



# South Coast Air Quality Management District

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## AIR QUALITY MANAGEMENT PLAN ADVISORY GROUP MEETING DRAFT MINUTES

Friday January 28, 2022  
9:00 a.m.

### 1. Welcome, Introductions, and Approval of Minutes

Mr. Ian MacMillan, Assistant Deputy Executive Officer of South Coast AQMD's Planning, Rule Development, and Area Sources Division, called the virtual meeting to order at 9:00 a.m. Dr. Sarah Rees, Deputy Executive Officer of South Coast AQMD's Planning, Rule Development, and Area Sources Division welcomed all participants and introduced South Coast AQMD staff present. Dr. Rees asked if there were any comments on the previous meeting's minutes. Since there were no comments, the minutes were approved.

#### Comments from Advisory Group and Staff Responses:

No comments from the Advisory Group members on this agenda item.

#### Comments from Public and Staff Responses:

No comments from the Public on this agenda item.

### 2. Preliminary Results on 2022 AQMP Reasonably Available Control Measures (RACM) Demonstration for Stationary Sources

Dr. Kalam Cheung, Program Supervisor of South Coast AQMD's Planning, Rule Development, and Area Sources Division, presented the preliminary results of the 2022 AQMP RACM for stationary sources. The approach for stationary sources consists of three stages: Stage 1 identifies potential RACM through a seven-step analysis, Stage 2 evaluates technological and economic feasibility of the potential RACM, and Stage 3 evaluates whether emission reductions are needed for Reasonable Further Progress (RFP) or to advance attainment by one year. South Coast AQMD identified seven potential RACM in Stage 1, with "Lowering VOC Emission Limit for Auto and Light-Duty Truck Assembly" as the only potential RACM deemed both technologically and economically feasible. South Coast AQMD staff will continue to monitor and assess feasibility for the other remaining six potential RACM, some of which will be addressed as part of the 2022 AQMP control measures. With South Coast AQMD's attainment scenario under evaluation, Stage 3 will be evaluated in the next few weeks when the level of reductions needed for attainment and RFP is determined. The next steps are to seek input from stakeholders, determine if the measures are required for RFP, and release the draft RACM Demonstration as part of the draft 2022 AQMP.

#### Comments from Advisory Group and Staff Responses:

*Inquiry on if New Jersey's proposed rule to advance zero emissions boilers will be included as part of RACM analysis.* Staff responded that existing rules and regulations from other agencies are considered as part of the RACM analysis. Since New Jersey's proposed rule for ZE boilers is a proposed rule (i.e. not yet adopted), it was not part of the evaluation at the time of the RACM analysis. Staff will look at the cost feasibility, requirements, and approach of New Jersey's proposed rule to reduce emissions from boilers.

*Comment on RACM (4) Additional Enhancement in Reducing Existing Residential Building Energy Use: model runs using the South Coast AQMD NEAT Tool to evaluate cost effectiveness of residential appliance replacement options within the Basin indicate that cost effectiveness for electrification of residential space and water heaters is 7 to 70 times less cost effective than the 2016 AQMP cost effectiveness approach of \$50,000 per ton; 2022 AQMP building control measures should include a pathway for near-zero emission technologies through an incentive-based approach, rather than invoke regulatory requirements.* Staff responded that the cost of implementing energy efficiency and control measures in the residential buildings sector varies based on many factors including the infrastructure of the housing stock and the type of appliance replaced. As there is a range of cost effectiveness, it is more appropriate to address specific details of each appliance category separately during the rule development process.

*Comment that some groups within the AQMP Advisory Group Committee are in support of a regulatory path to zero emissions appliances as opposed to a voluntary incentive-based approach and acknowledged that the previous response was not reflective of everyone on the committee.* Staff thanked the individual for their comment.

Comments from Public and Staff Responses:

*Inquiry on what metric is used to determine cost effectiveness; the Clean Air Act does not refer to cost effectiveness, but rather economic and technological feasibility.* Staff responded that the cost effectiveness threshold was \$50,000 per ton reduced in the 2016 AQMP. If measures were above that threshold, then that would trigger additional analysis and processes to work through more detail than the cost effectiveness threshold. This approach has not yet been determined for the 2022 AQMP.

*Inquiry on where the RACM requirement to show advancement of one year or more to reach attainment comes from since it is not from the CAA.* Staff responded that under the U.S. EPA implementation guidance rules, RACM measures must either help meet RFP requirements or advance attainment by one year.

*Comment on whether South Coast AQMD has investigated the availability of reliable infrastructure to move forward with electric technologies and confirmed that there is sufficient electricity to support those technologies.* Staff responded that there is a separate Zero Emissions Infrastructure Working Group to address infrastructure challenges within the transportation sector that could also apply to widespread electrification of stationary and area sources. There are many other agencies involved that are working together to develop a plan that addresses the grid issues.

### **3. Motor Vehicle Emissions Budget- State Implementation Plan**

Mr. Nesamani Kalandiyur, Manager of the Transportation Analysis Section in the Sustainable Transportation and Communities Division at CARB, presented an overview of transportation conformity and the Motor Vehicle Emissions Budget (MVEB), types of State Implementation Plans (SIPs) with MVEB, tools used for MVEB, the interagency consultation process, adequacy determination criteria and process, and application of MVEB. The Motor Vehicle Emissions Budget serves as a regulatory limit for on-road mobile source emissions in the SIP and is based on emissions inventory and control measures established by CARB. Transportation conformity applies to both direct and precursor pollutants emissions. The latest EPA-approved emission model is EMFAC 2017 for SIP and transportation

conformity purposes. EMFAC 2021 is pending approval by the U.S. EPA. Transportation conformity ensures air and transportation agencies interact on a continuous basis. The MVEB must be consistent with the emissions inventory, RFP, and the attainment or maintenance demonstration.

Comments from Advisory Group and Staff Responses:

*Inquiry on the differences between EMFAC 2017 and EMFAC 2021 being used, and which emissions model the mobile source strategy uses.* CARB staff responded that for conformity purposes, the model must be approved by the U.S. EPA before it can be used in the MVEB. EMFAC 2017 is used in the SIP, emission reductions strategies, and the emissions inventory. Emission reductions commitments provided to South Coast AQMD in the State SIP Strategy is also based on EMFAC 2017. EMFAC 2021 is currently under review by the US EPA and can be used for air quality purposes but cannot yet be used for conformity purposes. The mobile source strategy uses EMFAC 2021, and the U.S. EPA will approve EMFAC 2021 sometime in the next quarter.

*Inquiry on using the Motor Vehicle Emissions Budget itself to drive down emissions, with the understanding that actual infrastructure can be designed or choices on infrastructure could lead to significant NOx and VOC reductions.* CARB staff responded that staff is analyzing the existing process to have more information of the budget development process. CARB needs to go through the public processes as well as interagency consultation for developing that type of an approach.

*Inquiry on when the draft budgets will be released and will there be a comment period before the package goes to the South Coast AQMD Governing Board.* CARB staff responded that the MVEB is included as part of the draft 2022 AQMP. South Coast AQMD staff responded that the draft is anticipated to be released in March and once it is released, there will be a 45-day public comment period.

*Comment regarding SB 1383- short-lived climate polluting reduction strategies for organic waste reductions: heavy-duty refuse fleets are incurring additional vehicle miles traveled and vehicle trips to accommodate the requirements of the regulation; modeling did not address some of these issues with heavy-duty refuse fleets and should be a consideration going forward.* CARB Staff responded that the MVEB is using the Connect SoCal transportation activity data from SCAG's recently adopted Regional Transportation Plan. SCAG staff responded that there is a process as part of the SCAG Plan development that reflects vehicle miles traveled (VMT) within the region, including the heavy-duty fleet.

Comments from Public and Staff Responses:

*Inquiry that EMFAC 2017 does not reflect recent studies on in-use emissions from heavy-duty trucks under certain low-load conditions and how such information is incorporated into the 2022 AQMP emissions inventory. Comment that brand new diesel trucks are still coming into the marketplace until 2027 when new standards and testing protocols are implemented and vehicles could be in service for 15 years.* CARB staff responded that the inventory has been adjusted to incorporate the latest regulations that are adopted through off-model adjustments. EMFAC 2017 reflects more real-world conditions and has higher emissions than the previous EMFAC 2014. EMFAC 2021 reflects further understanding of the motor vehicle population and is consistent with EMFAC 2017. CARB is developing appropriate test cycles to incorporate into future rulemaking to address the issues with low-load NOx emissions, and the regulatory process will address how the emissions testing and certification is done for heavy-duty vehicles that are emitting higher than expected NOx under low load operating conditions. CARB's

overall strategy to move towards zero emissions technologies and to move away from combustion is going to address this issue altogether.

#### **4. Overview of Transportation Control Measures and Application of Motor Vehicle Emissions Budgets**

Rongsheng Luo, Manager of SCAG's Environmental Analysis and Business unit presented an overview of transportation control measures and application of Motor Vehicle Emissions Budgets. SCAG develops the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and Federal Transportation Improvement Program (FTIP) to provide socioeconomic growth forecasts and travel activity projections, and to develop regional transportation plan/sustainable communities strategy and transportation control measures in Appendix IV-C of the 2022 AQMP. Transportation control measures (TCMs) are defined in the Clean Air Act as transportation programs and projects that reduce vehicle use or changes traffic flow or congestion conditions for purposes of reducing emissions from transportation sources, excluding technology, fuel, and maintenance-based measures. The TCM RACM analysis to be included in the Draft 2022 AQMP demonstrates that all reasonably available TCMs are being implemented in the South Coast Air Basin. The U.S. EPA approved TCM Best Available Control Measures (BACM) analysis in the 2016 AQMP, demonstrating that the best available TCMs are also being implemented in the South Coast Air Basin. Motor Vehicle Emissions Budgets are used in the RTP/SCS and FTIP Regional Emissions Test that is required as part of the transportation conformity analysis and determination. Emissions from RTP/SCS and FTIP must not exceed applicable Motor Vehicle Emissions Budgets for all milestone, attainment, and planning horizon years for all applicable criteria pollutants in nonattainment areas.

##### Comments from Advisory Group and Staff Responses:

*Inquiry on if the analysis that determined South Coast AQMD is implementing all reasonably available TCMs is still available for public comment.* SCAG staff responded that this will be included in the draft 2022 AQMP and will be available for public comment.

*Inquiry on whether Section 182(e)(4) of the Clean Air Act that has a provision for traffic control measures during heavy pollution hours has been considered.* SCAG staff responded that as a part of the RACM analysis, SCAG listed all the measures by categories; traffic control measures during heavy pollution hours was one of the categories, so certain aspects have been implemented in the region. SCAG also looks at TCMs from other areas. SCAG is developing the 2023 FTIP and the 2024 RTP/SCS, scheduled to be adopted by the SCAG Governing Board in September 2022 and April 2024, respectively.

##### Comments from Public and Staff Responses:

No comments from the Public on this agenda item.

#### **5. Updates on 2022 AQMP Control Measures/Control Strategy**

Dr. Sang-Mi Lee, Planning and Rules Manager of South Coast AQMD's Planning, Rule Development, and Area Sources Division, presented updates on the 2022 AQMP control measures and control strategy. CARB and South Coast AQMD jointly hosted the Control Measures Workshop on November 10, 2021 with three groups, and received 92 comment letters that were summarized into ten categories: (1) Transition to zero-emission and near-zero emission technologies, (2) Incentives, (3) ZE and NZE

technologies for stationary and area sources, (4) Buildings, (5) Emergency engines/ back up generators, (6) Infrastructure, (7) VOC measures, (8) Transportation/mobile source related measures, (9) Utilization of Clean Air Act Section 182(e)(5), and (10) Fair share reductions. The next steps are to address and incorporate public comments, continue control measures development and working group meetings, release the draft control measures, and release the draft 2022 AQMP.

Comments from Advisory Group and Staff Responses:

*Inquiry on timeline of when control measures will be released, and if this will include the emissions inventory and reductions associated with each control measure.* Staff responded that the schedule may change as needed, but currently the draft AQMP has a target release date of mid-March. Control measures are planned for release two weeks in advance of the draft 2022 AQMP at the end of February. The baseline inventory for base and future years at the major source category level are already on the South Coast AQMD website. Appendix III will have detailed emissions inventory and describe the methodologies and categories that have gone through major updates since the 2016 AQMP. Expected emissions reductions for each control measure are typically included in control measures, although some control measures do not have emissions reductions and are listed as ‘TBD’ due to the nature of the control measure.

*Inquiry on having a potential discussion to understand the possible approaches to economic analysis for zero emission strategies and proposed control measures in the AQMP; the infrastructure components of the measures are uncertain and future oriented.* South Coast AQMD staff responded that economic analysis is addressed in the STMPR Advisory Group. Economic feasibility analyses could also be specified in the 2022 AQMP for some measures, while others will have uncertainty in technologies that require evaluation in the future. Staff could discuss this topic further at a future advisory group meeting.

*Comment that a separate discussion is needed with wastewater treatment plants that generate renewable non-fossil fuel regarding how electrification will affect this service; SB 1383 takes food waste out of landfills that will generate more biogas, South Coast AQMD has permitting issues for new sources and CARB will not allow this additional biogas in vehicle fuels.* Staff thanked the individual and will set up a separate discussion with CARB and other agencies to follow up on this comment.

*Comment that moving to zero emissions technologies should be analyzed beyond cost effectiveness in a more holistic approach, as there can be other associated benefits such as creating jobs.* South Coast AQMD staff responded that multiple groups throughout the state including CARB, CEC, and CPUC are discussing zero emissions technologies through different approaches. These topics will be explored as part of the 2022 AQMP.

Comments from Public and Staff Responses:

No comments from the Public on this agenda item.

**6. Nomination of AQMD Advisory Group Members to South Coast AQMD Advisory Council**

The Health Effects Appendix of the 2022 AQMP demonstrates analysis of the health effects of air pollution and is reviewed by the South Coast AQMD Advisory Council, composed of members from different South Coast AQMD advisory groups. Each advisory group nominates members or has volunteers participate in the Advisory Council, and staff is requesting volunteers or nominees from this

AQMP Advisory Group to participate on the Council. AQMP Advisory Group members can submit their nominee recommendations to join the Advisory Council after the conclusion of this meeting.

## **7. Other Business**

No additional comments, announcements, or reports from the Advisory Group members.

## **8. Public Comment**

No additional comments, announcements, or reports from the Public.

## **9. Next Meeting tentatively planned for March 2022**

### **Members Present (23)**

Adrian Martinez, Earthjustice  
Bill LaMarr, California Small Business Alliance  
Christopher Chavez, Coalition for Clean Air  
Curtis Coleman, Southern California Air Quality Alliance  
Dan McGivney, Southern California Gas  
David Pettit, National Resources Defense Council, Inc.  
David Rothbart, Southern California Alliance of Publicly Owned Treatment Works  
Frances Keeler, California Council for Environmental and Economic Balance  
James Breitling, Southern California Contractors Association  
Janet Whittick, California Council for Environmental and Economic Balance  
Jeremy Avise, California Air Resources Board  
John Ungvarsky, U.S. EPA  
Lakshmi Jayaram, FuturePorts  
Lori Huddleston, LA Metro  
Marc Carrel, Breathe LA  
Michael Benjamin, California Air Resources Board  
Michael Carroll, Latham & Watkins  
Michael Lewis, Southern California Contractors Association  
Otis Greer, County of San Bernardino  
Paul Ryan, California Refuse Recycling Council  
Ramine Cromartie, Western States Petroleum Association  
Richard Parks, Redeemer Community Partnership  
Rongsheng Luo, Southern California Association of Governments

### **Public Attendees and Interested Parties (58)**

Adam Hsu  
Alek Van Houghton  
Ali Ghasemi, VCAPCD  
Alok  
Angel Garfio  
Annaleigh Ekman, SCAG  
Archana Agrawal  
Ariel Fideldy, CARB

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Austin Hicks, CARB  
Bethmarie Quiambao  
Brady Vanengelen  
Carol Kaufman  
Carrie Brown  
Chadwick Collins  
Cindy P  
Cindy Parsons  
Craig Sakamoto  
Debra Mendelsohn  
Elijah Gordon  
Faraz Rizvi  
Gaby Mendez  
Howard Berman  
Jacqueline Moore  
James Adams  
Jamie Bartolome  
Janet Baad  
Jim Lutz  
Joaquin Castillejos  
John Henkelman, VCAPCD  
Karin Fickerson  
Katrina Fitz  
Ken Dami  
Kiersten Melville  
Lars Boden  
Loraine Lundquist  
Lori Balance  
Lucy Dunn  
Luis Amezcua  
Mark Abramowitz  
Marshall Waller  
Melaura Rice  
Naveen Berry  
Nesamani Kalandiyur, CARB  
Nicolas Serieys  
Nina Turner  
NMuyco  
Orange County Business Council  
Peter Evangelakis  
Peter Warda  
Resa Barillas  
Rohimah Moly  
Ross Zelen  
Ryan Kocher  
Sarah O'Malley  
Scott King, Ph.D., CARB

Scott Weaver  
Sylvia Vanderspek, CARB  
Tim French

**South Coast AQMD Staff Present (34)**

Anthony Tang, Information Technology Supervisor  
Barbara Radlein, Program Supervisor  
Cui Ge, Ph.D., AQ Specialist  
Elaine Shen, Planning and Rules Manager  
Eric Praske, Ph.D., AQ Specialist  
Erika Chavez, Senior Deputy District Counsel  
George Wu, AQ Specialist  
Ian MacMillan, Assistant Deputy Executive Officer  
Jong Hoon Lee, Ph.D., AQ Specialist  
Kalam Cheung, Ph.D., Program Supervisor  
Kathryn Roberts, Deputy District Counsel II  
Kayla Jordan, Assistant AQ Specialist  
Lane Garcia, Program Supervisor  
Marc Carreras-Sospedra, Ph.D., AQ Specialist  
Mark Henninger, Information Technology Manager  
Mary Reichert, Senior Deputy District Counsel  
Mei Wang, Planning and Rules Manager  
Michael Krause, Assistant Deputy Executive Officer  
Michael Laybourn, Program Supervisor  
Paul Wright, Senior Information Technology Specialist  
Ricky Lai, AQ Specialist  
Rosalee Mason, Administrative Assistant I  
Rui Zhang, Ph.D., AQ Specialist  
Ryan Finseth, Ph.D., AQ Specialist  
Sam Cao, Program Supervisor  
Sang-Mi Lee, Ph.D., Planning and Rules Manager  
Sarah Rees, Ph.D., Deputy Executive Officer  
Scott Epstein, Ph.D., Program Supervisor  
Shah Dabirian, Ph.D., Program Supervisor  
Sheri Hanizavareh, Senior Deputy District Counsel  
Tiffani To, Assistant AQ Specialist  
Wei Li, Ph.D., AQ Specialist  
Xinqiu Zhang, Ph.D., Senior Staff Specialist  
Yunnie Osias, AQ Specialist