provider to obtain the best rates and times for charging your electric vehicle. The reason is that some locations can be more than 55 cents per kWh if you charge during peak times and/or surrned demand thresholds.

**Keep in mind that you probably won't require a full charge every day. Much like a gasoline or diesel vehicle, the amount you need to charge on a typical day (as well as the actual mileage you achieve) will be dependent on variables such as the distance you drive, the terrain, speed, temperature, and individual driving habits.

***Battery Sizes were obtained using Wikipedia and/or manufacturer websites in October of 2012. This chart does not take into account the usable battery % (this means it may not actually cost as much to charge your EV as shown in the chart above! This is a good thing. For example, the 2012 Nissan Leaf has an approximate 90% usable battery for charging purposes).

- Stacey Barhydt, 10/24/2012

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