BEFORE THE COLORADO AIR QUALITY CONTROL COMMISSION STATE OF COLORADO

REGIONAL AIR QUALITY COUNCIL'S PREHEARING STATEMENT

IN THE MATTER OF ADOPTING SPECIFIC REVISIONS OF THE CALIFORNIA ZERO EMISSION (ZEV) PROGRAM INTO REGULATION NUMBER 20

STATEMENT OF POSITION

The Regional Air Quality Council (RAQC) supports the Air Quality Control Commission's (AQCC) adoption of revisions to Regulation No. 20 related to the California Zero Emission Vehicle (ZEV) program as proposed by the Air Pollution Control Division (APDC) for implementation statewide, which will result in emissions benefits in the Denver Metro/North Front Range (DM/NFR) ozone nonattainment area and beyond. Adoption of the California ZEV program will be beneficial for the State of Colorado and DM/NFR for the following reasons:

- 1) Expand consumer choice through broader model availability of electric vehicles; and
- 2) Increase number of zero emission vehicles operating on Colorado roads; and
- 3) Reduce pollutants, including ozone precursors and greenhouse gases, through reduced demand for petroleum-based fuels; and
- 4) Improve public health, the economy, and the environment.

OVERVIEW

The RAQC is designated by the Governor as the lead agency for air quality planning for the DM/NFR ozone nonattainment area and has a stake in any measure that will have appreciable air quality benefits and aid the region in attaining the Ozone National Ambient Air Quality Standard (NAAQS). As the lead air quality planning agency for the Denver Metro/North Front Range Region ozone nonattainment area, the RAQC has the responsibility to prepare air quality plans for the region to demonstrate and ensure long-term compliance with federal air quality standards.

Mobile source emissions are a significant contributor to the emissions of the DM/NFR. For instance, regarding ozone pollution, 31% of nitrogen oxide (NOx) and 16% of volatile organic compounds result from on-road mobile sources¹. It is clear that more needs to be done to come into compliance with the federal ozone standards and a concerted effort needs to be made to reduce ozone precursor emissions from all source categories, including mobile sources. Though this regulation will not take effect until after the current, short-term planning deadlines for preparing and submitting ozone attainment plans to the EPA, this regulation ensures mobile source emissions are addressed aggressively.

¹Regional Air Quality Council. (2016). Moderate Area Ozone State Implementation Plan for the Denver Metro and North Front Range Nonattainment Area. Denver. Exhibit A.

The RAQC continues to be supportive of cost-effective measures aimed at reducing ozone precursor emissions in the nonattainment area and throughout the state, and the current rulemaking is one such initiative. The RAQC's Mobile Sources and Fuels Committee has been following this rulemaking closely and the RAQC, in collaboration with the APCD, will continue to conduct intensive air quality planning activities and technical analyses aimed at identifying feasible measures that protect public health, reduce emissions, and comply with federal and state laws.

BACKGROUND

Effective July 20, 2012, the United States Environmental Protection Agency (EPA) designated the DM/NFR region as Marginal nonattainment for the 2008 8-hour ozone NAAQS of 75 parts per billion (ppb). Based on data from the 2012-2014 ozone seasons, the DM/NFR did not attain the NAAQS by the mandated July 20, 2015 attainment deadline. As a result, the region was reclassified to a Moderate nonattainment area effective June 3, 2016, which necessitated the development of a SIP revision. The DM/NFR Moderate Area Ozone SIP was approved by the AQCC in November 2016 and submitted to EPA in May 2017. The region did not attain the NAAQS by the revised attainment deadline of July 20, 2018 (based on data from the 2015-2017 ozone seasons) and as a result, is now facing a subsequent reclassification to a Serious nonattainment area. This will again necessitate the development of another SIP revision that demonstrates how the region will attain the standard by the end of the 2020 ozone season.

Additionally, in 2015, EPA revised the 8-hour ozone standard, tightening it to 70 ppb, with designations being finalized in June 2018. The DM/NFR region was designated as a Marginal nonattainment area under the new standard, which will require attainment by the end of the 2020 ozone season as well, which aligns with the attainment year for the 75-ppb standard.

At the end of the 2018 ozone season, the DM/NFR regional 3-year design value was 79 ppb. While Colorado faces considerable uncertainty regarding ozone planning timelines and requirements in the coming years because of dual standards, it is clear more needs to be done to get down to 70 ppb which will require a concerted effort to reduce ozone precursor emissions from all source categories. The RAQC continues to be supportive of cost-effective measures aimed at reducing ozone precursor emissions in the nonattainment area and the current rulemaking is one such initiative.

MOBILE SOURCE EMISSIONS - MODERATE AREA OZONE SIP EMISSIONS INVENTORY

Mobile sources have been, and continue to be, a significant contributor to the emissions of the DM/NFR and the state. Currently, mobile source emissions are one of the largest contributors to the formation of ground-level ozone in the region. In order to address this significant public health concern, mobile source emissions need to be addressed.

For the 2008 Moderate Area Ozone SIP, emissions inventories for a 2017 attainment year were developed for nitrogen oxides (NO_X), volatile organic compounds (VOC), and carbon monoxide (CO) using EPA—approved emissions models and methodology. On-road emissions from passenger cars and light trucks represent 49.5 tons per day or 90% of the VOC emissions from mobile sources in the nonattainment area. For NO_X, these vehicles represent 49.9 tons per day or 68% of the mobile source emissions². In total, light duty vehicle emissions contribute 32% of the NO_X and 28% of the VOC emissions in the region. It is clear

²Regional Air Quality Council. (2016). Moderate Area Ozone State Implementation Plan for the Denver Metro and North Front Range Nonattainment Area. Denver. Exhibit A.

that this source category requires additional strategies to reduce emissions because business as usual will not result in the emissions reductions needed to meet the region's air quality goals. The RAQC is interested in reviewing the Division's upcoming VOC and NOx emissions analysis and potential benefit forecast for these proposed regulations.

Figure 1 - 2017 On-Road Mobile Source Emissions Inventory (tons per day)

| Description | | voc | NOx | CO |
|--|-------------|------|------|-------|
| On-Road Mobile Sources | | | | |
| Class 10 – Motorcycles | On-Network | 1.1 | 0.4 | 8.8 |
| | Off-Network | 1.8 | 0.0 | 0.2 |
| Class 20 – Passenger Cars | On-Network | 5.2 | 9.8 | 149.3 |
| | Off-Network | 16.2 | 7.0 | 51.4 |
| Class 30 – Light Trucks | On-Network | 7.9 | 19.6 | 225.8 |
| | Off-Network | 20.2 | 13.5 | 103.0 |
| Class 40 – Buses | On-Network | 0.2 | 1.9 | 0.6 |
| | Off-Network | 0.0 | 0.0 | 0.2 |
| Class 50 – Refuse / Single–Unit Trucks | On-Network | 0.4 | 2.3 | 3.5 |
| | Off-Network | 0.3 | 0.2 | 5.9 |
| Class 60 – Short / Long-Haul Trucks | On-Network | 0.8 | 14.3 | 3.6 |
| | Off-Network | 0.9 | 4.4 | 2.3 |
| On-Road Mobile Sources Subtotal | | 55.0 | 73.3 | 554.7 |
| Subtotals (All Classes) | On-Network | 15.6 | 48.2 | 391.7 |
| | Off-Network | 39.4 | 25.1 | 163.0 |

Vehicle miles traveled on a gross and per capita basis continue to grow and are forecast to continue to grow. In 2017, VMT grew by 2.5%. Furthermore, VMT growth in the ozone non-attainment area is greater than the population growth experienced by the region and greater than national averages³. The projected growth in VMT represents a significant challenge and necessitates the need for alternative technologies to enable travel in passenger vehicles with reduced emissions. Preferably, alternative modes of transportation would be chosen. In lieu of that, the best way to currently address mobile source emissions in passenger vehicles is through enabling an environment where more electric vehicles with zero emissions are available and on the road. Adopting a ZEV program that stipulates a minimum number of ZEV vehicle sales is an effective way to do that.

According to a study completed by the City and County of Denver and the Southwest Energy Efficiency Project, on behalf of the RAQC, "compared to an average gasoline vehicle on the road in 2016, [driving an electric vehicle] NOx is reduced by 63 percent, VOCs by 99 percent and GHGs by 43 percent. Due to a much cleaner electricity mix by 2025, a BEV will reduce NOx emissions by 84 percent, VOC emissions by 99 percent and GHG emissions by 49 percent compared to a new gasoline vehicle in that year"⁴. Unlike conventional gasoline vehicles, electric vehicles will get cleaner over time as the grid mix transitions to renewables. This represents an opportunity for environmental and public health benefits now and into the future.

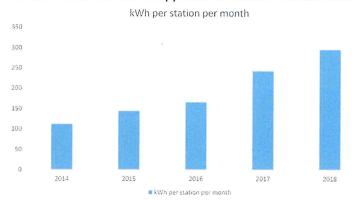
Further, recent legislation amplifies the need to address mobile sources emissions due to their contribution to climate change. House Bill 19-1261 – Climate Action Plan to Reduce Pollution sets a Statewide goal for Colorado to "reduce 2025 greenhouse gas emissions by at least 26%, 2030 greenhouse

³ Denver Regional Council of Governments. (2018). 2017 Annual Report on Roadway Traffic Congestion in the Denver Region. Denver: DRCOG.

⁴ City and County of Denver. (2017). Opportunities for Vehicle Electrification in the Denver Metro Area and Across Colorado. Denver: City and County of Denver.

gas emissions by at least 50%, and 2050 greenhouse gas emissions by at least 90% of the levels of greenhouse gas emissions that existed in $2005^{\prime\prime5}$. The transportation sector is projected to generate approximately 33% of CO_2 emissions in Colorado by 2020. This is an increase from current levels of 31.6% of total CO_2 emissions⁶. In order to meet the requirements of this legislation, it is imperative that the state implement strategies such as the ZEV program.

The RAQC, along with partners at the Colorado Energy Office (CEO), is working to encourage the purchase and use of electric vehicles through the widespread distribution of charging infrastructure in the nonattainment area and around the state through our program, "Charge Ahead Colorado." Charge Ahead Colorado is a grant funding program that incentivizes the installation of Level 2 and Direct Current Fast Chargers (DCFC). To date, the program has funded over 850 charging stations with over 550 of those being awarded in the ozone nonattainment area. The grant program is competitive and requires a minimum 20% cost-share from awardees. Stations have experienced significant year on year growth in utilization. On average, the station utilization within our program has increased 22.9% annually for each of the last four years. It is apparent that there is a robust appetite for electric vehicles around the state.



Charging Station Utilization⁷

The significant investment in electric vehicle infrastructure to support the purchase and widespread use of electric vehicles, and the potential adoption of a ZEV program, also includes the private sector. Private companies that are investing significant sums of money are EVgo and ChargePoint, along with the Volkswagen subsidiary, Electrify America. Further, Senate Bill 2019-77 — Electric Motor Vehicles Public Utility Services is legislation that was recently passed to allow for public utility investment into the infrastructure to support electric vehicles, including "make ready" and rate recovery on these investments. This new law can unlock utility investment that had been prevented previously. All of this investment leads to an environment that is conducive to owning and operating an electric vehicle that will result in improved public health and environmental benefits.

Model availability and consumer choice are critical factors in getting more electric vehicles on Colorado roads. It is apparent that more vehicle models are delivered to ZEV states sooner than to non-ZEV states. In order to have the planned BEV and PHEV SUVs and light trucks in Colorado as soon as possible, it is critical that Colorado implement a ZEV standard. It is also apparent that consumer choice is limited when it comes to electric vehicles if a state does not participate in the ZEV program. According to the Colorado

⁵ State of Colorado. (2019, June 25). Colorado General Assembly. Retrieved from colorado.gov: https://leg.colorado.gov/bills/hb19-1261

⁶ U.S. Energy Information Administration. (2019). *Energy-Related Carbon Dioxide Emissions by State, 2005-2016.* Washington DC: Department of Energy.

⁷ Regional Air Quality Council. (2019, February 27). Charge Ahead Colorado / Electrification Efforts - Mobile Sources / Fuels Committee. Retrieved from www.raqc.org: https://raqc.egnyte.com/dl/UTu8nFdtlN/CAC_Mobiles_Sources_and_Fuels_Presentation_-___022719.pdf_

Sun, "Kelley Blue Book counted 12 EV models that were sold last year in Colorado, compared to the 48 zero-emission passenger vehicles in California"8. In stakeholder meetings and through the media, opponents to the proposed ZEV program repeatedly mention that a ZEV program will hurt consumer choice because new non-ZEV costs will rise. The RAQC requests that support for these claims be presented prior to the rulemaking so that adequate analysis and responses can be presented.

The RAQC is supportive of the AQCC adopting revisions to Regulation No. 20 related to the California Zero Emission Vehicle (ZEV) program. It is in the public interest to do so as it will result in benefits to Colorado's public health and the environment.

ESTIMATE OF TIME NECESSARY FOR PRESENTATION

The RAQC estimates that it will require approximately 30 minutes to present its testimony and provide rebuttal.

EXHIBITS

The RAQC includes the following exhibits as part of its prehearing statement:

- A. Moderate Area State Implementation Plan for the 2008 8-Hour Ozone NAAQS (approved by the AQCC November 17, 2016; submitted to EPA May 2017).
- B. Opportunities for Vehicle Electrification in the Denver Metro Area and Across Colorado: Overcoming Charging Challenges to Maximize Air Quality Benefits

WITNESSES

The following witnesses will be available to present the RAQC's position and respond to issues and questions raised by the Commission and the parties.

- Michael Silverstein, Executive Director, Regional Air Quality Council
- Steve McCannon, Deputy Director, Regional Air Quality Council
- Matt Mines, Program Coordinator, Regional Air Quality Council
- Kelley Grubbs, Program Analyst, Regional Air Quality Council

Submitted this 10th day of July, 2019 in Denver, Colorado

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Michael Silverstein, Executive Director

⁸ Chuang, T. (2019, March 12). Colorado is a top electric vehicle state without a mandate. So why can't locals buy most of the EVs for sale? Retrieved from The Colorado Sun: https://coloradosun.com/2019/03/12/colorado-is-a-top-electric-vehicle-state-without-a-top mandate-so-why-cant-locals-buy-most-of-the-evs-for-sale/

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