



C H A B O T - L A S P O S I T A S

| *Community College District*

Electric Vehicle Charging

Administrative Procedure 6750 – Parking

February 2020



EV Charging with CLPCCD

- District Dublin Center – 2 Charging Cords
- Chabot College – 18 Charging Cords
 - 2 charging cords not tracked
- Las Positas College – 26 Charging Cords

- 46 charging cords in total



EV Charging in FY 18-19

- 20,226 Charging Sessions provided Districtwide
- 64,716 hours 57 minutes and 55 seconds of charging
- 180,447 KWh of electricity dispensed

- 75,788 kg of Green House Gases avoided
- 22,646 gallons of Gasoline Saved



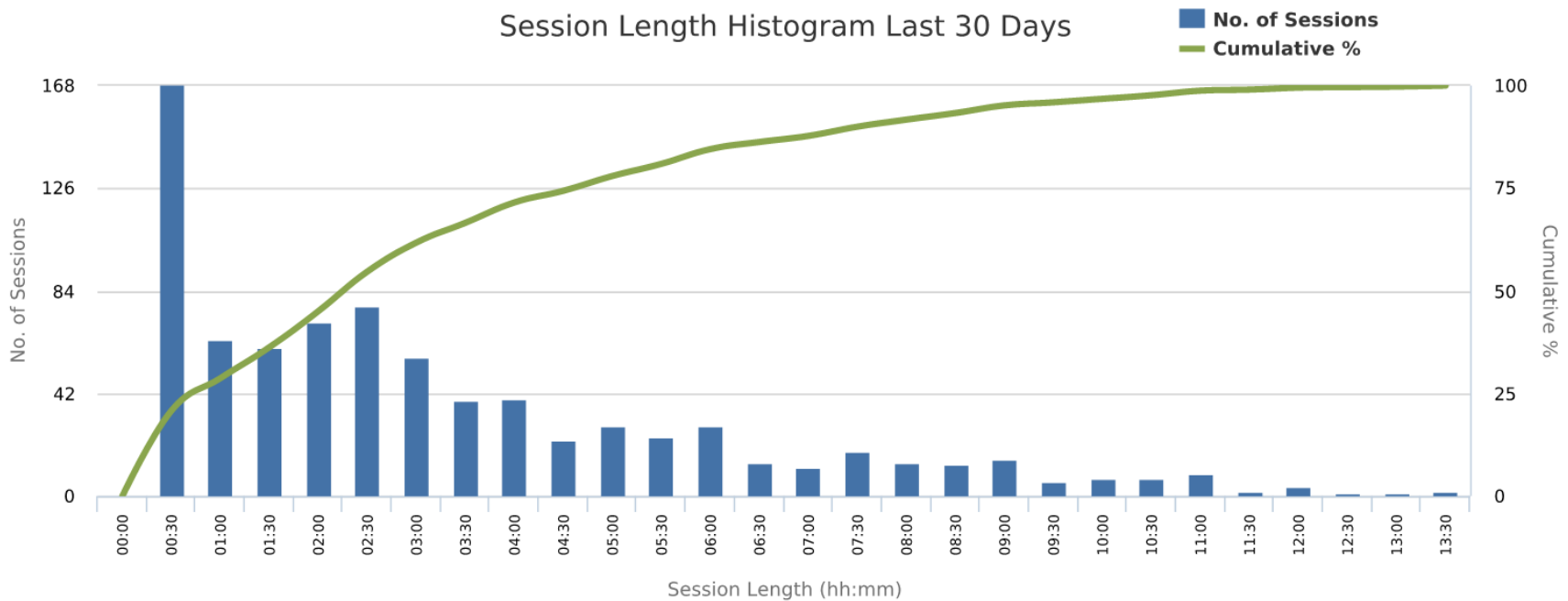
EV Charging in FY 18-19

- 20,226 Charging Sessions provided Districtwide
 - 2,236 lasted less than 15 minutes
 - 1,894 dispensed Zero Energy (0 KWh)
 - 2,608 dispensed less than 1 KWh



EV Charging in FY 18-19

Session Length Histogram Last 30 Days





EV Charging Total Cost of Ownership

- Current Annual Expenses

- ChargePoint Network Services \$12,320 (\$280/yr x 44 cords)
- Electrical Costs @ \$0.19/kwh \$34,285 (180,447kwh x \$0.19)
- **Total Expense Costs \$46,605**

- **Potential Maintenance Costs**

- Maintenance of Stations \$8,400 (24 heads x \$350)
- Equipment Replacement \$ 4,735 per 2 cords

- **Total Cost \$59,740**

- TCO approximately \$2.96 per session



EV Charging Goals and Objectives

- Reduce Greenhouse Gases and Promote Environmental Alternatives
- Maintain the existing Charging Stations
- Expand the EV Charging Network as demand grows
- Reduce expenses to Colleges and District General Fund



EV Charging Current Policy

- **AP 6750 Parking**

Electric Vehicle Charging Zone: The Electric Vehicle Charging Zone identifies restricted use of electric vehicle parking/charging at each college. Parking in the Electric Vehicle Charging Zone is restricted to electric vehicles actively charging, and the **college will set time limits for charging**. Valid parking permits are required for a vehicles in the Electric Vehicle Charging Zone.



EV Charging Current Policy

- **AP 6750 Parking**

Electric Vehicle Charging Zone (cont):

The District/Colleges **may establish fees** for electric vehicle charging services to recover the costs for vendor services, capital renewal costs, periodic maintenance, electricity, and other costs associated with the total cost of ownership in accordance with Administrative Procedure 3253.

EV Charging – Commercial Rates

- Dublin EV Charging Rates
 - \$0.30 per KWh (SOFI Dublin) **if implemented = \$54,134/yr**
 - \$0.75 per KWh and \$0.50 per hour (Fountainhead Montessori)
 - \$0.50 per hour for 4 hours then \$5.00 per hour (Stoneridge Mall)
- Livermore EV Charging Rates
 - \$0.30 per KWh (Livermore Airport)
 - \$4.00 per Hour (Hampton Inn)
 - \$0.30 per Hour then \$2.00 per hour (first 30 min free) (Holiday Inn)
 - \$18.00 per hour (DC Fast Charger Livermore Outlets)
- Hayward EV Charging Rates
 - \$0.20 per KWh (Hayward Airport)
 - \$0.30 per KWh (Walgreens)
 - \$1.00 per session and \$0.20 per KWh (Alameda County) **=\$56,315**
 - Free for 2 hours then \$2.00 per hour (Target)



EV Charging Rate Options

- Single District Rate Structure for EV Charging
 - **Per Session Charge** (fixed fee to charge each time connected to a charger)
 - **Per KWH Charge** (rate per electrical unit dispensed to charging vehicle, total cost varies based upon how much electricity is dispensed to the vehicle)
 - **Plug-in Time Rate** (fixed rate per hour or portion of an hour that a vehicle is plugged into the charger, assumes average rate for charging and idle time costs)
 - **Session Charge with extended time charge** (per session charge with additional charge per hour when done charging)
 - Assumption –first 15 minutes are free in all cases



EV Charging Rate Option **Per Session**

- During Normal Operating hours
 - \$1.00 per session
 - \$16,778 revenue generated
- During Weekend and Holidays hours when parking permits are not enforced
 - \$3.50 per session
 - \$12,068 revenue generated
- Anticipated expense deferral \$28,846 (parking fund
- **-\$30,894**)



EV Charging Rate Option **Per KWH**

- During Normal Operating hours
 - \$0.30 per KWH (average charge \$2.68)
 - \$43,924 revenue generated
- During Weekend and Holidays hours when parking permits are not enforced
 - \$0.60 per KWH (average charge \$5.35)
 - \$21,083 revenue generated
 - Anticipated expense deferral \$65,007 (+ \$5,267)



EV Charging Rate Option **Per Plug-in Time**

- During Normal Operating hours
 - \$0.75 per hour (average charge \$2.25)
 - \$41,560 revenue generated
- During Weekend and Holidays hours when parking permits are not enforced
 - \$1.50 per hour
 - \$13,953 revenue generated
 - Anticipated expense deferral \$55,513 (parking fund **\$-4,227**)



EV Charging Rate Option Session time with up-charge for extended time

- During Normal Operating hours
 - \$0.75 for the first 3 hours & \$1.25/hour after
 - \$42,871 revenue generated
- During Weekend and Holidays hours when parking permits are not enforced
 - \$1.50 for the first 3 hours & \$2.50/hour after
 - \$13,581 revenue generated
- Anticipated expense deferral \$56,452 (parking fund **\$-3,288**)



EV Charging Growth & Maintenance

- On going cost of electricity
- Maintenance & Repair of existing EV Chargers
- Annual ChargePoint Network Services (\$280/cord)
- DC Fast Chargers
- System Growth
 - Campus Capital Project pays for purchase and install
 - ChargePoint as a Service (CPaaS)
 - Install conduit and footing
 - \$2,400 per year
 - On going cost of electricity



EV Charging



- Questions



AP 5030 Fees



- Fees for Services Authorized by law include:
 - Parking Fee (Education Code 76360)





EV Charging Previous Policy

- **AP 6750 Parking**

f. Electric Vehicle Charging Zone: Restricted to the use of electric vehicles parking/charging at each college. Contact the College Department of Safety & Security for information and locations of these charging stations. Electricity is provided at no cost however valid parking permits are required.



EV Charging @ District Dublin Center

- Two Charging Cords
 - \$566 Annual Chargepoint Cost
 - \$3,291 in electrical costs @ 0.19 per KWh
- 2,241 Total Charging Sessions
 - 561 Charging Sessions on weekends
- 17,322 KWh electricity dispensed
 - 4,942 KWH on weekends



EV Charging @ Chabot College

- 16 of 18 Charging Cords Tracked
 - \$4,480 Annual ChargePoint Costs
 - \$13,633 in electrical costs @ 0.19 per KWh
- 8,191 Total Charging Sessions
 - 1,843 Charging Sessions on weekends
- 71,751 KWh electricity dispensed
 - 17,916 KWh on weekends



EV Charging @ Las Positas College

- 26 Charging Cords
 - \$6,720 Annual ChargePoint Costs
 - \$17,317 in electrical costs @ \$0.19 per KWh
- 9,793 Total Charging Sessions
 - 1,044 Charging Session on weekends
- 91,142 KWh electricity dispensed
 - 12,281 KWh on weekends