

# San Joaquin Valley Air Pollution Control District AB 617 Community Emission Reduction Program

## Drive Clean in the San Joaquin Replace Emission Reduction Program Plan

### *Shafter Community*

#### **PROJECT IDENTIFICATION**

##### **SHAFTER CERP C.2: PROVIDE ENHANCED INCENTIVES TO REPLACE HIGH EMITTING VEHICLES**

This is a Community Identified Project included and prioritized in the California Air Resources Board (CARB) and District adopted Shafter Community Emission Reduction Program (CERP). The Drive Clean in the San Joaquin Replace Emission Reduction Program is part of [California Climate Investments](#), a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment – particularly in disadvantaged communities.

This measure will reduce Oxides of Nitrogen (NOx) and Particulate Matter (PM2.5) emissions from passenger vehicles by 1) providing incentives for residents to replace their high emitting vehicles and 2) work with a local partner to purchase and deploy up to 20 battery electric vehicles with a range of at least 150 miles and associated charging infrastructure for residents who would like to check-out battery electric vehicles to ensure this technology type would meet their needs.

#### **COMMUNITY SUPPORT**

This measure received support from the Shafter Community Steering Committee (CSC) and was included in the adopted CERP. This plan was developed and modeled after the District's Drive Clean in the San Joaquin Replace incentive program and was presented to the CSC on April 12, 2021 and received full support by the CSC.

- (1) Name(s) of the community group(s):**
  - a. Shafter Steering Committee [Map](#)
- (2) Purpose of community group(s)**
  - a. AB617 Community Engagement and Public Input
- (3) Total number of members in the community group(s)**
  - a. Shafter – 21 members
- (4) Date(s) of formation/establishment**
  - a. Shafter – December 2018
- (5) A description of the decision-making process must be included.**
  - a. Shafter Steering Committee [Charter](#)

**(6) Community Support Demonstration**

- a. Shafter [CERP](#)

**(7) Ongoing Community Support Demonstration**

- a. Shafter [Prioritization Exercise](#) – This measure was discussed and prioritized by the CSC
- b. Shafter [Meeting](#) – District presented on this measure during April 2021 CSC meeting and solicited feedback from CSC on program implementation.

***MECHANISM FOR INFORMING COMMUNITY***

This measure will be discussed at CSC meetings in addition to outreach activities to inform residents of the program and requirements for participation. The outreach conducted has and will continue to be the following:

- Social media
- Mailers
- Print ads
- Press releases and press events
- Events, town halls, webinars etc.
- Other ideas as brought up by committee

Additionally, the District and CSC have jointly developed a tool to track progress of each measure adopted within the CERP for this community;

- Shafter Community tracker: <http://community.valleyair.org/media/2573/may-shafter-website-tracker.pdf>

This tracker is updated monthly and includes updates such as number of projects contracted, funding allocated, project-associated benefits to the community, and other information specific to each measure. The tracker is shared directly with CSC members ahead of each regularly scheduled CSC meeting and is available on the community webpage in both English and Spanish.

The District's program partner Valley Clean Air Now (Valley CAN), who assists with the existing Drive Clean in the San Joaquin Replace Program, will also be supporting the administration of this plan for the Shafter community. Valley CAN has historically leveraged the in-person Tune In Tune Up (TITU) events for the District's Repair Program with its Replace Program. At these events, participants who qualify for incentives to repair their vehicles, but opt not to undergo those repairs, are also evaluated for eligibility in the Replace Program. The TITU events have traditionally been an additional avenue to outreach to Valley residents about the Replace Program. Should public health guidelines allow these events to take place within or near the Shafter community, the District will utilize them as an additional outreach mechanism for the Replace Program.

In addition to the TITU events, Valley CAN has previously conducted Clean Car Clinics to educate residents about the Replace Program and help them apply with face-to-face guidance. These clinics are conducted after regular work hours, typically in the evening, at local facilities or restaurants to reach residents where they live. The clinics have been very effective at reaching targeted communities where attendance at a TITU event is not feasible because the events occur at locations that are too distant for some residents, or the date and time of the event is not convenient. For the Shafter community, Valley CAN will implement targeted clinics to those residents in addition to the other outreach mechanisms that have been identified.

## ***REPLACEMENT PROGRAM REQUIREMENTS***

### **(A) Drive Clean in the San Joaquin Replace Program Eligibility:**

The Drive Clean in the San Joaquin Replace Program guidelines are attached as Exhibit A. In implementing this CERP measure, the District will follow existing program guidelines and eligibility criteria with the incorporation of enhanced incentives for residents of the Shafter AB 617 community. The participant must currently own the vehicle that will be replaced through the program and provide proof of ownership for the previous six months, provide two years proof that the vehicle has been in use, and meet minimum income qualifications. In addition, the participant's vehicle that is being replaced through the program must be in operational condition and a model year 2006 or older. There is a limit of one replacement per household per lifetime of the Program.

### **(B) Participant Requirements:**

- (1) Application: The participant must apply for the program by submitting an online application at <http://valleyair.org/drivecleaninthesanjoaquin> or by calling the District at (559) 230-5800, or program partner Valley CAN at (661) 372-4112 for assistance in completing an application. Once an application is submitted, a Valley CAN representative reviews the application for completeness and screens for eligibility, then submits it to the District for final review and approval. If approved, participant will receive by email an Application Approval Letter that will identify the maximum eligible incentive amount that has been awarded for their project. In addition, a list of approved dealerships where a replacement vehicle can be purchased will be provided. The participant will also be contacted by Valley CAN to confirm their approval and discuss next steps.
- (2) Selecting a Replacement Vehicle: The participant must purchase an eligible replacement vehicle from a participating Replace Program auto dealership. The participant must work with a Valley CAN representative,

as well as a representative from one of the dealerships, to select an eligible vehicle.

Eligible replacement vehicle types are limited to: plug-in electric hybrid vehicles (PHEV), and zero-emission vehicles (ZEV) such as a full battery-electric vehicle (BEV). The participant may purchase a new or used vehicle; however, used vehicles must be 8 years old or newer as calculated by subtracting 7 from the current calendar year of the purchase transaction. Replacement vehicles that have previously been funded through the District's existing Replace Program are ineligible.

Once the participant selects a replacement vehicle, the dealership will submit the vehicle information for review and approval. If the selected vehicle meets program criteria, a check for the eligible incentive amount will be issued and made payable to the dealership. If the selected vehicle is not eligible, the participant will be required to choose another vehicle that is program eligible to complete their project.

- (3) Final Transaction: Once a check has been issued, the participant must complete the final purchase of the replacement vehicle. Valley CAN or a dealership representative will contact the participant to schedule a time to complete the final transaction. The incentive check will be utilized at the time of transaction to reduce the purchase price of the replacement vehicle. Any costs which exceed the incentive amount on the check must be paid by the participant, whether by cash or via financing, to complete the full purchase of the vehicle. Upon completion of the final transaction, the participant must surrender their old vehicle, its keys, and title to the dealership. The participant will then receive their replacement vehicle and Valley CAN will submit the transaction documents to the District for reporting purposes. The dealership will house the participant's old vehicle and coordinate with Valley CAN to schedule the vehicle to be picked up by a dismantler, and be permanently removed from operation.
- (4) Post-Transaction: The participant is required to own, and properly register and insure the replacement vehicle for a minimum of 30 months from the vehicle purchase date. Surveys will be issued to program participants to garner feedback regarding their experience with the vehicle and whether the participant has retained ownership of the vehicle. If a participant has sold their vehicle, or damaged it beyond repair (as determined by their insurance provider) and not replaced it with another program eligible vehicle prior to the 30 month ownership requirement, the participant may be required to repay a portion or the full incentive amount provided for the purchase of the vehicle. The amount that will be requested to be repaid is relative to when the participant relinquished ownership of the vehicle.

## **VEHICLE CHECK-OUT PROGRAM**

(A) The District will identify a subcontractor for the Vehicle Check-Out component of the program through a Request for Proposal. To be considered eligible for this component, the subcontractor must:

- (1) Have a secure location in which vehicles can be stored and associated charging infrastructure can be installed in order to support this project option
- (2) Purchase and deploy up to 20 battery electric vehicles with a range of at least 150 miles
- (3) Install and maintain associated charging infrastructure for battery electric vehicles
- (4) Allow for residents to check-out a vehicle and utilize it as needed to ensure that a battery electric vehicle would meet their needs
- (5) For residents that are interested in participating in the replace program, the District will provide assistance with that process

## **FUNDING AMOUNTS**

The approved CERP includes \$6,000,000 for the Shafter community for the implementation of this measure. The District estimates that \$4,800,000 is for the implementation of the Vehicle Replacement Program and approximately \$1,200,000 is for the implementation of the Vehicle Check-Out Program. This funding will provide for the replacement of up to 300 vehicles in the Shafter community and up to 20 battery electric vehicles with associated charging infrastructure for residents to check out and utilize to determine if this technology is feasible for their needs.

Table 1 summarizes the maximum incentive amounts for each income tier that is available to residents of the Shafter community through the program. The incentives listed below for the used vehicle option are consistent with the changes that CARB has made and can be found within the approved [Fiscal Year 2022-23 Funding Plan for Clean Transportation Incentives](#). These incentives will be reflected in the upcoming CARB grant agreement with the District. Participants may be eligible for an incentive of up to \$20,000 towards the purchase of an eligible replacement vehicle. The maximum amount awarded to a participant's project depends on whether the replacement vehicle they will purchase is new or used, the type of vehicle, and their income qualification. The District will utilize the Federal Poverty Level (FPL) standards as provided by the U.S. Department of Health and Human Services to determine income eligibility. The

income threshold used to qualify an applicant is updated annually when the FPL is updated. Income eligibility will be determined by the most current tax return or other documentation deemed sufficient to confirm participants household income. Participants who are determined to have an annual household income less than 300% of the FPL are eligible for incentives through the program.

**Table 1. Replace Program Eligible Funding Amounts for the Shafter Community**

Vehicle Type		PHEV	BEV
300% FPL and below	<b>NEW</b> Plug-in Hybrid Electric or Zero-Emission Vehicle Purchase	\$18,000 (Plus, up to \$2,000 for EVSE or pre-loaded charge card)	\$20,000 (Plus, up to \$2,000 for EVSE or pre-loaded charge card)
	<b>USED</b> Plug-in Hybrid Electric or Zero-Emission Vehicle Purchase	\$11,500 (Plus, up to \$2,000 for EVSE or pre-loaded charge card)	\$12,000 (Plus, up to \$2,000 for EVSE or pre-loaded charge card)

Funding amounts listed in Table 1 apply towards the base price, taxes and fees associated with the purchase. If the total eligible costs are less than the approved incentive amount, the final incentive amount will be reduced. If the total cost of the replacement vehicle is more than the incentive amount, the remaining balance is an out-of-pocket expense paid by the participant. There are no minimum match requirements for participating in the program; however, participants must pay for any costs that exceed the eligible incentive amount. Prior to finalizing a transaction, the participant may opt to not proceed with the program if the cost of the replacement vehicle makes participation infeasible.

**VEHICLE REPLACEMENT PROJECT SELECTION AND REPORTING**

Projects will be approved on a first come, first serve basis determined by the order in which the District receives a participant’s application. The District will report program information in accordance with Community Air Protection program guidelines found at: [https://ww3.arb.ca.gov/msprog/cap/docs/cap\\_incentives\\_2019\\_guidelines.pdf](https://ww3.arb.ca.gov/msprog/cap/docs/cap_incentives_2019_guidelines.pdf).

**VEHICLE REPLACEMENT EMISSION REDUCTION TARGETS AND BENEFITS**

The goal of this measure is to replace up to 300 vehicles in the Shafter community with an expected emission reduction of 2.88 tons of NOx and 0.08 tons of PM2.5. Mobile source emissions account for over 85% of the overall NOx inventory in the San Joaquin Valley. With no regulatory authority over these sources, the District has relied on voluntary incentive programs to replace high emitting vehicles. Reducing emissions from passenger vehicles is important due to their contribution to the formation of ozone in the Valley.

The District will utilize an established Replace Program emission reduction calculation methodology to calculate the emission reductions achieved from each completed project. The District's Replace Program emission calculations are based on CARB's Low Carbon Transportation Investments and the Air Quality Improvement Program [Emission Reductions Quantification Methodology](#) established for estimating emissions from the replacement of older, high-emitting vehicles with cleaner advanced technology vehicles.

A project life of 2.5 years (30 months) will be used when calculating emission reductions. This project life is based on the expectation that the replacement vehicle be operated and domiciled within the community for a minimum of 2.5 years. Annual miles traveled will be based on the annual usage assumptions that have been calculated by CARB staff, and will be used to calculate the estimated annual NOx and PM2.5 emissions reductions from vehicle replacements.

The necessary formulas to calculate the NOx and PM2.5 emission reductions and cost-effectiveness for a project are provided below.

Formula A-1: Estimated Annual NOx and PM2.5 Baseline Emissions from a 2000 Model Year Vehicle (tons/yr)

$$\begin{aligned} \text{Annual NOx Baseline Emissions (ton/year)} &= \\ &\text{NOx emission factor (g/mi)} \times \text{annual miles traveled (mi/yr)} / 907,200 \text{ (g/ton)} \end{aligned}$$

$$\begin{aligned} \text{Annual PM2.5 Baseline Emissions (ton/year)} &= \\ &\text{PM2.5 emission factor (g/mi)} \times \text{annual miles traveled (mi/yr)} / 907,200 \\ &\text{(g/ton)} \end{aligned}$$

Formula A-2: Estimated Annual NOx and PM2.5 New Emissions from a 2018 Model Year Vehicle (tons/yr)

$$\begin{aligned} \text{Annual NOx New Emissions (tons/year)} &= \\ &\text{NOx emission factor (g/mi)} \times \text{annual miles traveled (mi/yr)} / 907,200 \text{ (g/ton)} \end{aligned}$$

$$\begin{aligned} \text{Annual PM2.5 New Emissions (ton/year)} &= \\ &\text{PM2.5 emission factor (g/mi)} \times \text{annual miles traveled (mi/yr)} / 907,200 \\ &\text{(g/ton)} \end{aligned}$$

Formula A-3: Estimated Annual NOx and PM2.5 Emission Reductions (tons/yr)

$$\text{Annual NOx Emission Reductions (ton/yr)} =$$

Annual NOx baseline emissions (ton/yr) – annual NOx new emissions (tons/yr)

Annual PM2.5 Emission Reductions (ton/yr) =  
Annual PM2.5 baseline emissions (ton/yr) – annual PM2.5 new emissions (tons/yr)

Formula A-4: Estimated Annual Total Combined NOx and PM2.5 Emission Reductions (tons/yr)

Annual Total Combined Emission Reductions (ton/yr) =  
Annual NOx emission reductions (ton/yr) + annual PM2.5 emission reductions (tons/yr)

Formula A-5: Estimated Lifetime Total Combined NOx and PM2.5 Emission Reductions (tons/yr)

Lifetime total emission reductions (tons) =  
Project life (yr) \* annual total combined Emission Reductions (tons/yr)

Formula A-6: Cost-Effectiveness of the Emission Reductions (\$/ton)

Cost-Effectiveness (\$/ton) = Grant Amount (\$) / Lifetime total emission reductions (tons)

The following tables summarize the data needed to calculate NOx and PM2.5 emission reductions for Replace Program projects.

<b>Emission Factors (g/mi)</b>		
	<b>NOx</b>	<b>PM2.5</b>
2000 MY	0.1922	0.0208
2018 PHEV	0.0087	0.0105
2018 BEV	0	0.0099

<b>Annual Usage Assumptions</b>	
<b>Technology</b>	<b>Usage (mi/year)</b>



PHEV	14,855
BEV	14,400

<b>Project Life (Years)</b>
2.5

### ***VEHICLE CHECK-OUT QUALITATIVE BENEFITS***

The goal of this measure is provide residents in the Shafter community with an opportunity and the accessibility to check-out and try a battery electric vehicle to ensure this technology works within their needs prior to purchase. Although there are no direct emission reductions that are associated with this component of the measure, the vehicle check-out program will ultimately support broad deployment of zero emission vehicles in the Shafter community.