



**AGENDA: 4**

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Bay Area Air Quality Management District  
Mobile Source Committee

# Projects and Contracts with Proposed Grant Awards Over \$100,000

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April 25, 2019

Chengfeng Wang  
Air Quality Program Manager



- ❖ Background
- ❖ Proposed projects with awards over \$100,000
- ❖ Overview of Fiscal Year Ending (FYE) 2019 funds:
  - Awards by project type
  - Awards by county
  - Available
- ❖ Recommendations



## ❖ Carl Moyer Program (CMP)

- Created in 1998 to reduce emissions from heavy-duty engines
- Voluntary program that funds surplus emission reductions

## ❖ Mobile Source Incentive Fund (MSIF)

- Assembly Bill (AB) 923 allowed for additional \$2 motor vehicle registration fee surcharge (12/04)
- CMP and Lower Emission School Bus Program (LESBP) projects eligible for MSIF funding



# Community Health Protection Grant Program (CHP)

- ❖ Created by AB 134 appropriation of \$250 Million (M) from the Greenhouse Gas Reduction Fund (GGRF) to reduce mobile source emissions including criteria pollutants, toxic air contaminants, and greenhouse gases in AB 617 communities
- ❖ Bay Area Air Quality Management District (Air District) allocated \$50M of these funds for emission reduction projects under the CMP, and optionally under the Proposition 1B Goods Movement Emission Reduction Program



## CMP/MSIF & CHP

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### ❖ On 2/21/18 Air District Board of Directors:

- Approved participation in CMP Year 20
- Authorized Executive Officer/APCO to execute contracts and amendments with grant awards up to \$100,000

### ❖ On 12/20/17 Air District Board of Directors:

- Approved acceptance of \$50M in AB 134 funding for the Community Health Protection Grant Program (CHP)



## Project Recommendations Over \$100k

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- ❖ **\$5,330,724 in total awards for eight (8) projects:**
  - 18 school buses
  - 6 marine engines
  - 1 locomotive
  - 2 forklifts
  
- ❖ **Emission reductions:**
  - Over 9.6 tons per year (TPY) of criteria pollutants



# Transportation Fund for Clean Air (TFCA)

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- ❖ Statutory authority set forth in California Health and Safety Code Sections 44241 and 44242
- ❖ Funding provided by a \$4 surcharge on motor vehicles:
  - 60% of TFCA funds awarded directly by the Air District (*Regional Fund & Air District Sponsored*)
  - Remaining 40% is distributed to the nine Bay Area Congestion Management Agencies (*County Program Manger Fund*)



# Transportation Fund for Clean Air (TFCA)

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## ❖ On 5/2/18 Air District Board of Directors:

- Allocated \$20.44M of TFCA funds for Fiscal Year Ending (FYE) 2019 projects
- Authorized Executive Officer/APCO to execute contracts and amendments with grant awards up to \$100,000

## ❖ On 6/6/18 Air District Board of Directors:

- Adopted policies and evaluation criteria for the FYE 2019 TFCA Regional Fund program





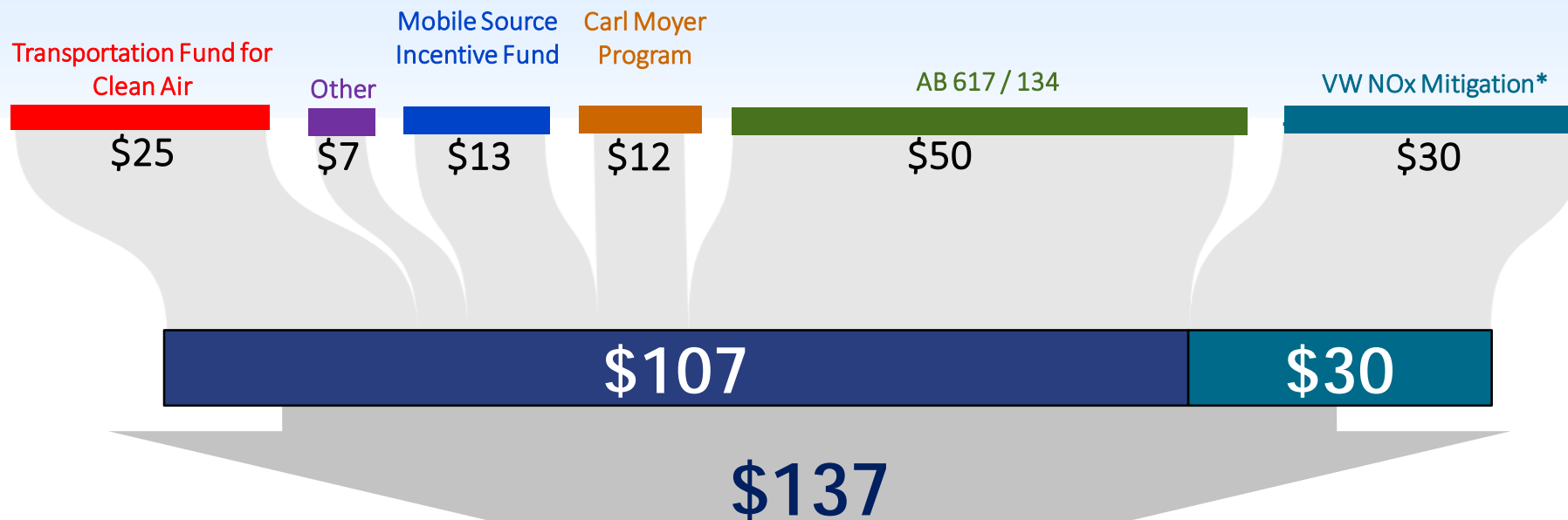
# Transportation Fund for Clean Air (TFCA)

- ❖ **\$2,368,345 in total awards for three pilot trip reduction projects**
  - *Proposed award based on recommendation to increase cost-effectiveness (C/E) threshold up to \$500,000/ton of reduced criteria pollutants for pilot trip reduction projects (current C/E limit is \$250,000)*
  - *Staff also recommends a similar change to TFCA County Program Manger policies*
  
- ❖ **Emission reductions:**
  - Over 2.7 tons per year (TPY) of criteria pollutants



# Projected Grant Revenues for FYE 2019

## \$137 (in Millions)



**Carl Moyer Category Includes Funding From:**

- CMP Year 20
- CMP Statewide Funds
- FARMER (agriculture only)
- LCFS - Low Carbon Fuel Standard

**Other Funding Sources:**

- EFMP – Enhanced Fleet Modernization Program
- RFG – Reformulated Gasoline Settlement Fund
- DERA – Diesel Emissions Reduction Act
- Zero-Emission Hydrogen Ferry Demonstration Project

\*Total Volkswagen funding is \$423M statewide, which will be dispersed over ~5 year period. Staff projects that as much as 33% of funding could go to projects located in the Bay Area.



# Funds Recommended & Awarded by Project Category Since July 2018

Total = \$62M

List of projects is shown in Attachments 2 and 3



Light-duty Cars & Infrastructure

On-road Trucks & Buses

School Buses

Off-road

Off-road Marine & Locomotive

Trip Reduction

\$7,757,900

\$3,330,100

\$17,014,374

Ag:  
\$3,352,312  
Non-Ag:  
\$4,123,753

\$16,154,500

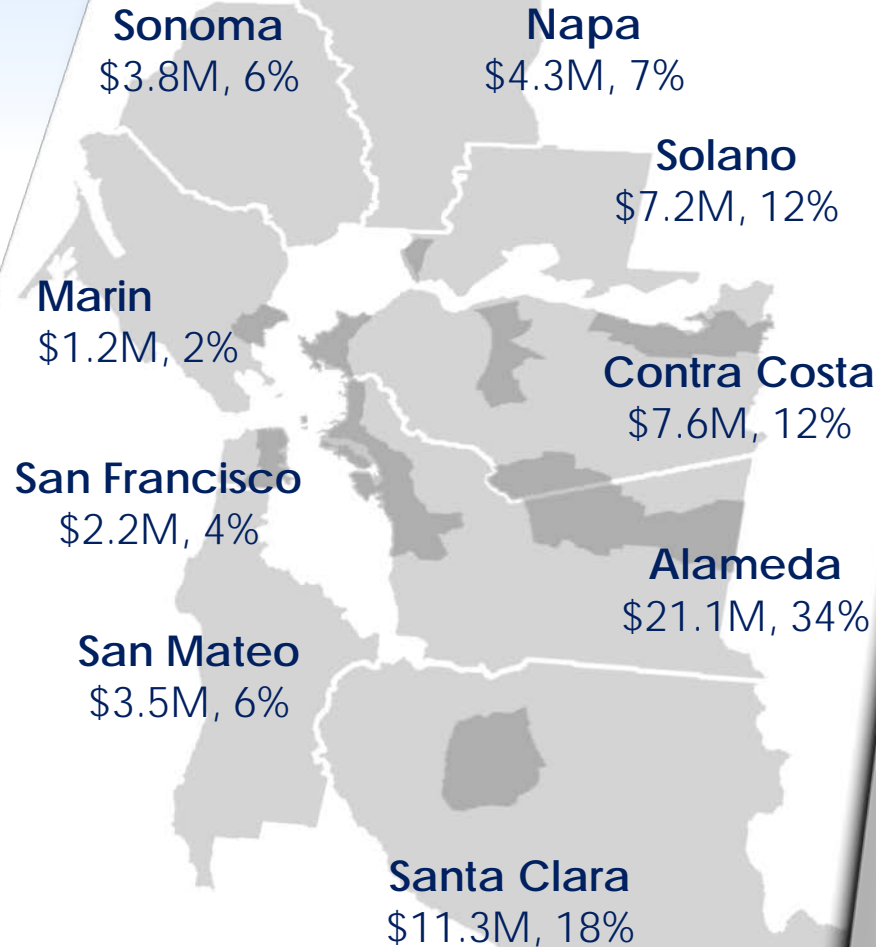
\$10,647,414



# Funds Recommended & Awarded by County Since July 2018

List of projects is shown in Attachments 2 and 3

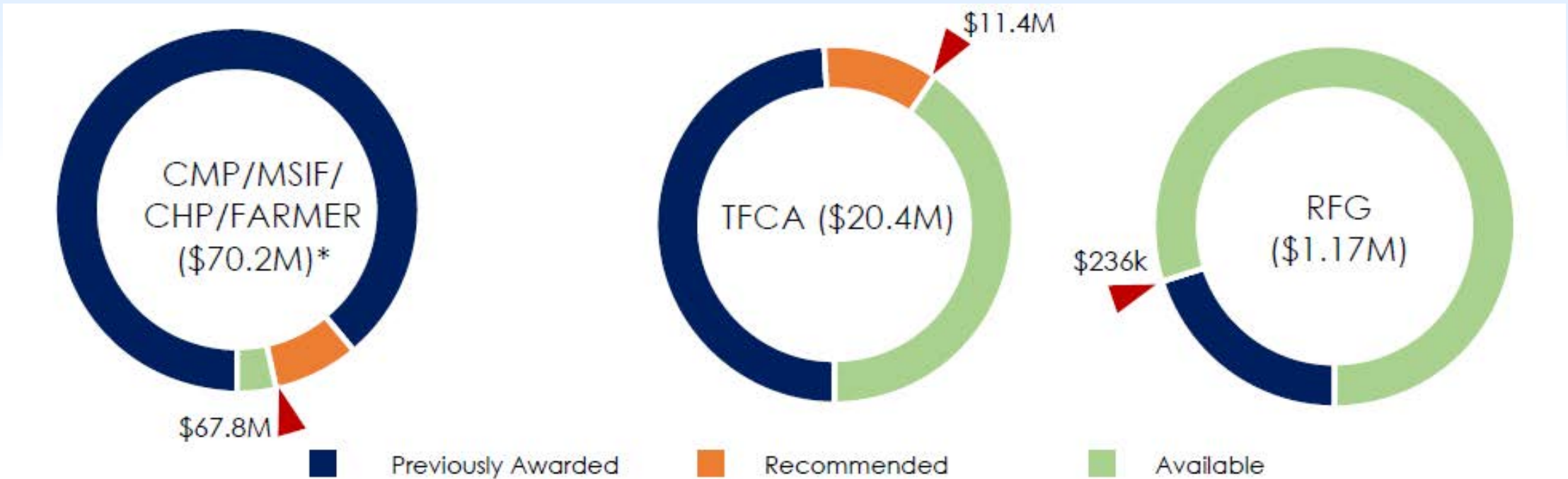
Total = \$62M



Legend  
CARE Area



# Status of Incentive Funding Awarded Since July 2018, by Funding Source



\* Includes awards from FYE 2018



\*Includes funding and awards made in FYE 2018

\*\* includes passed-through funding from TFCA County Program Manager, ARB-funded Hydrogen Ferry Demo, EPA-funded DERA, and MTC for EV Outreach, and other funding that is not yet available from the Volkswagen NOx Mitigation, and ARB-funded EFMP.



# Open Solicitations & FYE 2019 Funding

Program Name, Description, and Website	Funding Available	Status	Source
<b>Carl Moyer</b> Funding to replace heavy-duty on- & off-road vehicles and equipment <a href="http://www.baaqmd.gov/moyer">www.baaqmd.gov/moyer</a>	\$8M	Open until funds exhausted	CMP, MSIF, CHP, FARMER
<b>Vehicle Buy Back</b> Funding to scrap 1996 or older light duty cars <a href="http://www.baaqmd.gov/vbb">www.baaqmd.gov/vbb</a>	\$6M	Open until funds exhausted	MSIF
<b>Clean Fleets</b> Funding to purchase Light & Medium Duty ZEVs <a href="http://www.baaqmd.gov/cleanfleets">www.baaqmd.gov/cleanfleets</a>	\$5M	Open until April 30, 2019	TFCA
<b>Charge!</b> Funding to install public charging stations <a href="http://www.baaqmd.gov/charge">www.baaqmd.gov/charge</a>	\$5M	Open until June 30, 2019	TFCA
<b>West Oakland Zero Emission Grant Program (Round 3)</b> Funding to purchase zero-emission vehicles & equipment <a href="http://www.baaqmd.gov/WestOaklandZEV">www.baaqmd.gov/WestOaklandZEV</a>	\$600k	Open until June 30, 2019	RFG



# Recommended Actions

## *Recommend the Board of Directors:*

1. Approve recommended projects with proposed grant awards over \$100,000 as shown in Attachment 1;
2. Approve a change to FYE 2019 TFCA Regional Fund Policies and FYE 2020 TFCA CPM Fund Policies to increase the cost-effectiveness limit for Pilot Trip Reduction projects; and
3. Authorize the Executive Officer/APCO to enter into all necessary agreements with applicants for the recommended projects.



**AGENDA: 5**

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Bay Area Air Quality Management District  
Mobile Source Committee

# Transportation Fund for Clean Air (TFCA) Funding for Shuttle and Ridesharing Projects

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April 25, 2019

Ken Mak  
Supervising Staff Specialist





# Overview

- ❖ Fiscal Year Ending (FYE) 2019 Existing Shuttle & Ridesharing Solicitation
- ❖ Metropolitan Transportation Commission (MTC) 2019 Ridesharing Project
- ❖ Transportation Fund for Clean Air Trip Reduction projects
  - Background
  - Challenges and historical trends
  - Next Steps
- ❖ Recommendations



# FYE 2019 TFCFA Shuttle & Ridesharing Solicitation

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- ❖ Solicitation open from August 1, 2018 to September 17, 2018
- ❖ Allocated \$4 Million (M) of TFCFA funds
- ❖ Received nine applications
  - 7 existing shuttle services
  - 2 ridesharing projects (including 1 from MTC)
- ❖ Total of \$2M in TFCFA funds awarded to six projects as of April 2019



# MTC's 2019 Rideshare Application

- ❖ \$1M funds requested for new program; no existing data
- ❖ Project aligns with the goals of Air District's Spare the Air Program
- ❖ Recommendation: Evaluate project as part of Spare the Air Program vs. using Shuttle Criteria

## Vanpool Subsidies (\$750k)

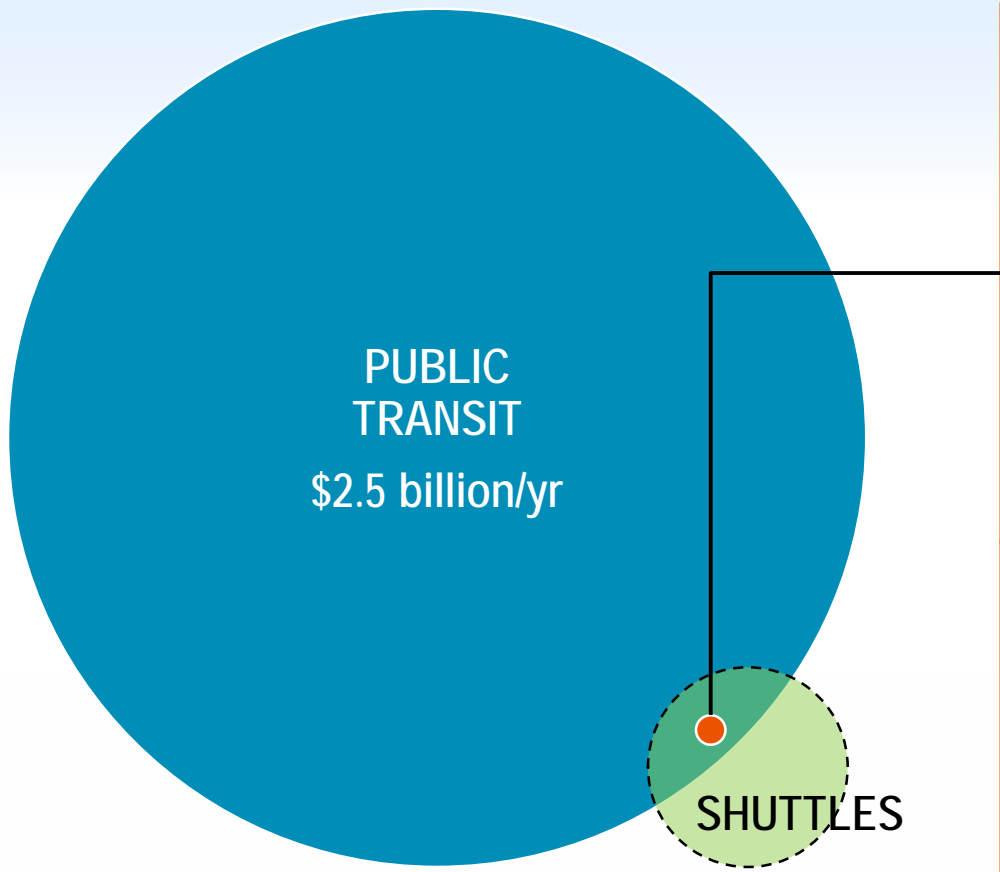
- Provide \$350/month to select vanpools
- Maintain and grow the Bay Area vanpool fleet

## Carpool Marketing & Incentives (\$250k)

- Provide marketing, outreach, & incentives to commuters
- Encourages commuters to download carpool apps and register for 511-ride matching service



# TFCFA Trip Reduction Projects



## TFCFA-funded Shuttle Projects (\$3M/yr)

Provide first- & last-mile connections to transit

Encourage commuters to take mass transit options



## TFCFA-funded Ridesharing Projects (\$1M/yr)

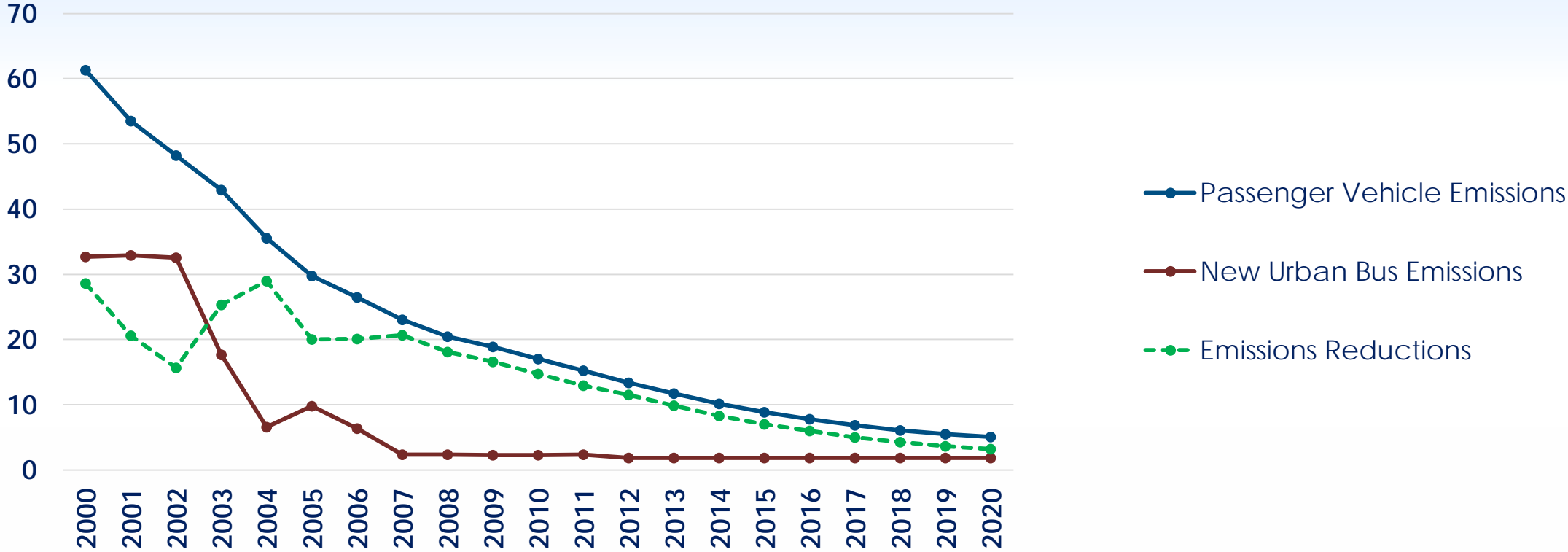
Provide outreach & incentives

Encourage commuters to carpool or vanpool to and from work



# Diminishing Air Quality Benefits

Tons of emissions reduced (green) by replacing 50 cars (blue) with 1 bus (red)

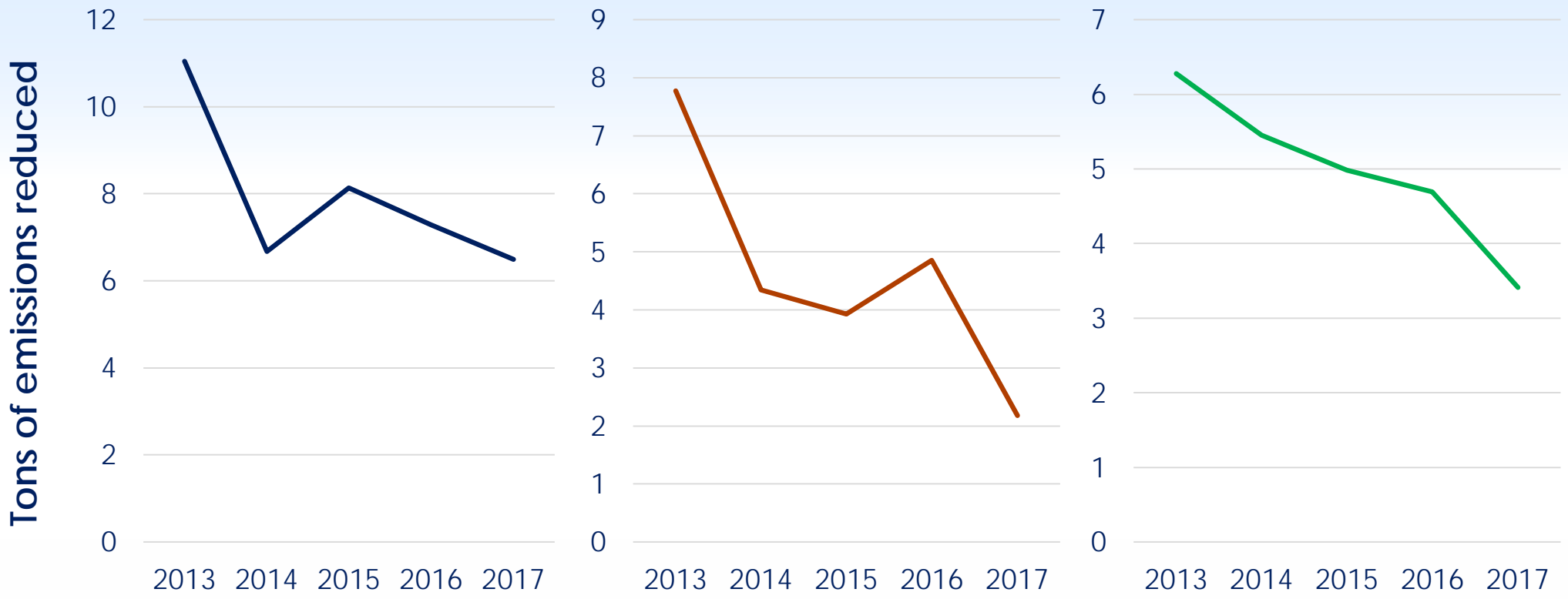


Notes:

- 1. Emissions reduced is the sum of NOx, ROG, PM10 running exhaust emissions
- 2. Used fleet average emission rates for passenger cars, new vehicle emission rates for urban buses from EMFAC2014



# Air Quality Benefits of TFCFA-Funded Shuttle & Rideshare Projects

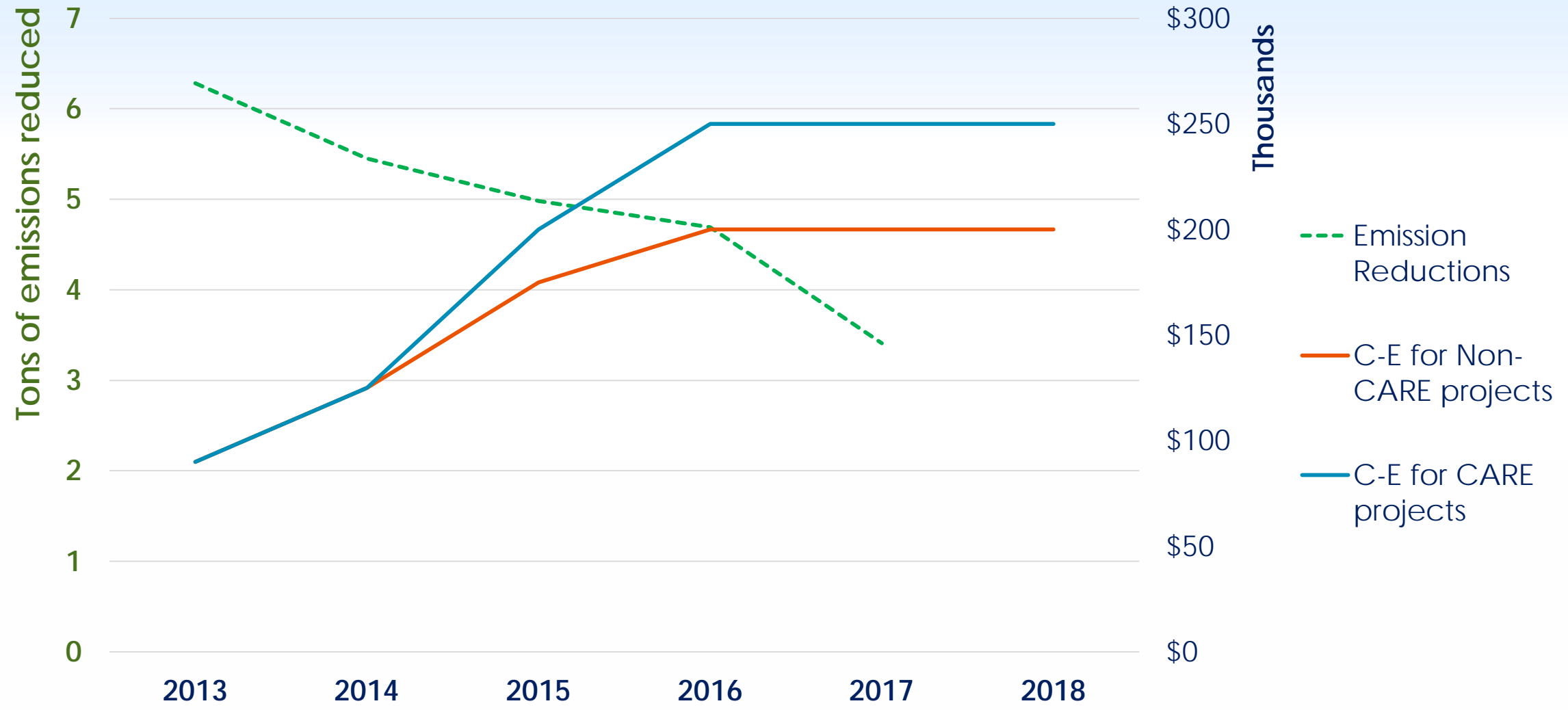


	<b>Caltrain Commuter Shuttle</b>	<b>San Jose State Rideshare</b>	<b>Average of all projects</b>
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<b>% Change over 6 years</b>	<b>-41.3%</b>	<b>-71.2%</b>	<b>-45.7%</b>
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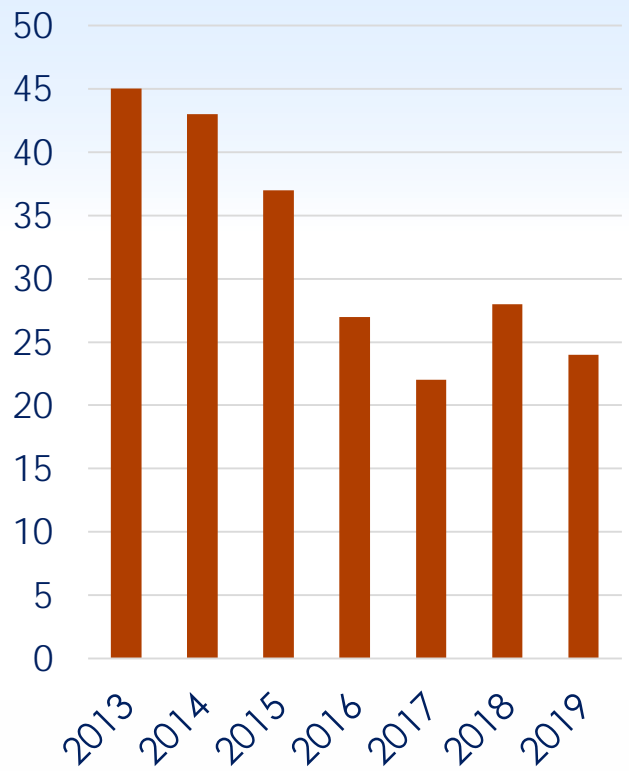
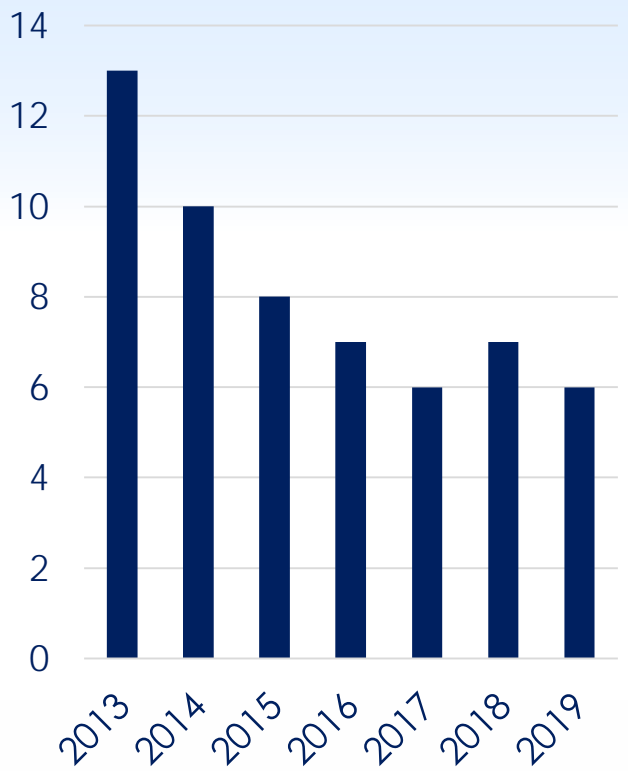


# Cost-Effectiveness Thresholds Over Time





# Existing Shuttle & Ridesharing Historical Trends



**# of projects funded**

**# of Routes funded**

**Amount of TFCFA funds awarded (millions)**

**% Change over 6 years**

**-53.8%**

**-46.7%**

**-52.4%**





# Other Challenges and Next Steps

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## Other Challenges:

- ❖ Competitive annual funding cycle does not allow for long-term planning
- ❖ Emission benefits challenging to quantify

## Next Steps and Options for Consideration:

- ❖ Keep increasing C-E Thresholds; explore options for other ways to evaluate air quality benefits from trip reduction projects
- ❖ Evaluate options for transitioning other existing projects to Spare the Air program
- ❖ Seek input from stakeholders and best practices from other air districts
- ❖ Return to committee with recommendations on options



# Recommended Actions

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Recommend the Board of Directors:

1. Approve a total award of up to \$3,000,000 in TFCA funding for a three-year ridesharing project sponsored by MTC; and
2. Authorize the Executive Officer/APCO to enter into all necessary agreements with MTC for the recommended project.



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Bay Area Air Quality Management District  
Mobile Source Committee

**Fiscal Year Ending (FYE) 2020 Transportation  
Fund for Clean Air (TFCA) County Program  
Manager Expenditure Plans &  
Alameda County Transportation  
Commission (ACTC) Policy Waiver Request**

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April 25, 2019

Linda Hui  
Staff Specialist



# Overview

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- ❖ Background
- ❖ Fiscal Year Ending (FYE) 2020 County Program Manager (CPM) Expenditure Plans
- ❖ Alameda County Transportation Commission (ACTC) Policy Waiver Request
- ❖ Recommendations



# CPM Program Background

- **Funded by Transportation Fund for Clean Air (TFCA)**
  - \$4 motor vehicle registration fee surcharge
    - 40% of TFCA monies for CPM Program
- **Statutory authority in California Health & Safety Code Sections 44241 and 44242**
  - CPMs submit annual expenditure plan
    - Funds must be allocated within six months of the Board of Director's (Board) approval of expenditure plan
    - Funds not allocated by the deadline will be awarded by the Air District
  - CPM policies & cost-effectiveness criteria adopted by the Board annually (for FYE 2020 on 11/7/18)



# FYE 2020 Funding for CPM

County Program Manager	Estimated New TFCAs Funds	TFCAs Funds to be Reprogrammed	Total FYE 2020 Funds
Alameda County Transportation Commission	\$2,042,902	\$511,198	\$2,554,100
Contra Costa Transportation Authority	\$1,706,791	\$7,609	\$1,714,400
Transportation Authority of Marin	\$373,684	\$65,995	\$439,679
Napa Valley Transportation Authority	\$213,169	\$40,037	\$253,206
San Francisco County Transportation Authority	\$771,753	\$9,896	\$781,649
San Mateo City/County Association of Governments	\$1,246,764	\$67,315	\$1,314,079
Santa Clara Valley Transportation Agency	\$2,623,016	\$391,854	\$3,014,870
Solano Transportation Authority	\$361,193	\$7,376	\$368,569
Sonoma County Transportation Authority	\$657,588	\$13,847	\$671,435
<b>TOTAL</b>	<b>\$9,996,860</b>	<b>\$1,115,127</b>	<b>\$11,111,987</b>

*\*Based on funds available for reprogramming from prior-year CPM projects that were recently completed under budget or canceled, and from any interest earned.*



# ACTC Policy Waiver\* Request

Project Name	Description	TFCA CPM Funds	Est. Total Project Cost
Oakland Broadway B Shuttle	Operate free shuttle between the Oakland Amtrak Station in Jack London and Grant Avenue on weekdays from 7 AM-10 PM in FYE 2019-2020.	\$338,000	\$1,196,540

\*Project does not meet Board-adopted FYE 2019 CPM Fund Policy #28.d., that prohibits “duplication” and limits funding to projects provide service in areas that are under-served and lack other comparable service, but does meet other Board-adopted TFCA policies and cost-effectiveness threshold.



# Recommended Actions

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## *Recommend the Board of Directors:*

1. Approve the allocation of new FYE 2020 TFCA CPM funds proposed in the Expenditure Plans, as listed in Table 1;
2. Authorize the Executive Officer/APCO to enter into funding agreements with the CPMs for the total funds to be programmed in FYE 2020, as listed in Table 1; and
3. Approve a policy waiver to allow ACTC to use TFCA CPM Funds for a shuttle project.



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Electric Vehicle (EV) Ecosystem Update  
**EV Programs: Incentives and  
Awareness**



**Mark Tang**

Program Lead for Charge! Program (Staff Specialist)  
Technology Implementation Office

Mobile Source Committee Meeting  
April 25, 2019

# Electric Vehicle (EV) Ecosystem Update



Part 1 - March 2019

## **Status of Light-Duty EV Adoption in the Bay Area**

Part 2 - April 2019

## **EV Programs: Incentives and Awareness**

Part 3 – May 2019

## **EV Equity**

Part 4 – Fall 2019

## **Heavy Duty Market update**

# EV Incentives Programs



Plug-In Electric Drive Vehicle Credit



Center for Sustainable Energy

Clean Vehicle Rebate Project



Clean Air Vehicle Decals



beneficial state foundation



Clean Vehicle Assistance Program



Clean Fuel Rebate, Vehicle Rebate, EV Rate Plans



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

Clean Cars For All



Vehicle Rebates, EV Rate Plans

# EV Infrastructure Incentives Programs



Privately-owned EV charging network



*California Electric Vehicle Infrastructure Project (CALeVIP) Subject to CEC approval*



EV Charge Network Workplace & Multi-family charger incentives



Charge! Program

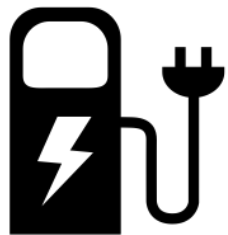


EV Charger Program (Residential)



Workplace & Multi-family charger incentives

# Charge! Program – Grants for Businesses and Local Governments



Level 1

\$750

Level 2

\$3,000

DC Fast

\$18,000



Solar

\$1/W up to \$4,000



Multi-port

\$1,000 per additional port



Transportation Corridor

\$7,000



Multi-unit Dwellings

\$4,000 per charger

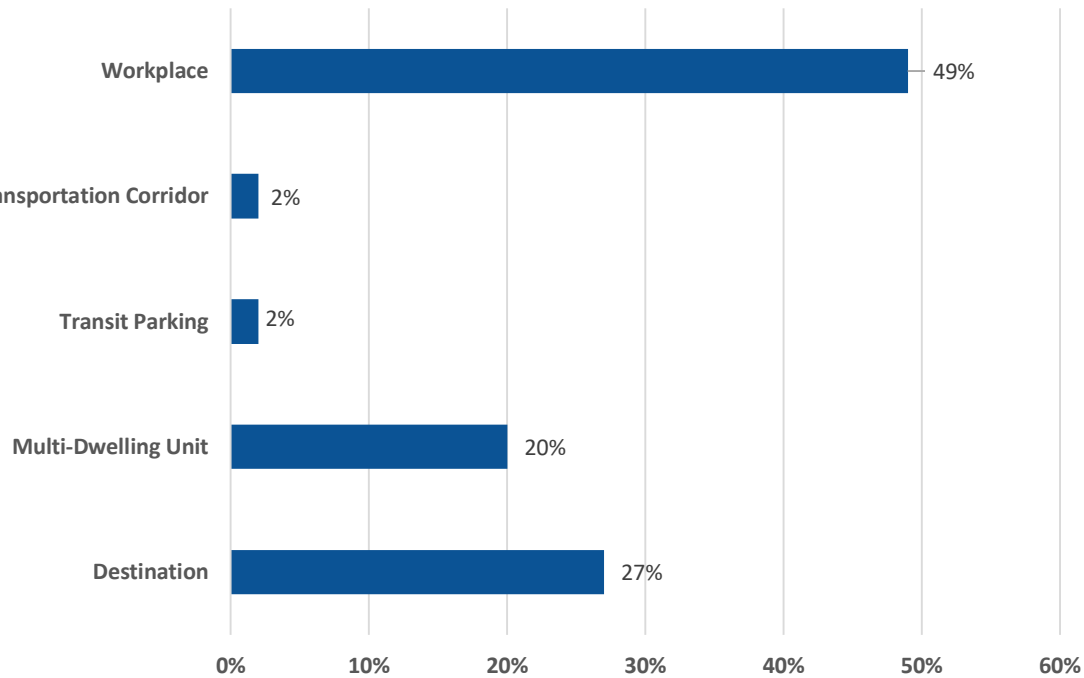
Open October 25, 2018 – June 30, 2019

[www.baaqmd.gov/charge](http://www.baaqmd.gov/charge)

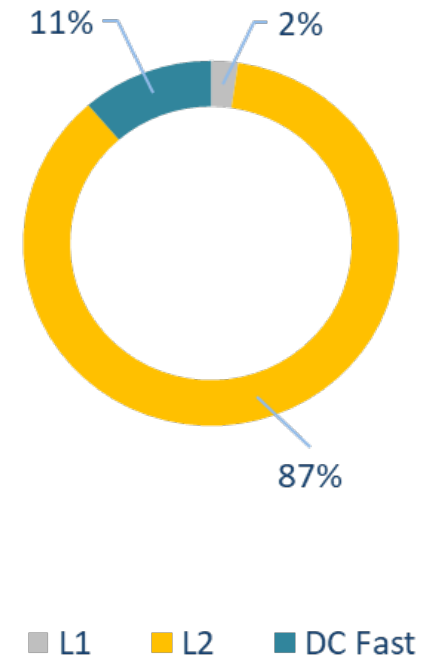
# Over \$10 Million (M) Awarded (2016 – 2019)



### Facility Type for Awarded Projects



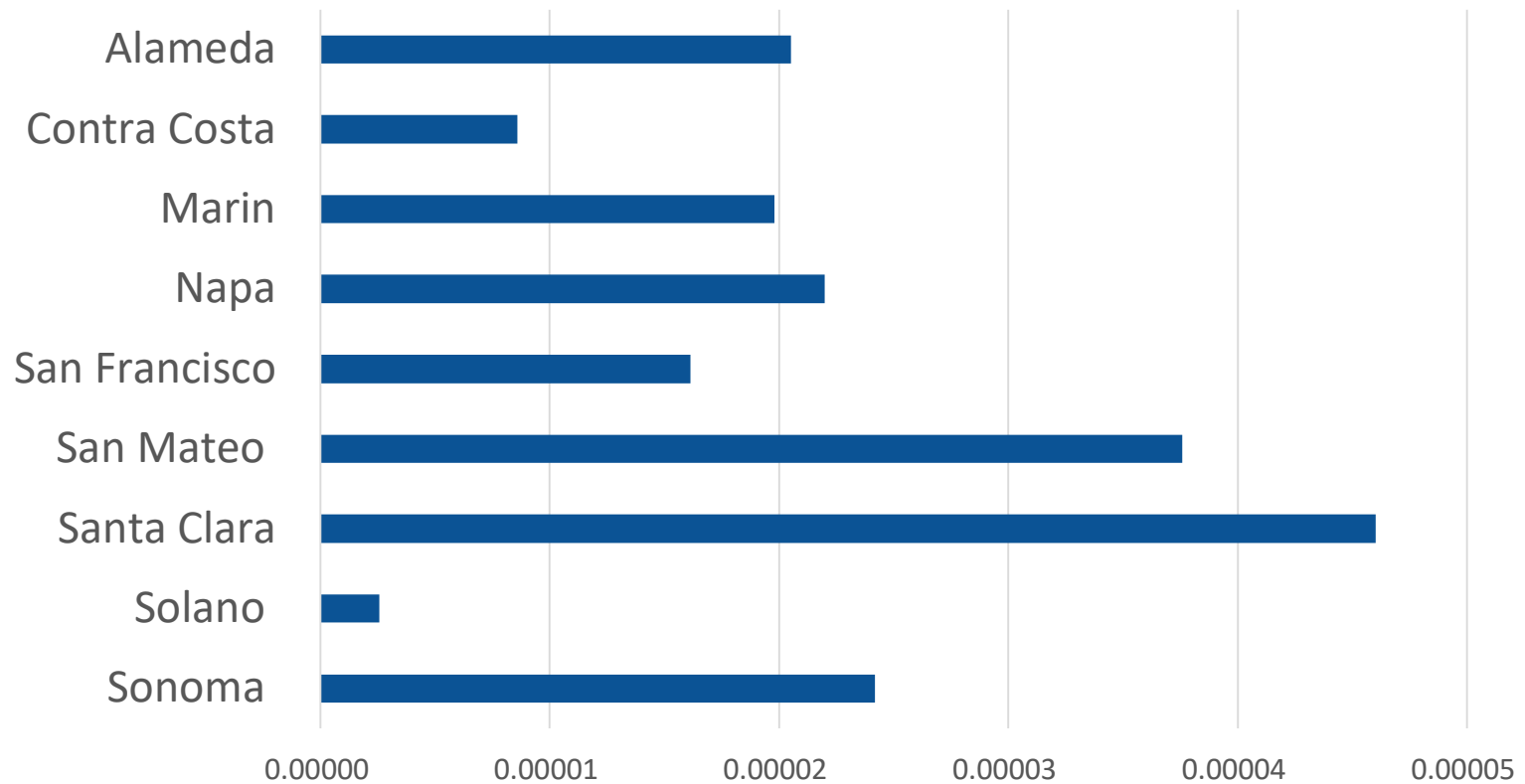
### Charger Type for Awarded Projects



# Geographic Distribution of Charge! Projects (2016 – 2019)



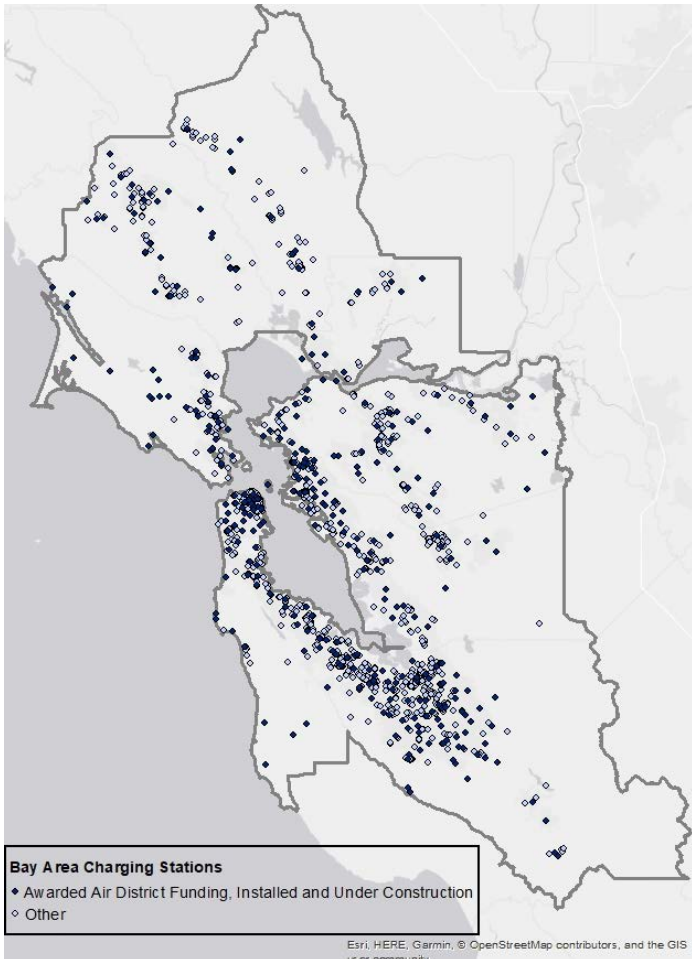
**Projects Awarded Per Capita**



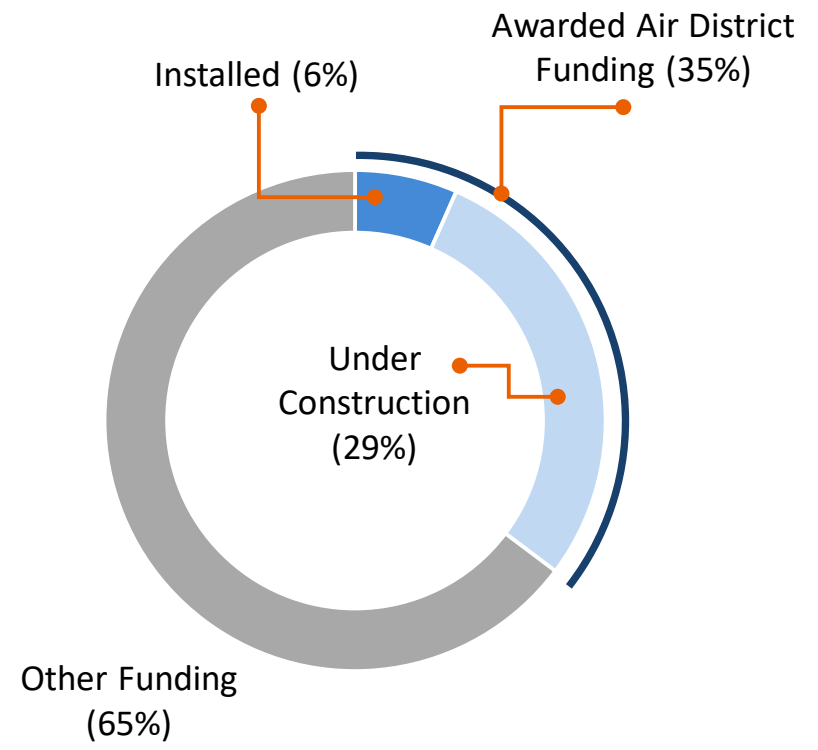
# Charge! is supporting 35% of publicly accessible EV charging ports in the Bay Area



## Publicly Accessible Charging Port Locations



## Funding Sources for Publicly Accessible Charging Ports

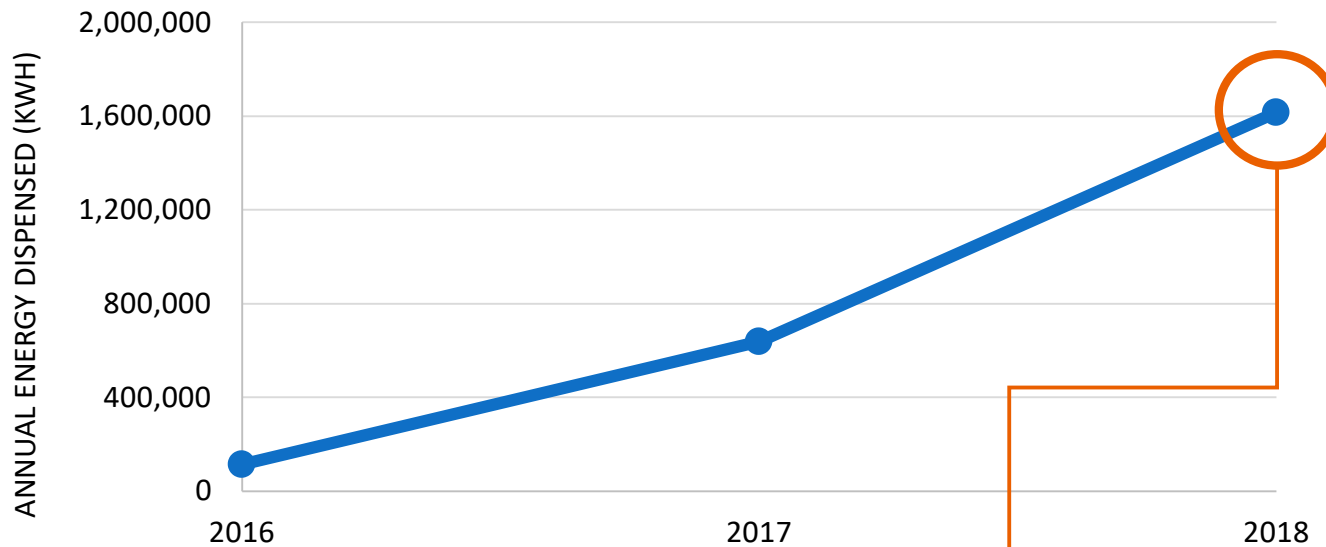




# Charger usage has increased due to more installations and higher utilization rates



### Annual Energy Dispersed from Installed Projects



Equivalent to displacing  
**>128,000 gallons of gas**  
or **2.8 million miles traveled** in 2018

# Awareness Programs



**VELOZ<sup>®</sup>**



**Charge Across Town<sup>™</sup>**



**Plug In  
America.**

*We drive electric. You can too.*



Center for  
Sustainable Energy<sup>®</sup>



**Drive Clean Marin**



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

# Air District EV Awareness and Outreach Activities



**Market research study** to gather data and understand majority adopters and market actors (ongoing)



**Develop tailored outreach messages and resources** to increase utilization of incentives and mainstream EV adoption (2019)



**Expand outreach activities** to raise general awareness of EVs and incentives programs (starting in 2020)



**Provide technical assistance** to businesses and local governments on EVs, EV infrastructure, and incentives (starting in 2020)

# Bay Area EV Coordinating Council (Established in 2011)



Platform for Bay Area EV practitioners to share best practices and lessons, inform policy development, and coordinate actions to support EV adoption

## **Participants represent 150 organizations:**

- Government agencies
- Fleet operators
- Original equipment manufacturers (OEMs)
- Vendors
- Contractors
- Non-governmental organizations

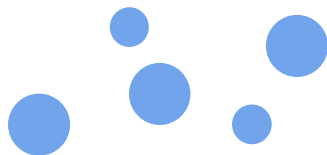
# EV Market Research Study - Request for Proposals (RFP) Released in December 2018



Understand **majority adopters** to move market beyond early adopters

Understand priorities and barriers of key **market actors** that affect EV market and infrastructure

**Anecdotes**



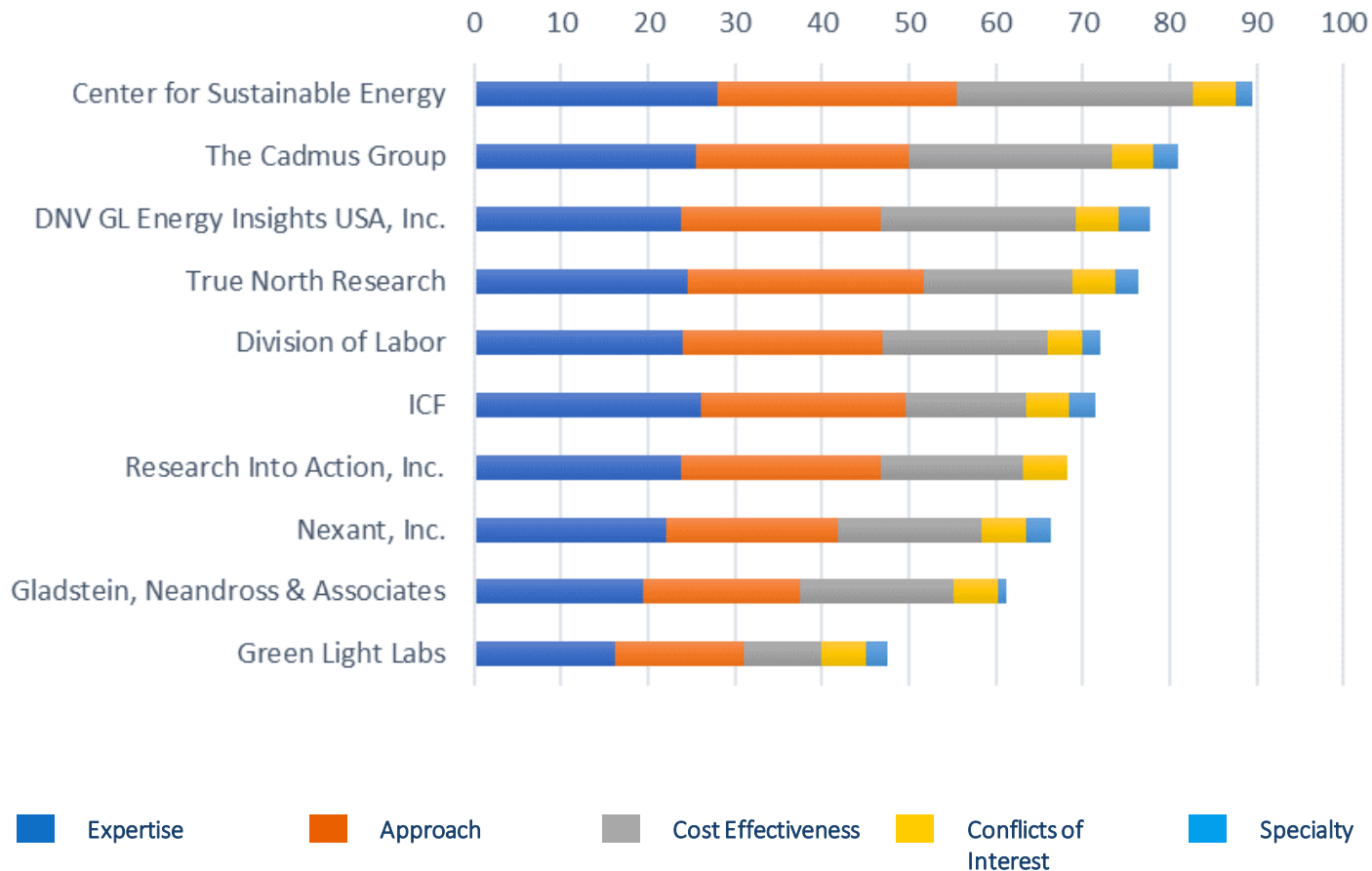
**Data**



**Outreach Messages**



# EV Market Research Study – Review Panel Average Scores



# Recommendation 1 of 2: Center for Sustainable Energy (CSE)



- Nonprofit organization supporting governments to conduct research, develop strategies, implement programs for clean vehicles
- Implementer of the California, Connecticut, Massachusetts, and New York statewide EV incentive programs

## **Proposed research:**

- Builds from previous surveys of low-income communities and dealership
- Mixed approach including surveys, focus groups, and interviews
- Budget: \$115,000

## Recommendation 2 of 2: Kearns and West



- Selected through RFP in 2015 to support Bay Area EV Council
- Current contract ends in June 2019
  - Facilitation and logistics for quarterly meetings
  - Coordinating input from participants to update meeting structure and goals
- Board of Directors (April 3, 2019) approved contract to develop an air quality technical assistance center which increased total contracts with Kearns and West (>\$100,000)



# Recommended Actions



Recommend the Board of Directors:

1. Authorize the Executive Officer/APCO to execute a contract with the CSE in an amount not to exceed \$115,000 for EV market research services; and
2. Authorize the Executive Officer/APCO to execute a contract with Kearns and West in an amount not to exceed \$36,000 for meeting and stakeholder facilitation for the Bay Area EV Coordinating Council.



Thank you

