Transportation Authority of Marin

DATE: February 27, 2020

TO: Transportation Authority of Marin Board of Commissioners

FROM: Anne Richman, Executive Director Anne Richman
Derek McGill, Planning Manager
Nick Nguyen, Project Delivery Manager

SUBJECT: Alternative Fuels Program Update (Discussion), Agenda Item No. 11

RECOMMENDATION

This program update is a discussion item only.

Staff presented this item to the Citizens' Oversight Committee (COC) at its January 27, 2020 meeting, addressed questions and received generally positive feedback from the COC. Questions received are mostly on TAM's budgeting process and outreach efforts, recognizing the need for accelerated electric vehicle (EV) adoption.

Staff presented this item to the TAM Funding, Programs and Legislation Executive Committee at its February 10, 2020 meeting. Staff addressed questions and received positive feedback from the Committee. Questions received were focused on funding provided to public agencies and whether the program should expand beyond public agencies, the potential for fast charging, hydrogen fuel cell technology, and other alternative fuel use. Staff responded that the use of public funds on public property is a policy choice that has been supported by the Alternative Fuel and Electric Vehicle (AFEV) Ad Hoc Committee and public agency staff. The use of other fuel technology is an eligible use of these funds. TAM provides rebates for hydrogen fuel cell technologies and is working with partners to consider medium and heavy-duty vehicle pilots.

BACKGROUND

With the passage of Measure B, the $10 Vehicle Registration Fee (VRF) in 2010, TAM developed an Alternative Fuel Program as designated in Element 3, Reduce Congestion and Pollution, of the VRF Expenditure Plan. The Alternative Fuel Program provides funding for three main areas:

- Public Agency Electric Vehicle (EV) Charging Infrastructure,
- Public Agency EV Fleet Conversion; and
- Public Outreach/Technical Assistance.

As approved by the voters, this program was developed to maximize the use of scarce local transportation funding, and leverage outside grants. As noted in the last program update to the TAM Board in January 2019, while Element 3, Reduce Congestion and Pollution, currently receives 25 percent of the VRF funds generated, the Measure B Expenditure Plan approved by voters did not designate the funding levels that each of the sub-elements is to receive; instead, all funding from Element 3 is subject to regular budgeting review. In April 2018, the TAM Board approved a 3-year budget for the Alternative Fuel Program in the amount of $435,000 for FY 2018/19 and $345,000 for both FY 2019/20 and 2020/21.

In January 2019, after an extended program review and collaboration with the TAM AFEV Ad Hoc Committee, the TAM Board refreshed the Alternative Fuels program and adopted a FY2018-19/2019-20 program, now set to expire at the end of this fiscal year. The updated program has a continued emphasis on EV adoption, a new EV marketing effort, and additional review of new clean transportation fuel technologies. The program was developed based on key input from: Marin Public Works Association (MPWA), Marin Planning Directors, Marin Climate and Energy Partnership (MCEP), Bay Area Air Quality Management District (BAAQMD), Main Clean Energy (MCE), Pacific Gas & Electric (PG&E), and local EV advocates.

With approximately 4 months remaining for the current program, TAM staff has prepared the following update for the Board's review and discussion.

DISCUSSION/ANALYSIS

At the time of the January 2019 Alternative Fuel Program Update, TAM had conducted a comprehensive review of the Alternative Fuel Program with local jurisdictions, Bay Area Air Quality Management District (BAAQMD), Main Clean Energy (MCE), Pacific Gas & Electric (PG&E), and outreach to advocates. Based on this process, TAM updated the 2011 Site Plan, and adopted revisions to the EV rebate programs for public agency EV charging equipment and EV fleet programs, with the intent to streamline the funding process for local agencies and reduce some of the hurdles associated with installation of EV infrastructure. (**Attachments A and B)**

Notable changes made in 2019 to our Public Agency Rebate Programs include:

- Increased funding levels for EV charger installations under 10 charging heads
- Allowance for E-bike and non-Clean Vehicle Rebate Program (CVRP) vehicles
- Expansion to allow used vehicle purchases
- Expansion to allow leasing of vehicles
- Pilot opportunities for innovative charging and medium/heavy duty fleet conversion
- Provide technical assistance for local agencies including fleet management support, project delivery assistance and financial/grant planning.

TAM remains at the high end of rebate or incentive programs for EV charging installations when compared to other agencies providing EV charger rebates and fleet conversion rebates. Overall, as the technology has matured and public agency and utility programs have evolved, staff finds that the TAM programs have been a cost-effective way to support the growth in EV infrastructure in the County. However, we will continue to strive for continuous improvement in the administration of the program.

As the new program has been in place for approximately a year, TAM convened the TAM AFEV Ad Hoc Committee again in December 2019. The Ad Hoc Committee discussed program policies and updates on TAM program elements. Most notably the following policies were discussed and generally agreed upon within the Ad -Hoc Committee:

- *Leveraging of local funds* - TAM is one of many partner agencies encouraging the adoption of EVs. Local Jurisdictions, MCE, PG&E, State Agencies and the BAAMD are also key partners promoting EVs. TAM funding is limited and should be used to attract outside funding. Furthering the availability of funding is the private market, which is accelerating investments in charging equipment in Marin, such as VW Electrify America.
- *Replacement of Internal Combustion Engines* – TAM as the Congestion Management Agency (CMA) has a mission to reduce congestion and promote multimodal transportation. TAM's programs should focus on the replacement of internal combustion engines and not encourage more vehicles on the road.

- *Public agency focus* –TAM VRF funds should not be used to invest in private property, where BAAQMD, MCE, and other public utilities have a direct nexus for funding clean air or electric grid investments on private property. Note that the FPL Executive Committee also raised the question of investing in public vs private facilities and encouraged further discussion in this policy area.
- *Maintaining cost effectiveness* – TAM should encourage the investment in EV infrastructure where it is cost effective to do so, and where investment is needed.
- *Define success by increasing EV infrastructure and public agency fleet conversion* –TAM's goal for the program is to encourage EV infrastructure and convert public agencies fleets, and the program is therefore designed to maximize outside investments, provide cost effective installations and serve as a "last in" rebate for local agencies. As such, the outright expenditure of funds is not an appropriate measure of program success. Rather, TAM should support installations that can attract more grant funding and serve the larger goal of increasing charger equipment.

EV Chargers in Marin County Overview

In 2019, TAM released an update to TAM's initial EV Siting Study and noted the market for EV infrastructure at the time of the research (approximately August 2018). Based on TAM staff research, 80% of current electric vehicle charging is done at home. EV owners typically charge at home and, if offered, the workplace. If neither option is available, drivers rely on public charging infrastructure.[1] One exception to this trend is charging installations at multiunit family dwellings. Recent projections from the California Energy Commission (CEC) show that 24.3% of the needed level 2 charging in Marin County is publicly accessible, including commercial and retail locations. This data is included in **Attachment C.**

In 2018, 154 level 2 charging heads (the industry standard) were considered publicly accessible. In December 2019, TAM staff reviewed the current level of charging facilities and is pleased to note that Marin County's EV charging infrastructure has grown significantly, with 40% more charging locations in the county, and 45% more level 2 charging heads.

EV charger growth has occurred all over the County, with private investment in Level 2 and Level 3 charging having grown in Southern Marin corridors, including the Muir Woods Shuttle parking area and the Villages in Corte Madera. Novato has seen growth with the installation of the Electrify America location in Novato. The County of Marin and MCE have expanded the supply of EV chargers in central and northern San Rafael partnering with TAM on funding. Collectively these locations account for most of the growth of EV charging infrastructure in the county.

TAM EV Charger Rebate Program Update

Prior to FY2018/19, TAM funded 68 charger heads in the County, leveraging grants from BAAQMD with local funding. The launch of PG&E and MCE funding programs alongside TAM's revised program have increased the number of installed charger heads and committed projects moving forward.

TAM rebates grew from 68 prior to FY2018/19 to 138 charging heads, a 103% growth rate as of December 2019. In addition to these installed chargers, public agency partners throughout Marin have committed to installing an additional 205 charging heads in Marin County. When these committed chargers are installed this would result in 343 installed chargers with TAM funding, an increase of over 504% from the 2018 baseline. The project sponsors of these chargers are shown in **Attachment D.**

[1]Accelerating Investment in Electric Vehicle Charging, Ceres, March 2018

Table 1: EV Charging Heads Summary

	August 2018	December 2019	*% Change*
TAM Funded EV Charging Heads	68	138	*103%*
TAM Funded EV Charging Heads (Publicly Accessible)	44	95	*116%*
Total Publicly Accessible EV Charging Heads	154	224	*45%*

The growth of EV chargers in Marin county is not only from TAM's program, but also the availability of funding from PG&E, MCE and other funding sources. TAM's program will continue to coordinate with these public entities, however the maturation of these programs will change the role TAM plays in supporting public agency EV charger adoption in Marin County, as all of TAM's rebate recipients are also MCE customers. TAM will continue to work closely with MCE, as these programs mature and change to meet customer's needs.

Additionally, there is a limited amount of publicly accessible parking locations in Marin County that would likely be cost effective or serve a benefit for EV charging. As documented in the 2018 site plan, residential and commercial charging are likely to be the important locations to support EV adoption, and TAM may need to reconsider our role in EV charger installations to seed innovative charging installations and respond to local needs around electric bikes, wildfire and power shut-off events, and the maturation of the utility providers and private charging enterprises.

Upcoming Commitments to EV Charging

TAM has been coordinating with partner agencies in Marin County to continue the investment trend in EV charging. College of Marin, San Rafael City Schools, County of Marin, the City of Novato and the City of San Rafael are all expected to deliver EV charging infrastructure in the coming months. Much of this work is supported by TAM technical assistance, providing grant funding opportunities and financial planning, as well as assistance in the project delivery process as needed. Based on CEC's goal of 914 publicly accessible chargers on public, commercial and retail land uses in Marin County, TAM is on track to provide a third of that goal on public lands.

TAM EV Fleet Rebate

In addition to TAM's EV Charging Infrastructure Program, TAM has been coordinating with local agencies to support the transition of public fleets in the county to alternative fuel vehicles including EVs. The current program has expanded the eligibility to support flexibility requested by fleet managers in the county, and has expanded to include E-bikes, leasing of vehicles, and Zero Emission Vehicle utility buggy/carts.

With the changes made to the program eligibility, TAM rebates saw an uptick in E-bike purchases with 6 e-bikes purchased by public agencies. Ten rebates were distributed for EVs, and 1 partial Hybrid Electric Vehicle (PHEV) rebate was distributed. Currently there are 9 committed rebates and TAM is expecting more in coming months. A list of these rebates is attached as **Attachment D.**

It's important to note that while there may be a large fleet of public vehicles in the county, the majority of fleet is "mission-critical" trucks, passenger vans, four wheel drive vehicles, and medium or heavy-duty fleets that are not supported by the current EV market. Initial analysis indicates this leaves a small market of public agency fleet vehicles remaining for consideration of electrification.

Given the small amount of fleet vehicles eligible for conversion, the relative age of the current vehicle fleet, and recent state and federal fuel efficiency policy changes, TAM should consider seeding pilot programs on medium and heavy-duty fleets to attract regional or state funding.

EV Outreach and Education Program

TAM's EV outreach program has continued to target EV fleet conversion and charging equipment installation through outreach to public agencies focusing on first time installations; as well as providing technical assistance for agencies considering EV fleet conversion or charging equipment. As mentioned earlier, fleet management assistance, financial planning and grant assistance are also provided. The primary focus has been school districts and along key opportunity areas identified in the EV site plan, including major corridors in southern Marin along US 101. Specific activities over the past year include the following:

1. Outreach to local elected officials; e.g. promotion at Marin County Council of Mayors and Councilmembers meeting,
2. Outreach to Public Works and Planning Department officials,
3. Drafting of information toolkits for EV purchase and charger installation
4. EV educational information directly for consumers has been refreshed with new messaging and social media campaigns to promote EV adoption through TAM's contractors, Cool The Earth (e.g. Drive Clean Marin) and Reach Strategies.
5. Messaging and promotion have been coordinated with Drawdown Marin and TAM's green transportation alternatives program, Marin Commutes.
6. TAM's participation in two successful EV test drive events over the past year. One was produced by TAM in concert with its contractor for the San Rafael May Madness classic car show, and the second was a title sponsorship of the Drive Clean Marin EV test drive at the College of Marin.
7. Increased technical assistance to public agencies requesting information on EV purchasing and charging installation.

FISCAL IMPACTS

In April 2018, the board approved a 3-year budget for the Alternative Fuel Program in the amount of $435,000 for FY 2018/19 and $345,000 in both FY 2019/20 and 2020/21. Additionally, the TAM board approved a motion that unspent Alternative Fuel program funds from the increased funding level remain in the alternative fuel program.

Based on the revenue and expenditure information shown in **Attachment E**, revenues for this program have been assigned from Measure B Element 3.3 funding, as well as other funding sources available to TAM. Local uptick in growth of EV charger and EV fleet conversion rates show significant progress in the transition of electrification in transportation. As financial stewards of voter approved funding, TAM's administration of the alternative fuels program highlights TAM's goals of leveraging outside funding and supporting cost effective charging infrastructure. TAM is meeting the goals of project delivery and the expenditure of program funds continues to remain in budget.

TAM staff is currently exploring program options for the next fiscal year and will work with the AFEV Ad Hoc Committee to discuss potential program modifications.

NEXT STEPS

TAM will convene the AFEV Ad Hoc Committee and present the FY20/21 Program for the TAM Board's consideration in the near future.

ATTACHMENTS

Attachment A: TAM EVSE Rebate Program for 19/20
Attachment B: TAM Fleet Replacement Program for 19/20
Attachment C: California Energy Commission Goals for EV Chargers in Marin County
Attachment D: TAM Rebate Summaries
Attachment E: Program Revenues and Expenditures
Attachment F: Presentation

Title: **Dates:**	**Electric Vehicle Supply Equipment Grant Program** July 1, 2019 - June 30, 2020
Description:	TAM's Electric Vehicle Supply Equipment (EVSE) Grant Program assists public agencies that install employee-only or publicly accessible electric vehicle charging stations. The application process is designed to be streamlined. To participate, public agencies must meet the requirements below.
Eligible Agencies:	Marin County's government entities and public districts, including school districts, colleges, and universities.
Local Fund Source:	TAM's EVSE Grant Program is funded through Measure B, the $10 Vehicle Registration Fee.
Rebate Summary:	Based on a first-come first-serve basis until funds are depleted for the year, the EVSE grant program is focused on level 2 charger installation and provides matching funds for the installation of Level 1 and level 2 chargers at the following rebate level: • Under 10 charging heads: **88.5%** of the complete installation up to $1,500 for one Level 1 charger (per charging head) or up to $3,000 for one Level 2 charger (per charging head). • For installations over 10 charging heads: **75%** of the complete installation up to $1,500 for one Level 1 charger (per charging head) or $3,000 for one Level 2 charger (per charging head). Agencies interested in medium and heavy-duty fleet conversions should contact TAM staff for assistance in identifying additional grant opportunities to support Level 3 (DC Fast Charging) equipment.
***Add'l Fund Source (Not Mandatory to apply for TAM's grant program):**	TAM encourages the leveraging of other regional, state, utilities or private funding sources for the installation of EVSE. Additional funding sources are available, and TAM will prioritize the usage of Measure B Funds to leverage other sources, as needed. These fund sources include: • MCE Charger Rebate • BAAQMD Charge! Rebate • PG&E's EV Fleet Charging Rebate and EV programs • Private Fund Sources including Electrify America For more information about these fund sources and the applicability for your charging installation, please contact TAM staff to assist in financial planning to maximize leveraging opportunities.
Summary Requirements:	Eligible Projects: • Owned and operated by a Marin County government entity. • Comply with all applicable local, State and Federal requirements. • Are upgrades/improvements that expand access to existing PEV charging stations and new stations. • Have applicable insurance. • Have authorization to apply for and obtain permits for property, and authorization to operate station.

	• Have adequate funds to complete project. • Maintained and operated for no less than 3 years. • If networked, use an open-standard protocol for network interoperability. • If not free, accept credit cards as payment & shall not require a subscription fee or membership. • Projects completed (installed and in-service/operable) within 9 months • Charger locations must also be identified with at least 2 standardized way-finding traffic signs to direct motorists if the chargers are to be publicly accessible. Eligible Project Costs: • Labor & material construction costs. • Labor & fees associated with cost to obtain permits. • Equipment and equipment shipping costs.
How to Apply for a TAM EVSE Grant:	1. Reserve your grant with an email to nnguyen@tam.ca.gov. Include the quantity and estimated date of installation. Call to confirm with program coordinator, Nicholas Nguyen, at 415-226-0831. 2. Within 30 days of your reservation, confirm your commitment by providing a letter of intent signed by an authorized representative of your agency (use the sample below). 3. Comply with the summary requirements listed above, and purchase/install chargers. 4. Submit supporting documents to show completion, including contract, final costs, digital photographs of installed charger(s), and any changes from letter of intent. Submit electronically to nnguyen@tam.ca.gov, or by U.S. Mail to EV Charger Rebate, Transportation Authority of Marin, 900 5th Avenue, Suite 100, San Rafael, CA 94901 5. Once TAM verifies compliance with requirements, TAM will notify you and process your grant payment within 45 days.

Title: **Dates:**	**TAM Electric Vehicle Fleet Rebate Program** July 1, 2019 - June 30, 2020
Program Description:	TAM's EV Fleet Rebate Program assists public agencies that replace internal combustion engine (ICE) vehicles with electric (fuel cell and battery) and plug-in hybrid vehicles.
Eligible Agencies:	Marin County's government entities, including jurisdictions, school districts and special districts.
Local Fund Source:	This program is funded through Marin County's Measure B ($10 Vehicle Registration Fee).
***Rebate Summary:**	TAM's EV Fleet Rebate Program provides a rebate for public agencies to convert ICE fleets to EV fleets. This program is administered on a first come first serve basis as funds are available and prioritizes conversion of existing light duty fleet conversion. The program provides the following rebates by vehicle type: • ***New Light Duty Vehicles**:* TAM provides rebates of up to $5,000 for the purchase ***or lease*** of new, eligible zero-emission and plug-in hybrid light-duty vehicles. These funds serve as an *additional* match to the California Clean Vehicle Rebate Project (CVRP), where rebates up to $5,000 for new, eligible zero-emission and plug-in hybrid light-duty vehicles are provided by the state. Together these programs reduce the cost of a new EV by up to $10,000. CVRP and TAM Rebates are as follows: o Hydrogen Fuel Cell Zero Emission Vehicle (ZEV): $5,000 CVRP/$5,000 TAM o Battery Electric ZEV: $2,500 CVRP/$2,500 TAM o Plug-in Hybrid Vehicle: $1,500 CVRP/$1,500 TAM o Zero Emission Motorcycle: $900 CVRP/$900 TAM • ***Used Light Duty Vehicles***: Used fuel cell and battery ZEV's are eligible to receive a rebate of $1,000 per vehicle for ZEVs that were CVRP eligible when new. • ***Other (Non-CVRP) Vehicles**:* For purchases of new non-CVRP eligible ZEVs, TAM will provide 75% of the cost up to $1,500/vehicle will be made available to jurisdictions. These vehicle types include Electric Utility Vehicles such as utility and police buggies. Electric assist pedal bikes are eligible in this category and TAM will provide 75% of the cost up to $1,000/e-bike. • ***Medium and heavy-duty vehicles**:* On a case by case basis, funds may be made available to public agencies to serve as a portion of local match requirements for regional, and state grants for fleet/engine replacement, including the Heavy Vehicle Incentive Program (HVIP) and Carl Moyer Grants. These grants support medium and heavy-duty fleet replacement with cleaner technology. Priority will be given to pilot demonstrations. Transit fleet replacements are excluded in this category as Battery Electric Bus fleets are evaluated in the county. TAM will provide funding for a limit of five (5) vehicles per agency per year, with exceptions made on a case-by-case basis with consultation of TAM staff. Applicants must meet all requirements of the CVRP, including operating the

	vehicles in California for 36 months (https://cleanvehiclerebate.org/eng). Applicants are encouraged to apply for additional private, state and regional funding programs as available and applicable. TAM staff will work with project sponsors to promote leveraging of local funding.
How to Apply for a TAM EV Rebate:	TAM's program follows guidelines in the Clean Vehicle Rebate Project (CVRP). Follow the CVRP process and mail a copy of your documents to TAM. See details at http://energycenter.org/cvrp. 1. Select an eligible vehicle from the state approved list: https://cleanvehiclerebate.org/eng 2. Reserve your rebate with an email to EVRebate@tam.ca.gov. Include the quantity and make/model of vehicles, along with the estimated month of purchase. Include also a description of the ICE vehicles to be retired with estimated date and time of retirement. 3. Within 45 days of your reservation, confirm your commitment by providing a letter of intent signed by an authorized representative of your agency (sample provided). 4. Purchase or lease your eligible vehicle. 5. Apply for the CVRP using instructions on their website https://cleanvehiclerebate.org/eng. You will be issued a CVRP Application Number. 6. Mail supporting documents to CSE, per instructions. 7. Send a copy of your CSE documents and CVRP Application Number to TAM. Submit electronically to EVRebate@tam.ca.gov, or by U.S. Mail to EV Rebate, Transportation Authority of Marin, 900 5th Avenue, Suite 100, San Rafael, CA 94901. 8. Once TAM verifies approval of your submitted CVRP rebate, TAM will notify you and process your rebate within 45 days.
Other Resources:	• The Center for Sustainable Energy administers the CVRP: https://cleanvehiclerebate.org/eng • BAAQMD Charge! Program: http://www.baaqmd.gov/?sc_itemid=F026D4AC-FE69-4FBD-9232-187E17FC428D • U.S. Department of Energy Alternative Fuels Data Center has information on alternative fuel vehicles, laws and incentives, and a vehicle cost calculator tool: http://www.afdc.energy.gov/ • U.S. DOE fuel economy calculator has information on federal tax credits: http://www.fueleconomy.gov/feg/taxevb.shtml • Information about the California Air Resources Board's Zero Emission Vehicle program: http://www.arb.ca.gov/msprog/zevprog/zevprog.html • The California Plug-In Electric Vehicle Collaborative is a public/private organization focused on accelerating the adoption of PEVs to meet California's economic, energy and environmental goals: https://www.driveclean.ca.gov/ • The Golden Gate Electric Vehicle Association: www.ggeva.org
Supporting: Documents	TAM EV Fleet Rebate Program: How it Works TAM EV Fleet Rebate Sample Letter of Intent

CEC EVI-Pro charger projection goals - upper estimate for chargers by 2025 per jurisdiction based on TAM Demand Model Service Population Estimates (2015)					
	Service Population (%)	**PEV Multi-Family**	**PEV Work L2**	**PEV Public* L2**	**PEV Public DC Fast:**
Belvedere	0.65%	14	4	6	2
Corte Madera	4.82%	106	31	44	16
Fairfax	2.61%	58	17	24	9
Larkspur	7.10%	157	45	65	24
Mill Valley	5.75%	127	37	53	19
Novato	22.17%	489	141	203	75
Ross	0.78%	17	5	7	3
San Anselmo	4.41%	97	28	40	15
San Rafael	30.66%	676	196	280	103
Sausalito	5.55%	122	35	51	19
Tiburon	3.87%	85	25	35	13
Marin	11.63%	256	74	106	39
Total	**100.00%**	**2204**	**638**	**914**	**336**

Estimated Total Level 2 Chargers needed	3756
Total Public* Level 2 Chargers	914
% of Public* Chargers/Total Need	24.3%

Projections based on California Energy Commission (CEC) EVI-Pro Report and website available here:
https://maps.nrel.gov/cec/?aL=0&bL=cdark&cE=0&lR=0&mC=36.8708321556463%2C-116.34521484375001&zL=6

*Public includes all publically accessible locations including commercial/retail properties.

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Agencies	Location	# of Charging Heads	Status
EV Chargers 2018/19			
San Anselmo	Magnolia Parking Lot	8	Operational
MCE	MCE Offices	10	Operational
County of Marin	Marin Civic Center	47	Operational
TAM	TAM Offices	2	Operational
Ross	Town Hall	2	Operational
EV Chargers 2019/20			
Corte Madera	Town Hall	1	Operational
San Rafael City Schools	Various	129	In Progress
City of Novato	Various	14	In Progress
College of Marin	Kentfield Campus	36	In Progress
Marin County	Los Gamos Building	24	In Progress
Tamalpais CSD	District Office	2	In Progress

EV Fleet Rebates 2018/19

E-Bikes	*Purchased*	*Committed*
Corte Madera	1	
Mill Valley	3	
Novato Police	1	
San Anselmo	1	
Total	*6*	*0*

EVs Purchased		
Larkspur	2	
San Anselmo	2	
County of Marin	4	
County Parks & Open Space	2	
Ross	1	
Marin County Office of Education		4
Novato		5
San Rafael		TBD
Total	11	9+

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TAM Alternative Fuel Program
FY18/19 Expenditures, Revenues and Grants

Budget Information	**2018/19**
Measure B - Budget	435,000
Program Information Details	
1. Public Outreach	52,451
2. Technical Assistance	82,471
3. Marin Transit (2 buses)	75,000
4. Marketing Materials	7,910
5. EV Public Fleet Rebates	25,500
6. TAM EV Charger Rebates	64,599
TAM Program Expenditures	**307,931**

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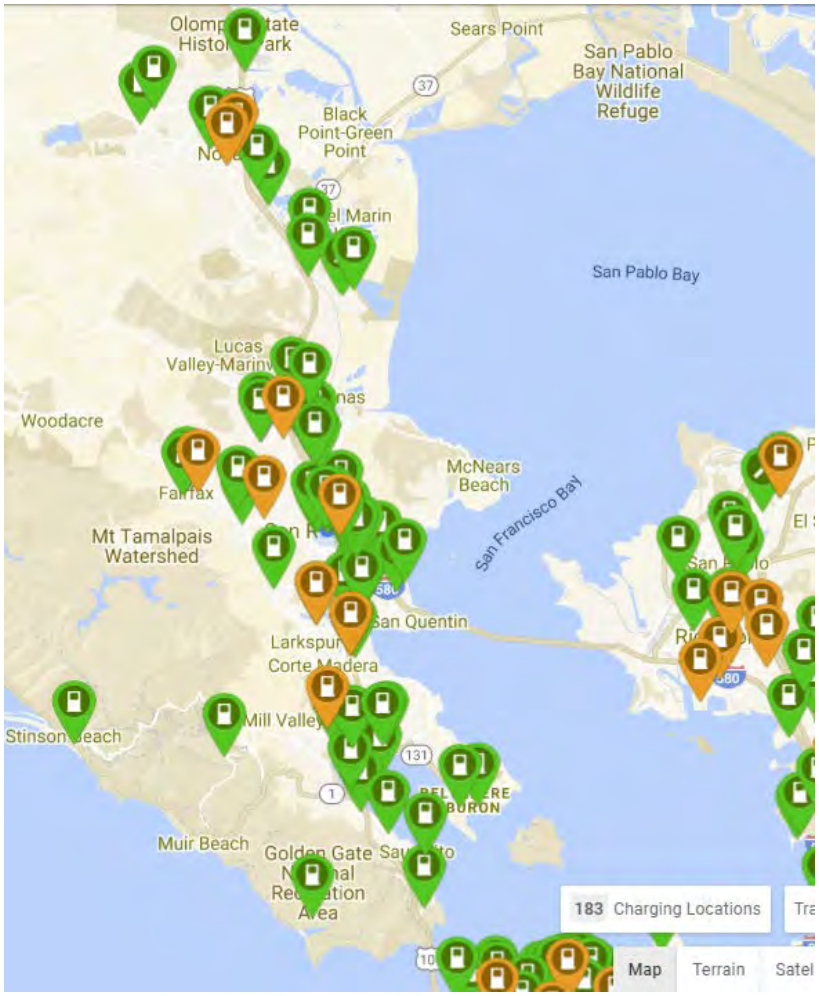
Alternative Fuels Program Update

TAM Board of Commissioners

February 27, 2020

Alternative Fuels Program Overview

- Marin County is a leader in Vehicle Adoption (3% of DMV Reg.)
- Measure B Element 3.3
- TAM Program launched in 2011
- Initial Siting Plan in 2011
- Public Agency Focused
  - EV Charging Infrastructure Program
  - Clean Fleets/Fleet Conversion
  - Outreach/Technical Assistance
- Updated program for 2019



The EV Space is Complex

Residential / Multi Family
-Local Jurisdictions
-PGE
-BAAQMD
-MCE

Commercial/Business
-Local Jurisdictions
-PGE
-BAAQMD
-MCE

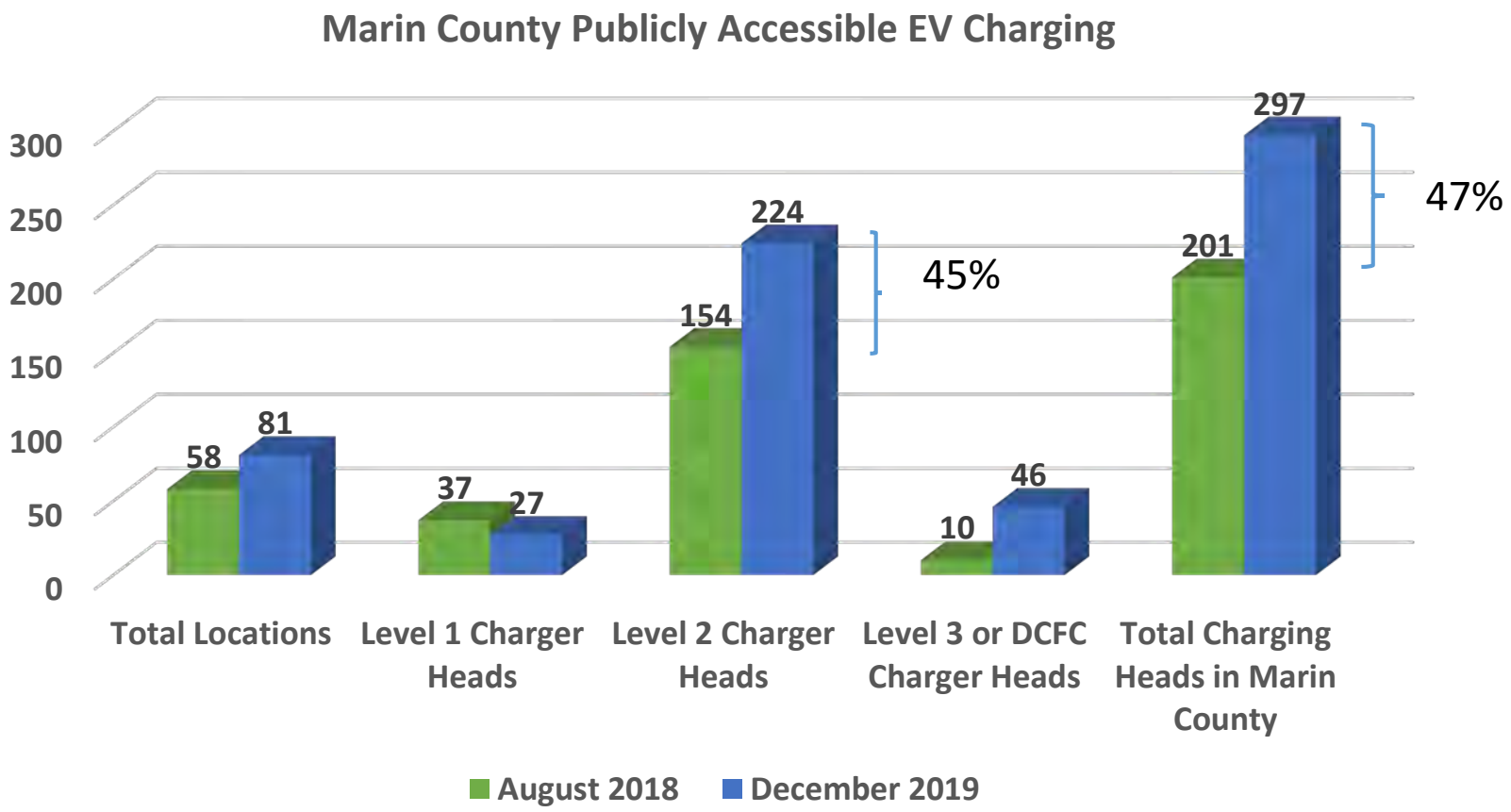
Public Infrastructure
-Local Jurisdictions
-BAAQMD
-TAM
-MCE
-PGE

Vehicle Choice
-Auto Makers
-CARB
-Public Preference

Transit and Public Fleets
-Transit Operators
-Local Jurisdictions
--CARB
-BAAQMD
-TAM
Manufacturers

Regulations and Grants
- US DOT/EPA/etc.
- CARB, CEC, etc.
- Air District
- Local agencies & utilities

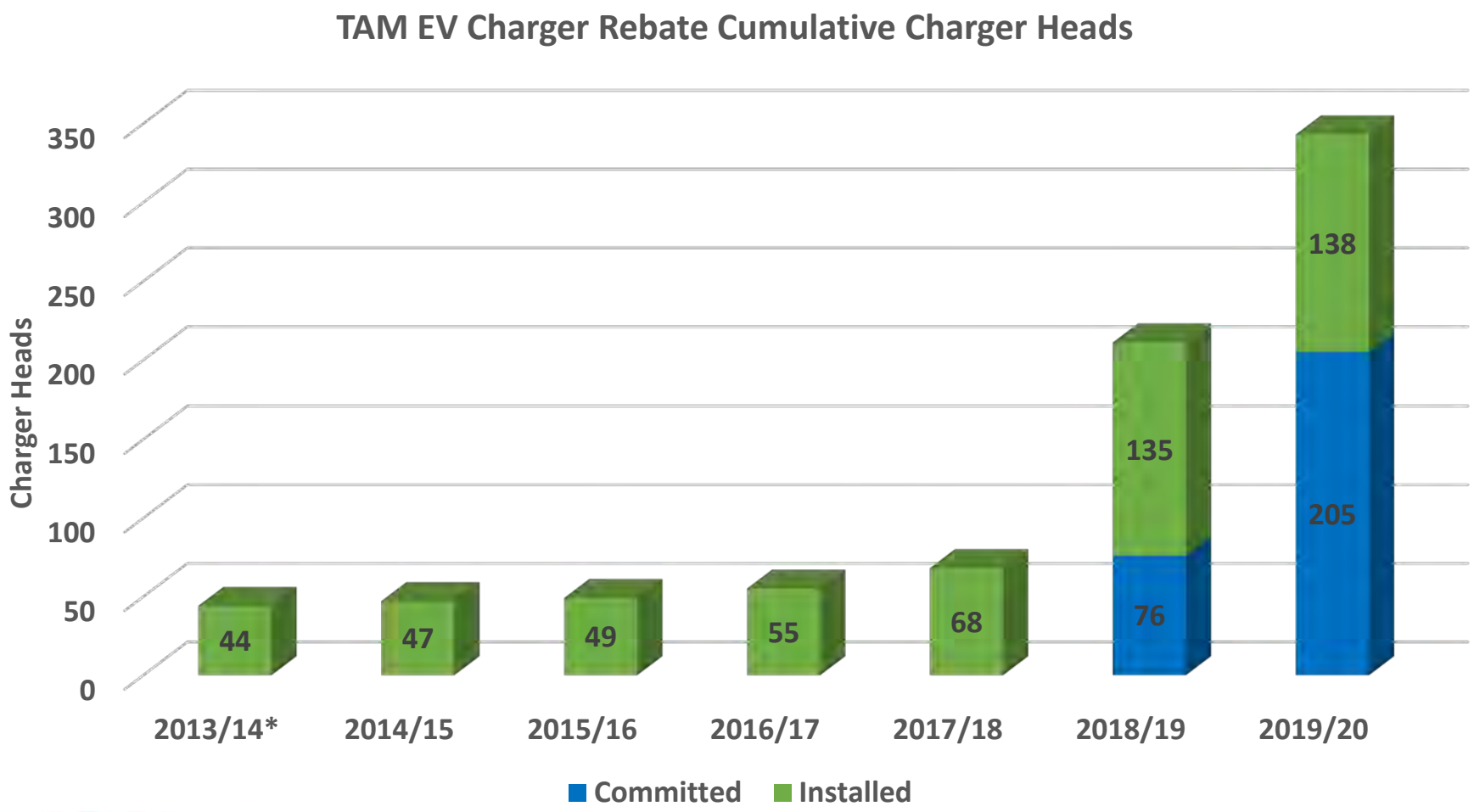
Marin County EV Charging Growth



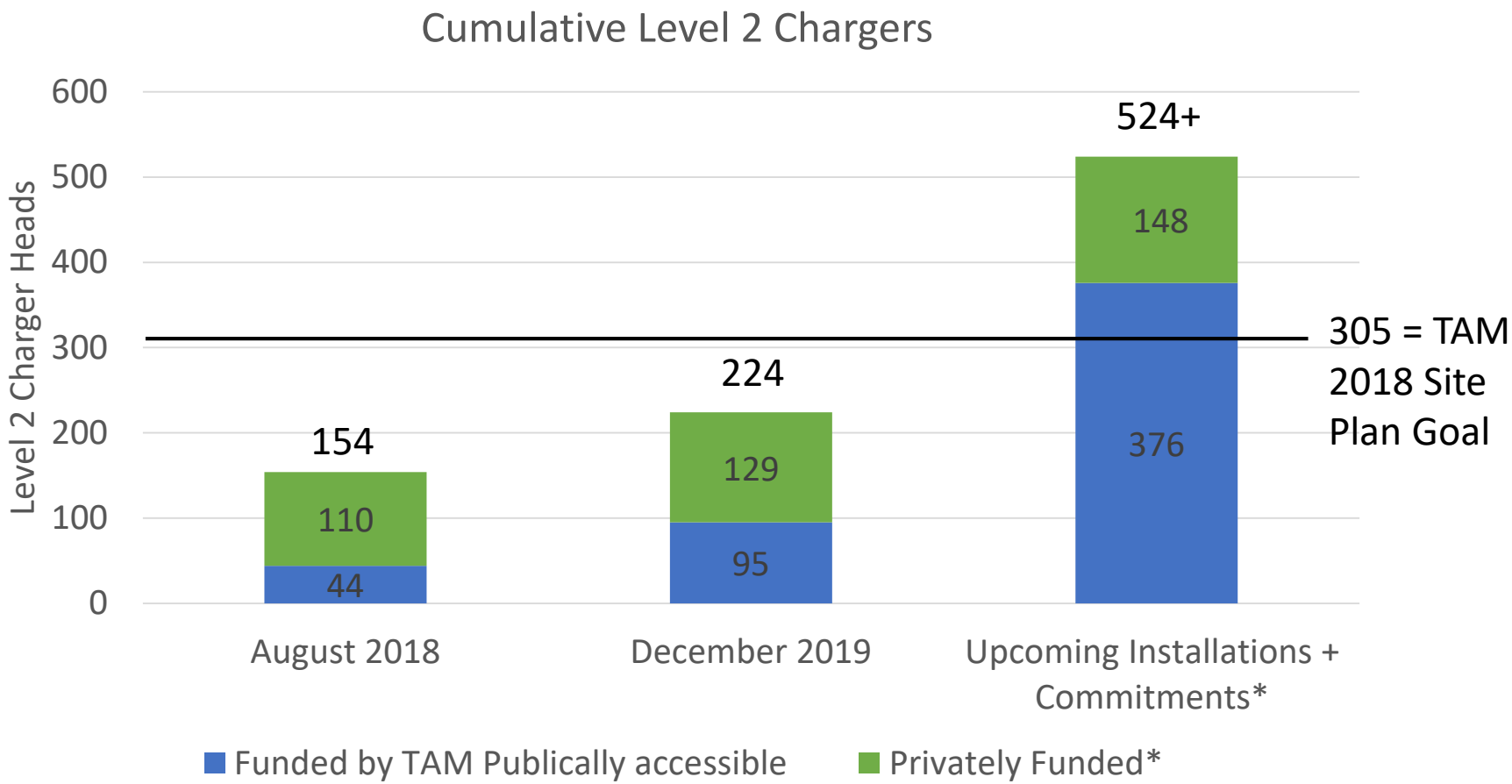
TAM EV Charger Program

- Public Agency Focus
- High Grant Levels
- Collaborate with MCE/PGE/BAAQMD to promote fund leveraging
- Priority is Level 2 Charging Installations
- *Program Details:*
  - Up to $3,000 Rebate/Head
  - Increased Funding Levels for smaller sites – up from 75% to 88.5% of total
  - Increased Technical Assistance
  - Advanced Opportunity Areas like Southern Marin Corridors
  - Delivered committed projects

TAM's EV Rebate Usage



Anticipated Charger Growth



*Assuming the current growth rate of private investment.

Examples of EV Charger Costs

- More funding does not equate to more installations
- Meeting the goal of increased charger heads, reduces TAM's rebate payout

Example A - Single Charger pedastal, 2 heads	
Charger Costs (Dual Head)	3,500
Panel Upgrades	7,000
Trenching Costs	10,000
Total Installation Costs	*20,500*
MCE Rebate ($3k/Head)	6,000
BAAQMD Rebates	0
TAM Rebates	6,000
Cost to Jurisdiction	*8,500*

Example B - 5 pedestals, 10 heads	
Charger Costs (5 Dual Head units)	17,500
Panel Upgrades	7,000
Trenching Costs	20,000
Total Installation Costs	*44,500*
MCE Rebate ($3k/Head)	30,000
BAAQMD Rebates	10,000
TAM Rebates	3,375
Cost to Jurisdiction	*1,125*

Average TAM Rebate shows costs are approximately $3,800/head.

Fund Leveraging Results

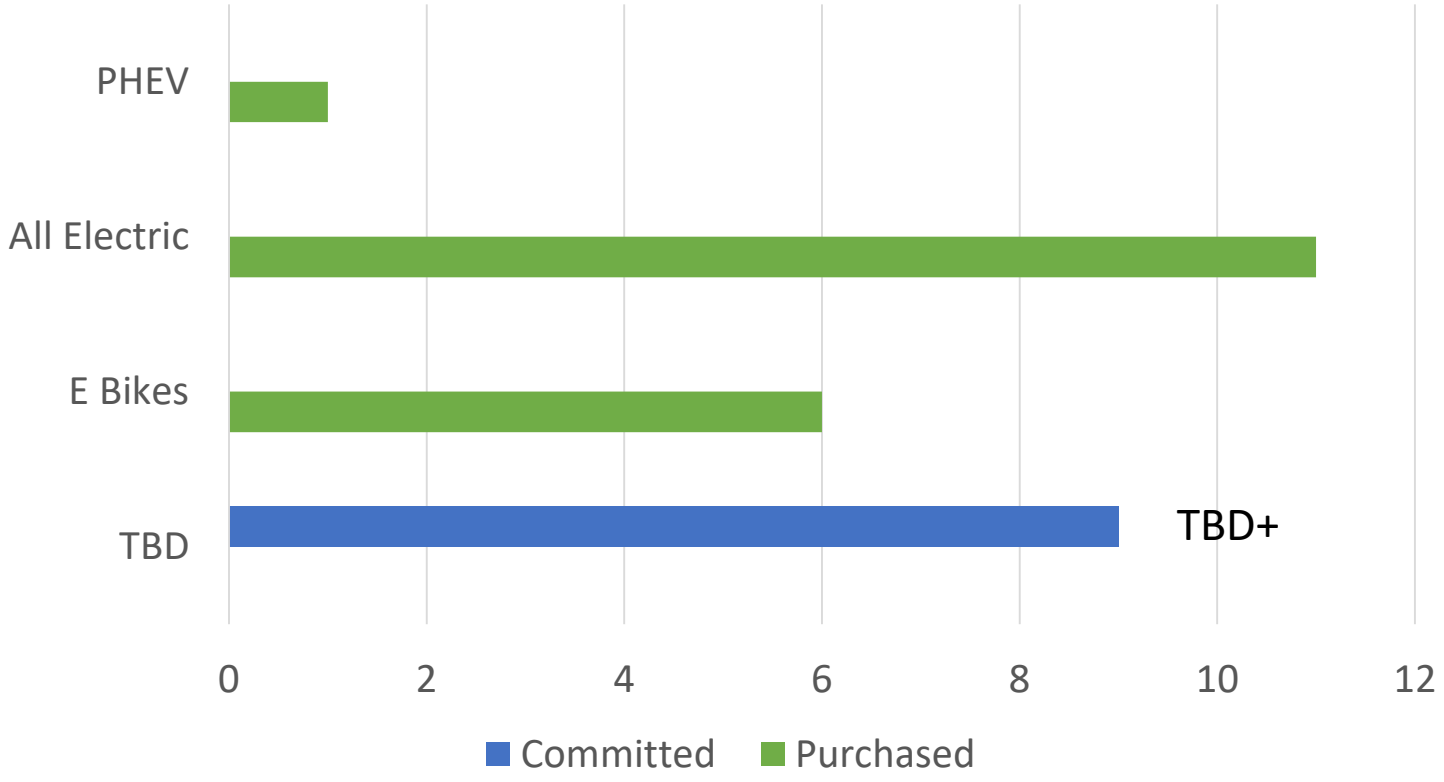
- FY 18/19 Results
- 333% return on TAM's Funding

TAM Fund Leveraging	
TAM EV Charger Rebate	64,599
BAAQMD Grants	125,000
MCE Rebates	66,494
PGE Rebates	23,575
Total Leveraged Funding	***215,069***
EV Charger Rebate Leverage Rate	***333%***
Total Charger Installation Costs (Paid by TAM Partner Agencies)	361,674
Project Sponsor Costs	82,006

TAM EV Fleet Rebate Program

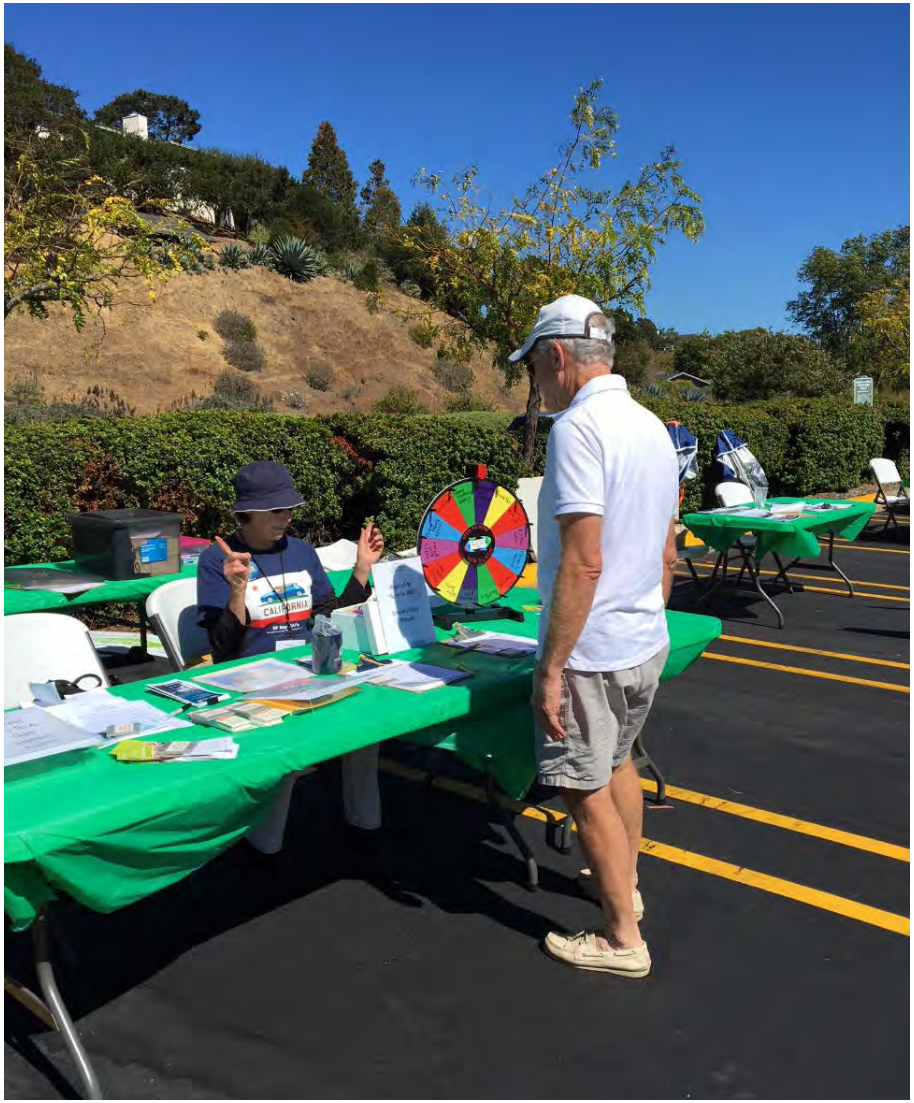
- Maintain Public Agency Focus and High Grant Levels
- Priority remains on Light Duty Vehicles and Fleet Conversion
- Expanded Program Eligibility Categories in 2019
- *Program Details:*
  - Include Vehicle Leasing
  - Include Used Vehicles
  - Include E-bikes and Other Zero Emission Vehicles
  - Explore Medium and Heavy Duty Fleet Conversion
  - Expand Technical Assistance

2018/19 EV Public Fleet Uptick

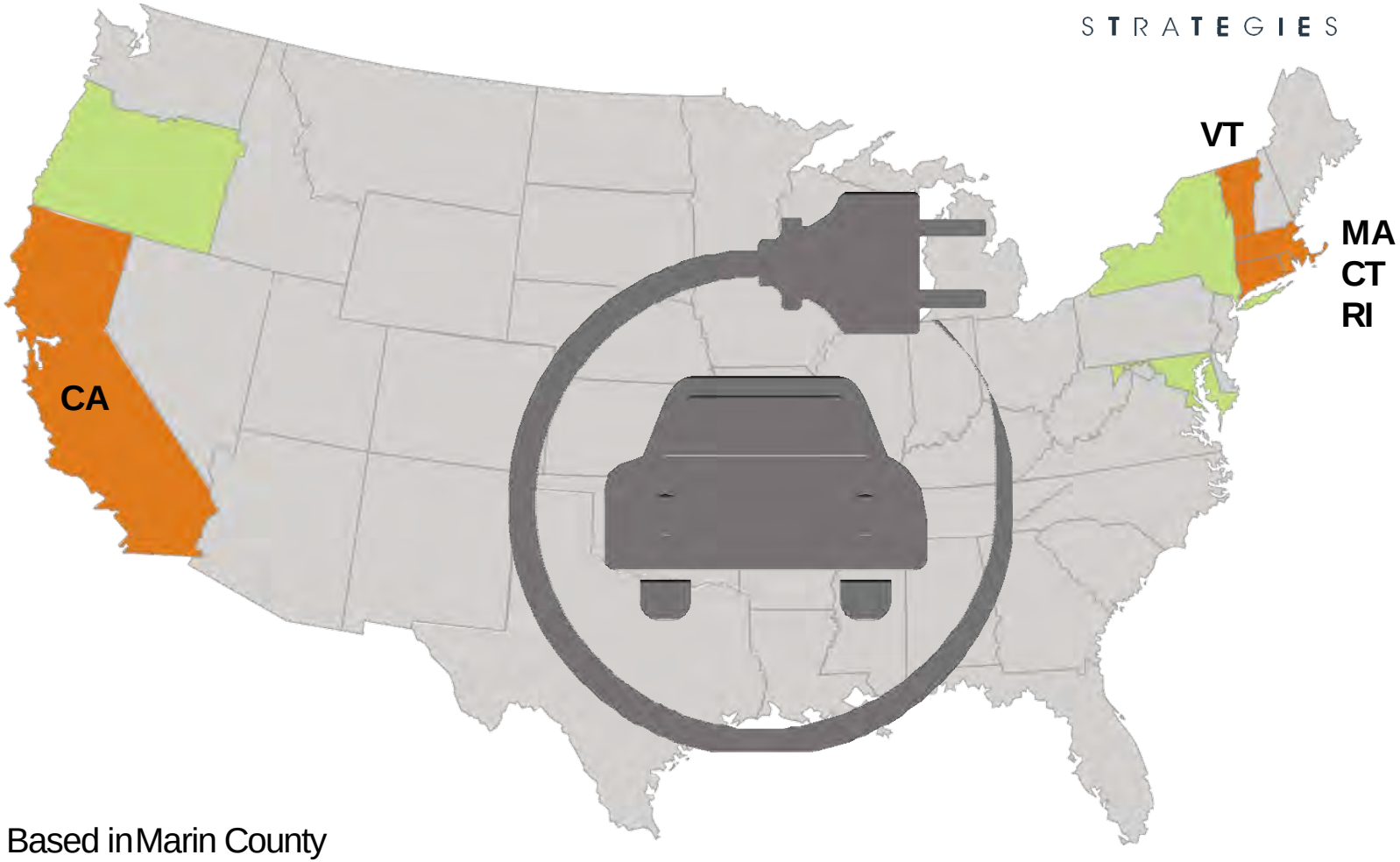


Outreach & Technical Assistance

- Public Agency Technical Assistance for funding and project delivery - increases rebates
- Coordination with Marin Commutes, Drawdown
- Provide opportunities and information for consumers



REACH ACROSS AMERICA



Based in Marin County
National leader in brand agnostic EV promotion and education.
www.reach-strategies.org

Transportation Authority of Marin

FUNDING TRANSPORTATION PROJECTS, PLANNING AND PROGRAMS IN MARIN COUNTY

How Electric Vehicles Can **Benefit You**

Electric vehicles bring benefits for everyone in your entire household. Over one million drivers across the United States and here in Marin are saving money and reducing environmental impacts by driving plug-in vehicles.

Electric Vehicles Save You Money

$1,200 a year on fuel and maintenance costs. No more oil char-
ity as fuel which is far cheaper than gasoline; roun
hase or lease a new or us

FUNDING TRANSPORTATION PROJECTS, PLANNING AND PROGRAMS IN MARIN COUNTY

ity of Marin

ow TAM **Supports** Electric Vehicles

To maintain the high quality of life in Marin, TAM supports the transition from fossil-fuel-based transportation to more sustainable electric vehicles. Switching to electric vehicles reduces harmful air pollution levels in our community and decreases greenhouse gas emissions. TAM supports EVs in an effort to create a more sustainable future for generations to come.

Expanding EV charging infrastructure

Growing electric vehicle charging infrastructure throughout Marin County is a critical part of TAM's commitment to sustainable transportation. As more electric vehicles merge onto roads and highways in Marin, public demand for readily available charging stations is increasing. TAM oversees revenue generated by Measures AA and B, which is used to help develop hundreds local EV charging stations. TAM funded double the amount of chargers they supported in 2018 and is set to double their number again in 2019. TAM is committed to help fund the installation of over 100 additional chargers throughout Marin this year, including the San Rafael School District and the College of Marin.

Converting Vehicle Fleets to Electric Power

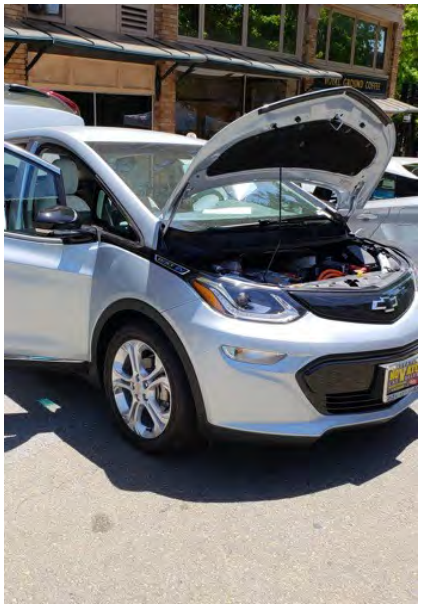
Replacing older gas-only vehicles reduces local air pollution and greenhouse gas emissions, as well as reducing costs for fuel and vehicle upkeep. TAM provides up to $5,000 per vehicle to replace older more polluting vehicles with EVs. The EV fleet program covers new plug-in vehicles, e-bikes, small utility EVs, and used electric vehicles. TAM helps municipalities, school districts, and local businesses convert their fleet to clean technologies by providing technical assistance, information on funding sources, etc. For example, the Marin County Department of Public Works fleet features a mixture of hybrid and electric vehicles. County parking lots have installed electric vehicle charging stations and local police stations have added e-bikes.

Promoting Electric Vehicle Awareness

TAM works with EV Marin residents to help with public outreach and EV promotion including supporting EV test drive events each year. These test drive and informational events feature the latest electric vehicles and allows attendees to experience them at no cost in an environment free m any sales pressure. Participants can ask questions and learn about the new technology while able to drive an array of EV options.

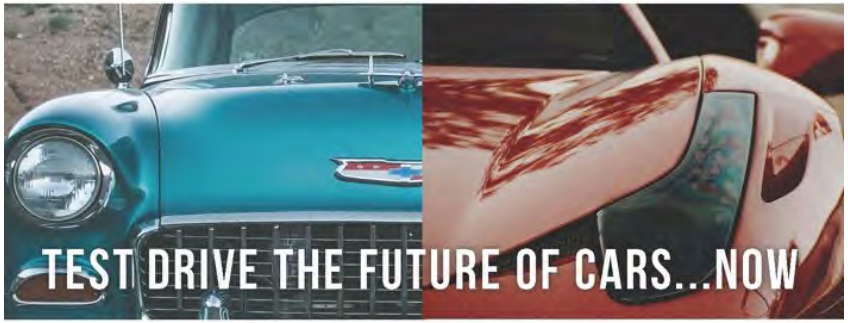
Present Fact-Based Information Resources

Spotlight Charge Station Progress



DRIVE CLEAN *Sponsored by:* TAM Transportation Authority of Marin

ELECTRIC VEHICLE TEST DRIVE EVENT



Where: DOWNTOWN SAN RAFAEL @ MAY MADNESS *Date:* SATURDAY, MAY 12TH, 2018

Time: 12 PM - 4 PM | **VALID DRIVER'S LICENSE REQUIRED

WWW.DRIVECLEAN.ORG/TAM

OPEN TO ALL MAY MADNESS ATTENDEES

CHEVROLET

and more!

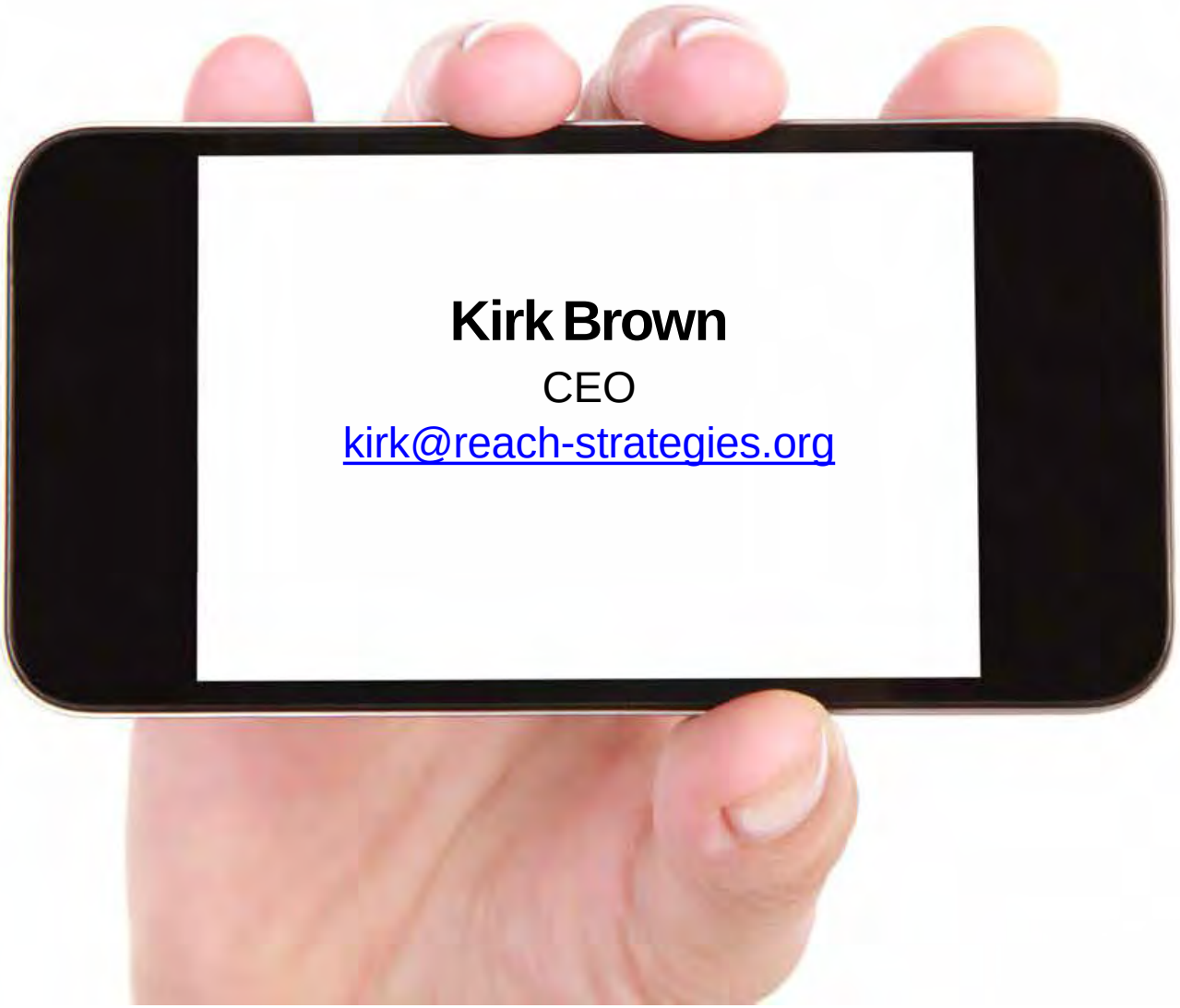
Produced by: reach STRATEGIES

May Madness DOWNTOWN SAN RAFAEL Business Improvement District

Sample Survey Results

- **52% of attendees** drove their first plug-in electric vehicle at the event.
- Before the test drive, **84% of respondents said** that if they were to purchase or lease a vehicle in the next two years, it would **definitely or likely be an EV**
- After the test drive, 80% said their opinion of EVs was much or somewhat better, and **100% said they would definitely or likely purchase an EV as their next vehicle.**

CONTACT:



Considerations for Future of Program

- Maintain focus on Public Agencies
- Consider adjusting TAM's program in these areas:
  - Coordination with funding partners - *to maximize leverage and streamline project delivery*
    - For example: Partner with MCE on CalEVIP
  - Rebate levels for chargers and vehicles – *evaluate rebate levels in context of other rebate programs*
  - Technical Assistance and public outreach – *how to address today's and tomorrows challenges*
  - Support for pilots - *where they make sense*
- Still some uncertainty regarding technology, role of private funding

Questions?

Derek McGill, TAM Planning Manager