

Accelerate to Zero (A2Z) Electric Vehicle Strategy

Advisory Committee Meeting
January 12, 2023

Agenda

Welcome and Intros

Project Update

Strategy Development
Process

A2Z Strategies Discussion

Funding

Next Steps

Discussion



Welcome Remarks

Introductions

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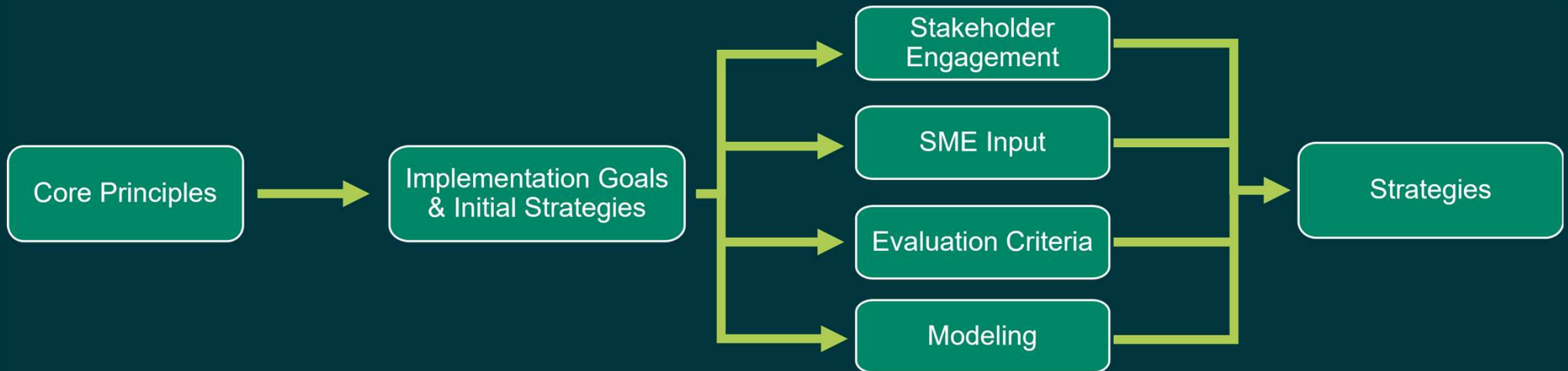


Project Update

Task	Status
Task 1: Administration	Ongoing
Task 2: Existing Conditions Review and Analysis	Complete
Task 3: Stakeholder Engagement/Outreach	Ongoing
Task 4: Development of Core Principles and Recommended EV Actions/Strategies	Complete
Task 5: EV Strategy Development	Ongoing



Strategy Development Approach



Strategy Review and Discussion

Key Feedback Received from Advisory Committee

Update Strategy 2 to highlight characteristics and challenges Rural Communities and Communities of Concern face

Update Strategy 4 to ensure workforce development programs include skills training for vehicle repair and diagnostics, not just infrastructure

Relationships and coalitions need to be built with the private sector so ZE infrastructure is developed for public use

Importance of educating communities of existing policies that help lower ZEV adoption barriers.

Accessibility considerations must be built into strategies including ZE infrastructure hours of operation

Reception of rebates for ZE infrastructure can take too long. Non-profits can be disincentivized to use a rebate.

A2Z Strategies

1

- Increase the percentage of zero emission (ZE) vehicle miles traveled (VMT)

2

- Accelerate ZEV charging infrastructure implementation in rural areas and Communities of Concern

3

- Provide equitable and accessible education and outreach about ZEVs

4

- Support skills training and workforce development programs specialized for the ZEV industry.

5

- Work with local jurisdictions and public/private property owners to accelerate publicly accessible ZE infrastructure

6

- Implement Policies Targeted to Meet Forecasted ZEV Fueling Needs

7

- Update building codes and streamline ZE infrastructure permitting process

8

- Ensure sufficient local grid capacity for projected ZEV demand

9

- Encourage and support fleet transition to ZE

10

- Support innovative pilots to transition cars, trucks, and buses to ZE

1: Facilitate an increase in the percentage of vehicle miles traveled (VMT) that is zero-emission (ZE).

Implement ZE programs and encourage fleet electrification

Tactics

- Provide and Promote Rebates and Incentives
- Transition Medium- and Heavy-Duty Vehicles
- Encourage Programs that Retire Older, More Polluting Vehicles

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2: Accelerate ZEV infrastructure implementation in rural areas and communities of concern.

Achieve equitable and accessible siting of ZEV chargers in all San Diego communities

Tactics

- Implement ZEV Ambassador Program
- Hosting ZEV Open Houses in COCs, Tribal, and Rural Communities
- Utilize Equity Metrics to Guide ZEV Planning
- Conduct Needs-Based Siting Assessment in Low Adoption Communities

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3: Work with local and regional stakeholders to provide equitable and accessible education and outreach about ZEVs for the public and local communities

Increase ZEV awareness and adoption

Tactics

- Host Regular ZEV Learning Sessions paired with Ride and Drive Events
- Develop a Focused ZEV/ZE Infrastructure Resources Task Force
- Expand Existing Regional Tool Capabilities
- Ensure Educational and Outreach Materials are Accessible

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4. Support skills training and workforce development programs specialized for the ZEV industry

Support regional economic growth

Tactics

- Leverage Skills Training Initiatives and Identify Workforce Training Needs
- Coordinate with Educational Institutions to Develop or Expand ZE Offerings
- Identify Funding Opportunities for ZEV Workforce Training

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5: Work with local jurisdictions and public/private property owners to accelerate publicly accessible ZE infrastructure

Better support local ZEV drivers

Tactics

- Coordinate with Facility ZE Infrastructure Site Hosts
- Consider Public Access of Private Charging Stations During Non-Operational/Off-Peak Hours
- Identify, Implement, and Publicize Incentives for Workplace Charging
- Develop Public-Use ZE Infrastructure Pricing Best Practices

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6: Support policies and programs at the regional level to encourage and facilitate ZEV adoption

Help lower policy and financial adoption barriers

Tactics

- Implement Existing Policy Requirements
- Alternative Policies or Actions to Incentivize ZEV Adoption
- Support Continuation of Regional and Utility Rebate Programs

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7: Update building codes and streamline ZE infrastructure permitting process to facilitate ZE infrastructure deployment

Focus on multi-family housing and higher density residential and/or commercial areas

Tactics

- Incorporate ZE infrastructure siting principles in public works guidelines
- Identify permitting processes that may inhibit efficiencies of ZE infrastructure deployment
- Evaluate adopting reach codes that encourage ZEV charging infrastructure in new private multi-family developments
- Evaluate adopting reach codes that encourage retrofitting ZEV charging infrastructure in existing private multi-family developments

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8: Ensure sufficient local grid capacity for projected ZEV demand through grid enhancements and utility program design.

Tactics

- Continue Supporting and Encouraging Participation in TOU Programs
- Encourage Implementation of EV Submeters to Enhance Energy Management
- Implement a ZEV Charging Demand Response Program

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9: Encourage and support fleet transition (e.g., transit, municipal, private, goods movement, micromobility) to zero emissions.

Tactics

- Develop Comprehensive Fleet Transition Plan
- Evaluate ZE Infrastructure for Specific Vehicle Classes
- Promote ZE Flexible Fleets
- Implement Last-mile ZE Delivery Zones

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10: Support innovation and regional collaboration to transition cars, trucks, and buses to ZE

Utilize trends and funding opportunities for innovative pilots and strategies

Tactics

- Conduct Annual Evaluation of ZEV Industry Trends to Identify Best Practices
- Identify Key Partnerships to Support Innovative Pilots
- Identify and Leverage Emerging Funding Sources to Support Innovative Implementation Efforts

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Funding

Delivering a better world

A2Z Addresses Funding

- The A2Z Report recognizes importance of funding to support strategies and tactics
- Report includes funding sources and relevant information:
 - Catalogue of funding opportunities
 - Descriptions of funding opportunities
 - Eligibility requirements and funding terms
 - Funding magnitude
 - Relevance to strategies and tactics included in A2Z Report

State Funding Opportunities

State Funding Opportunities					
Program	Program Description	Eligible Recipient	Program Terms	Funding Available	Strategy Applicability
California Air Resources Board: Hybrid and Zero-Emission Truck and Bus Voucher Incentive (HVIP) Program	Vouchers are provided directly through vehicle dealers for zero emission trucks and buses and applied at the time of purchase. Vouchers come on a first-come, first-serve basis and can apply towards any vehicle HVIP-approved	Any dealer or vendor affiliated with a manufacturer that produces HVIP-approved vehicles may become an HVIP-approved dealer. Purchasers must purchase the vehicle through an approved dealer	Vehicles purchased through the program must be domiciled in California for at least three years	Base funding is determined by a vehicle's weight class. Funds range from \$7,500 for Class 2B vehicles to \$120,000 for Class 8 vehicles Voucher modifiers that increase the voucher amount include Class 8 Drayage truck early adopter, Class 8 fuel cell, disadvantaged community, public transit agencies, and school buses for public school districts Voucher modifiers to decrease funds include plug-in hybrid and in-use converted/remanufactured vehicles	1 (ZE VMT) 6 (ZE Adoption) 9 (ZE Fleets)
California Volkswagen (VW) Mitigation Trust: Bus Replacement Grant	The program offers grants for the purchase of zero-emission buses to replace old gasoline, diesel, CNG, or propane buses	Owners of transit buses, school buses, and shuttle buses. There are more requirements if agents lease or rent these buses. Old school bus engine must be 2006 or older. Old transit/shuttle bus engine must be 2009 or older	Existing equipment must be scrapped because funding can only be used to replace existing engines or vehicles.	Compliant old school bus: up to \$400,000 Non-compliant old school bus: up to \$380,000 Transit bus: up to \$180,000 (battery), up to \$400,000 (fuel cell) Shuttle bus: up to \$160,000	1 (ZE VMT) 6 (ZE Adoption) 9 (ZE Fleets) 10 (ZE Innovation)
California Volkswagen (VW) Mitigation Trust: Zero-Emission Class 8 Freight and Port Drayage Trucks Category	The program provides funds to support expansion of zero-emission truck availability in the heaviest weight classes. Class 8 includes freight trucks, waste haulers, dump truck, and concrete mixers	Public or private entities that own/operate eligible vehicles. The class 8 Freight Trucks must have an engine model from 1992-2012	Existing equipment must be scrapped because funding can only be used to replace existing engines or vehicles	Maximum cap of \$200,000 per equipment Non-government: will pay up to 75% of cost Government: will pay up to 100% of cost	1 (ZE VMT) 6 (ZE Adoption) 9 (ZE Fleets) 10 (ZE Innovation)

Upcoming Funding Opportunities

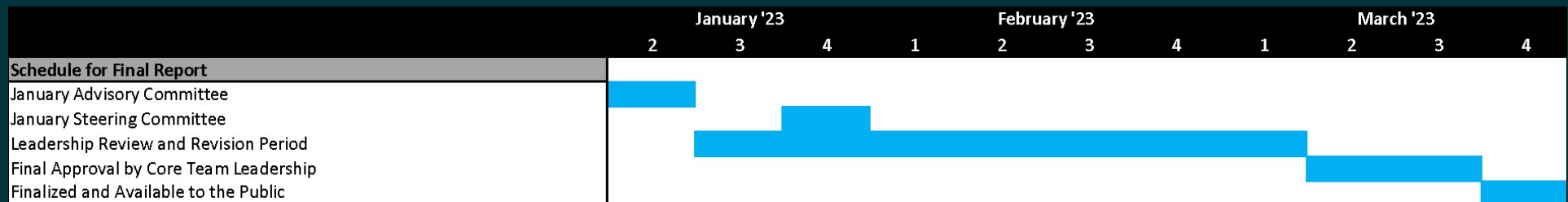
- California Electric Vehicle Infrastructure Project (CALeVIP) 2.0:
 - Golden State Priority Project: Launches **January 24, 2023**
 - DCFC rebates are available for up to 50% of a project's total approved costs (capped at \$100,000 per active connector). Funding is available for sites located in disadvantaged communities or low-income communities.
- Credits for New Clean Vehicles Purchased in **2023 or After**
 - \$7,500 rebate under Internal Revenue Code Section 30D if you buy a new, qualified plug-in EV or fuel cell electric vehicle (FCV)
- On **February 28, 2023**, California Clean Vehicle Rebate Project will provide increased rebates on ZEV purchases:
 - \$7,500 for fuel cell electric vehicles (previously \$7,000), \$7,500 for battery-electric vehicles (previously \$4,500), \$6,500 for plug-in hybrid vehicles (previously \$3,500)

Upcoming Funding Opportunities

- CEC's Grant Opportunity: Light-Duty Vehicle and Multi-Use Hydrogen Refueling Infrastructure (GFO-22-607)
 - Deadline: **February 03, 2023**
 - \$27 million in grant funds for projects that will provide publicly available hydrogen refueling stations
- US DOT FHWA: Charging and Fueling Infrastructure Grants (Community Charging)
 - **Opening Winter 2023**
 - \$1.25B of program funds will be made available each fiscal year for 4 years for Community Grants, to install EV charging in locations on public roads, schools, parks, and in publicly accessible parking facilities

What's Next?

- Final Report developed based on stakeholder and community feedback
- Leadership review and revision period
- Final Report on track to be available end of March 2023



Discussion

Thank you.



Stakeholder Engagement

Phase 1: Questionnaire and 5 In-Person Events

Community-perceived benefits	Community-perceived drawbacks
Reduction in GHG emissions	Higher upfront costs
Improved air quality	Difficult to fix or maintain on your own
Quieter vehicle operation	Lack of desired range
Savings from fuel costs	Lack of access to charging

Phase 2: Questionnaire on Draft Strategies

Suggested modifications:

- Streamlining of planning, permitting, and installation of ZEV-serving infrastructure
- Specific focus on ZE infrastructure for multi-unit housing
- Expanded outreach to the general population
- More focus on other ZEV types, including hydrogen

Existing Conditions Review

Policy and Plan Review

Federal	State	Regional
Bipartisan Infrastructure Investment and Jobs Act (IIJA)	Executive Order N-79-20	The County of San Diego EV Roadmap
EV Charging Action Plan	Assembly Bill 2127	The County of San Diego's Regional Decarbonization Framework
	Assembly Bill 8	SDG&E's Sustainability Plan
	California Blueprint	SANDAG 2021 Regional Plan
	CPUC Resolution E-5167	SANDAG's 2015 Regional Plug-In EV Readiness Plan
		The City of San Diego's Draft Climate Action Plan
		The Port of San Diego's Maritime Clean Air Strategy

ZEV Uptake Model and Strategy Impact

