



AB 617 Project Plan – Residential Air Filtration

June 2022

Background

Assembly Bill (AB) 617 addresses local air pollution in environmental justice (EJ) communities. The bill was signed into state law in July 2017 and focuses on improving air quality and reducing exposure to criteria air pollutants and toxic air contaminants (TACs) in communities most impacted by air pollution¹. The bill recognizes disproportionate impacts EJ communities experience from sources of air pollution located near residences. The bill seeks to address these impacts through community-driven action focused on developing community emissions reduction plans (CERPs) and community air monitoring plans (CAMPs). Additionally, the bill focuses on clean technology investments, best emissions controls, and easier access to emissions data. Since 2018 the California Air Resources Board (CARB) has selected six communities in the South Coast Air Quality Management District (South Coast AQMD) to participate in the AB 617 program. These communities are listed below.

- East Los Angeles, Boyle Heights, West Commerce (ELABHWC)
- Eastern Coachella Valley (ECV)
- San Bernardino, Muscoy (SBM)
- South Los Angeles (SLA)
- Southeast Los Angeles (SELA)
- Wilmington, Carson, West Long Beach (WCWLB)

Various AB 617 communities have prioritized residential air filtration in their CERPs. These communities have expressed concern about their exposure to particulate matter (PM) and diesel particulate matter (DPM) from sources of air pollution near residences. These sources include high-volume freeways, railyards, dust from the Salton Sea, and others.

The Residential Filtration Project Plan focuses on residential air filtration units available as small tabletop units and larger console units. These units clean the air in a single room or a defined area. Studies have reported reductions in PM exposures using high-efficiency portable air cleaners on the order of approximately 50 percent or higher.

Project Identification

The purpose of this project plan is to initiate a community-identified project to support AB 617 CERP strategies that seek to reduce exposure to PM and DPM from sources of air pollution near residences in AB 617 communities. In addition, the project plan establishes criteria to fund up to 100% of eligible costs of residential filtration units that reduce the concentration of particulate contaminants from indoor air. The actions in each final AB 617 CERP for communities that have prioritized and supported home air filtration are in Table 1 – CERP Actions Identifying Home Air Filtration below.

¹ Community Air Protection Incentives 2019 Guidelines https://ww2.arb.ca.gov/sites/default/files/2020-10/cap_incentives_2019_guidelines_final_rev_10_14_2020_0.pdf

Table 1 – CERP Actions Identifying Home Air Filtration

Community	CERP Chapter	Action
ECV	5B: Salton Sea	Identify funding to install and maintain air filtration systems at schools and homes located near the Salton Sea to reduce exposure to dust emissions
ELABHWC	5G: Schools, Childcare Centers, Libraries, and Public Housing Projects	Identify new or existing technologies, programs, and funding sources that can provide the most effective air filtration systems in homes
SBM	5G: Exposure Reduction for Sensitive Populations in Schools, Childcare Centers, and Homes	Identify new or existing technologies, programs, and funding sources that can provide the most effective air filtration systems in homes
WCWLB	5G: Schools, Childcare Centers, and homes	Identify new or existing technologies, programs, and funding sources that can provide the most effective air filtration systems in homes

Home air filtration is an air quality priority for the AB617 communities listed in Table 1 – CERP Actions Identifying Home Filtration to address increased exposure to PM, DPM and other pollutants. The ECV Community Steering Committee (CSC) expressed concern over windblown dust (PM10) and elevated levels of hydrogen sulfide (H2S) resulting from the receding Salton Sea.² The CSC in each AB 617 community is an advisory committee that supports community involvement and collaboration for the development of the CERPs. CSC members are responsible for assisting in identifying sources, proposing CERP strategies, developing metrics to measure CERP progress, and other tasks. The ECV CSC prioritized air filtration as a CERP action to help combat increased exposure to these pollutants in their community.

Exposure reduction for sensitive populations in schools, childcare centers, and housing projects is an air quality priority in the ELABHWC CERP. Forty-one percent of the 18.96 square miles of the ELABHWC community is residential uses located near 30.5 miles of freeways and five railyards which are sources of DPM that accounts for most of the air toxics cancer risk to this community.³

The SBM CERP also includes an action for home air filtration. DPM from on-road mobile sources is the primary air toxic of concern in the community. The largest contributor to DPM in the SBM community is from diesel-fueled heavy-duty trucks concentrated along goods movement corridors that transverse and are adjacent to the community.⁴ The SBM CSC specified a goal in the CERP to partner with appropriate entities to provide home filtration and weatherization.

Additionally, the WCWLB community identified exposure reduction to air pollutants in homes as an action item in the CERP. This community faces worse public health factors and more social and economic

² ECV CERP (Chapter 3B: Fugitive Emissions and Source Attribution) available on the South Coast AQMD website: <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/eastern-coachella-valley/final-cerp/final-cerp-july-2021.pdf?sfvrsn=9>

³ ELABHWC CERP (Chapter3A: Community Profile) available on the South Coast AQMD website: <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/2020-progress-report.pdf?sfvrsn=10>

⁴ SBM CERP (Chapter 3B: Emissions and Source Attribution Analysis) available on the South Coast AQMD website: <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/san-bernardino/cerp/carb-submittal/final-cerp.pdf?sfvrsn=9>

disadvantages compared to California as a whole⁵. This community is home to the busiest international ports in the United States. Its main sources of air pollution are goods movement activities including heavy-duty trucks, off-road diesel equipment, trains, and cargo handling equipment.

Community Support

The South Coast AQMD appointed a community liaison as the point of contact for each community to better address the concerns of the CSC members and the public. Community engagement, outreach, and a robust public process were essential to the CERP development in each AB 617 community. CSC input resulted in CERP actions to reduce residents' exposure to harmful air pollutants. A summary of the CSCs that support residential air filtration and an overview of each CSC's membership is in Table 2 – AB 617 CSCs Supporting Residential Air Filtration, below.

Of the four communities with CERP actions for residential air filtration, only two (including ECV and ELABHWC) prioritized implementing these actions by allocating funding to them through a participatory budgeting process. Both ECV and ELABHWC received \$5.57M in Year 3 Community Air Protection (CAP) incentive funds for community-identified projects. As a result, ECV distributed 18% (\$1M) and ELABHWC 33% (\$1.84M) of these funds toward home air filtration units. Therefore, the ECV and ELABHWC communities can participate in the Residential Air Filtration Program. Also, if South Coast AQMD receives new CAP incentive funds, South Coast AQMD in consultation with the CSCs may opt to allocate additional funds to residential air filtration projects supported by the CERPs.

⁵ WCWLB CERP (Chapter 3A: Community Profile) available on the South Coast AQMDS website: <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/wilmington/cerp/final-cerp-wcwlb.pdf?sfvrsn=8>

Table 2 – AB 617 CSCs Supporting Residential Air Filtration

Community	Purpose of Community Group	Total Number of Members in CSC*	Date Established	Description of the Decision-Making Process
ECV	Community Engagement and Public Input	62	September 2019	CSC Charter ⁶
ELABHWC	Community Engagement and Public Input	32	November 2018	CSC Charter ⁷
SBM	Community Engagement and Public Input	28	October 2018	CSC Charter ⁸
WCWLB	Community Engagement and Public Input	38	October 2018	CSC Charter ⁹

Program Eligibility

Eligibility for residential air filtration units is part of a collaborative process with CSC members. Communities allocating funding for air filtration units have established criteria to prioritize residences within the community eligible for the units. These communities have opted to award air filtration units on a first-come, first-served basis and their proximity to emission sources.

CSC members and South Coast AQMD staff will collaboratively identify the implementation method for the Residential Air Filtration Program. Eligible applicants must reside within the community boundaries and apply online to receive a home air filtration unit.

Participant Requirements

Eligible applicants must meet the following minimum requirements:

- 1) Reside in AB 617 communities that have prioritized residential air filtration in their CERPs and have allocated CAP incentive funds towards residential air filtration. Currently, these are the AB617 communities of East Los Angeles, Boyle Heights, West Commerce and Eastern Coachella Valley

⁶ Available at South Coast AQMD’s website: <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/eastern-coachella-valley/final-charter.pdf?sfvrsn=8>

⁷ Available at South Coast AQMD’s website: <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/east-la/charter-english.pdf?sfvrsn=8>

⁸ Available at South Coast AQMD’s website: <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/san-bernardino/charter-english.pdf?sfvrsn=8>

⁹ Available at South Coast AQMD’s website: <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/wilmington/charter-english.pdf?sfvrsn=8>

- 2) Provide residence information (e.g., address and square footage occupied by the applicant)
- 3) Select a CARB certified air cleaning device or device approved for the program¹⁰. All eligible air filtration units must have a Minimum Efficiency Reporting Value (MERV) rating of 14 or greater. Additionally, portable air cleaning units must have a clean air delivery rate (CADR) for tobacco smoke (0.09-1.0 µM) or CADR equivalent manufacturer’s rating for filtration that is appropriate for the room or residence size.
- 4) Maintain the air filtration unit to manufacturer’s specifications
- 5) Comply with the South Coast AQMD home air filtration program requirements (future program announcements will establish program requirements and be available at <http://www.aqmd.gov/home/programs/business/community-air-protection-incentives/residential-air-filtration-incentives>)
- 6) Maintain compliance with all Federal, State, and local rules and regulations
- 7) Make home air filtration unit available for inspection if requested by South Coast AQMD and/or CARB staff during the project lifetime
- 8) Comply with CARB CAP Incentives 2019 Guidelines

Funding Amounts

Project funding is limited to the purchase price and sales tax of new equipment and three years of new replacement filters as summarized in Table 3 – Funding Amounts for Home Air Filtration below. The applicant will be responsible for ongoing operation and maintenance, replacement filters storage costs, and any reporting during the project life.

The project plan funds up to three years of replacement filters; therefore, the project life is three years. Additionally, program participants will be required to adhere to program conditions agreed to before product delivery. These conditions may include maintaining and operating the air filtration unit per manufacturer specification, replacing filters as necessary, participating in future program surveys, etc.

Ineligible costs are all costs outside the purchase price plus sales tax of the equipment and three years of replacement filters. The program will not pay for the cost of installation, electricity to operate units, repairs and replacement expenses, extended warranties, accessories, and other equipment. Manufacturer warranties will be provided directly from the air filtration unit manufacturer.

Table 3 – Funding Amounts for Home Air Filtration

Type of Equipment	Funding Amount
Standalone Air Filtration Unit	Up to 100%
Replacement Filters	Up to 100%

Exposure Reduction Estimation

Air filtration technologies (e.g., stand-alone or portable air filtration units) have shown they reduce exposure to indoor PM and, in some instances, gases or VOCs. As part of the application process, participants will be required to provide information about the residence where the air filtration units will be

¹⁰ Complete list of CARB-Certified Air Cleaning Devices: <https://ww2.arb.ca.gov/list-carb-certified-air-cleaning-devices>

placed (e.g., filter efficiency and size of the residence in square feet). South Coast AQMD will collect and verify this information for each application and report to CARB as part of the AB 617 annual progress reports for CERP implementation required by the Community Air Protection Blueprint.

Qualitative Benefits

The California Climate Investments Funding Guidelines do not identify a qualitative benefit for this measure. However, air filtration systems are proven to reduce exposure to indoor and outdoor PM_{2.5} emission sources. Several residences in AB617 communities are located in close proximity to emission sources and implementing air filtration projects in the South Coast Air Basin will reduce exposure to PM_{2.5} and improve public health.

All eligible air filtration units must have a Minimum Efficiency Reporting Value (MERV) rating of 14 or greater. Additionally, portable air cleaning units must have a clean air delivery rate (CADR) for tobacco smoke (0.09-1.0 μM) or CADR equivalent manufacturer's rating for filtration that is appropriate for the room or residence size. South Coast AQMD will collect information (e.g., filter efficiency and size of the residence) available for each air filtration project to estimate the indoor exposure reduction levels.