TAM Alternative Fuels Program Update

Transportation Authority of Marin

Board of Commissioners Meeting

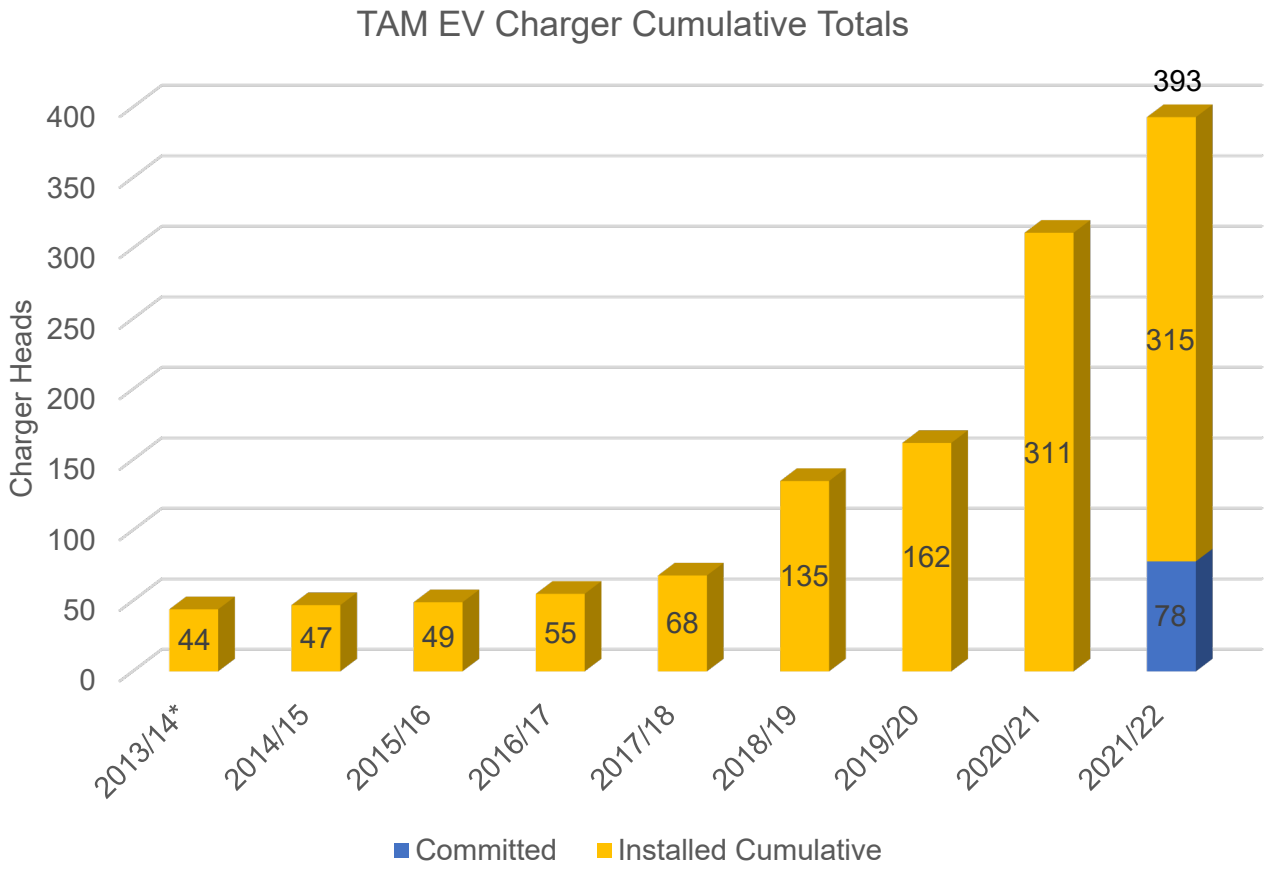
September 22, 2022

Summary of Existing Program

- EV Charger Rebate
  - Up to $6,000 per head available from TAM/Marin Clean Energy
  - Funds applicable to any project costs
- EV Fleet Rebate
  - Matches Clean Vehicle Rebate Project (CVRP)
  - Expanded to include E-Bikes, Utility carts, etc.
- Pilot Provision
  - Funded Zero Emission Busses (ZEBs)
  - Solar charging pilots conducted
- Outreach Support
  - Technical Assistance to public agencies
  - Support for outreach & events

Element 3.3 – Investments to Date

- EV Chargers
  - 393 EV charger rebates
  - 1 Solar Charging Installation
- EV Fleets
  - 36 EV fleet rebates
  - 2 Zero Emission Buses
- EV Outreach & Technical Studies
  - Multiple Ride and Drives
  - EV Siting Studies
  - E-bike Study
  - Parking Lot Study
  - EV Toolkit(s)
  - MCEP Countywide EV Readiness Plan
  - Local Jurisdiction Outreach Funding
  - EV Public Agency Concept Solicitation Process

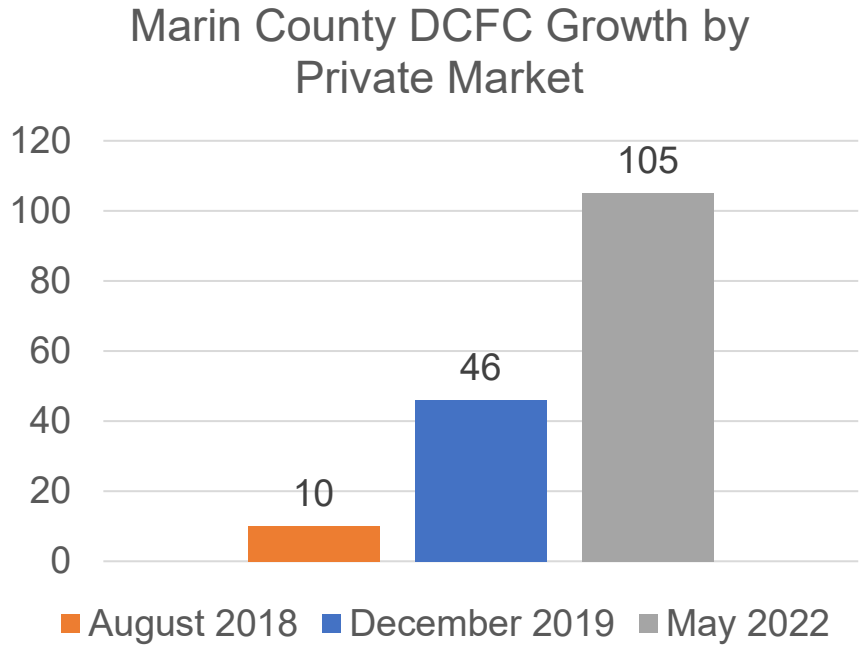


Regional, State and Federal Updates

- IIJA – Caltrans/CEC National Electric Vehicle Infrastructure Plan (Draft)
  - $5B in IIJA, $384M under formula funds for NEVI
  - Additional $2.5B in competitive funds outside of NEVI (nationwide)
  - Corridor approach, partnering with private companies to deliver charging equipment
  - In a recent change, US 101 Corridor and Highway 1 are not considered "built out"
  - Staff will continue to monitor for future contractor selection and DCFC installations

- Recent passage of the Inflation Reduction Act

- MTC Funding and Letter of Interest Process
  - MTC served on TAM EV Project Concept Solicitation Panel in April
  - In June, MTC released a regional effort replicating our process
  - MTC expecting $65M in regional funding for EVs
  - TAM is coordinating closely on this opportunity with MTC



Source: Plugshare.com; Compiled by TAM Staff

Current Challenges and Opportunities

- Challenges of current program:
  - TAM & Jurisdiction staffing and capacity
  - Addressing Multi-Family Housing needs
  - Addressing equity in EV adoption
  - EV Charger Ownership & Liability issues with new project delivery models
  - O&M of EV Chargers
  - Growing web of complex funding programs
- Opportunities for Program:
  - New Funding Sources
  - Positioning TAM as a leader with Regional Partners
  - Growing vehicle availability and consumer awareness/adoption
  - Partnerships with MCE as they enter fleet market
  - Shared services approaches

Public Agency EV Project Concept Solicitation

- Help local public agencies prepare to successfully compete for upcoming funding for the next wave of Zero-Emission and Near-Zero Emission Fleets and Innovative Electric Vehicle Charging solutions
- Identify Potential Projects for upcoming regional, state, and federal funding sources aimed at supporting the transition to Zero Emission Vehicles
- Support TAM to develop future programs and efforts, including identification of potential pipeline of projects

What Concepts Were Submitted?

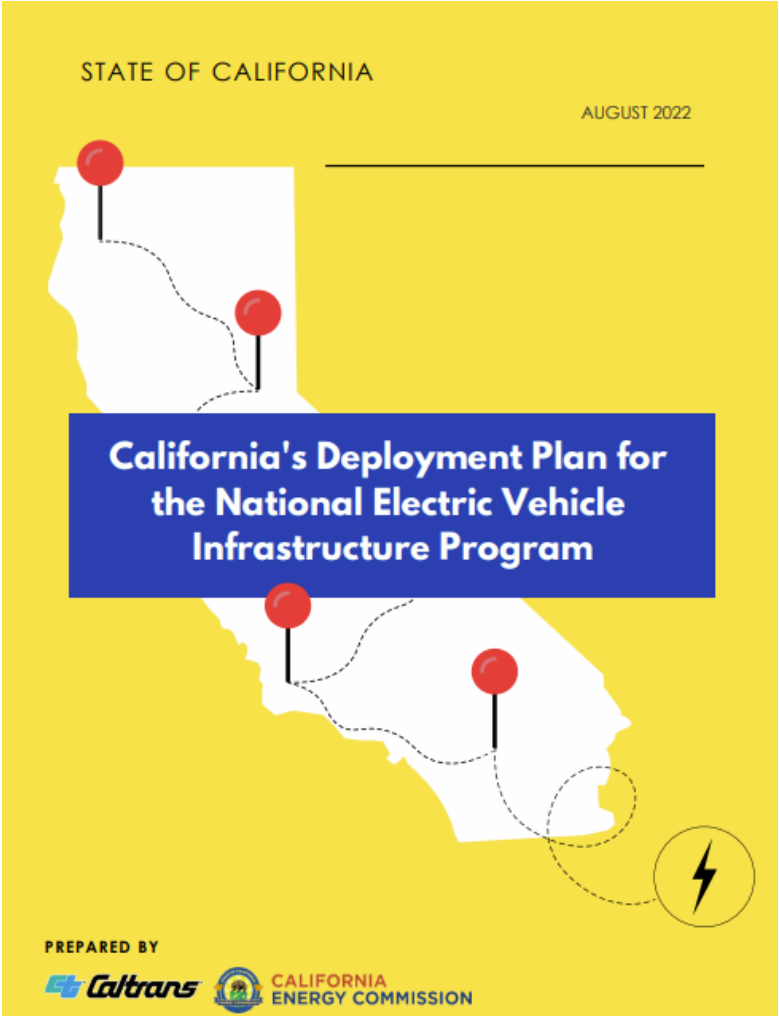
- 53 concepts submitted
  - 20 public agencies
  - 2 private schools
  - 3 vendors
- Water, Police, Transit, Sanitary, and School Districts, plus local jurisdictions
- Mix of locations for charging installations, corp yards, offices, community centers
- Mostly small projects with commercially ready technology proposed
- NPS, County of Marin and GGBHTD coordination occurring and informing this process

- Charging Concepts included:
  - 121-145 EVSEs at 30 locations
  - Solar Chargers
  - 16 DCFCs for Transit Operations (1 from Jurisdictions)
  - 4 Microgrid/Building Resiliency Projects
  - Curbside Chargers

- Fleet Concepts included:
  - Electric Pickup Trucks
  - Police Vehicles
  - Yellow School E-Buses
  - Employer Shuttles
  - Street Sweepers
  - Small Equipment Replacement

TAM Concept Submittals

- Staff submitted three concepts for consideration:
  - E-Bike Storage near MUF/Community Locations
    - Bike locker grants have appeared in the past, opportunity in the future for BAAQMD grants?
  - EVSEs in Equity Priority Communities as a "reach" goal (~100-500 EVSEs)
    - Consultant developing what deployments might look like
  - West Marin/Highway 1 EVSE deployments (~25-50 EVSEs)
    - NEVI/NPS may advance this opportunity
    - TAM will continue to coordinate



Additional Findings – Barriers and Tech Support

- Barriers identified include:
  - Electrical upgrades (supply of electricity, space requirements)
  - Vehicle availability and slow fleet turnover
  - Complex web of Funding Programs (CARB, CEC, BAAQMD)
  - Technically Complex Delivery Process/Staff Learning Curve

- Technical Support Request to develop concepts:
  - School and Fire Districts
  - Larger or innovative jurisdictional requests
    - i.e., microgrids and Curbside Charging
  - Entities with vendor support didn't request technical support

Review Process to Date

- TAM convened Steering Committee with MCE, MTC, BAAQMD and TAM staff
  - Support for moving near-term projects into existing programs where feasible.
- Questions for steering committee
  - How to advance small EVSEs projects at multiple locations?
  - How to support transition of Police and Truck fleets?
  - How to seed fleet transition planning?
  - Supporting Conduit to vendors? Vendor workshop/learning sessions?
  - How to advance pilots?
- TAM staff (with Potential Partner Agencies) has reached out to near-term project sponsors, to define concept projects and offer technical assistance.

How to Move Forward

TAM can lead some areas; Strong partnership from local agencies needed to advance most concepts

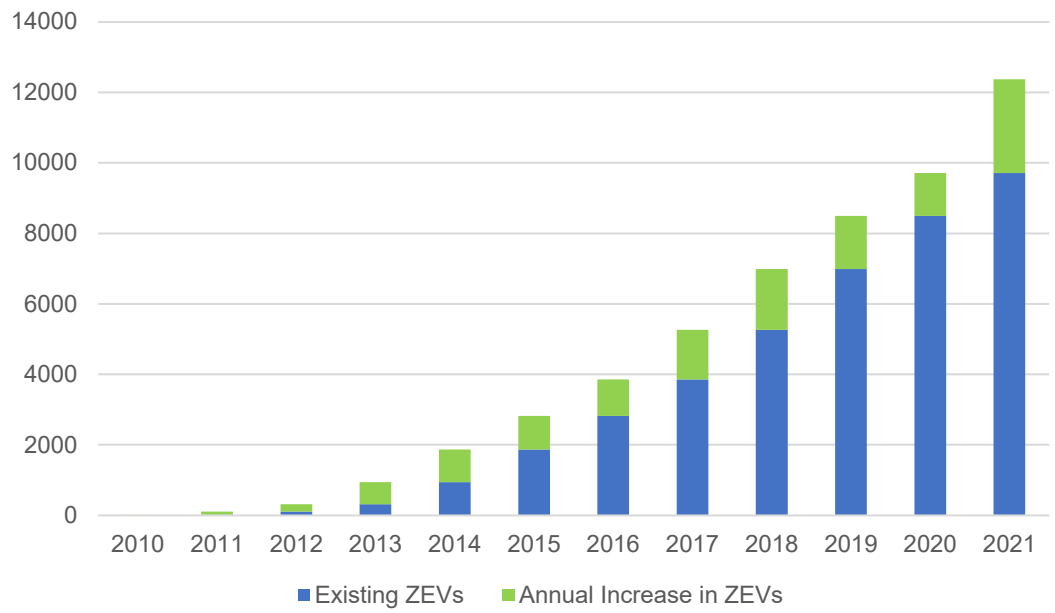
Opportunities	Description	Potential TAM Role	Partners/Lead Agencies	Timeframe
Technical Assistance/ Outreach	Vendor Workshops, EV Expos	Lead	Private Vendors	Near to Mid
Challenge Program	TAM request Local Agencies to commit to specific amounts of Chargers/Sites/Vehicles	Lead	Local Agencies, MCE, BAAQMD	Near to Mid
Collective Delivery Model/ Project Delivery Contracting Options	Potential joint procurements or grant applications, Potential RFP to Plan, Design, Build, Operate & Maintain EVSEs	Partner/ Support	Local Agencies, MCE, BAAQMD, MTC	Near to Mid
EV Fleet Transition Planning	EV Fleet Transition Plan Development	Partner/ Support	Local Agencies, MCE, MTC	Mid to Long
Advance 3-5 pilots	Yellow School Bus, Streetlight Charging, Street Sweepers, Solar Charging, microgrid projects, electric shared mobility, TAM Concepts	Partner/ Support/ Convener	Local Agencies, MGSA, School Districts, MCE, BAAQMD, MTC	Mid to Long

Next Steps

- Gathering examples of innovative project pilots
  - Solar charging EVSEs
  - Vehicle to Facility/Vehicle to Grid
  - Curbside Charging
- Exploring potential EPC charging locations
  - MUF, Commercial, Public ROW locations
- Potential Challenge program
  - Request Cities to identify Sites/Chargers/Fleet Vehicles for Transition
- Explore collective delivery models/Project Delivery Streamlining Options
  - Coordinated grant application (BAAQMD Charge!/MTC Grant)
  - Potential RFP for Design/Build/Operate/Maintain Contractor
- Advance 3-5 pilots based on EV Concept Solicitation process
  - Grants expected in 2023

Countywide EV Acceleration Strategy

- October 2020, TAM Board authorized $54K in funding to MCEP for EV Readiness Plan, now called Countywide EV Acceleration strategy
  - MCEP subcommittee formed
  - Guiding Principles developed
  - Outreach conducted to stakeholders (jurisdictions' staff, community leaders, nonprofits, State agencies) to understand barriers and challenges to widespread EV adoption
  - Reviewed other agencies' plans and guidance from regional and State agencies
- Draft released in August
- Local Jurisdictions encouraged to identify and prioritize specific actions identified in plan
- TAM Board & City Council Presentations in Fall to Winter



- 9,709 ZEVs in Marin at the end of 2021

Barriers To Adoption

Vehicle Technology	• EV range • Battery degradation • Lack of diversity in vehicle types • Lack of vehicle availability
Charging	• Lack of publicly accessible charging locations • Cost to install (panels, transformers, loads) • Lack of wayfinding signage • Difficult to retrofit existing multi-family buildings • Cost and parking conflicts for multi-family buildings • Reliability of public chargers
Economics	• Higher initial purchase or lease price of EVs • Complicated incentives (vehicles and chargers) • Cost of subscription, maintenance, electricity, etc. (public chargers)
Perceptions and Behavior	• Misinformation about EV models, range, charging, etc. • Resistance to change/fear • Lack of dealership knowledge / interest • Lack of consumer knowledge

Countywide EV Acceleration Strategy – Actions

- 35 actions in four areas
  - Expectation that jurisdictions identify and prioritize specific actions for implementation
  - Sample Workplan provided in the appendix for this purpose

- Focus Areas:
  - Conduct Robust Community Outreach and Education (4 actions)
  - Support and Advocate for Policy and Funding that Accelerates EV Adoption (5 actions)
  - Accelerate Public Charging Infrastructure (15 actions)
  - Increase Municipal Fleet Electrification (11 actions)

Local Jurisdiction Outreach Efforts & Recap

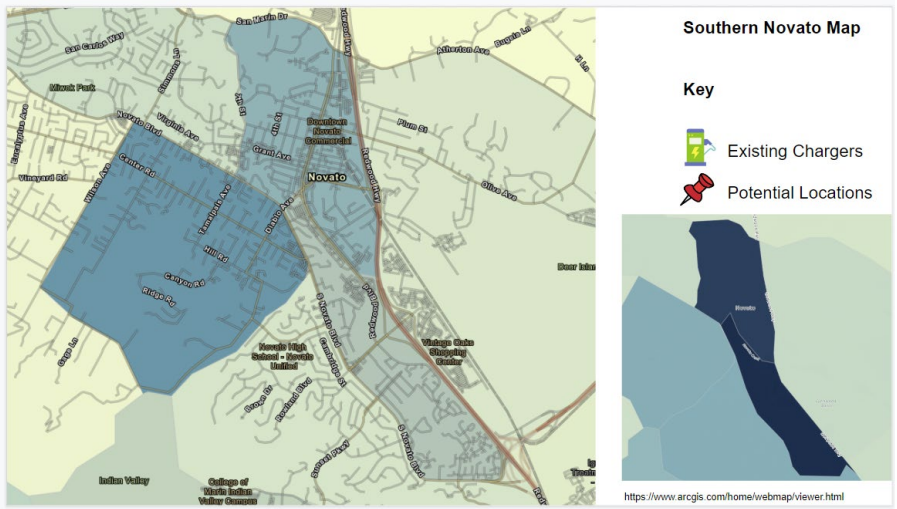
- In September 2021, TAM provided $4,500 in funding to all 12 local jurisdictions for short-term EV Outreach.
- Local Climate Action Plans typically identified community engagement and outreach to support EV adoption.
- To date, 11 jurisdictions have executed agreements with TAM; invoices are coming in now
- March – May 2022:
  - Cool the Earth, rebranded as Ride and Drive Clean conducted 5 online events, 4 in-person events.
  - Activation of volunteers and support for EV adoption from staff, sustainability commissions
- In Spring 2022, County of Marin released RFP for $300K for 2 years of EV Consumer Outreach.
  - Contract is expected in Fall 2022, and TAM will continue to coordinate with this effort

TAM Outreach Plan Approach

- **Evolving Program Goals**
  - Accelerate EV charging installations on public property in Marin County
  - Accelerate EV fleet investments in public agency fleets
  - Improve consumer awareness of programs that support and enhance equitable access to EVs and EV Infrastructure
- **Identify Target Audiences**
  - Includes School, Water, Sanitary Districts Emergency Response/ Fire & Police Departments & Others
- **Identify Key Challenges**
  - Exploratory discussions with Agencies completed
  - Build on LOI barriers
- **Focus on Equity and building on TAM strengths**
  - TAM as Convenor, Facilitator, and technical experts

Outreach Plan – Addressing Equity

- Conducted Equity research in EV space
- Initial Workshop with local agencies to identify:
  - Potential strategies, roles of each agency
  - Identify potential CBO Partners
- Start with EV Charging Opportunities
  - Build an understanding/approach
  - Potential School based deployments of EVSEs/Targeted MUF outreach
  - Where other E-Mobility solutions should be prioritized
- Support community-led conversations related to prospects for bringing E-Mobility to their areas
- Addresses short term opportunities, and develops larger vision for EPCs



Draft Outreach Plan Tactics

- In addition to Equity focused Program, TAM outreach Plan Includes
- Develop Marketing materials:
  - As needed updates to TAM toolkits for public agencies
  - Development of local successes as example case studies
  - Updates to TAM website & Online Materials
- Data Tracking
  - Regular tracking of EV metrics including sales, registration and EVSEs and other relevant data.
- Live Online Events
  - 3x annual events planned
  - Focused online event for school districts, Police and Fire Department specific event, and one TBD potentially equity
- EV Expo/ E-Mobility Technology showcase for Public Agencies
  - showcase various fleet vehicles with speaker presentations on the fleet perspective of transportation electrification
  - sponsorships/partnerships with other agencies to help offset the costs,
  - position event as a regional leadership opportunity
  - Public welcomed and Private Fleet invited too

FY 21/22 to FY 22/23 Program Budget

FY21/22 Budget Highlights

- Expenditures remain under budget $171,163
- Rebates and invoices continue to lag behind project closeouts
- MCEP EV readiness plan ~$13,170, significant budget remaining
- Local Jurisdiction outreach support ~$26,970 invoiced, $54,000 Allocated
- Technical Assistance – Outreach plan development, equity research and LOI Process ~$83,920
- EVSE and Fleet Rebates ~$47,000

Budget For FY 22/23 and future years

- $345K Budget carried forward based on previous Board direction
- Moving forward, staff will revise budget based on program need

Summary – Proposed FY2022-23 AFEV Program

- Program has been successful so far, needs are evolving
- Proposed major program elements for FY2022-23
  1. Request every local jurisdiction to accept Countywide EV Acceleration Plan
  2. Continue Rebates for public chargers and fleet vehicles (with revisions to fleet rebate program)
  3. Explore development of EV Fleet Transition Plans with MCE (and as part of fleet rebate program)
  4. Explore a potential Challenge Program for Local Agencies
     - Request to commit to Specific Number of Installations and Fleet Purchases
     - Supports Coordinated grant efforts/Pipeline of projects identification
  5. Advance 3-5 pilots based on EV Concept Solicitation process
  6. Explore collective delivery model/Project Delivery Contracting Options
  7. Finalize outreach plan and conduct program outreach

Questions & Discussion

Thank you!

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