



Carl Moyer Program Statistics 2019 Reporting Cycle

This document provides details on Carl Moyer Program (Moyer Program or Program) expenditures as reported by local air districts. The data in this document reflects reported data through the 2019 reporting. The data is presented in a variety of tables.

Introduction

The Moyer Program provides incentive grants to fund the incremental cost of cleaner-than-required engines, equipment and other technology. The core principle of the Moyer program is to achieve cost-effective¹ emission reductions that are permanent, surplus, quantifiable, enforceable, and creditable to the State Implementation Plan (SIP). Covered pollutants include oxides of nitrogen (NO_x), reactive organic gases (ROG), and particulate matter (PM).

The Moyer Program is implemented as a partnership between the California Air Resources Board (CARB) and local air districts. Air districts administer Moyer Program grants and select the projects to fund. CARB works collaboratively with the air districts and other stakeholders to establish Guidelines² and ensure the Program reduces pollution and provides cleaner air for Californians.

CARB allocate funds to the air districts according to statute and takes into account population, air quality and other factors. Air districts are allowed a minimum allocation of \$200,000 and air districts that accept a larger allocation must provide matching funds. Regular Moyer funds come from smog abatement fees and tire fees. Air

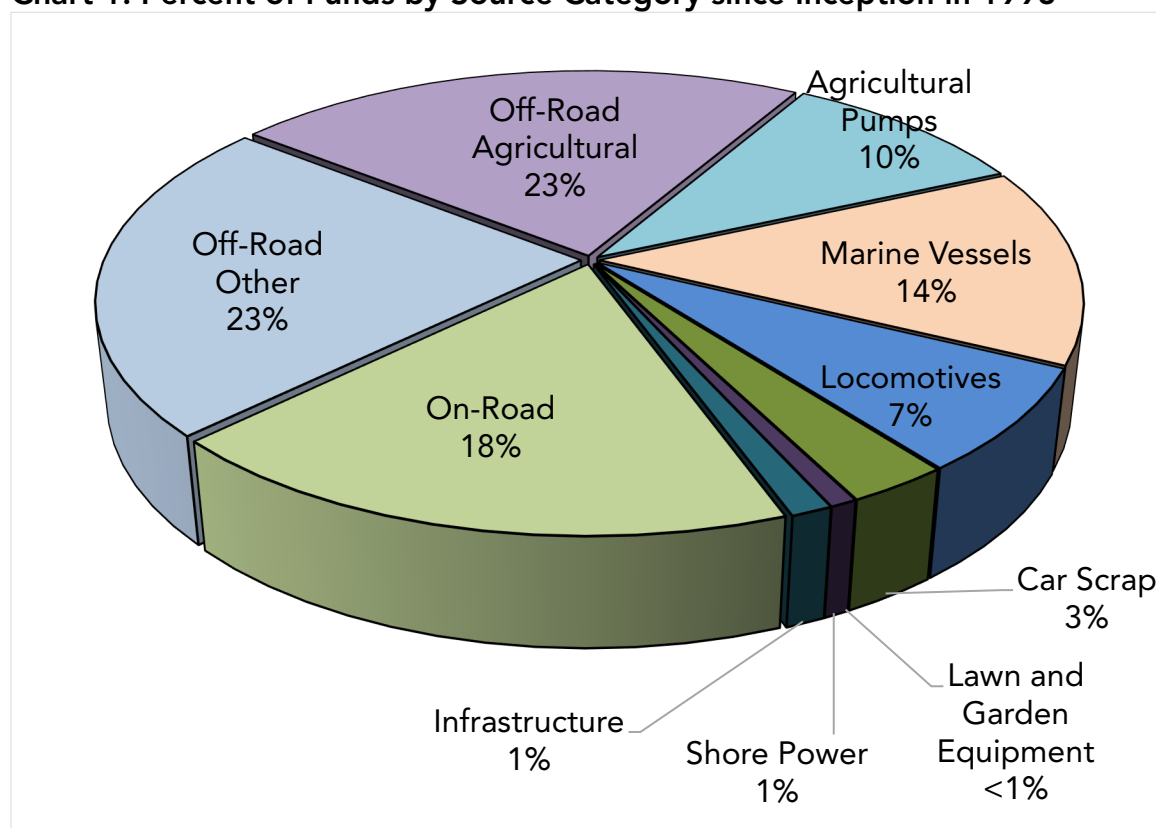
¹ Cost Effectiveness limit may vary by project. Infrastructure projects enable the deployment of advanced technologies and are exempt from cost-effectiveness requirements and therefore do not have any reported emission reductions.

² Carl Moyer Guidelines: <http://www.arb.ca.gov/msprog/moyer/guidelines/current.htm>

districts use local funds, often motor vehicle registration fees under Assembly Bill (AB) 923, as matching funds.

The Moyer program funds a variety of project types in various source categories. The pie chart below shows the percent of funds spent in the different source categories since the inception of the program.

Chart 1: Percent of Funds by Source Category since Inception in 1998



Background

Air districts report to CARB annually, by August 29 of each year, on the details about the program and projects they have funded. Data is reported to the Clean Air Reporting Log (CARL)³ and the air districts certify that the data is accurate and complete.

Funding Timeline: The Moyer Program began in 1998 and funds were first allocated in FY 1998-99, called "funding year 1." The most current funding year being expended

³ Clean Air Reporting Log (CARL) database: <http://www.arb.ca.gov/app/cmp/index.php>

is funding year 21 (FY 2018-19), which is not complete yet. Air districts have 4 years to liquidate each year of funds received. See the table below for examples:

Fiscal Year Allocation	Funding Year	Liquidation Year
2015-16	18	2020
2016-17	19	2021
2017-18	20	2022
2018-19	21	2023

Emission Reductions: Emission reductions are reported in tons and are derived by multiplying the annual emission reductions by the life of each project. The project life is the number of years the project achieves surplus emission reductions; it is also the contract period. Emission reductions are provided in total tons for the project.

Source Categories: The data in the tables and charts provide program information by general source category and detailed source category. For example, the general source category data group "Off-Road - Other" includes off-road construction, off-road cargo handling, off-road ground support equipment, transportation refrigeration units and forklifts. The detailed source category table disaggregates this information by these specific equipment types and provides additional information related to whether the project involves equipment repower or replacement. Data are also displayed by funding year and air district.

Funds Executed vs. Total Allocated Funds: In Table 1 below, the Total Funds Allocation represents project and administration dollars granted to air districts; administration funds are used by air districts to support program implementation and outreach and are not spent on projects. Funds Executed represent the reported funds spent or dedicated to projects via contract or a voucher. Funding sources include regular Moyer funds, Match, Non-Match, Multi-District, Rural Assistance Program, State Reserve, and Moyer Interest. Note that funds reported as executed have not necessarily been liquidated yet. Please also note that air districts may report Non-Match AB 923 funded projects to CARB for SIP credit; however, there is no Non-Match allocation or target for air districts to meet. For that reason, funds executed may be greater than the allocation. Please note that summation of funds may slightly vary due to rounding.

Data Sources: Moyer Program data is compiled from 2 primary sources:

- Data for Funding years 1-7 in Table 3 is gathered from the Carl Moyer 2006 Status Report⁴.
 - The 2006 Status Report provided results for funding years 1-6. Incomplete data for funding year 7 is extrapolated based on an average of the funding years 1-6 data, for the purpose of estimating a complete total.
 - Project life for years 1-7 is an average 9.7 years per table IV-2 on page 2 of the 2006 Status Report, for the purpose of calculations.
- Data for funding years 8-21 is generated from the CARL database. For the 2019 reporting cycle reflected in the report:
 - Funding years 8-17 are fully liquidated; all funds are paid-in-full and the projects they funded are operational.
 - Funding years 18-21 are at various stages of implementation, from contracted to liquidated.
 - Project life is based on reported information for each piece of equipment. Emission reductions are calculated over the full project life.
 - Funds executed will vary as projects are edited, added and dropped. Four funding years are in flux within every reporting cycle, so data are subject to change.

Changes from Last Update

The Moyer Program Statistics were last updated in 2017; these 2019 Moyer Program Statistics reflect data reported up to the 2019 reporting cycle. The data is also updated to include district allocations for funding year 20 and 21.

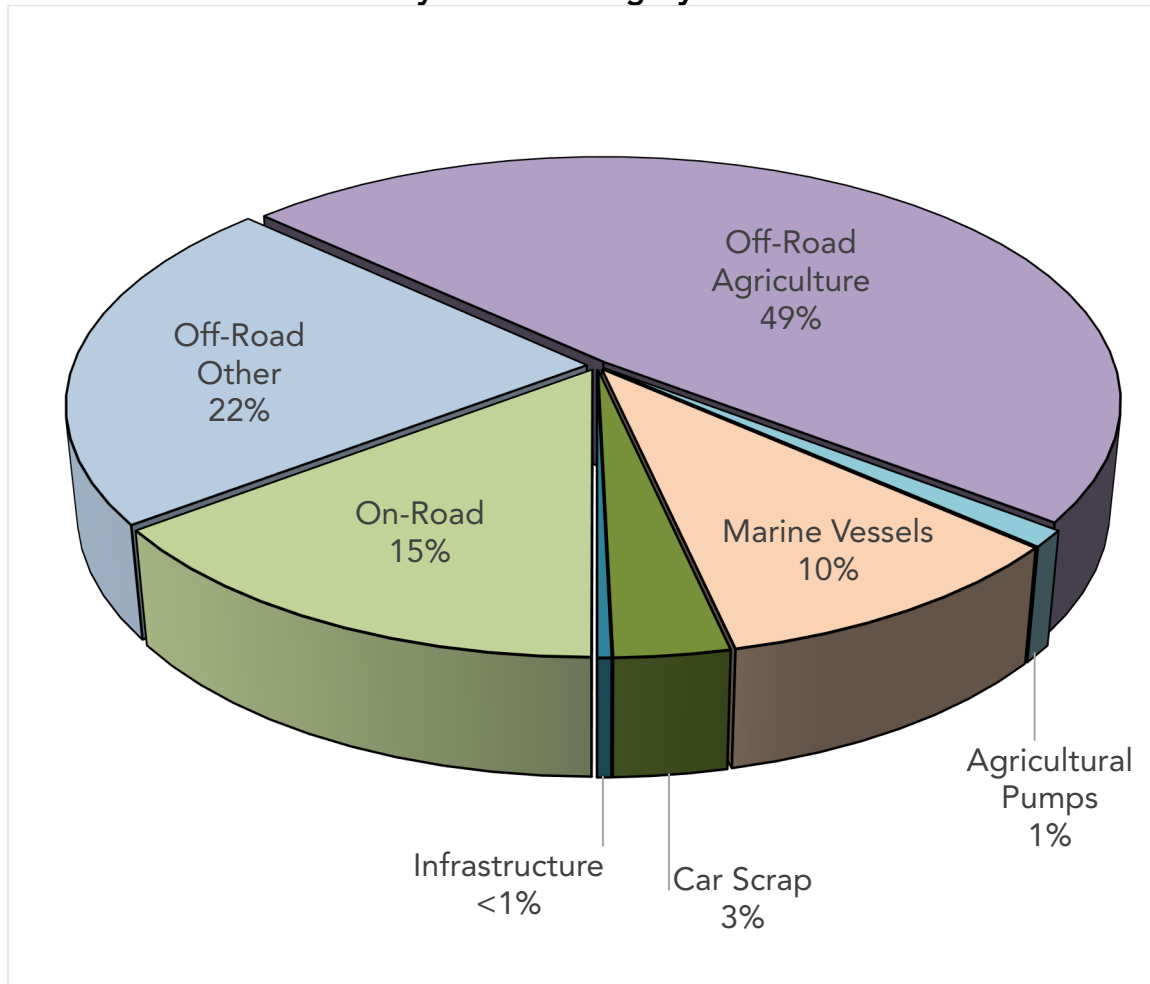
A table reflecting zero emission technology is added, showing electric vehicle/equipment funded with the Moyer Program since funding year 8.

⁴ Carl Moyer 2006 Status Report: <https://ww3.arb.ca.gov/msprog/moyer/status/status.htm>

Program Trends

Although the Moyer Program was established more than 22 years ago, the types of projects funded have shifted over time to meet changing local and State air quality objectives. The types of projects funded are also affected by the economy, technology availability, and implementation of regulations. The pie chart below shows the percent of funds spent in the different source categories over the past five year.

Chart 2: Percent of Funds by Source Category over Past Five Years



Results and Tables

Table 1: Moyer Program Summary for Funding Years 1-21¹

	Engine Count ⁴	Life NO _x +ROG (tons) ³	Life PM (tons) ³	Funds Executed ⁵	Total Funds Allocation ²
Grand Totals	67,924	194,514	7,156	\$1,148,489,567	\$1,388,933,142

1. Table includes reported project information for funding years 1-21. Funding years 8-21 reflect total funded engines for all source categories in CARL with an executed contract. Category "Off-Road Other" includes construction, cargo handling, ground support, transportation refrigeration units, and forklifts equipment.

Funding years 1-6 data are from the 2006 Status Report Table IV-1. Funding year 7 data was extrapolated based on an average of funding years 1-6 data and factored to account for incomplete data - see 2006 Status Report page 9 text.

2. Total Funds Allocated includes air district's project and administration funds for years 1-21 including regular Moyer, Match, Multi-district and State Reserve, Rural Assistance Program, and Moyer interest. Not all these funds have been fully liquidated. Non-match funds do not have an allocation.

3. Emission reductions are for the life of the project. For funding years 8-21 "life reductions" are derived by multiplying the annual emission reductions by the project life for each equipment. Project life for funding years 1-7 is 9.7 years, an average of the project lives published in the 2006 Status Report table IV-2 page 12.

4. Engine count includes repowers, retrofits, scrap, new purchases, and vehicle/equipment replacements.

5. Funds Executed includes funding and payments reported on projects including regular Moyer, Match, Non-match, Multi-district, State Reserve, Rural Assistance Program, and Moyer Interest.

Table 2: Moyer Funding Years 1-21 by General Source Category - Since Inception in 1998

General Source Category	Engine Count	Life NO _x +ROG (tons)	Life PM (tons)	Funds Executed
On-Road	7,828	25,396	680	\$209,683,694
Off-Road Other	3,190	40,844	1,428	\$262,428,618
Off-Road Agricultural	4,149	22,490	950	\$261,307,711
Stationary and Portable Agricultural Engines	7,811	61,504	2,368	\$113,271,858
Marine Vessels	2,166	31,862	1,462	\$160,402,926
Locomotives	222	8,618	237	\$83,848,457
Car Scrap	31,143	3,268	17	\$33,385,195
Lawn and Garden Equipment	11,412	69	3	\$1,654,677
Shore Power	4	462	11	\$8,875,880
Infrastructure	N/A	N/A	N/A	\$13,630,549
Total	67,924	194,514	7,156	\$1,148,489,567

Table 3: Moyer Funding Years 1-7 by General Source Category - from 2006 Status Report

General Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed
On-Road	2,782	15,426	418	\$46,990,021
Off-Road Other	662	13,649	654	\$25,165,414
Off-Road Agricultural	157	628	26	\$1,778,700
Stationary and Portable Agricultural Engines	4,326	39,834	1,778	\$49,852,783
Marine Vessels	606	16,629	954	\$34,926,693
Locomotives	35	1,268	26	\$3,184,149
Car Scrap	0	0	0	0
Lawn and Garden Equipment	0	0	0	0
Shore Power	0	0	0	0
Infrastructure	N/A	N/A	N/A	0
Total	8,567	87,434	3,857	\$161,897,759

Table 4: Moyer Funding Years 8-21 by General Source Category - from CARL

General Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed
On-Road	5,046	9,970	262	\$162,693,673
Off-Road Other	2,528	27,195	774	\$237,263,204
Off-Road Agriculture	3,992	21,863	924	\$259,529,011
Stationary and Portable Agricultural Engines	3,485	21,670	590	\$63,419,076
Marine Vessels	1,560	15,233	508	\$125,476,233
Locomotive	187	7,350	210	\$80,664,308
Car Scrap	31,143	3,268	17	\$33,385,195
Lawn and Garden Equipment	11,412	69	3	\$1,654,677
Shore Power	4	462	11	\$8,875,880
Infrastructure	N/A	N/A	N/A	\$13,630,549
Total	59,357	107,079	3,299	\$986,591,807

Table 5: Program Statistics by Moyer Funding Years 8-21

Funding Year ¹	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed	Project Allocation Funds ²	Total Allocation (including admin) ³
8	4,204	28,285	867	\$100,094,748	\$94,977,599	\$98,341,039
9	5,625	14,525	468	\$96,482,345	\$91,599,870	\$98,042,759
10	3,374	10,983	257	\$93,829,973	\$91,695,316	\$98,215,368
11	9,546	10,043	265	\$84,272,798	\$80,461,822	\$86,410,101
12	2,599	5,716	141	\$72,136,182	\$70,381,770	\$75,441,596
13	5,570	6,793	216	\$79,593,468	\$72,234,034	\$77,245,242
14	11,743	5,426	168	\$74,775,654	\$72,129,676	\$77,230,537
15	3,842	4,893	175	\$67,514,413	\$64,812,283	\$69,491,666
16	2,655	4,886	169	\$68,424,249	\$66,774,215	\$71,494,364
17	4,764	4,858	141	\$73,002,307	\$69,789,975	\$74,742,081
18*	1,856	4,078	155	\$63,898,987	\$69,732,576	\$74,742,081
19*	2,100	4,506	182	\$75,552,037	\$69,821,538	\$75,017,119
20*	1,341	1,823	81	\$31,778,522	\$81,337,937	\$75,056,327
21*	139	265	14	\$5,236,123	\$84,502,684	\$87,161,373
Total	59,358	107,080	3,299	\$986,591,807	\$1,080,251,295	\$1,138,631,651

1. * Asterisk indicates the funding years that are in progress and are subject to change. Liquidated years 8 - 17 represent fully paid and operational projects.

2. Project Allocation Funds are the annual project allocation including regular Moyer, Match, Multi-district, State Reserve, Rural Assistance Program, and reported Moyer interest, but does not include administration funds.

3. Total Allocation Funds include the project and administration funds for regular Moyer, Match, Multi-district, State Reserve, Rural Assistance Program, and reported Moyer interest.

Table 6: Program Statistics by Source Category and Project Type for Funding Years 8-21

Detailed Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed
Auxiliary Power Unit - New Purchase	1	10	5	\$39,033
Car Scrap (VAVR) - Scrap	31,143	3,268	17	\$33,385,195
Infrastructure - Infrastructure	0	0	0	\$13,630,549
Lawn and Garden Equipment - Scrap	11,412	69	3	\$1,654,677
Locomotives - Idle Limiting Device	61	485	14	\$770,598
Locomotives - New Purchase	70	4,682	133	\$53,845,102
Locomotives - Remanufacture Kit	3	175	5	\$575,163
Locomotives - Repower	53	2,008	58	\$25,473,446
Marine Vessels - Repower	1,557	15,131	505	\$123,413,334
Marine Vessels - Retrofit	3	102	3	\$2,062,899
Marine Vessels - Shore Power	3	230	5	\$4,097,105
Off-Road Equipment - Airport Ground Support - Replacement	97	117	6	\$3,279,828
Off-Road Equipment - Cargo Handling - Replacement	12	62	2	\$1,001,919
Off-Road Equipment - Cargo Handling - Repower	14	64	1	\$1,106,428
Off-Road Equipment - Cargo Handling - Retrofit	1	0	0	\$13,249
Off-Road Equipment - Construction - Replacement	402	2,247	83	\$59,255,022
Off-Road Equipment - Construction - Repower	1,662	23,434	632	\$160,880,464
Off-Road Equipment - Construction - Retrofit	47	0	11	\$833,310
Off-Road Equipment - Forklift Engines - Retrofit	13	10	0	\$58,259
Off-Road Equipment - Mobile Agricultural - Replacement	3,544	19,226	828	\$237,057,814
Off-Road Equipment - Mobile Agricultural - Repower	381	2,476	85	\$20,515,192
Off-Road Equipment - Mobile Agricultural - Retrofit	1	0	0	\$5,005
Off-Road Equipment - Other - New Purchase	27	251	9	\$330,569
Off-Road Equipment - Other - Replacement	119	263	12	\$7,880,377
Off-Road Equipment - Other - Repower	41	701	15	\$2,106,709
Off-Road Equipment - Other - Retrofit	25	13	2	\$238,390
Off-Road Equipment - Other - Shore Power	1	232	6	\$4,778,775
Off-Road VIP Agriculture - Voucher	66	160	11	\$1,951,000
Off-Road VIP Construction - Voucher	2	4	0	\$45,500

Detailed Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed
On-Road Fleet Modernization - Replacement	290	840	51	\$26,811,574
On-Road Heavy-Duty Vehicles - New Purchase	615	1,481	6	\$14,905,125
On-Road Heavy-Duty Vehicles - Replacement	45	50	2	\$4,809,082
On-Road Heavy-Duty Vehicles - Repower	970	2,108	56	\$19,884,188
On-Road Heavy-Duty Vehicles - Retrofit	849	795	89	\$14,645,677
On-Road TIMBER - Replacement	210	578	15	\$10,657,500
On-Road Voucher Incentive Program - Replacement	1	0	0	\$10,000
On-Road Voucher Incentive Program - Voucher	2,066	4,108	37	\$70,931,496
Stationary and Portable Agricultural Engines - New Purchase	32	192	8	\$179,779
Stationary and Portable Agricultural Engines - Replacement	1	3	3	\$58,105
Stationary and Portable Agricultural Engines - Repower	3,450	21,463	579	\$63,136,283
Stationary and Portable Agricultural Engines - Tiered Reductions	1	10	1	\$23,108
Stationary and Portable Agricultural Engines - Variable Frequency	1	3	0	\$21,800
Transport Refrigeration Unit - New Purchase	20	8	0	\$118,916
Transport Refrigeration Unit - Retrofit	46	21	2	\$114,264
Total	59,358	107,080	3,299	\$986,591,807

Table 7: Zero Emission Technology Projects for Moyer Funding Years 8-21

Source Category	Vehicle/Equipment Type	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed
Stationary and Portable Agricultural Engines	Agricultural Irrigation Pump	2,053	17,496	458.6	\$40,146,036
On-Road Heavy-Duty Vehicles	School Bus	4	2	0.1	\$533,463
Infrastructure	Battery Charging Station	N/A	N/A	N/A	\$7,816
Off-Road - Mobile Agricultural	Other	3	3	0.3	\$78,028
Off-Road - Airport Ground Support	A/C Tugs Wide Body	9	13	0.4	\$271,638
Off-Road - Airport Ground Support	Belt Loader	19	18	1.0	\$633,216
Off-Road - Airport Ground Support	Cargo Tractor	62	57	3.0	\$1,724,206
Off-Road - Other	Forklifts	28	252	8.8	\$388,510
Marine Vessels	Shore-Power Ship Side	1	74	2.0	\$1,600,000
Lawn and Garden Equipment	Residential Lawn Mower	11,412	69	2.6	\$1,654,677
Marine Vessels	Shore-Power Ship Side	4	250	5.3	\$4,462,899
Off-Road - Cargo Handling	Cargo Yard Truck	4	23	0.0	\$694,500
Total		13,599	18,257	482	\$52,194,990

Table 8: Program Statistics by Air District and Source Category for Funding Years 8-21

Air District	Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed	Average Cost-Effectiveness
Amador County APCD	On-Road	1	2	0.1	\$45,000	\$15,309
	Off-Road Other	3	16	0.3	\$95,798	\$11,361
	Off-Road Agriculture	1	19	0.6	\$79,540	\$2,714
	Total	5	37	1	\$220,338	N/A
Antelope Valley AQMD	Off-Road Agriculture	34	180	7.1	\$3,550,226	\$13,846
	Off-Road Other	35	142	7.0	\$3,611,113	\$15,583
	On-Road	2	1	0.0	\$37,657	\$29,920
	Infrastructure	N/A	N/A	N/A	\$410,806	N/A
	Stationary and Portable Agricultural Engines	5	49	1.5	\$302,816	\$6,570
	Car Scrap	729	72	0.4	\$729,000	\$10,530
	Total	805	444	16	\$8,641,617	N/A
Bay Area AQMD	On-Road	413	703	13.6	\$13,029,199	\$16,017
	Marine Vessels	351	8,056	247.0	\$31,925,343	\$10,839
	Off-Road Agriculture	558	891	46.3	\$28,160,712	\$16,962
	Off-Road Other	343	2,250	85.5	\$26,978,433	\$14,027
	Locomotive	28	1,093	31.0	\$13,052,454	\$7,896
	Stationary and Portable Agricultural Engines	6	18	0.6	\$64,438	\$4,089
	Infrastructure	N/A	N/A	N/A	\$7,816	N/A
	Car Scrap	27,266	2,827	14.6	\$29,214,588	\$11,021
	Total	28,965	15,837	439	\$142,432,983	N/A
Butte County AQMD	Stationary and Portable Agricultural Engines	93	244	8.9	\$1,627,100	\$6,223
	Off-Road Agriculture	91	336	21.0	\$2,611,452	\$6,702
	On-Road	25	42	1.1	\$1,769,718	\$110,207
	Off-Road Other	12	42	1.1	\$555,659	\$9,941
	Total	221	664	32	\$6,563,929	N/A

Air District	Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed	Average Cost-Effectiveness
Calaveras County APCD	On-Road	10	28	1.8	\$934,480	\$61,791
	Off-Road Other	2	45	1.6	\$189,839	\$4,094
	Lawn and Garden Equipment	11	0	0.0	\$1,595	\$13,941
	Total	23	73	3	\$1,125,914	N/A
Colusa County APCD	Stationary and Portable Agricultural Engines	175	1,569	56.9	\$3,610,711	\$2,811
	Off-Road Agriculture	19	108	23.9	\$781,076	\$5,177
	Total	194	1,677	81	\$4,391,787	N/A
Eastern Kern APCD	On-Road	6	9	0.3	\$564,490	\$74,530
	Off-Road Other	12	59	1.9	\$905,636	\$11,521
	Stationary and Portable Agricultural Engines	23	49	1.0	\$571,263	\$10,791
	Total	41	116	3	\$2,041,388	N/A
El Dorado County AQMD	On-Road	5	5	0.0	\$696,973	\$138,409
	Off-Road Other	1	6	0.2	\$285,423	\$30,006
	Lawn and Garden Equipment	377	2	0.0	\$54,602	\$25,824
	Total	383	14	0	\$1,036,998	N/A
Feather River AQMD	On-Road	8	4	0.0	\$983,098	\$263,833
	Stationary and Portable Agricultural Engines	93	219	8.9	\$1,127,992	\$6,170
	Off-Road Agriculture	115	434	22.2	\$4,167,147	\$8,791
	Off-Road Other	3	4	0.2	\$116,609	\$14,437
	Total	219	662	31	\$6,394,847	N/A
Glenn County APCD	Off-Road Other	2	9	0.3	\$144,665	\$11,647
	On-Road	6	0	0.5	\$77,556	\$8,433
	Stationary and Portable Agricultural Engines	163	523	18.7	\$1,902,597	\$3,974

Air District	Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed	Average Cost-Effectiveness
Glenn County APCD	Off-Road Agriculture	53	166	8.1	\$1,807,396	\$6,611
	Total	224	698	28	\$3,932,214	N/A
Imperial County APCD	Stationary and Portable Agricultural Engines	92	151	4.9	\$1,780,752	\$9,465
	Off-Road Agriculture	78	208	9.7	\$2,892,832	\$8,654
	Off-Road Other	1	3	0.2	\$90,000	\$15,462
	Infrastructure	N/A	N/A	N/A	\$229,559	N/A
	Total	171	363	15	\$4,993,143	N/A
Lake County AQMD	Stationary and Portable Agricultural Engines	3	3	0.1	\$37,437	\$7,937
	Off-Road Other	2	4	0.1	\$91,976	\$14,023
	On-Road	6	10	1.1	\$657,616	\$66,028
	Total	11	18	1	\$787,029	N/A
Lassen County APCD	Stationary and Portable Agricultural Engines	25	152	5.7	\$493,496	\$4,760
	Off-Road Agriculture	42	99	4.5	\$1,546,120	\$11,515
	On-Road	2	4	0.1	\$75,000	\$15,072
	Off-Road Other	5	16	0.4	\$303,483	\$13,511
	Total	74	270	11	\$2,418,099	N/A
Mendocino County AQMD	On-Road	21	11	1.2	\$354,980	\$12,544
	Off-Road Agriculture	8	38	1.3	\$516,995	\$10,435
	Marine Vessels	16	154	5.3	\$881,558	\$7,751
	Stationary and Portable Agricultural Engines	23	57	2.2	\$714,223	\$13,637
	Off-Road Other	9	47	9.5	\$653,483	\$9,935
	Total	77	308	19	\$3,121,239	N/A
Modoc County APCD	Off-Road Other	4	41	1.4	\$155,914	\$5,413
	Stationary and Portable Agricultural Engines	4	6	0.2	\$74,032	\$8,793

Air District	Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed	Average Cost-Effectiveness
Modoc County APCD	Off-Road Agriculture	4	13	0.6	\$166,910	\$7,295
	Total	12	60	2	\$396,856	N/A
Mojave Desert AQMD	Car Scrap	1,001	101	0.5	\$1,186,383	\$12,351
	Infrastructure	N/A	N/A	N/A	\$1,740,520	N/A
	Locomotive	2	242	14.9	\$1,118,906	\$6,748
	Off-Road Other	20	126	4.7	\$2,150,745	\$13,968
	On-Road	3	12	5.1	\$98,441	\$10,845
	Off-Road Agriculture	18	115	5.3	\$1,737,073	\$10,380
	Total	1,044	596	31	\$8,032,069	N/A
Monterey Bay Unified APCD	Off-Road Agriculture	44	167	8.2	\$2,656,243	\$7,397
	Stationary and Portable Agricultural Engines	43	154	4.6	\$1,148,187	\$6,739
	Off-Road Other	25	170	7.3	\$4,289,789	\$14,563
	Marine Vessels	78	345	11.5	\$4,475,685	\$10,462
	Infrastructure	N/A	N/A	N/A	\$298,143	N/A
	Total	190	836	32	\$12,868,047	N/A
North Coast Unified AQMD	Off-Road Agriculture	62	174	13.3	\$2,859,246	\$10,401
	On-Road	91	243	8.5	\$4,114,637	\$12,587
	Off-Road Other	10	91	3.0	\$652,532	\$7,130
	Marine Vessels	38	399	13.4	\$2,499,636	\$5,186
	Total	201	906	38	\$10,126,051	N/A
Northern Sierra AQMD	Infrastructure	N/A	N/A	N/A	\$21,626	N/A
	Off-Road Agriculture	12	50	2.2	\$869,261	\$11,872
	On-Road	12	18	1.5	\$614,384	\$20,241
	Off-Road Other	16	58	2.1	\$1,194,659	\$14,307
	Total	40	127	6	\$2,699,931	N/A
Northern Sonoma County APCD	Off-Road Agriculture	62	79	5.4	\$2,259,179	\$15,021

Air District	Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed	Average Cost-Effectiveness
Northern Sonoma County APCD	Stationary and Portable Agricultural Engines	21	24	0.7	\$448,042	\$12,969
	On-Road	5	14	0.4	\$265,000	\$13,560
	Off-Road Other	3	10	0.4	\$122,100	\$10,846
	Marine Vessels	3	12	0.4	\$194,100	\$10,684
	Infrastructure	N/A	N/A	N/A	\$150,000	N/A
	Total	94	139	7	\$3,438,421	N/A
Placer County APCD	On-Road	1	1	0.0	\$126,879	\$222,028
	Off-Road Agriculture	10	32	1.1	\$890,636	\$19,654
	Total	11	32	1	\$1,017,515	N/A
Sacramento Metropolitan AQMD	Off-Road Agriculture	594	2,580	91.2	\$49,235,612	\$12,620
	Off-Road Other	129	826	27.4	\$10,211,263	\$10,706
	On-Road	176	249	17.2	\$4,246,696	\$9,664
	Stationary and Portable Agricultural Engines	635	2,303	69.2	\$9,394,510	\$6,016
	Marine Vessels	10	39	1.0	\$235,786	\$6,150
	Locomotive	40	1,193	35.2	\$10,703,763	\$5,143
	Total	1,584	7,191	241	\$84,027,629	N/A
San Diego County APCD	Off-Road Other	193	1,290	44.7	\$19,523,941	\$13,099
	Marine Vessels	172	1,077	36.3	\$12,143,774	\$11,423
	Off-Road Agriculture	53	201	9.9	\$4,140,500	\$11,894
	On-Road	376	588	10.3	\$10,948,447	\$19,350

Air District	Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed	Average Cost-Effectiveness
	Stationary and Portable Agricultural Engines	20	111	3.5	\$543,990	\$7,774
	Locomotive	5	265	3.7	\$3,027,309	\$9,917
	Shore Power	2	156	2.9	\$2,497,105	\$14,320
	Total	821	3,687	111	\$52,825,067	N/A
San Joaquin Valley APCD	Off-Road Agriculture	1,056	10,928	403.3	\$82,001,900	\$6,097
	Stationary and Portable Agricultural Engines	1,676	14,984	364.1	\$32,152,638	\$3,614
	On-Road	490	837	40.6	\$14,440,998	\$14,146
	Off-Road Other	89	1,251	43.7	\$10,641,649	\$8,765
	Locomotive	29	2,002	57.1	\$19,204,476	\$4,497
	Total	3,340	30,002	909	\$158,441,661	N/A
San Luis Obispo County APCD	Off-Road Agriculture	47	74	3.7	\$1,977,720	\$15,896
	Stationary and Portable Agricultural Engines	38	121	3.4	\$752,399	\$6,226
	Off-Road Other	19	73	2.4	\$1,265,062	\$12,546
	On-Road	29	67	1.5	\$1,493,941	\$33,050
	Car Scrap	523	54	0.3	\$580,500	\$11,141
	Marine Vessels	3	5	0.2	\$89,563	\$12,463
	Total	659	393	12	\$6,159,185	N/A
Santa Barbara County APCD	Off-Road Agriculture	45	152	6.7	\$3,231,872	\$13,158
	Marine Vessels	42	78	2.7	\$1,592,484	\$14,428
	Off-Road Other	15	77	3.6	\$879,992	\$11,415
	On-Road	19	11	0.3	\$710,458	\$65,374
Santa Barbara County APCD	Stationary and Portable Agricultural Engines	25	120	3.6	\$563,271	\$5,929
	Infrastructure	N/A	N/A	N/A	\$9,500	N/A
	Car Scrap	1,624	214	0.9	\$1,674,724	\$10,155

Air District	Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed	Average Cost-Effectiveness
	Total	1,770	653	18	\$8,662,300	N/A
Shasta County AQMD	On-Road	90	260	5.6	\$4,491,657	\$13,408
	Off-Road Other	24	88	4.0	\$1,292,363	\$9,288
	Off-Road Agriculture	84	284	13.0	\$3,092,880	\$6,966
	Stationary and Portable Agricultural Engines	13	43	1.6	\$229,023	\$4,861
	Total	211	674	24	\$9,105,923	N/A
Siskiyou County APCD	On-Road	35	63	2.0	\$2,662,135	\$80,731
	Off-Road Other	10	53	1.9	\$766,000	\$12,824
	Off-Road Agriculture	4	39	1.4	\$293,022	\$5,034
	Stationary and Portable Agricultural Engines	1	12	0.4	\$9,394	\$552
	Total	50	167	6	\$3,730,551	N/A
South Coast AQMD	On-Road	3,160	6,631	146.9	\$96,282,586	\$12,521
	Off-Road Other	1,512	19,858	500.5	\$147,908,959	\$16,323
	Off-Road Agriculture	307	2,130	100.4	\$33,204,806	\$10,577
	Marine Vessels	740	4,516	169.6	\$64,276,494	\$11,685
	Stationary and Portable Agricultural Engines	6	67	1.0	\$279,922	\$6,006
	Infrastructure	N/A	N/A	N/A	\$10,762,579	N/A
	Shore Power	2	306	8.1	\$6,378,775	\$14,958
	Lawn and Garden Equipment	11,024	67	2.6	\$1,598,480	\$14,850
	Locomotive	83	2,555	68.6	\$33,557,401	\$9,593
	Total	16,834	36,129	998	\$394,250,002	N/A
Tehama County APCD	On-Road	10	68	0.5	\$782,469	\$12,072
	Stationary and Portable Agricultural Engines	47	140	7.8	\$996,042	\$6,531
	Off-Road Agriculture	61	186	10.0	\$2,133,075	\$10,058

Air District	Source Category	Engine Count	Life NOx+ROG (tons)	Life PM (tons)	Funds Executed	Average Cost-Effectiveness
	Total	118	394	18	\$3,911,586	N/A
Tuolumne County APCD	On-Road	18	22	1.3	\$1,123,065	\$72,767
	Off-Road Other	5	23	1.0	\$220,107	\$12,087
	Off-Road Agriculture	15	60	2.2	\$950,348	\$13,678
	Total	38	105	4	\$2,293,519	N/A
Ventura County APCD	Stationary and Portable Agricultural Engines	255	552	20.5	\$4,594,801	\$6,529
	Marine Vessels	107	553	20.5	\$7,161,810	\$9,718
	Off-Road Agriculture	515	2,120	101.6	\$21,715,233	\$6,207
	On-Road	27	68	0.5	\$1,066,113	\$21,784
	Off-Road Other	24	517	17.9	\$1,966,012	\$4,060
	Total	928	3,809	161	\$36,503,969	N/A
Grand Total		59,358	107,080	3,299	\$986,591,807	N/A

* Sacramento District figures include projects in surrounding districts for which it has administered funds, including El Dorado, Placer and Yolo-Solano. San Joaquin Valley figures include projects in the Great Basin District.