SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

DRAFT

FINANCIAL INCENTIVES FUNDING ACTION PLAN FOR THE 2016 AIR QUALITY MANAGEMENT PLAN

December 2016

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PREFACE

The South Coast Air Quality Management District (SCAQMD) has prepared this Draft Financial Incentives Funding Action Plan (Action Plan or Plan) to facilitate discussion on pursuing long-term sustainable levels of incentive funding to accelerate turnover of older vehicles and equipment to new near-zero and zero emission vehicles and equipment to help the South Coast Air Basin and Coachella Valley meet federal air quality standards by their applicable deadlines. The Draft 2016 Air Quality Management Plan (AQMP) and the State SIP (State Implementation Plan) Strategy provide a blueprint for attainment of the federal air quality standards. The Draft 2016 AQMP calls for an additional 45% reduction in oxides of nitrogen (NOx) emissions by 2023 and 55% reduction in NOx emissions by 2031. To achieve these levels of emission reduction will require new regulatory actions at the local, state, and federal level. However, incentive funding can result in early emission reductions in the near-term.

The Draft Action Plan will undergo a 30-day written comment period from the date of release. Written comments received by the 30-day deadline will be considered in the preparation of a revised Draft Action Plan for the SCAQMD Governing Board's consideration in conjunction with its deliberation on the Draft Final 2016 AQMP in February 2017.

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EXECUTIVE SUMMARY

Overview

The Draft 2016 Air Quality Management Plan (AQMP) for the South Coast Air Basin and Coachella Valley identified that in the near-term, there is a need to expand financial incentive funding programs significantly in order for the region to attain federal air quality standards. Given the short time available to attain the federal ozone air quality standard by 2023, more traditional regulatory approaches cannot be developed and adopted by the South Coast Air Quality Management District (SCAQMD) or the California Air Resources Board (CARB) and provide sufficient time for affected entities to implement in a timely manner. As such, the Draft 2016 AQMP provides an analysis of the incentive funding levels that will be needed to achieve the emission reductions associated with the State SIP (State Implementation Plan) Strategy "Further Deployment of Cleaner Technologies" measures if no other actions occur. The analysis includes a discussion on what funding levels will be needed to assist smaller stationary sources (e.g., water and space heaters and commercial cooking equipment) to achieve additional emission reductions.

The analysis provided in the Draft 2016 AQMP indicates that around $12 to $14 billion will be needed to help assist the turnover of older vehicles and equipment to near-zero and zero emission vehicles and equipment over the next seven to 15 years. While this averages to around $1 billion per year, the SCAQMD does not envision that this amount will be immediately available, but rather new funding will be increasingly available over time. The SCAQMD and its state and regional partners currently implement around $100 to $150 million per year in incentives funding.

This Draft Financial Incentives Action Plan for the 2016 Air Quality Management Plan (Funding Action Plan or Plan) is prepared to: 1) engender discussion on the importance and need for such programs in order for the South Coast Air Basin and Coachella Valley to attain federal ambient air quality standards in a timely manner (specifically, the 1997 8-hour ozone air quality standard by 2023); and, 2) provide a set of proposed actions that will be taken by the SCAQMD along with public and private sector stakeholders and the public at large to secure additional financial incentive funding.

To secure a significant sustainable level of funding revenue requires a concerted effort from all stakeholders. The SCAQMD cannot do this alone and will work with all interested parties to build a strong coalition to advocate for, and support, legislative initiatives and other initiatives or programs to secure additional funding revenues. Part of the coalition's efforts will be to inform local elected officials, the state legislature, Congressional members, and the Executive Branch on not only the need for incentive funding, but also the environmental and economic benefits that such funding will bring. On the economic side, the significant number of near-zero and zero emission vehicles and equipment needed to be built for sale in the near-term will help create jobs needed to design, construct, and assemble such vehicles and equipment at all regional levels (local, state, and national).

Potential Funding Opportunities

This Draft Funding Action Plan focuses on financial incentives to accelerate the turnover of existing mobile source vehicles and equipment. The Draft Funding Action Plan provides a discussion of the existing funding programs the SCAQMD and other entities are currently implementing and a discussion of potential funding opportunities. A list of potential funding opportunities to the South Coast Air Basin and Coachella Valley is provided in Table ES-1. The potential funding opportunities are discussed in Chapter IV of this Plan. The list of opportunities is not meant to be exhaustive, but sufficiently extensive to provide discussion on potential next steps needed to realize such funding. Some of the potential funding opportunities shown in Table ES-1 are quantified based on actual data and an assumed monetary level to generate the revenues shown in the table. These assumptions do not presume that if such opportunities are pursued that the revenue levels will be achieved after vetting through a public process, but rather serve as examples of the revenue levels that could be realized with the assumed level of implementation.

The total potential revenues from the opportunities quantified in Table ES-1 could be as much as $2.3 billion per year if the currently quantified opportunities are realized. However, many of the funding opportunities will require state or federal legislative actions and for some opportunities, may require voter approval. This Action Plan does not provide an analysis of the SCAQMD's ability or authority to authorize the potential opportunities and does not provide any analysis of the legislative challenges to enact the funding opportunities. This analysis will be developed as part of the public process in moving forward to pursue the funding opportunities.

Table ES-1
Potential Funding Opportunities at the Federal, State, or Local Levels

Potential Funding Opportunity	Potential Funding to South Coast Region (annual)
Expansion of the Diesel Emission Reduction Act Funding	ND*
Expansion of the U.S. DOE Clean Cities Program	ND
Volkswagen Settlement (2.0L Engine) - $381 Million Statewide	ND
Expansion of Federal Tax Credits	ND
AB 118 - Air Quality Improvement Program (CARB) - $25 Million Statewide	ND
AB 118 - Alternative and Renewable Fuel and Vehicle Technology Program (CEC) - $100 Million Statewide	ND
Low Carbon Transportation Funding - $368 Million Statewide	ND
Cargo Container Fee (~11 to 12 Million TEUs** @ $35/TEU**)	$385,000,000
Expanded Motor Vehicle Registration Fees (~12 Million Registered Vehicles @ $20/vehicle)	$240,000,000
Mileage-Based User Fee ($0.005/Mile Add-On to SCAG RTP/SCS Analysis)	$1,040,000,000
Gasoline/Diesel Excise Tax Add-On (~7.2 Billion Gallon @ $0.01/Gal)	$72,000,000
Crude Oil Sales Tax (~28.5 Million Barrels @ $40/barrel with 10% Tax)	$114,000,000
Property Tax ($2.3 Trillion Secured and Unsecured Tax Roll @ 0.01%)	$230,000,000
Retail Sales Tax Add-On ($273 Billion Taxable Sales @ 0.1%)	$273,000,000
New Bond Measures (Similar in Concept to Proposition 1B)	ND
New Ballot Measures (Similar to L.A. County Measure M)	ND
Public/Private Partnerships	ND
Total Potential Funding Level (Quantifiable)	**$2,354,000,000**

* ND – Not Determined
** TEU – Twenty-Foot Equivalent Container Units

Guiding Principles to Secure and Allocate Incentives Funds

As the SCAQMD moves forward in seeking new funding opportunities, the SCAQMD will follow a set of guiding principles that are based on public comments received on the Draft 2016 AQMP.

1) As the South Coast Air Quality Management District (SCAQMD) works to identify sustained sources of financial incentives revenue needed in the next seven to 15 years to help accelerate the turnover of legacy vehicles and equipment to modern near-zero emissions vehicles and equipment and where feasible, zero-emission vehicles and equipment, the SCAQMD will evaluate all potential opportunities with a recognition that revenues may come from multiple sources that are locally, state, and/or federally derived.

2) Any identified source(s) of revenue shall not be from the diversion of existing or future funds slated for purposes other than air quality (e.g., funding for transportation infrastructure improvement projects shall not be diverted for use to accelerate turnover of existing vehicles).

3) Any potential revenue source proposed to be pursued shall be analyzed and developed in a manner that will minimize the economic impact to the funding source, if any, or that the funding source may derive either a direct benefit, or that the cost to the revenue source is offset to the greatest extent possible. Consideration will be given to the economic means of the funding source, and where appropriate, priority will be placed on recovering costs from entities that are emitters of the targeted pollutants.

4) The SCAQMD will work with all interested stakeholders to build consensus on a prioritized specific set of potential revenue sources that could be pursued at the local, state, and/or federal level over the next one to three years.

5) The SCAQMD will work to develop a coalition of stakeholders that will help inform state legislators and Congressional members on the need for such funding and the benefits such funding will provide to meet current and future air quality standards, avoiding sanctions, and with a recognition that there will be substantial co-benefits of greater greenhouse gas emission reductions.

6) The SCAQMD will work with entities such as county transportation agencies, Southern California Association of Governments (SCAG), local governments, Port of Long Beach, and Port of Los Angeles to ensure that the use of funding secured by these entities for the primary purpose of climate change, energy efficiency, or improved operational efficiencies provide additional criteria pollutant reduction co-benefits to the South Coast Air Basin and Coachella Valley to the greatest extent feasible.

7) Any funding realized shall be disbursed in such a manner that maximizes benefits to residents living in environmental justice and disadvantaged communities that are adversely affected by poor air quality, while ensuring that the region attains federal air quality standards as early as possible while continuing to foster the region's recovering economy.

The SCAQMD staff will follow this set of guiding principles as the potential funding opportunities discussed in this Plan or other potential funding opportunities identified through a public process are more specifically defined and the opportunities are fully vetted with the public.

Activities to Pursue to Secure Incentives Funding

In order to realize the levels of sustained funding needed, the SCAQMD will work with all interested stakeholders (regionally and nationally) to form coalitions and a national collaborative with a common objective of identifying and supporting new sources of incentive funding revenue that will benefit not only the South Coast Air Basin, but also other nonattainment areas in California and throughout the nation. Collaboration and coalition building should be bipartisan since air pollution problems transcend political party lines and political boundaries.

A proposed set of activities is provided in Chapter V of this document. A list of the activities is provided below.

Actions at the National Level

- Create a national collaborative – develop new partnerships with states and regions that are currently in nonattainment of existing federal air quality standards or may be in nonattainment of future air quality standards-
- Create a National Clean Air Investment and Cleanup Fund
- Develop public/private partnerships to help identify and/or leverage public funding

Actions at the State Level

- Prioritize existing funding programs to maximize the co-benefits of criteria pollutant and greenhouse gas emission reductions
- Initiate new funding programs through state legislative process
- Develop public/private partnerships to help identify and/or leverage public funding

Actions at the Regional/Local Level

- Build consensus to develop new local ballot measures
- Re-invigorate the District's Strategic Alliance Initiative
- Develop public/private partnerships

Specific Activities, Schedule, and Reporting

To implement the above actions, a set of specific activities is identified below and are discussed in more detail in Chapter VI.

- Provide input to the President-Elect Transition Team on need for funding at the national level.
- Form a national collaborative
- Finalize Draft Action Plan for SCAQMD Governing Board consideration
- Convene a Financial Incentives Funding Working Group
- Routine Progress Reports to the SCAQMD Legislative Committee

Table ES-2 provides a schedule for the overall process, which includes periodic progress reports to the SCAQMD Legislative Committee, convening working groups, and milestones over the next one to three years.

TABLE ES-2

Schedule and Milestones to Pursue Funding Opportunities

Activity	Proposed Schedule
Provide Input to NACAA on need for funding at the national level as part of information to the President-Elect Transition Team	• December 2016
Continue discussions with NACAA and National Low-NOx Petition Co-Petitioners on formation of national collaborative	• December 2016 – January 2017
Work with CAPCOA, CARB, and the West Coast Collaborative on forming coalitions to support additional funding opportunities	• December 2016 – February 2017
Convene Working Group to discuss/identify funding opportunities to pursue	• January 2017
Finalize Draft Action Plan for SCAQMD Governing Board consideration (scheduled for February 2017)	• January 2017
Report to SCAQMD Legislative Committee and other Board Committees as appropriate on process to move forward	• Within Two Months from the Date of Adoption of the Final 2016 AQMP
On-Going Working Group Meetings • Seek input on the various funding opportunities and prioritize potential opportunities to pursue • Develop timelines to pursue funding • Form coalition(s) to support legislative-related activities to pursue funding	• On-going on a monthly basis for six months from the Date of Adoption of the Final 2016 AQMP, quarterly or semi-annually after six months
Report to SCAQMD Legislative Committee and other Board Committees as appropriate on progress	• Quarterly or semi-annually from the Date of Adoption of the Final 2016 AQMP

The process of identifying new funding opportunities and realizing such opportunities will be resource intensive and will require a significant amount of effort to provide outreach, build coalitions and collaboratives, and coordinate efforts at all levels of government. This Draft Funding Action Plan serves as a starting point for the SCAQMD to move forward to secure additional funding not only for the South Coast Air Basin, but also to help other nonattainment areas meet current and future federal air quality standards in a timely manner.

After the release of this Draft Funding Action Plan, the SCAQMD will begin discussions on early actions that could occur at the regional and state levels in mid- to late-2017. Meanwhile, the SCAQMD will solicit public comments and input on the draft Funding Action Plan with the goal of having a revised draft as a companion document for the SCAQMD Governing Board consideration with the 2016 AQMP. This document is being released for a 30-day written comment period. Written comments received within the 30-day period will be considered in the preparation of a Revised Draft Funding Action Plan for the SCAQMD Governing Board's consideration in conjunction with its deliberation on the 2016 AQMP.

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I. INTRODUCTION

The Draft Financial Incentives Action Plan for the 2016 Air Quality Management Plan (Funding Action Plan or Plan) is prepared to: 1) create discussion on the importance and need for such programs in order for the South Coast Air Basin and Coachella Valley to attain federal ambient air quality standards in a timely manner (specifically, the 1997 8-hour ozone air quality standard by 2023); and, 2) provide a set of proposed actions that the South Coast Air Quality Management District (SCAQMD) along with interested stakeholders from the public and private sectors and the public at large can take to secure additional incentive funding.

For some emission source sectors, financial incentives may be the only opportunity to replace older vehicles and equipment since these emission sources may be exempt from regulatory requirements given their economic situation and frequency of use. More importantly, many of the older vehicles and equipment are owned and operated in environmental justice and disadvantaged communities where most owners and operators may not have the financial resources to replace their older vehicles and equipment. Examples of sources that are exempt or allowed a later date for compliance from regulatory requirements or are preempted from state and local regulatory actions include, but not limited to, low use vehicles, small businesses due to affordability of new vehicles or equipment, and certain federal/ international sources[1].

Guiding Principles to Secure and Allocate Incentives Funds

As the SCAQMD moves forward in seeking new funding opportunities, the SCAQMD will follow a set of guiding principles provided below.

1) As the South Coast Air Quality Management District (SCAQMD) works to identify sustained sources of financial incentives revenue needed in the next seven to 15 years to help accelerate the turnover of legacy vehicles and equipment to modern near-zero emissions vehicles and equipment and where feasible, zero-emission vehicles and equipment, the SCAQMD will evaluate all potential opportunities with a recognition that revenues may come from multiple sources that are locally, state, and/or federally derived.

2) Any identified source(s) of revenue shall not be from the diversion of existing or future funds slated for purposes other than air quality (e.g., funding for transportation infrastructure improvement projects shall not be diverted for use to accelerate turnover of existing vehicles).

3) Any potential revenue source proposed to be pursued shall be analyzed and developed in a manner that will minimize the economic impact to the funding source, if any, or that the funding source may derive either a direct benefit, or that

[1] This term refers to sources primarily regulated by federal or international agencies such as ocean-going vessels, aircraft, and locomotives.

the cost to the revenue source is offset to the greatest extent possible. Consideration will be given to the economic means of the funding source, and where appropriate, priority will be placed on recovering costs from entities that are emitters of the targeted pollutants.

4) The SCAQMD will work with all interested stakeholders to build consensus on a prioritized specific set of potential revenue sources that could be pursued at the local, state, and/or federal level over the next one to three years.

5) The SCAQMD will work to develop a coalition of stakeholders that will help inform state legislators and Congressional members on the need for such funding and the benefits such funding will provide to meet current and future air quality standards, avoiding sanctions, and with a recognition that there will be substantial co-benefits of greater greenhouse gas emission reductions.

6) The SCAQMD will work with entities such as county transportation agencies, Southern California Association of Governments (SCAG), local governments, Port of Long Beach, and Port of Los Angeles to ensure that the use of funding secured by these entities for the primary purpose of climate change, energy efficiency, or improved operational efficiencies provide additional criteria pollutant reduction co-benefits to the South Coast Air Basin and Coachella Valley to the greatest extent feasible.

7) Any funding realized shall be disbursed in such a manner that maximizes benefits to residents living in environmental justice and disadvantaged communities that are adversely affected by poor air quality, while ensuring that the region attains federal air quality standards as early as possible while continuing to foster the region’s recovering economy.

This draft document provides a discussion of what actions will be needed to realize a significant portion of the funding assistance identified in the Draft 2016 Air Quality Management Plan (AQMP). Specifically, the following topics are discussed:

- Chapter II provides an overview of the funding analysis provided in the Draft 2016 AQMP (see Chapter 4 of the Draft 2016 AQMP).
- Chapter III provides a review of existing funding incentives and grant programs that the South Coast Air Quality Management District (SCAQMD) has received grant funding or implemented over the last 17 years.
- Chapter IV discusses potential opportunities to expand existing funding levels or develop new funding sources with discussions on the benefits and challenges.
- Chapter V discusses proposed activities to pursue expanded funding of existing programs or new funding including formation of a stakeholders working group;

formation of local, state, and national collaboratives; and, an overview of the legislative and voter process at the state and federal levels.

- Chapter VI provides a draft schedule to pursue funding with a look at actions to pursue upon approval by the SCAQMD Governing Board. In addition, activities that the SCAQMD is currently engaged in such as the Ultra-Low NOx Petition to U.S. EPA and ongoing communications with the National Association of Clean Air Agencies and the California Air Pollution Control Officers Association are early actions to facilitate the implementation of this Action Plan. The progress will be reported to the SCAQMD Governing Board through its Legislative Committee and other Board Committees as appropriate.

Since many of the potential funding opportunities will require legislative actions, a summary of the state and federal legislative processes and the California ballot initiative process is provided in Appendix A.

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II. BACKGROUND

Chapter 4 of the Draft 2016 Air Quality Management Plan (AQMP) provides a discussion of the funding levels needed to implement the State SIP (State Implementation Plan) Strategy "Further Deployment of Cleaner Technologies" measures. The California Air Resources Board (CARB) is responsible for the emission reduction commitment associated with the "Further Deployment" measures. However, the SCAQMD and the U.S. Environmental Protection Agency (EPA) are identified as co-implementing agencies. CARB indicated that in implementing the "Further Deployment" measures, four approaches will be pursued: 1) additional incentives funding; 2) regulatory actions as advanced technologies are commercialized; 3) quantifying the emission benefits of operational efficiencies; and 4) quantifying the emissions benefits associated with connected vehicles and intelligent transportation systems. The SCAQMD and CARB analyzed the amount of incentive funding needed to achieve a significant portion of the oxides of nitrogen (NOx) emission reductions associated with the "Further Deployment" measures assuming that the analysis reflects a scenario without additional actions pursued with the other three approaches. As emission reduction benefits are identified to be achieved with the other three approaches, the amount of incentive funding needed will decrease.

The funding analysis provided in the Draft 2016 AQMP assumes that owners of older existing vehicles and equipment will take advantage of funding opportunities to turnover their existing vehicles and equipment through funding programs such as the Carl Moyer Program or through other funding programs that the SCAQMD has been implementing over the last 16 years. In order to attain the required NOx emission reductions, funding levels from existing programs would need to be significantly increased or new funding programs must be established. Based on the types of heavy-duty vehicles and equipment, the analysis indicates that around $12 to $14 billion of funding incentives will be needed over the next seven to 15 years. On average, this would be around $1 billion/year over the next 15 years. The SCAQMD recognizes that such funding cannot be realized without a concerted effort from all affected stakeholders and the public. In addition, it is not anticipated that such level of funding will be available immediately and the funding level could increase gradually over the next few years.

The funding analysis provided in the Draft 2016 AQMP is based on the emission reduction commitment for each of the four "Further Deployment" measures. Table II-1 shows the NOx emission reductions associated with the four measures and the amount of incentives funding associated with achieving a significant portion of the NOx emission reductions. For this analysis, an emphasis is placed on achieving the greatest amount of NOx emission reductions in a cost-effective manner. As such, no analysis was made for accelerated turnover of light-duty vehicles. Nevertheless, it is important to continue the funding assistance for accelerated turnover of light-duty vehicles to more fuel efficient, cleaner combustion vehicles and to increase deployment of dedicated zero-emission and plug-in hybrid electric vehicles. Based on a yearly average, a significant portion of the funding would be needed to realize the emission reductions needed by 2023 followed by a somewhat lower level of funding to realize NOx emission reductions by 2031.

Table II-1
Funding Assistance by State SIP Strategy
"Further Deployment of Cleaner Technologies" Measure

Measure	SIP Strategy 2023 NOx Reduction (tpd)	2016 AQMP 2023 NOx Reduction (tpd)	Funding Assistance Estimate per Year to Meet 2023[3]	Funding Assistance Estimate per Year to Meet 2031[4]
Light-Duty Vehicles	**7**	**--[1]**		
On-Road Heavy-Duty Vehicles[2]	**34**	**33.3**		
Medium Heavy-Duty Vehicles		5.9	$172,150,000	$161,500,000
Heavy Heavy-Duty Vehicles		27.4	$342,900,000	$213,400,000
Off-Road Equipment	**21**	**24.4**		
TRUs, Forklifts, GSE, etc.		9.7	$375,000,000	$235,700,000
Construction & Industrial		9.6	$252,500,000	$144,750,000
Diesel Small Off-Road Engines		3.1	$22,500,000	$10,930,000
Passenger Locomotives		2.0	$4,000,000	$1,700,000
Federal/International Sources	**40**	**40.4**		
Freight Locomotives		17.2	$330,200,000	$161,250,000
Ocean-Going Vessels		17.3	$30,950,000	$15,600,000
Aircraft		5.9	$97,000,000	$60,675,000
Total	**102**	**98.1**	**$1,627,200,000**	**$1,005,505,000**

1. Draft 2016 AQMP proposed measure to continue EFMP and EFMP Plus-Up funding based on State Legislature appropriation. No additional funding identified.
2. State SIP Strategy on-road heavy-duty vehicles include all vehicles with gross vehicle weight rating (GVWR) greater than 14,000 lbs.
3. Per year funding is averaged over six years (2018 to 2023).
4. Per year funding is averaged over 14 years (2018 to 2031) and assumes around $6 billion of the estimated $9.7 billion for 2023 will be available by 2023 to help meet the 1997 8-hour ozone air quality standard. The remaining funding needed will help meet the 2008 8-hour ozone air quality standard by 2031.

Table II-2 provides a summary of the number of vehicles or equipment assumed to turnover associated with the incentive funding levels provided in Table II-1. Tables II-

1 and II-2 will serve as guidance for various entities to focus on certain emissions source sectors to seek further incentives funding revenues.

Table II-2
Number of Vehicles/Equipment Estimated to be Turned Over and Funding per Vehicle/Equipment

	2023		2031		
Measure	**Number of Vehicles/ Equipment**	**Funding per Vehicle**	**Number of Vehicles/ Equipment**	**Funding per Vehicle**	**Total Number of Vehicles/ Equipment**
On-Road Heavy-Duty Vehicles					
Medium Heavy-Duty Vehicles	68,860	$15,000	35,100	$35,000	103,960
Heavy Heavy-Duty Vehicles	82,300	$25,000	18,600	$50,000	100,900
Off-Road Equipment					
TRUs, Forklifts, GSE, etc.	90,000	$25,000	42,000	$25,000	132,000
Construction & Industrial	10,100	$150,000	3,300	$155,000	13,400
Diesel Small Off-Road Engines	270,000	$500	36,000	$500	306,000
Passenger Locomotives	12	$2,000,000	--	--	12
Federal/International Sources					
Freight Locomotives[1]	566	$3,500,000	79	$3,500,000	645
Ocean-Going Vessels[2]	3,714 calls	$50,000/call	644 calls	$50,000/call	4358 calls
Aircraft[3]	388	$1,500,000	197	$1,500,000	585

1. The incentives are proposed for early procurement of Tier 4 locomotives.
2. The incentives are proposed for increasing the number of Tier 3 vessels calling at the ports and the incentives are on a per call basis.
3. The incentives are proposed to help accelerate procurement of commercial aircraft that meet the latest International Civil Aviation Organization (ICAO) NOx emission standards and would be sought at the federal/international level.

The level of incentive funding per vehicle or equipment shown in Table II-2 are based on the assumption that near-zero and zero emission technologies are commercially available and over the longer term, less funding will be needed on a per vehicle or equipment basis. In the near-term, higher incentive funding levels will be needed to incentivize early adaptors of near-zero and zero emission technologies and provide a signal to engine manufacturers, truck body manufacturers, and advanced technology providers to commercialize near-zero and zero emission technologies earlier.

As an example of early incentive funding for new technologies, the current Proposition 1B program is offering $100,000 for a new Class 7 or 8 truck meeting CARB's optional NOx emissions standard of 0.02 g/bhp-hr (which is 90 percent cleaner than the current mandatory standard). Typically, an engine with a displacement of 11 liters or greater is used in Class 7 and 8 trucks. Currently, there are no engines certified to the 0.02 g/bhp-hr level. As such, the Proposition 1B is providing up to four years to implement any awards under this solicitation with the assumption that such engines will be certified for sale in this timeframe. This early funding sends a market signal to engine manufacturers to produce the advanced technology engines. Another example is the discussions on revisions to the Carl Moyer Program Guidelines to increase the current cost-effectiveness criteria to help fund near-zero and zero emission vehicle technologies over the next several years.

As the advanced technologies are commercialized, smaller levels of incentive funding may be more appropriate. As an example, the MSRC recently awarded funding to several transit agencies to repower or purchase new transit buses with engines meeting the 0.02 g/bhp-hr emission standard. The engine has an 8.9 liter displacement and runs on natural gas and was certified for sale by CARB in December 2015. The incentive funding level was at $15,000 per engine based on vendor quotes to repower the existing natural gas engine to the 0.02 g/bhp-hr level. In addition, the incentive funding level provided an incentive for new bus purchases with the 0.02 g/bhp-hr engine rather than a bus with an engine that only meets the current mandatory standard of 0.2 g/bhp-hr. CARB is currently developing guidelines for the Low-NOx element of the Low Carbon Transportation Funding and is considering similar levels of incentive funding for near-zero emission vehicles.

III. OVERVIEW OF EXISTING AND PAST INCENTIVES AND GRANT FUNDING PROGRAMS

California and the South Coast Air Quality Management District have a long history of successful implementation of incentive programs that help fund the accelerated deployment of cleaner engines and aftertreatment technologies in on-road heavy-duty vehicles and off-road mobile equipment. Such accelerated deployment not only results in early emission reductions, but also provides a signal to technology providers, engine and automobile manufacturers, and academic researchers to develop and commercialize the cleanest combustion engines possible and further the efforts to commercialize zero-emission technologies into a wider market. Some of the major incentive programs include:

- Carl Moyer Memorial Air Quality Standards Attainment Program (SB1107 and AB 923)
- AB 118 – California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007
- Proposition 1B – Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006
- Low Carbon Transportation Funding (Greenhouse Gas Reduction Fund)
- SCAQMD Rule 2449 – Control of Oxides of Nitrogen Emissions from Off-Road Diesel Vehicles and California In-Use Off-Road Diesel Fleet Regulation
- AB 2766 – Motor Vehicle Fee Program
- SCAQMD Rule 2202 – On-Road Motor Vehicle Mitigation Options
- SCAQMD Clean Fuels Program
- Mitigation funds from other local rules and enforcement actions

In addition to state and local incentives funding, there are several funding programs available to the region from the federal government, which include:

- U.S. EPA Diesel Emissions Reduction Act (DERA)
- U.S. EPA Targeted Air Shed Grants
- U.S. Department of Energy (DOE) Clean Cities Program
- U.S. Department of Transportation SAFETEA-LU Funding
- Federal Aviation Administration Voluntary Airport Low Emission Program

Each of the above programs is summarized below.

State and Local Incentives and Grants Programs

Carl Moyer Memorial Air Quality Standards Attainment Program

In fiscal year 1998-99, the California State Legislature created the Carl Moyer Memorial Air Quality Standards Attainment Program, to facilitate the move to cleaner-burning engines, which otherwise would have taken decades. The program continues to drive early introduction of clean air technologies, and includes funding for measures that reduce NOx, VOC, and PM caused by the combustion of diesel fuel and gasoline in on-road vehicles and off-road engines. The program also funds after-treatment devices such as diesel oxidation catalysts and PM filters.

The Carl Moyer Memorial Air Quality Standards Attainment Program is in its 16th year. The Carl Moyer Program was placed into State law and is the enabling mechanism to fund the cleanup of older diesel vehicles and equipment. At its initial inception, the Carl Moyer Program was funded annually through a State budget line item that must be approved by the State legislature. In 2004, the State Legislature approved Senate Bill (SB) 1107, which allowed for the funding of the Carl Moyer Program.

The SB 1107 funds are generated from new vehicle sales. In lieu of having Smog Check inspections in the first four years, new vehicles are now subject to their first Smog Check inspection after six years. A fee of $48 is assessed at the time of vehicle purchase, which is typically less expensive than the Smog Check inspection and certificate. Half of the $48 is directed to CARB, who distributes the funds among local air districts for implementation of the Carl Moyer Program.

In addition, the State legislature passed Assembly Bill (AB) 923, which provided funding until 2015, which was extended to 2024 (see below), and allowed California local air districts to opt into a local Moyer Program. The AB 923 program has two components. One is a tire disposal fee which generates about $10 million a year and is distributed by CARB among the local air districts. The other is a $2 Department of Motor Vehicle registration fee that each local air district's Board has the authority to approve independently and generate funds from vehicles registered within their respective district boundaries. Fees generated are used for both the Carl Moyer and the School Bus Programs.

A variety of vehicle classes and types are funded under the Carl Moyer Program to help purchase new vehicles or new engines/repowers and for installation of retrofit units on older engines. New vehicles and engines must achieve a least 30 percent reduction, and repowered vehicles and retrofits must achieve a 15 percent reduction of NOx emissions compared to current applicable mandatory exhaust emission standards. New on-road engines should be CARB-certified to meet an optional NOx emissions standard and retrofits should be CARB-verified. Projects reducing PM and/or VOC are also eligible for funding provided they are cost-effective. Alternative fuel engines, such as those using compressed natural gas, liquefied natural gas, propane and electricity will be given preference for funding if less polluting. Cleaner diesel engines may also be considered in the off-road category.

Vehicles and equipment funded must remain in operation for at least three years, and 75 percent of their use must be within the Basin. All potential projects must meet cost-effectiveness requirements to be eligible for funding consideration.

The Carl Moyer Program under its new guidelines also includes "Fleet Modernization" and "Light-Duty Vehicle Repair and Scrapping" programs. The fleet modernization Program replaces older heavy-duty diesel vehicles with 2007 and newer diesel or 2010 and newer natural gas vehicles. The Light-Duty Vehicle Repair and Scrapping Program identifies high polluting light-duty vehicles with remote sensing and offers repair or scrapping options.

AB 118

In October 2007, the California State Legislature approved AB 118 providing for approximately $200 million annually through 2015 for three new programs to fund air quality improvement projects and develop and deploy technology and alternative and renewable fuels. The bill created new funding for the program via increases to the smog abatement, vehicle registration, and vessel registration fees. Beginning July 1, 2008, until January 1, 2016, the annual vehicle registration fees would increase from $31 to $34, vessel registration fees from $10 to $20 and from $20 to $40, as applicable, and specified service fees for identification plates from $15 to $20. The bill also increased smog abatement fees from $12 to $20. The smog abatement fee increase is for new car purchases, where the vehicle purchaser would pay a fee of $20 to be exempted from the California Smog Check (Inspection and Maintenance) Program requirements for the first six years of the vehicle's life. The bill created several programs administered by the California Energy Commission, California Air Resources Board, and the California Bureau of Automotive Repair. All funds available for the various AB 118 programs must be appropriated by the state legislature.

The California Energy Commission's charge includes supporting cost-effective energy efficiency and conservation activities, and a public interest research, development, and demonstration program. The public interest research, development, and demonstration program to develop technologies to, improve environmental quality including alternative fuel vehicles and refueling infrastructure, enhance electrical system reliability, increase efficiency of energy-using technologies, lower electrical system costs, or provide other tangible benefits.

In addition, the California Energy Commission administers the Alternative and Renewable Fuel and Vehicle Technology Program, to provide grants, loans, loan guarantees, revolving loans, or other appropriate measures, to public agencies, businesses and projects, public-private partnerships, vehicle and technology consortia, workforce training partnerships and collaboratives, fleet owners, consumers, recreational boaters, and academic institutions to develop and deploy innovative technologies that transform California's fuel and vehicle types to help attain the state's climate change policies.

The California Air Resources Board administers the "Air Quality Improvement Program" to fund air quality improvement projects, upon appropriation by the Legislature, relating to fuel and vehicle technologies.

Lastly, the bill establishes a high emitting vehicle repair and replacement program for the retirement of high polluting vehicles. The program is administered by the California Bureau of Automotive Repair and the California Air Resources Board.

Carl Moyer and AB 118 Implementation Extension

In 2013, the State Legislature approved AB 8 and SB 11, which extended the Carl Moyer Memorial Air Quality Standards Attainment Program, AB 923, and the AB 118 Alternative and Renewable Fuel and Vehicle Technology Program and Air Quality Investment Program to January 1, 2024.

Proposition 1B

In 2006, California voters approved a bond measure called Proposition 1B. The bond measure would generate $19 billion of which $2 billion would go towards improving California's freight transportation infrastructure, $1 billion towards the cleaning up older diesel vehicles, and $200 million to school bus retrofits. The funding is predicated on bond sales. To-date, over 6,000 older diesel trucks have been replaced with either newer diesel trucks or alternative fuel trucks in the SCAQMD. In addition, Proposition 1B funding has helped with installation of shore side power for marine vessels and assisted in the purchase of cleaner locomotives. Proposition 1B is in its final year and the last round of funding is anticipated to help cover the cost for the replacement of 1,000 older trucks and a number of cargo handling equipment and locomotives.

Low Carbon Transportation Funding (Greenhouse Gas Reduction Fund)

More recently, the state legislature appropriated $150 million from the Greenhouse Gas Reduction Fund for heavy-duty vehicle and off-road equipment investments for zero and near-zero emission projects.

SCAQMD Rule 2449 - Control of Oxides of Nitrogen Emissions from Off-Road Diesel Vehicles and California In-Use Off-Road Diesel Fleet Regulation

One of the provisions of the California In-Use Off-Road Diesel Fleet Regulation is the Surplus Off-Road Opt-In for NOx (SOON) Program (Title 13, California Code of Regulations, § 2449.2). The provision requires fleets with over 20,000 hp in their fleets to further reduce NOx emissions through accelerated repowers or replacement of off-road equipment. An innovative part of this requirement is that affected fleets must accept public funding if there is additional off-road equipment to be cleaned up beyond the statewide regulation. Local air districts may opt into the SOON Program and provide the available funding.

AB2766

In 1990, the California state legislature passed AB 2766, which authorized $4 per vehicle surcharge on annual registration fees. Each year, the South Coast region receives about $44 million in revenues for the AB 2766 program. This money is used to fund the implementation of programs to reduce air pollution from motor vehicles pursuant to air quality plans and provisions of the California Clean Air Act. AB 2766 also provided that the monies collected by the California Department of Motor Vehicles would be distributed to the SCAQMD as follows:

- 30 cents of every dollar is be used by the SCAQMD for programs to reduce air pollution from motor vehicles and to carry out planning, monitoring, enforcement and technical studies which are authorized by, or necessary to implement, the California Clean Air Act.
- 40 cents of every dollar to be distributed by the SCAQMD to cities and counties located in the South Coast District to be used to reduce motor vehicle air pollution; and,
- 30 cents of every dollar to be deposited by the SCAQMD in a "discretionary fund account" to be used to implement or monitor programs to reduce motor vehicle air pollution.

The cities and counties within the SCAQMD are allocated funding based on registered vehicles and each entity develops programs and report to the SCAQMD and the California Air Resources Board on their progress in implementing air quality programs.

To determine which projects should be funded by the Discretionary Fund, AB 2766 called for the creation of the Mobile Source Air Pollution Reduction Review Committee (MSRC), which would develop a Work Program for evaluating programs and would make a final recommendation to the SCAQMD Governing Board as to which programs and/or projects would be funded.

South Coast AQMD Clean Fuels Program

In 1988, the California State Legislature authorized the SCAQMD to collect a $1 annual vehicle registration fee to fund research, development, demonstration, and deployment of technologies to reduce air pollution from motor vehicles. The goal of the program is to accelerate the commercialization of cleaner technologies. In addition to the authorization, the SCAQMD established the Technology Advancement Office to implement the Clean Fuels Program. The Program receives about $11 million annually to fund projects which include deployment of alternative fuel vehicles and the development and demonstration of advanced emissions control technologies and cleaner engines and vehicles.

SCAQMD Rule 2202 – On-Road Motor Vehicle Mitigation Options

Rule 2202 requires employers with over 250 employees to meet average ridership targets through rideshare programs or other emissions reduction equivalent programs. The rule provides employers with a menu of flexible and cost-effective options from which they can choose to implement to comply with the rule. One of the options available to employers is the Air Quality Investment Program (AQIP). An employer may elect to participate in this program by investing annually $60 per employee or triennially $125 per employee into an SCAQMD administered restricted fund. Monies collected in this restricted fund are used by the SCAQMD to fund proposals that reduce emissions equivalent to an emission reduction target (ERT) based on the level of employer participation in the AQIP. Another option available to affected companies is the purchase of cleaner vehicles and replacement of older diesel vehicles. Equivalent emissions reductions are used to meet the rule's ERT.

Mitigation funds from other local rules and enforcement actions

SCAQMD Rule 1121 – Control of Nitrogen Oxides from Residential-Type, Natural-Gas-Fired Water Heaters contains provisions to offset emissions that are not realized through the primary control requirements. The provisions of Rule 1121 require manufacturers to produce water heaters that must reach NOx emissions limits. However, the control technology may not be developed by the applicable date of the rule. As such, a fee is collected and placed into an "air quality mitigation" fund. The SCAQMD uses the monies collected to solicit projects (mobile source or stationary) that would achieve an equivalent amount of emissions reduction.

Rule 1118 – Control of Emissions from Refinery Flares requires a mitigation fee from refineries that do not meet their flaring emissions target. Similar programs are also being implemented for SCAQMD Rule 1111 - Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces SCAQMD Rule 1110.1 – Emissions from Stationary Internal Combustion Engines.

As part of enforcement actions such as "notices of violations" or settlements, the SCAQMD at times have used monies collected to fund mobile source projects to achieve additional emissions reductions. One such example is the BP ARCO Settlement, which resulted in $25 million for clean air projects throughout the South Coast Air Basin. The SCAQMD is currently seeking proposals for projects to provide environmental benefits in the Torrance area. The funding is from a recent settlement with the ExxonMobil Refinery for up to $2.77 million. In addition, the SCAQMD staff will be providing a report to the SCAQMD Governing Board on the status and potential use of up to $22.7 million in funding from the Rule 1118 mitigation fund.

The state legislature from time to time may create special mitigation programs. One such program is the AB 1318 Sentinel Power Plant Mitigation Program, which resulted in $51 million for clean air projects in the Coachella Valley.

The SCAQMD adopted Rule 1304.1, which requires new power plants to obtain offsets from the SCAQMD internal bank and pay a fee for these offsets.

Federal Incentives and Grants Programs

U.S. EPA Diesel Emissions Reduction Act (DERA)

The Diesel Emissions Reduction Act (Pub.L. 111-364), or DERA is a part of the Energy Policy Act of 2005 (Pub.L. 109-58). The law appropriated funds to federal and state loan programs to either rebuild diesel-powered vehicle engines to more stringent emission standards or install emission reduction systems, notify affected parties, and share the technological information with countries that have poor air quality. The Act stipulates that:

- Seventy percent of the DERA appropriation is to be used for national competitive grants and rebates to fund projects that use U.S. EPA or CARB verified or certified diesel emission reduction technologies.
- Thirty percent of the DERA appropriation is allocated to the states and territories to fund programs for clean diesel projects. Base funding is distributed to states and territories using a formula based on overall participation. Additional incentive funding is available to states and territories that provide matching funds.

The act gave U.S. EPA new grant and loan authority for promoting diesel emission reductions and authorized appropriations to the Agency of up to $200 million per year for Fiscal Years (FY) 2007 through FY2011. Congress appropriated funds for the first time under this program in FY2008.

The American Recovery and Reinvestment Act of 2009 (ARRA) provided $300 million in new funding for national and state programs for the implementation of verified and certified diesel emission reduction technologies. Recovery Act funding for the National Clean Diesel Campaign allowed for the implementation of many additional projects.

In January 2011, President Obama signed the Diesel Emissions Reduction Act of 2010 reauthorizing DERA grants to eligible entities for projects that reduce emissions from existing diesel engines. The bill authorizes up to $100 million annually for FY2012 through FY2016 and allows for new funding mechanisms, including rebates.

Senator Thomas Carper (D-DE) has introduced a bill (S. 2816) to authorize the appropriation of $100 million annually through FY2021 for the U.S. EPA to provide grants for projects that reduce emissions from diesel engines. S. 2816 is currently placed on the Senate Legislative Calendar under General Orders for consideration.

DERA funding is provided on a competitive basis and total funding nationally varies depending on annual appropriations from Congress.

U.S. EPA Targeted Air Shed Grant Program

Under the 2010 Appropriations Act Funding, the U.S. Congress appropriated funds for clean air projects focused in the top five worst air quality areas in the nation. The SCAQMD received a grant from U.S. EPA to implement projects in specific communities as part of its Clean Communities Plan with initial focus in the City of San Bernardino and the Boyle Heights area of Los Angeles.

U.S. Department of Energy Clean Cities Program

The U.S. Department of Energy's (DOE) Clean Cities Program was established in 1993 in response to the Energy Policy Act of 1992. Since its inception, the Clean Cities Program has resulted in more than 7.5 billion gallons of petroleum saved, helped transform local markets to the use of alternative fuel vehicles, and reduced conventional gasoline and diesel vehicle emissions.

At the national level, the program develops and promotes publications, tools, and other unique resources. At the local level, nearly 100 coalitions nationwide leverage these resources to create networks of stakeholders. There are five Clean Cities Coalitions in the South Coast Air Quality Management District (four in the South Coast Air Basin and one in the Coachella Valley). Clean Cities coalitions are composed of businesses, fuel providers, vehicle fleets, state and local government agencies, and community organizations. The coalitions support fleets by providing technical assistance for implementing alternative and renewable fuels, idle-reduction measures, fuel economy improvements, and emerging transportation technologies.

U.S. Department of Transportation SAFETEA-LU Funding

The SCAQMD has received grant funding from the U.S. Department of Transportation to replace heavy-duty diesel trucks with alternative fuel trucks. In 2010, the SCAQMD received a grant award from the California Department of Transportation (Caltrans) under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The grant award of around $1.8 million was used to replace existing solid waste collection vehicles with compressed natural gas trucks.

Federal Aviation Administration Voluntary Airport Low Emissions Program

The Voluntary Airport Low Emission Program (VALE) is designed to reduce all sources of airport ground emissions. Created in 2004, VALE helps airport sponsors meet their state-related air quality responsibilities under the Clean Air Act. Through VALE, airport sponsors can use Airport Improvement Program (AIP) funds and Passenger Facility Charges (PFCs) to finance low emission vehicles, refueling and recharging stations, gate electrification, and other airport air quality improvements.

The FAA sets aside 35 percent of the AIP funds for eligible airports to apply for. There are 160 eligible airports in the U.S. As part of the program airports can get "airport emissions reduction credits" (AERC) that would be a credit towards meeting air quality standards. U.S. EPA issued national guidance in September 2004 on how airports can receive AERCs for VALE projects and apply those credits to future airport projects to meet certain CAA requirements. AERCs can be used to mitigate future airport project emissions, as long as they will be earned in the year for which they will be applied. To be approved for the VALE program, an airport must obtain a commitment from the state's air quality agency that it will approve the use of AERCs for projects to conform to federal air quality requirements, should the airport choose to use them for this purpose. In the current round of VALE funding, the Los Angeles World Airports received a grant award of $4 million to purchase and install nine ground power units and associated electrical infrastructure for remote parking sites for parking of motor vehicles.

Summary of Funding Incentives Awards To-Date

Table III-1 provides a summary of the funding awards that the SCAQMD has made over the past 15 years from funds received from the federal government, the state, and local actions. As shown in Table III-1, the SCAQMD has managed over $2 billion in funding awards with most of the monies coming from state and local funding programs.

Table III-1.
Current and Past Funding Programs in the South Coast Air Basin

(a) Federal

On-Going Funding Programs			
Program	**Annual Funding Levels**	**Funding To-Date**	**Types of Vehicle/Euipment**
EPA Diesel Emissions Reduction Act	\$26 million (Varies)	\$26.6 million (Region) \$597.5 million (national since 2008)	HD Trucks; Port-Related Sources

One-Time Funding Programs	
Program	**Amount**
U.S. EPA Targeted Air Shed Grant	~\$2.9 million
U.S. DOE Clean Cities Program (ARRA Funding)	~\$24.9 million (~\$9.6 million to SANBAG); \$400 million (nationwide)
U.S. DOE ARRA Funding	\$45 million (Hybrid Truck Demonstration)
U.S. DOT (Funding through Caltrans)	\$1.8 million (Alternative Fuel Refuse Collection Trucks)
FAA Voluntary Airport Low Emissions Program	\$4 million (electric ground power units and electrical infrastructure for remote parking sites)

Table III-1
Current and Past Funding Programs in the South Coast Air Basin

(b) State

Current On-Going Funding Programs			
Program	**Annual Funding Levels**	**Funding To-Date**	**Types of Vehicle/Euipment**
Moyer - SB 1107	~$24 - $30 million/yr	$410 million since 1999	HD On-Road & Off-Road Vehicles
Proposition 1B (4 Year Program)	$137 million (current yr)	$395 million	HD Trucks; Shorepower
AB 118 - Air Quality Improvement Program (BAR/CARB)	$1.4 - $3.7 million	$2.8 million	Light-Duty Vehicles Enhanced Fleet Modernization Program
Low Carbon Transportation Funding (CARB)	$1 - $5 million	$6 million	EFMP Plus-Up
Total	**$163 - $172 million/yr**	**$814 million**	

One-Time Funding Programs	
Program	**Amount**
Low Carbon Transportation Funding (CARB)	$24 million
Proposition 1B (Lower Emission School Bus)	$80 million
Peaker Plant Mitigation (from State 2001)	$30 million

Table III-1
Current and Past Funding Programs in the South Coast Air Basin

(c) Local/Regional

Current On-Going Funding Programs			
Program	**Annual Funding Levels**	**Funding To-Date**	**Types of Vehicle/Euipment**
Moyer - AB 923/$2 DMV Fee	~$24 million/yr	$247 million since 2006	HD On-Road & Off-Road Vehicles
AB 2766/MSRC	~$14 million/yr	$334.9 million since 1991	HD Vehicles; Transit Buses; TCMs
AB 2766 Local Governments	~$23 million/yr	$447 million (since '91)	Vehicles, Infrastructure
SCAQMD Clean Fuels Fund (R&D, Deployment)	~$12 million/yr	$300 million since 1990	On-Road with Technology Transfer to Off-Road Applications
Total	**$73 million/yr**	**$1.329 Billion**	

One-Time Funding Programs	
Program	**Amount**
BP-ARCO Litigation Settlement	$25 million to Clean Air Projects
AB 1318 Sentinel Power Plant Mitigation	$51 million
LADWP Settlement	$2 million
Walmart Settlement (Funded El Monte Park Project)	$1.1 million
AES Settlement	$17 million
City of LA/TRAPAC Air Filtration Project	$6 million
R1118	$22 million
R1121 Residential Water Heaters	$8.5 million
R1304.1 Power Plant Emissions Offset Fee	$242K
R1470 Risk Reduction	$2.5 million

IV. POTENTIAL FUNDING OPPORTUNITIES

As discussed in Chapter II of this document and Chapter 4 of the Draft 2016 AQMP, a significant amount of financial incentives will need to be secured to turn over older vehicles and equipment by the 2023 timeframe. This Chapter provides a discussion on potential areas/opportunities to pursue additional funds for clean air projects with estimated amounts of funding that could be available if such opportunities are realized. It is not expected that the funding incentives needed to help implement the 2016 AQMP will come from any one single source, but rather, from a variety of incentives funding programs from all levels of government (national, state, and local/regional). As discussed in Chapter III of this document, a majority of the current incentive funding comes from California state programs.

Table IV-1 provides a list of potential funding opportunities at the federal, state, or regional level. The list is not meant to include all opportunities for financial incentives, but covers some of the opportunities that are currently under discussion at the state and federal levels. Based on the assumptions in Table IV-1 if all of the potential quantified funding opportunities are realized, the total available financial incentives can potentially add up to at least $2.3 billion per year.

Table IV-1
Potential Funding Opportunities at the Federal, State, or Local Levels

Potential Funding Opportunity	Potential Funding to South Coast Region (annual)
Expansion of the Diesel Emission Reduction Act Funding	ND*
Expansion of the U.S. DOE Clean Cities Program	ND
Volkswagen Settlement (2.0L Engine) - $381 Million Statewide	ND
Expanded Federal Tax Credits	ND
AB 118 - Air Quality Improvement Program (CARB) - $25 Million Statewide	ND
AB 118 - Alternative and Renewable Fuel and Vehicle Technology Program (CEC) - $100 Million Statewide	ND
Low Carbon Transportation Funding - $368 Million Statewide	ND
Cargo Container Fee (~11 to 12 Million TEUs** @ $35/TEU**)	$385,000,000
Expanded Motor Vehicle Registration Fees (~12 Million Registered Vehicles @ $20/vehicle)	$240,000,000
Mileage-Based User Fee ($0.005/Mile Add-On to SCAG RTP/SCS Analysis)	$1,040,000,000
Gasoline/Diesel Excise Tax Add-On (~7.2 Billion Gallon @ $0.01/Gal)	$72,000,000
Crude Oil Sales Tax (~28.5 Million Barrels @ $40/barrel with 10% Tax)	$114,000,000
Property Tax ($2.3 Trillion Secured and Unsecured Tax Roll @ 0.01%)	$230,000,000
Retail Sales Tax Add-On ($273 Billion Taxable Sales @ 0.1%)	$273,000,000
New Bond Measures (Similar in Concept to Proposition 1B)	ND
New Ballot Measures (Similar to L.A. County Measure M)	ND
Public/Private Partnerships	ND
Total Potential Funding Level (Quantifiable)	**$2,354,000,000**

*ND – Not Determined
**TEU – Twenty-Foot Equivalent Container Units

The following sections provides a brief description of each of the potential funding opportunities by source. Some of the funding opportunities may be realized at the national, state, or local/regional level.

Potential Funding Sources at the National Level

Expansion of the Diesel Emission Reduction Act (DERA) Funding

As mentioned in Chapter III, DERA has been funded through annual congressional appropriations. However, as part of the American Recovery and Reinvestment Act of 2009 (ARRA), Congress provided a one-time $300 million to U.S. EPA for the DERA program. There are discussions in the current Congressional Session to consider expanding the DERA funding level to as much as $100 million nationwide. However, there is a potential that a larger level of funding could potentially be realized if a sustained source of revenue is identified.

Expansion of the U.S. DOE Clean Cities Program

As mentioned in Chapter III, the Clean Cities Program is an example of the collaboration that is needed for the region to realize a sustained level of incentives funding. Similar to DERA, the Clean Cities Program is funded through Congressional appropriations. As part of the 2009 ARRA funding, Congress provided $27.2 billion for energy efficiency and renewable energy research and investment, of which $300 million went directly to projects under the Clean Cities Program. Many of the projects funded have criteria pollutant emission reduction benefits. A sustained level of funding for the Clean Cities Program could provide an additional funding stream to the region.

Expansion of Federal Tax Credits

The federal government established an "Alternative Motor Vehicle Credit" program, which allows individuals and businesses who buy a brand new hybrid, electric or diesel fuel vehicle to take advantage of a credit on their tax liability. The tax credit applies to new cars and trucks that are certified for the credit by the IRS. While not a direct reduction in the "upfront" capital cost incentive, the tax credit can be an additional incentive to individuals and businesses to acquire new vehicles. The "Alternative Motor Vehicle Credit" is limited to vehicles identified by the IRS. If new tax credits are proposed, near-zero and zero emission heavy-duty vehicles and equipment could be included in the program.

Potential Funding Sources at the National, State, or Regional/Local Level

Volkswagen Settlement

On October 25, 2016, the U.S. District Court approved a partial Consent Decree agreed upon by Volkswagen (VW), CARB, U.S. EPA, and the U.S. Department of Justice settling on the emissions violation from certain VW 2.0 liter engine model vehicles. Of the $14.7 billion agreement, $2.7 billion is proposed nationwide for projects to mitigate the excess NOx emissions associated with the violation. California will be receiving around $381 million to mitigate NOx emissions statewide. Much of this funding could potentially go towards near-zero and zero emission heavy-duty vehicles operating in the state. Additional settlement funds may be realized in the near-future when a settlement is reached for VW models with 3.0 liter engines, although the amount will likely be lower than the settlement for the 2.0 liter engines because there are fewer vehicles in this size range.

Expansion of the AB 118 and Low Carbon Transportation Funding Programs

As discussed earlier, the AB 118 and Low Carbon Transportation Funding are statewide programs. Additional sources of revenues for the two programs could come from other funding opportunities discussed in this section. California Assembly Bill 488 does not allow the Low Carbon Transportation Funding to be funded from other funding opportunities. Future greenhouse gas reduction funds appropriations could be made from future auction revenues.

Cargo Container Fee

The cargo container fee approach was developed in 2006 as part of the San Pedro Bay Ports Clean Action Plan. The San Pedro Bay Ports (Ports of Long Beach and Los Angeles or Ports) implemented the fee approach as part of the Clean Truck Program, which placed a fee on each container entering or leaving Port facilities. The container fee approach was adopted by each port through their authority to set tariffs. The intent of the fee was to develop a revenue source to help replace pre-2007 drayage trucks with Model Year 2007 or newer trucks. The fee was discounted depending on whether the drayage truck operator (or fleet operator) purchased compliant trucks independent from accessing funding assistance from the Clean Truck Program funds or other public funding such as the SCAQMD Carl Moyer or Proposition 1B programs. In addition, discounts were provided if the compliant truck operated on alternative fuels. The fee was borne by the beneficial cargo owner of the container. The truck compliant element of the Clean Truck Program was successfully implemented resulting in early NOx and particulate matter emission reductions two years earlier than the requirements of the CARB Drayage Truck Regulation.

In 2006, State Senator Alan Lowenthal introduced SB 760, which would have established a $30 fee per twenty-foot equivalent (TEU) container to help fund regional goods movement infrastructure and air quality projects at the Ports of Long Beach and Los Angeles. The bill did not make its way through committee and was placed into SB 927 with substantial amendments. The bill passed the State Legislature, but was vetoed by the Governor. In 2008, Senator Lowenthal introduced SB 974, which was similar to SB 927, but with additional provisions. Similar to the Ports Clean Truck Program fee, the fee would be borne by the beneficial cargo owner of the container. Half of the revenues were intended for infrastructure and half for clean air projects such as heavy-duty truck replacements. The bill was approved by the State Legislature, but the Governor vetoed the bill.

In 2008, Congresswoman Laura Richardson introduced H.R. 7002 - the MOVEMENT Act of 2008 (HR 7002), which called for the creation of a separate National Goods Movement Improvement Account and a National Goods Movement Improvement Grant Program, financed by a national fee on each container moving into and out of U.S. marine ports. The proposed legislation originally would have imposed a $25 per TEU fee for all containerized imports to help fund the two accounts. The bill was referred to committee, but did not move forward. In 2009, Congresswoman Richardson introduced a new bill, H.R. 2355 entitled "Making Opportunities Via Efficient and More Effective National Transportation (MOVEMENT) Act of 2009", which called for an increase in the Harbor Maintenance Tax (a fee that every marine port pays into, but may not reap the benefits of the use of the revenues locally) to fund goods movement infrastructure projects located within a 40 mile radius of a port as well as environmental and port security projects. The bill was not enacted.

In 2015, Congressman Alan Lowenthal introduced H.R. 1308, with co-sponsorship from Congressman Dana Rohrabacher. H.R. 1308 would direct the Secretary of Transportation to: (1) establish a Multimodal Freight Funding Formula Program to distribute funds to states, and a National Freight Infrastructure Competitive Grant Program to make grants to entities for projects, to improve the efficiency and reliability of freight movement in the United States; (2) establish a multimodal national freight network to accomplish the goals of the national freight policy, including increasing the productivity and efficiency of the national freight system and improving its safety, security, and resilience; (3) develop, maintain, and post on the public website of the Department of Transportation a national freight strategic plan that includes an assessment of the condition and performance of the national freight system; and (4) develop and improve tools to support an outcome-oriented, performance-based approach to evaluate proposed freight-related and other transportation projects. The bill would amend the Moving Ahead for Progress in the 21st Century Act (or MAP-21) to: (1) expand the membership and duties of state freight advisory committees; and (2) require state freight plans to include strategies and goals to decrease greenhouse gas emissions, local air pollution, water runoff, and wildlife habitat loss. Lastly, the bill would amend the Internal Revenue Code to: (1) impose a 1% excise tax upon taxable ground transportation of property (i.e., transportation by freight rail or truck trailer and semitrailer chassis and bodies, suitable for use with a trailer or semitrailer with a gross vehicle weight of 26,000 pounds or more), and (2) deposit such tax revenues into a Freight Trust Fund (established by this Act) to finance the Multimodal Freight Funding Formula Program and the National Freight Infrastructure Competitive Grant Program. The bill received support from an additional 14 congressional members representing ten states. The bill was referred to the Subcommittee on Water Resources and Environment for consideration, but was not scheduled.

Cargo throughput volumes in the last couple of years at the Ports of Los Angeles and Long Beach averaged approximately 11 to 12 million twenty-foot equivalent units (TEUs). As noted above, the Ports implemented a Clean Truck Program which consisted of a container fee set at $35 per TEU. The fee was waived or discounted depending if the drayage truck was a compliant truck (i.e., a 2007 or newer truck) and if the truck owner did not receive public funding. Based on the $35 per TEU assumption and 12 million TEUs annual throughput, it is estimated that around $385,000,000 could potentially be generated annually to help fund deployment of near-zero and zero emission trucks operating in and out of the ports. The funding could also be used to help fund near-zero and zero emission cargo handling equipment operating at the ports and provide incentives for cleaner ocean-going vessels and locomotives operating in the port complex.

Expanded Motor Vehicle Registration Fees

As discussed in Chapter 2, incentives funding from the Carl Moyer Program and the AB2766 Program are generated through automobile registration fee surcharges or through new vehicle sales surcharge in lieu of having the new car go through smog check testing for a number of years. A funding analysis was conducted assuming that the automobile registration surcharge increased to $20 per registered vehicle. This could potentially result in around $240,000,000 per year to help fund the Carl Moyer Program and the AB 2766 Program. The analysis in this Plan assumes that every registered vehicle would be assessed the additional surcharge. However, the SCAQMD staff is aware that any such legislative proposal to increase automobile registration fee must be sensitive to lower income residents who may not be able to afford to pay the additional fee. One potential way to address this issue is to base the surcharge on current vehicle value (similar to current vehicle license fees), or to exempt a fixed portion of vehicle value from the fee.

Mileage-Based User Fee

The Southern California Association of Governments (SCAG) has been evaluating new sources of revenue that would either replace or supplement the existing gasoline and diesel excise tax to help with transportation infrastructure improvements and maintenance. As cars become more fuel efficient, or rely on electricity or other sources for part or all of their range, the amount of gas tax collected per mile traveled drops. Thus, it becomes even more difficult to raise sufficient revenue to pay for road maintenance and repair as well as new construction. One potential source of revenue is a vehicle usage fee based on vehicle miles travelled.

A number of public and private analysts have been looking into, and in some cases experimenting with, imposing a fee on vehicle miles traveled to replace or augment the current fuel tax. For example, SB 1077 in 2014 established a California advisory committee to look into the feasibility of such a fee and implement a pilot program. A mileage-based usage or vehicle miles travelled (VMT) fee is attractive for transportation funding as it is more directly related to road usage than is the fuel tax. The Federal Highway Administration website lists a variety of resources for governments considering such programs (http://www.fhwa.dot.gov/rpd/revenue/

road_pricing/define/vmt.aspx). However, a VMT fee would be less directly related to air quality than a fuel tax, since vehicles that emit less per mile are still charged the same amount. While adjustments could be made to address this issue, they would increase the administrative difficulty of implementing such a fee, and would work against the central purpose of replacing a fuel tax with a VMT fee, which is to stabilize revenue to be used for road maintenance and construction. There are various methods for determining how much of a fee should be charged for individual vehicles, ranging from a low-tech method of reading odometers at annual registration time, to complex on-board GPS technology, which may be more accurate but is also more invasive and raises significant privacy issues.

The Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) financing chapter estimates that a four cents per mile VMT fee starting in 2025 (in 2015 dollars) could raise about $124.5 billion over 15 years (through 2040). (SCAG, 2016, Table 6.2) Such a fee would average approximately $8 billion per year. Raising the entire estimated $1 billion per year required for the incentive measures in the AQMP would therefore require only about a ½ cent per mile add-on to the four cent fee assumed by SCAG. This fee might raise slightly less than the $1 billion because the SCAG revenue estimates include Ventura and Imperial counties.

An advantage of a VMT fee over a gasoline/diesel sales tax increase is that the VMT fee provides a more stable revenue stream compared to the gasoline tax which decreases with increasing fuel efficiency. A disadvantage of the VMT fee is uncertainty in the collection method, less incentive for clean high-mileage vehicles, and privacy concerns which vary according to the collection method.

Gasoline and Diesel Fuel Sales Tax

Taxes on motor vehicle fuel could very likely be used to fund programs to mitigate the adverse air quality impacts of motor vehicle emissions. Article 19 Section 2 of the California Constitution provides that revenues from taxes imposed by the state on motor vehicle fuels "shall be deposited in the Highway Users Tax Account (Section 2100 of the Streets and Highways Code) or its successor, which is hereby declared to be a trust fund, and shall be allocated monthly in accordance with Section 4, and shall be used only for the following purposes:

(a) The research, planning, construction, improvement, maintenance, and **operation** of public streets and highways (and their related public facilities for nonmotorized traffic), including **the mitigation of their environmental effects**…" (emphasis added)

This language appears to refer to mitigating the environmental effects not only of the construction of highways but also of their operation.

The revenues collected from a modest increase in the fuel tax to mitigate environmental effects are directly related to the amount of pollution caused by operation of the vehicle.

One must recognize that a gasoline/diesel sales tax increase may disproportionately affect lower-income persons. This problem could possibly be ameliorated by providing an income tax credit or deduction for persons of lower income related to their fuel tax expenses.

Over the last couple of years, the gasoline/diesel fuel sales in the South Coast Air Basin have been around 7.2 billion gallons per year. For the funding analysis, a modest increase of one cent would result in around $72,000,000 in annual revenues. A five cent increase would result in around $360,000,000 in annual revenues.

Crude Oil Sales Tax

In California, counties may choose to impose an *ad valorem* tax on the extraction of natural resources (crude oil, natural gas, etc.). Crude oil production in 2015 was around 28.5 million barrels extracted in Los Angeles and Orange Counties. Current crude oil market prices are around $50 per barrel as of early December 2016 and was as low as $44 per barrel in mid-November 2016. For this analysis, a crude oil price of $40 per barrel is assumed. Around $114 million could be realized if a 10 percent *ad valorem* tax was imposed by each county for the purposes of air quality improvement.

Property Tax

As mentioned above, the funding analysis examines potential opportunities to generate revenue for an expanded incentives funding program putting aside the challenges associated with creating a new revenue stream. One area where potential revenues may be generated is the county property tax.

The Bay Area Air Quality Management District (BAAQMD) is the only California air district authorized to impose a property tax. The California Health & Safety Code (HSC) § 40271 requires the BAAQMD to determine its costs for its purposes for each year, and to apportion this amount to the counties within the BAAQMD based in part on property values and in part on population, not to exceed $0.02 (two cents) on each dollar of assessed value. The respective Boards of Supervisors are required to levy an *ad valorem* property tax to recover these amounts (HSC § 40272).

In calendar year 2015, the four-county estimated secured and unsecured tax roll is estimated at $2.3 trillion. Assuming a one-hundredth of one percent (0.01%) levy above each county's property tax roll (e.g., $50 per year for a $500,000 home) could potentially result in around $230,000,000 per year in revenues that could be used to incentivize turnover of older vehicles and equipment.

Local Sales Tax

It is estimated that the four-county region of the SCAQMD generated around $273 billion in taxable sales in calendar year 2015. If a 0.1 percent increase in the local sales tax occur, around $273 million per year could be generated to help incentive the turnover of older vehicles and equipment. Typically, proposals for transportation-related sales tax increases are placed on county ballots for voter approval. Measure M recently passed in Los Angeles County increased the county sales tax by one half percent (0.5%) for transportation related projects. Similar transportation infrastructure related measures have in the past been approved by the voters in the other three counties within the SCAQMD. For this opportunity, a ballot measure or measures for each county would need to be approved.

<u>Other Potential Opportunities</u>

Other potential opportunities will be explored as the SCAQMD implements this Action Plan. Some of the other potential funding opportunities may require new legislative authority, while other opportunities may be recognition and to the extent possible, quantification of criteria pollutant emission co-benefits. Some examples include, but not limited to,

- NOx Emissions Use Fee or Excise Tax

  An excise tax on new or used heavy-duty vehicles and equipment sales could be proposed at the federal level to generate revenues for incentive funding programs. This has a direct nexus between the user of the vehicle and the emissions associated with the vehicle. The revenues collected would go into a fund to incentivize the purchase of near-zero and zero emission equipment.

  Alternatively, similar to the Smog Abatement Fee for new vehicles with gross vehicle weight under 14,000 lbs, a fee could be developed for heavy-duty vehicles and equipment at the time of new or used sales transaction.

- Transportation Infrastructure Improvement Projects

  While this Action Plan focus is on securing additional incentive funding for programs that the SCAQMD will implement, there are other funding opportunities that other public and private entities are eligible to receive. An example is the transportation agencies receipt of state and federal funding or through locally generated funds to improve the transportation infrastructure and expand transit and commuter rail ridership. Another example is the Port of Los Angeles and Port of Long Beach have been successful in receiving DERA funding for cleaner equipment. As part of this Action Plan, the SCAQMD will work with these entities to help secure funding for such projects.

Other potential opportunities will be discussed as part of the implementation of this Action Plan.

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V. ACTIVITIES TO PURSUE TO SECURE INCENTIVES FUNDING

This chapter discusses the activities that the SCAQMD will pursue to secure sustainable sources of revenue to assist in turning over older vehicles and equipment. The SCAQMD cannot do this alone and will work with all interested parties to build a strong coalition to advocate for and support legislative initiatives to secure additional funding revenues. The SCAQMD may take a position of support on a ballot measure, but may not expend public funds to advocate or lobby for a ballot measure. Part of the coalition's efforts will be to inform local elected officials, the state legislature, Congressional members, and the Executive Branch on not only the need for incentive funding, but also the environmental and economic benefits that such funding will bring. On the economic side, the significant number of near-zero and zero emission vehicles and equipment needed to be built for sale in the near-term will help create jobs needed to design, construct, and assemble such vehicles and equipment at all regional levels (local, state, and national). Moreover, transportation offset sanctions may be imposed if the region is unable to demonstrate that it will attain the national ambient air quality standards by their applicable dates.

While this Action Plan focuses on securing additional incentive funding, other actions and activities taken separately or independently from the SCAQMD activities will help the region attain federal air quality standards. Some of these activities include improvements and expansion of the region's transportation and freight movement infrastructure and state and federal actions to incentivize cleaner vehicle and equipment in other regions outside of the SCAQMD, which may travel into the SCAQMD. Relative to transportation and freight movement infrastructure, it is critical that the limited financial resources available to county transportation agencies and local municipalities be expended to modernize the transportation infrastructure, while the incentive funding revenues that the SCAQMD is seeking be complementary to support long-term sustainable near-zero and zero emission vehicles and equipment operating on the transportation network.

In addition, other entities in the region who receive funding either through transportation funding programs or the Low Carbon Transportation Funding are encouraged to use such funding in a manner that will lead to criteria pollutant co-benefits. As such, a strong component of the proposed activities to pursue additional funding revenues include outreach to and informing entities bidding on new project solicitations to become versed on the environmental benefits of their projects, because their projects may have to help the region meet federal air quality standards.

The following sections describe the activities that the SCAQMD will pursue over the next one to three years to secure additional incentive funding revenues that could be implemented by the SCAQMD or other entities located in the region.

Activities at the National Level

The SCAQMD has already begun to build a national coalition of stakeholders in its petition to U.S. EPA to establish a national low-NOx engine emissions standard for on-road heavy-duty engines. In that effort, the SCAQMD, National Association of Clean Air Agencies (NACAA), Northeast States for Coordinated Air Use Management (NESCAUM), and Manufacturers of Emissions Control Association (MECA) started discussing development of the petition recognizing that a nationwide low-NOx engine standard will benefit many current and potential future nonattainment regions given the expected challenges in ensuring long-term attainment of the ozone NAAQS.

NACAA gathered support and potential co-signatories to the petition through its state and local air agency members. NESCAUM reached out to its eight northeast state members to gather support for the petition, while SCAQMD worked with BAAQMD, Sacramento Metropolitan Air Quality Management District (SMAQMD), and the California Air Pollution Control Officers Association (CAPCOA) to gather support among the 35 local air districts in California. The efforts resulted in ten states and local air agencies signing on to the petition initially and another five state and local air agencies, one transportation agency, CAPCOA, and one environmental organization joining the petition as of November 2016. In addition, the petitioners received letters of support from a broad set of stakeholders and one joint letter from various nongovernmental organizations in support of a low-NOx standard.

Building on this effort, the following actions are proposed at the national level.

- **Develop new partnerships with states and regions that are currently in nonattainment of existing federal air quality standards or may be in nonattainment of future air quality standards** – Regional partnerships such as the West Coast Collaborative and Northeast Diesel Collaborative provide a valuable means of pooling and coordinating funding resources to help neighboring states and regions focus on reducing emissions from mobile sources that operate across state boundaries.

  Establishing new collaboratives on a national level among nonattainment areas can provide an approach to prioritizing funding in a more coordinated manner. As an example, deployment of a greater number of Tier 4 locomotives operating in the Basin is critical for the region to meet air quality standards and reduce air toxic exposure to diesel particulate matter exhaust. The same Tier 4 locomotives haul freight to different parts of the U.S. where air quality may or may not be an issue. Current funding for Tier 4 locomotives can be provided only if there is a commitment that the locomotive operates a majority of the time in California. However, under a collaborative approach, funding for Tier 4 locomotives could be provided on a "national" level. The approach is similar to the inter-district funding in the Carl Moyer Program.

This action will be coordinated among regional collaboratives through the National Association of Clean Air Agencies (NACAA). NACAA can provide the forum to initiate discussions on the creation of the Clean Air Investment and Cleanup Fund and other national or regional clean air projects that may benefit the South Coast Air Basin. In addition to state and local air agencies, the collaborative makeup would include public and private stakeholders such as state and county transportation agencies, state utility and energy commissions, trade associations, individual engine manufacturers, technology providers, environmental and community organizations, chambers of commerce, labor organizations, and potentially investment institutions.

- **Create a National Clean Air Investment and Cleanup Fund** – This action calls for the creation of a national fund to assist nonattainment areas attain federal air quality standards. The concept is similar to the "superfund" programs administered by U.S. EPA to help cleanup soil and water contamination. Congress has appropriated on the order of $500 million to $1 billion per year to help fund programs to address water contamination under the Clean Water Act and clean up contaminated sites. However, a similar concept on this scale has not yet been developed for contaminated air. Such a fund could focus on reducing emissions from national and international sources for which state and local jurisdictions have limited authority to reduce emissions.

Actions at the State Level

The SCAQMD has worked well with the other air districts through CAPCOA and CARB in coordinating incentives funding. Most recently, the SCAQMD is working with the Bay Area Air Quality Management District, Sacramento Metropolitan Air Quality Management District, San Diego Air Pollution Control District, and San Joaquin Valley Air Pollution Control District along with various engine manufacturers and advanced technology providers were awarded almost $24 million in Low Carbon Transportation Funding to develop and demonstrate zero emission drayage truck technologies in the four districts in California. While the solicitation was competitive in nature, the coordination among the four air districts show that such efforts can lead to benefits for all regions in California.

Similar partnerships are being established between local air districts. For example, the Sacramento Metropolitan AQMD and Yolo-Solano AQMD work to connect local businesses and public agencies with regional and statewide funding programs. To maximize efficiency the two district's incentive programs are administered by the Sacramento Metropolitan AQMD. The regional air districts help fleets pay for new lower emission engines, lower emission retrofits, and new equipment replacements under the Heavy-Duty Low-Emission Vehicle Program.

The SCAQMD is working with the San Joaquin Valley Air Pollution Control District on collaborative efforts to secure additional incentive funding and coordinating incentive funding for sources that travel between the two districts. Recently, the two air district staffs jointly met with state legislative staff to inform them of the emission reductions needs of the two air district. Such coordinated efforts would be encouraged as the region moves forward to pursue future funding opportunities.

The following actions are proposed at the state level as the SCAQMD works with the other air districts through CAPCOA and CARB to seek new sources of funding revenues and maximize the criteria pollutant emission reduction benefits in all regions throughout California.

- **Prioritize existing funding programs to maximize the co-benefits of criteria pollutant and GHG emission reductions** – California has several large programs to help fund the deployment of cleaner technologies including the Carl Moyer Program, Proposition 1B, Lower Emission School Bus Program, and the Low Carbon Transportation Funds. As the California State Legislature appropriates funds for these programs, there is a need to recognize projects that provide the maximum benefits in reducing both criteria pollutant and greenhouse gas emissions. This action calls for greater outreach and education to state legislators and their staff on the benefits of funding for projects that achieve the goals of AB 32 and also maximize criteria pollutant emission reductions. A coordinated effort would be made by the District through CAPCOA and CARB to provide outreach and education to state lawmakers on the creation of new funding programs while providing information on the benefits of clean air programs.

- **Initiating new funding programs** – Proposition 1B is a valuable funding program in helping cleanup thousands of on-road heavy-duty trucks and off-road goods movement related equipment. Proposition 1B is in its last year of funding. The SCAQMD along with interested stakeholders will explore opportunities to develop new mechanisms similar to Proposition 1B and the other opportunities identified in Chapter 4 to improve air quality and transportation infrastructure in the goods movement sector.

As part of this effort, the SCAQMD proposes to form an Incentives Funding Working Group consisting of interested stakeholders including public agencies, chamber of commerce, trade associations, and environmental and community organizations to help identify new sources of incentive funding and provide input on paths to move forward to pursue such programs.

Actions at the Regional/Local Level

There are actions that are being taken locally that will help the region meet federal air quality standards. These actions include the recent voter approval of Los Angeles County Measure M to increase the county sales tax by a half cent for various programs including improving freeway traffic flow/safety; synchronizing signals; expanding rail/subway/bus systems; and improving job/school/airport connections. Many of these projects have potential air quality benefits which will be recognized in future AQMP revisions when the projects are built out. Similar measures have been approved for Orange, Riverside, and San Bernardino Counties. Other actions such as establishment of green construction policies or requesting delivery and transportation services using the cleanest vehicles and equipment help incentivize the commercial development of larger numbers of cleaner, near-zero and zero emission technologies. These actions are important to provide business case certainty to truck and engine manufacturers and advanced technology providers.

Many of the funding revenue opportunities discussed in Chapter 4 will need to be initiated either through local or state ballot measures and will require a concerted outreach effort to educate voters on the need and benefits of the funding program. As with the national and state efforts, this element of the Action Plan is vitally important in order to gather support in the region. Since public agencies may not expend public funds to lobby voters to support ballot measures, leadership will need to come from private or non-governmental organization stakeholders.

The following actions are proposed at the local level.

- **Local Ballot Measures** – Work with interested stakeholders including local governments, county transportation agencies, SCAG, chambers of commerce, county economic development entities, environmental and community organizations to develop potential ballot measures that could be introduced to the voters within the next one to three years. Specifics for the ballot measures will be developed through a series of discussions with various stakeholders.

  As mentioned earlier, the SCAQMD is limited in its activities related to ballot measures. As such, as part of this action, the SCAQMD staff will explore the possibility of seeking legislative authority to develop and introduce ballot measures.

- **Re-invigorate the District's Strategic Alliance Initiative** – In 2002, the SCAQMD Governing Board adopted the Strategic Alliance Initiative. The initiative contains eight specific actions to help the region address air quality issues. The eight actions have been implemented for the most part. However, two of the initiatives: *Initiative No. 4 – Formation of a Multi-Regional Alliance for Clean Air* and *Initiative No. 7 – Strategic Alliance on Clean Fuel Vehicle Funding* have relevance to the 2016 AQMP. This action is to expand upon these previous efforts to implement the collaborative efforts identified above under "Actions at the National Level".

  Strategic Alliance Initiative No. 4 called for major metropolitan nonattainment areas, such as Houston, Texas; Atlanta, Georgia; New York City; and Boston, Massachusetts to work together through sharing of information and pooling technical and political resources to address common air pollution problems. This effort included seeking federal funding for the demonstration of advanced clean air strategies that may ultimately prove applicable to other non-attainment areas.

Strategic Alliance Initiative No. 7 proposed that the SCAQMD form new alliances with fleet operators, including local governments, to secure long-term funding for implementation of the District's fleet vehicle program. This effort included seeking federal funding opportunities from Congress, the U.S. Department of Energy, and U.S. Department of Transportation, and other funding opportunities at the federal level.

Under this proposed action, the SCAQMD would expand Initiatives No. 4 and No. 7 to develop the partnerships and collaboratives identified under the "Actions at the Federal Level" discussed above.

Developing Public/Private Partnerships

In pursuing new sources of funding, it is important to work with the private sector who can provide resources and assistance to help the region meet air quality standards. Public/private partnerships can occur in many areas from research and demonstration programs to coalitions such as the U.S. DOE Clean Cities Program and the U.S. EPA West Coast Collaborative.

While traditional public/private partnerships are important as the SCAQMD moves forward in seeking new sources of incentive funding, it is as important to reach out to non-traditional entities to form new partnerships. Such entities include the health insurance industry, medical associations, and health institutes and foundations such as the American Lung Association and the American Asthma Foundation. Such entities have a significant stake in achieving healthy air to reduce respiratory illnesses and other air pollution related medical problems. Private businesses and large corporations have a vested interest regarding the health of their employees and an economic interest in reducing employee sick time. As the SCAQMD works with interested stakeholders mentioned earlier in this document, the SCAQMD will reach out to the private sector and the medical health sector to develop such partnerships.

Chapter VI provides a discussion of specific activities and a schedule to implement the actions identified in this chapter.

VI. SCHEDULE AND PROGRESS REPORTING

A proposed schedule of activities to pursue additional incentives funding and progress reporting is provided in this chapter. In implementing the Action Plan, the SCAQMD will focus on developing consensus among all stakeholders with the goal of identifying and prioritizing funding opportunities, developing a strategy to pursue funding, and forming coalitions to support and pursue the prioritized funding opportunities. The following specific activities will be taken over the next several years. In addition, early actions are identified prior to the SCAQMD Governing Board adoption of the 2016 AQMP.

Most of the activities to pursue additional incentive funding will most likely require legislative action at the state and federal level. In addition, some of the identified activities may require the development of state or local ballot initiatives. As such, progress in implementing this Action Plan will be reported to the SCAQMD Governing Board Legislative Committee on a routine basis.

Specific Activities

- ***Provide Input to the President-Elect Transition Team on need for funding at the national level***
  The SCAQMD staff and the SCAQMD's Washington D.C. Consultants are reaching out to the President-Elect's Transition Team to provide information regarding the region's needs in order to meet federal air quality standards. The needs include the establishment of a national ultra-low NOx on-road heavy-duty engine emissions standard and the creation of a national clean air investment and cleanup funding program needed in the near-term. The SCAQMD staff will work with NACAA and the Ultra-Low-NOx heavy-duty engine Petitioners to provide a coordinated message that the needs are not limited to the South Coast region.

- ***Form a national collaborative***
  As mentioned above, building a coalition provides an effective voice to address state and federal legislators. Working with NACAA and the Low-NOx engine Petitioners, this effort will form a national collaborative that consists of the existing regional collaboratives such as the West Coast Collaborative, engine manufacturers, trade associations, small businesses, environmental and community organizations. One of the goals of the national collaborative is to conduct outreach and provide education to elected officials at all levels of government on attaining federal air quality standards and the benefits of early incentive funding to accelerate turnover of existing vehicles and equipment to newer, cleaner technologies. As funding opportunities are pursued on the national level, the national collaborative will play an important role in supporting such opportunities.

- ***Finalize Draft Action Plan for SCAQMD Governing Board Consideration***
  This draft Action Plan will undergo a public process along with the public process for the Draft Final 2016 AQMP released on December 2, 2016. Public comments will be taken and considered as the SCAQMD finalizes the Draft Action Plan. A revised Draft Action Plan will be considered by the SCAQMD Governing Board at the time that the 2016 AQMP is adopted by the Governing Board.

- ***Convene a Financial Incentives Funding Working Group***
  A Financial Incentives Funding Working Group is proposed to be formed to discuss/identify funding opportunities to pursue. It is envisioned that the Working Group members will consist of interested stakeholders including county transportation agencies, SCAG, local governments, chambers of commerce, trade associations, and environmental and community organizations. The makeup of the Working Group should include members who have experience in raising new funding and experience in state and federal legislative affairs. Interested parties will be invited to join the Working Group in December 2016 or early January 2017 with the first meeting in the January 2017 timeframe. Monthly meetings are envisioned in the first six months after adoption of the 2016 AQMP and potentially quarterly or semi-annually after the first six months.

  A set of goals and objectives will be developed for the Working Group to operate under. Some of the goals and objectives include identification and prioritization of funding opportunities, developing timelines and specific actions for the SCAQMD and its partners to pursue, and identifying and forming coalitions to support legislative-related activities.

- ***Routine Progress Reports to the SCAQMD Legislative Committee***
  The SCAQMD staff will provide updates to the SCAQMD Governing Board through its Legislative Committee on a routine basis. It is envisioned that the first progress report will be two months after the SCAQMD Governing Board adopts the 2016 AQMP. Additional progress reports will be provided either on a quarterly or semi-annual basis depending on the need for the SCAQMD Governing Board to consider new legislative actions and provide direction to staff.

Table VI-1 provides a schedule for the overall process, which includes periodic progress reports to the SCAQMD Legislative Committee, convening working groups, and milestones over the next one to three years.

TABLE VI-1

Schedule and Milestones to Pursue Funding Opportunities

Activity	Proposed Schedule
Provide Input to NACAA on need for funding at the national level as part of information to the President-Elect Transition Team	• December 2016
Continue Discussions with NACAA and National Low-NOx Petition Co-Petitioners on formation of national collaborative	• December 2016 – January 2017
Work with CAPCOA, CARB, and West Collaborative on forming coalitions to support additional funding opportunities	• December 2016 – February 2017
Convene Working Group to discuss/identify funding opportunities to pursue	• January 2017
Finalize Draft Action Plan for SCAQMD Governing Board consideration (scheduled for February 2017)	• January 2017
Report to SCAQMD Legislative Committee and other Board Committees as appropriate on process to move forward	• Within Two Months from the Date of Adoption of the Final 2016 AQMP
On-Going Working Group Meetings • Seek input on the various funding opportunities and prioritize potential opportunities to pursue • Develop timelines to pursue funding • Form coalition(s) to support legislative-related activities to pursue funding	• On-going on a monthly basis for six months from the Date of Adoption of the Final 2016 AQMP, quarterly or semi-annually after six months
Report to SCAQMD Legislative Committee and other Board Committees as appropriate on progress	• Quarterly or semi-annually from the Date of Adoption of the Final 2016 AQMP

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APPENDIX

FEDERAL AND STATE LEGISLATIVE PROCESSES

Given that many of the potential opportunities to expand the level of incentives funding will require either legislative action or voter approval, this appendix provides an overview of the federal and state legislative process. An understanding of the processes will help guide the discussions on timing, opportunities and potential challenges in securing new incentive funds.

Federal Legislative Process

While many people believe that the first step for a bill to become a law is when a Member of Congress introduces a bill, this is usually not the case. The first step is often coalition building. In order to develop legislation, it is advised to bring various stakeholders together that support the concept being introduced, and refine the proposal so that it meets the needs of various parties. Then, the parties supporting the bill can approach a Member of Congress to introduce the bill, which leads the bill which is assigned a bill number. The number either has an H.R. or S before it, denoting in which house the bill was introduced in (H.R. for House of Representatives and S. for Senate). The leadership of that chamber, influenced by the majority party's agenda, decides whether to refer a bill to one or more committees, hold the bill at the desk, or place the bill on the calendar.

Holding a bill "at the desk" or ordering it "placed on the calendar" keeps it available for consideration by either the full House or Senate at any time. Either action is a good indication that the leadership expects to bring the bill up for debate quickly. Placing the bill on the calendar makes it slightly more available, since only a simple legislative motion is required to take a bill from the desk.

Committees, Hearings and Markups

If the bill was referred to committee, then the committee's chair decides where the bill goes next. The committee chair can refer the bill to one or more subcommittees based on their jurisdictions as listed in the committee rules, or the chair can hold the bill at the full committee level and not refer it to a subcommittee. Holding the bill at full committee level means either the bill will be acted on quickly or no further action will be taken on it at all. Note that neither a committee, nor a subcommittee, is required to act on a measure referred to it. If it is acted upon, that means it will get a hearing.

If the chair decides to schedule a hearing on a bill, it can be held by either the subcommittee or the full committee. If a subcommittee holds a hearing on a bill, the full committee generally does not repeat the process. If the leadership of a subcommittee or the full committee decides to not hold hearings, the bill is effectively killed.

For a hearing, the chair invites witnesses to testify on the subject. The bill's sponsor explains the proposed legislation and others testify as well. Invited witnesses can include representatives of stakeholder groups, including local governments that might be affected by the proposal. Those not asked to appear before the committee can submit written statements that will be included in the hearing record.

After a bill has a hearing, it then has a markup. A markup session is when a subcommittee or committee considers the bill, often amends it, and then either accepts or rejects it. If rejected, it expires. If accepted, the committee orders the bill reported and once the report has been filed, the bill can be considered for a vote by the full Chamber. The majority party leadership decides when, or even if, to bring it before the full Chamber for debate, based on their agenda and consideration of bill's likely success. They are not required to schedule debate on any bill that has been reported.

Floor Action

At this point, the bill will come up for debate and amendments (including riders) can be offered. Then a final vote is taken. If it passes in that Chamber, it is then referred to the other Chamber. The second Chamber can either accept the first Chamber's bill without changes and send it to the President, or amend the bill and return the bill to the first Chamber.

Approval or Conference

The first Chamber must then decide whether to accept the second Chamber's amendment and send the bill to the President; amend the second Chamber's amendment and return the bill to the second Chamber for approval of the amendment or for further amending; or insist on its original language and request a conference to resolve the differences between the two versions of the bill. Should a conference be requested and agreed to, the leadership in both Chambers appoints conferees to meet in conference. The conferees negotiate a resolution of the differences in the two versions of the bill, producing a compromise version (a conference report). Both Chambers must vote to accept the conference report as submitted (that is, without amendment) before the bill can be sent to the President.

California State Legislative Process

The California State Legislature is made up of two houses: the Senate and the Assembly. There are 40 Senators and 80 Assembly Members representing the people of the State of California. The Legislature has a legislative calendar containing important dates of activities during its two-year session. Calendar Year 2017 will represent the first year of a new two-year legislative session.

As part of the process moving forward with the proposed funding opportunities, the SCAQMD will be preparing information regarding the air quality needs of the region and meeting with state legislators regarding possible opportunities to introduce legislation from the end of 2016 through early 2017. Ultimately, if this process moves forward, a Senate or Assembly Member will be identified to author legislation. Once actual legislation is drafted, it is introduced in the house of origin. For 2017, February 17th will be the deadline for legislators to introduce bills.

The bill is then assigned to the appropriate policy committee in its house of origin, based on the subject area of the bill, for its first policy hearing. A bill may go to more than one policy committee. Bills that require the expenditure of funds must also be heard in fiscal committees: Senate Appropriations or Assembly Appropriations. The bill author presents the bill to the committee and testimony can be heard regarding the bill. The committee then votes by passing the bill, with or without amendments, or by defeating the bill. It takes a majority vote of the committee membership for a bill to be passed by the committee.

Bills passed by committees then go to the floor in the house of origin for consideration. Bills that require an appropriation or that take effect immediately, generally require a two-thirds vote (27 votes in the Senate and 54 votes in the Assembly) to be passed. Other bills generally require a majority vote to pass. Once the bill has been approved by the house of origin it proceeds to the other house where the same procedure is repeated. Bills generally must get out of their house of origin by a specific deadline. The deadline for 2017 is June 2nd.

If a bill is amended in the second house, it must go back to the house of origin for concurrence, which is essentially an agreement on the amendments. If agreement cannot be reached, the bill is referred to a two house conference committee to resolve differences. If a compromise is reached, the bill is returned to both houses for a vote. The Legislature must finish considering and voting on all bills by the end of the Legislative Session, which will be on September 15, 2017.

If both houses approve a bill, it then goes to the Governor. The Governor has three choices: 1) the Governor can sign the bill into law; 2) allow it to become law without signature; or 3) veto it. The Governor has 30 days after the end of the Legislative Session to act on the bills sent to his/her desk by the Legislature. This deadline will be October 15, 2017.

A governor's veto can be overridden by a two-thirds vote in both houses. Most bills go into effect on the first day of January of the following year. Urgency measures take effect immediately after they are signed or allowed to become law without signature.

California Statewide Initiative Process

The initiative is the process where the people of California propose statutes and amendments to the California Constitution. This tool could be utilized to propose an initiative that provides more funding to help promote clean air, reduce air pollution, protect public health, and facilitate the attainment of state and federal air quality standards within the South Coast region.

First, it is important to note that the California State Legislature may also place measures on the ballot as legislatively referred constitutional amendments or legislatively referred state statutes. Referred amendments require a two-thirds vote of each chamber. A legislatively referred statute is a limited form of direct democracy in comparison to the initiated state statute. With the initiated statute, voters are in charge of the process from beginning to end, whereas with the legislatively referred statute, they can only approve or reject laws which their legislature votes to place before them.

To begin the process of a voter initiated ballot measure, the proposed initiative must be written and then submitted to the Attorney General (AG) so that a circulating title and summary of the chief purpose and points of the proposed initiative can be prepared. At this point, the AG's Office will post the text of the proposed initiative measure on its website and facilitate a 30-day public review process during which any member of the public may submit written public comment to the AG's Office via the website. The AG's Office will provide any written public comments received to the proponent(s). During the public review period, an amendment signed by all of the proponents may be submitted to the AG's Office. Any amendments to the proposed initiative measure must be reasonably germane to the theme, purpose, or subject of the initiative measure as originally proposed.

After the public review period, the AG will prepare a circulating title and summary, which will be the official summary of the proposed initiative measure, and a copy shall be provided to the Secretary of State (SOS). The official summary date, the date the circulating title and summary is sent to the proponent(s) by the AG, is the date the SOS uses to calculate calendar deadlines provided to the proponent(s) and elections officials. No petition may be circulated prior to the official summary date. Proponents are allowed a maximum of 180 days, from the official summary date, to circulate petitions and collect signatures. However, the initiative measure must qualify at least 131 days before the next general election at which it is to be submitted to the voters. In order to qualify for the ballot, the initiative measure must be signed by a specified number of registered voters depending on the type of proposed initiative measure submitted:

Initiative Statute: Petitions proposing initiative statutes must be signed by registered voters equal to at least 5% of the total votes cast for Governor at the last gubernatorial election (i.e. 365,880).

Initiative Constitutional Amendment: Petitions proposing initiative constitutional amendments must be signed by registered voters equal to at least 8% of the total votes cast for Governor at the last gubernatorial election (i.e. 585,407).

Once proponents have gathered 25% of the signatures required, proponents must immediately certify this to the SOS who will then provide copies of the proposed initiative measure and the circulating title and summary to the Senate and the Assembly. Each house is required to assign the proposed initiative measure to its appropriate committees and hold joint public hearings, at least 131 days before the date of the election at which the measure is to be voted on. The Legislature cannot amend the proposed initiative measure or prevent it from appearing on the ballot. However, proponents may withdraw the proposed initiative measure at any time prior to its qualification for the ballot on the 131st day before the next statewide general election.

Once the requisite number of signatures has been collected, the petition is filed with the appropriate county elections official(s). The proposed initiative measure is eligible for the ballot on the date the SOS receives certificates from one or more county elections officials showing the petition has been signed by the requisite number of voters. Once the proposed initiative measure is eligible for the ballot, the SOS will notify the proponent(s) and each county elections official that the signature requirement has been met and signature verification can be terminated.

Once the petition signatures have been verified and the initiative is eligible for the ballot, the SOS will issue a certificate of qualification 131 days before the statewide general election certifying that the initiative measure, as of that date, is qualified for the ballot.

An initiative measure approved by a majority vote takes effect the day after the election, unless the initiative measure provides otherwise. If the provisions of two or more measures approved at the same election conflict, those of the measure receiving the highest affirmative vote shall prevail.

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