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**AGENDA
MUNICIPAL SERVICES COMMITTEE
April 10, 2018**

MEMBERS

Margaret McAustin, Chair, District 2
Terry Tornek, Mayor
Tyron Hampton, District 1
Andy Wilson, District 7

STAFF

Gurcharan Bawa, General Manager
Valerie Flores, Recording Secretary

MISSION STATEMENT

The City of Pasadena is dedicated to delivering exemplary municipal services, responsive to our entire community and consistent with our history, culture and unique character.

Public meeting begins at 4:00 p.m.

*Agendas and supporting documents are available on the Internet at
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*Materials related to an item on this Agenda submitted to the Municipal Services Committee **after** distribution of the agenda packet are available for public inspection in the City Clerk's Office at 100 N. Garfield Avenue, Room S-228, Pasadena, during normal business hours.*



REGULAR MEETING OF THE
MUNICIPAL SERVICES COMMITTEE
Tuesday, April 10, 2018 at 4:00 P.M.
100 North Garfield Avenue, Pasadena, Council Chambers

AGENDA

1. **CALL TO ORDER/ROLL CALL**
2. **PUBLIC COMMENTS ON MATTERS NOT ON THE AGENDA**
3. **INFORMATION ITEMS**
 - A. Pasadena Electric Vehicle Initiative*
4. **ADJOURMENT**

*Attachment

NEXT MEETING
April 24, 2018

Margaret McAustin, Chair
Municipal Service Committee

POSTING STATEMENT:

I HEREBY CERTIFY that this Agenda, in its entirety, was posted on the Council Chamber Bulletin Board S249, the bulletin board in the rotunda area at City Hall, 100 North Garfield Avenue, the City Clerk's Office, and a copy was distributed to the Central Library for posting on the 5th day of April, 2018 by 6:00 p.m.

Susana Castro

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3.A

Pasadena Electric Vehicle Initiative

Municipal Service Committee

April 10, 2018

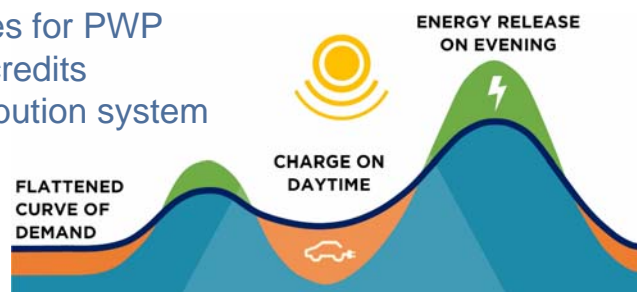
Item 3.A



Transportation Electrification

WATER AND POWER DEPARTMENT

- **Climate Action Plan – Measure T-4.1**
 - > Reduced emissions GHG, NOx, PM10
- **Savings for Consumer**
 - > Less than \$2/gal equivalent
 - > Less planned maintenance cost
 - > PWP & State rebates to buy/lease
 - > Lower rates (TOU) for charging EVs
- **Business Opportunity for City/PWP**
 - > Overall lower cost for City vehicles
 - > Increased sales and revenues for PWP
 - > Grants and low carbon fuel credits
 - > Optimized use of PWP distribution system
 - > Greener energy portfolio

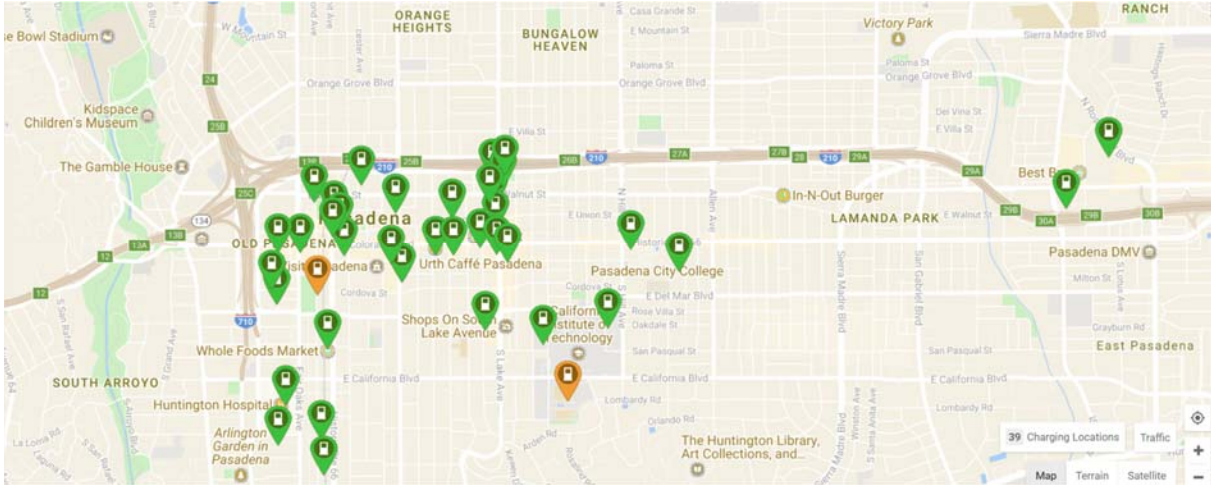




Current Status

WATER AND POWER DEPARTMENT

- ~2,500 Residential EVs in Pasadena
- 47 “Free” City-Owned and ~200 Other Fee/Free
- R&D – Holly Garage - Multiple chargers with less demand on distribution system

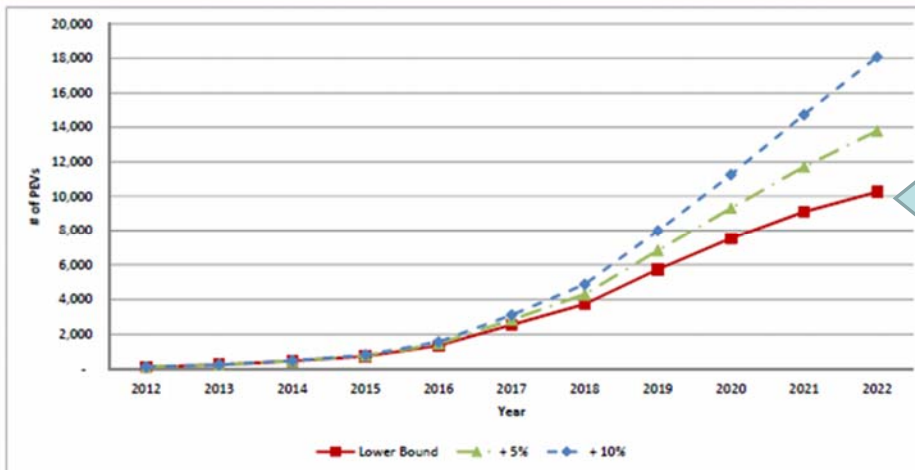


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Projected Growth of EVs

WATER AND POWER DEPARTMENT



**10,000 EVs
Use About
28,000 MWh
per year**

**(2.5% of
PWP retail
sales)**

Amount of Added Electric Load and Impacts Can Be Beneficial or Detrimental to Rates and Reliability...Depending Upon Strategy

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Current Residential EV Impact

WATER AND POWER DEPARTMENT

- ~2,500 Residential EVs in Pasadena
- Max Potential Charging Demand of 17 MW
 - > Actual is much lower – probably less than 5 MW
- Electric Revenues ~\$1.1 million per year
 - > ~10,000 miles/year per EV, 3.5 miles/kWh
 - > 7 GWh electric sales
- LCFS Credits... Market price varies
 - > Market priced commodity – trading at \$100-150 each
 - > \$168 – 256 per vehicle per year (at current prices)
 - > Current allocation valued at \$420K - 640K per year

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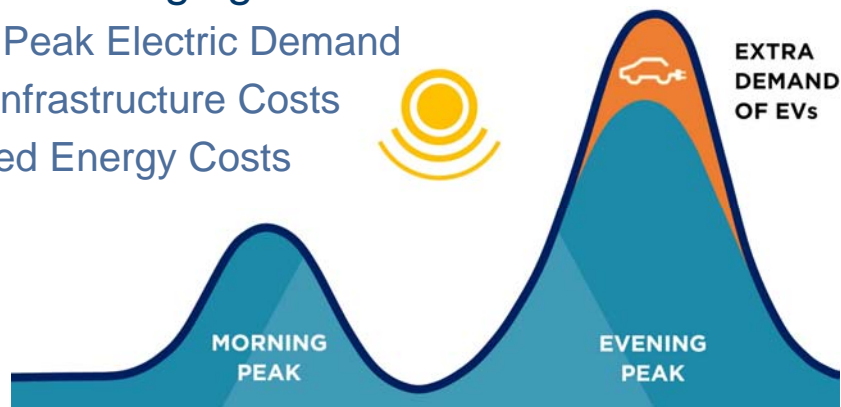


Impact and Mitigation

WATER AND POWER DEPARTMENT

- “Default” EV Charging Behavior **Increases:**

- > Evening Peak Electric Demand
- > Electric Infrastructure Costs
- > Purchased Energy Costs



Mitigation: Off Peak/TOU charging incentives and rate structure, CIS, AMI/Smart Grid, fiber optics, 3rd party technology solutions, distribution system upgrades

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Strategies

WATER AND POWER DEPARTMENT

- Develop EV Awareness Campaign
 - > Consumer information
 - > Commercial/fleet
 - > Leverage Cal-ETC and other partners
- Rebates for EVs (new and/or used)
- Expand Availability of Public Charging
 - > City facilities (libraries, city-owned garages)
 - > Private destinations (museums, shopping centers)
 - > Fast chargers at transportation corridors
- Develop Fee Schedule for Public EV Charging
- Transition to Time & Usage Based Incentives/Rates



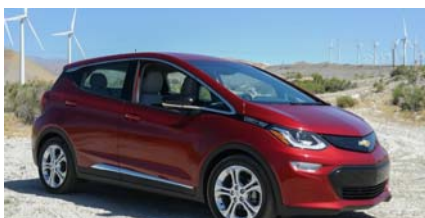
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Action Plan – Build EV Business

WATER AND POWER DEPARTMENT

1. Transition City Fleet into EVs
2. Expand Public EV Charging Infrastructure
3. Incentivize Residential and Fleet EV Procurement
4. Pursue Grants
5. Enhance LCFS Revenues
6. Seek City Council Authorization for
 - i. Fee Schedule for Public EV Charging
 - ii. Programs, Budgets, Contracts



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City's Transition to EVs

WATER AND POWER DEPARTMENT

- Electrification Transportation Task Force
- Install More Charging Stations
 - > Holly Garage (30), City Yards (15)
 - > Smart and Managed Charging
 - > Pursue MSCR Grant (\$183,670)
 - > Contracts for equipment and installation
- Lease EV's for Fleet Use
 - > Three year lease is low-cost option
 - > CVRP rebates up to \$2,500/vehicle
 - > Potential Fleet rebate up to \$4,500 if vehicle serves DACs – Parked at Yards

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Public Chargers

WATER AND POWER DEPARTMENT

- Adopt Public EV Charging Fees
 - > Amend General Fee Schedule
 - > Connection, usage, overstay fee options
 - > **Select third party contractor for account management and fee collection services**
- Install More Charging Stations
 - > Convenient “destination” locations
 - > Geographically diverse locations
 - > Smart/managed charging options
 - > Secure contracts for equipment, installation, operations and maintenance
 - > Encourage private installations



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R&D Pilot Project @ Holly

WATER AND POWER DEPARTMENT

- 16 new smart charging stations recently installed
- Managed charging
- Data gathering to assist with EV rate design
- Charging for city employees, public, fleet



[Website Demo](#)

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Summary

WATER AND POWER DEPARTMENT

- EVs Create New Unique Business Opportunity
 - > Environmentally Friendly
 - > Helps Bottom Line
- City Vehicles – Use Own Fuel (electricity) & Save \$\$
- Need to Facilitate Consumer Decision to Buy EVs
- Need initial Investment in EV Charging Infrastructure
- Need Smart Grid and other Enabling Technologies
- Need Dynamic Rate Structure
- Legislative/Regulatory Lobbying for Electrification

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