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Air Quality Control Advisory Council Meeting Minutes March 13, 2023 @ 9:00 am Webinar held by MDE

AQCAC MEMBERS PRESENT

John Quinn – Chairman
Todd Chason – Vice Chairman, Esq.
Lawrence (Larry) Schoen, PE
Ross Salawitch, PhD
Megan Latshaw, PhD
Thomas Killeen
Sania Amr, M.D.
Robert Wright, PhD, PE (ret)
Weston Young, PE
Nicole Cook, JD
Adrienne Hollis, PhD, JD
Anna Marshall, AICP
Sunhee Park, PE, BCEE
Ben Hobbs, PhD
Thomas Dernoga, JD (joined after introductions)

AQCAC MEMBERS ABSENT

MDE

Chris Hoagland
Randy Mosier
Kelsey Sisko
Carolyn Jones
Roger Thunell
Mark Stewart
Tim Shepherd
Justin Mabrey
Marcia Ways
Kara Dorr
Scott Thompson
Allison Tjaden

Megan Ulrich
Joe Winters
Katharine Daristotle
Erick Thunell
Kim Drake
Chris Beck
Vimal Amin
Jenny St. Clair
Steve Lang
Alexander Holt
Eddie Durant

VISITORS

Kevin Shen
Sari Amiel
Louisa Rettew
Dru Schmidt-Perkins
Jason Freeman
Christian Robinson
Joseph Brodie
Tom Miller
Rebecca Rehr
Tim Troxell
Tom Ballentine

Mike O'Halloran
Eric Riopko
Elliott Levine
Ian Fried
Christine Condon
Lindsey Mendelson
James Fahy
Hannah Allen
Edwin Much
Jim Valerio
Kristy (BGE)
Theresa S. King

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Edward Hirsch
Dominic Imburgia
Mike Dietz
Ginevra Lee
Josh Fisher

Kevin Costello
Cliff Majersik
Joshua Kace
Jeannie Morris
6 telephone callers

This is a summary of the March 13, 2023, Air Quality Control Advisory Council Meeting and serves as a record of the Council's vote on regulatory action items. The meeting is recorded and the digital file is maintained by MDE/ARA. This digital file is considered public information and may be reviewed in its entirety by anyone who is interested in the details of the discussions.

MDE website: <http://mde.maryland.gov/programs/workwithmde/Pages/AQCACmeetingminutes.aspx>

Mr. John Quinn, AQCAC Chair, opened the meeting by welcoming everyone to the Air Quality Control Advisory Council (AQCAC or the Council) meeting at approximately 9:02 a.m. Mr. Quinn then asked Mr. Chris Hoagland, the Air and Radiation Administration Director, to open the meeting with introductory remarks. Mr. Hoagland announced the presentation line up for the meeting, which would start with the Advanced Clean Cars II regulation followed by two briefings on upcoming standards – Advanced Clean Trucks and Building Energy Performance Standards. Mr. Hoagland informed the Council that these measures are important for clean air and climate change.

Council members were introduced following the approval of the meeting minutes.

MEETING MINUTES

Mr. Quinn requested approval of the previous meeting minutes shared with the Council through email.

A motion to approve the December 12, 2022 minutes was made by Dr. Sania Amr and seconded by Dr. Adrienne Hollis. All members present voted in favor at approximately 9:05 a.m. Mr. Thomas Dernoga was not present for this motion.

ACTION ON REGULATIONS

Amendments to COMAR 26.11.34 – Incorporation by Reference (Advanced Clean Cars II)

Mr. Justin Mabrey presented The Maryland Clean Car Program and the proposed regulation to the Council. The Maryland Department of the Environment (MDE or the Department) adopted the Maryland Clean Car Program in 2007 as required by The Clean Cars Act of 2007. Formerly known as CALEV or Advanced Clean Cars (ACC), the new updates will now be called Advanced Clean Cars II (ACC II). The proposed regulation will apply to new light-duty motor vehicles registered in Maryland. MDE will adopt the California Advanced Clean Car Program in Maryland through Incorporation by Reference.

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Mr. Mabrey informed the Council that California adopted ACC II, which are new and more stringent standards, and in order for Maryland to follow these changes MDE will apply the changes to COMAR 26.11.34.02 by incorporating by reference the California ACC II. The new standards build on the existing Advanced Clean Cars I (ACC I) standards that MDE adopted in 2012, which covers Model Year (MY) 2015-2025. Mr. Mabrey noted that 17 states have adopted all or part of California's Low Emission Vehicle (LEV) regulations. The ACC II standards focus on increasing the number of Zero Emission Vehicles (ZEV) that vehicle manufacturers are required to deliver to the state while providing flexibilities needed for the manufacturers to meet the more stringent program. The ACC II program includes emission standards for criteria pollutants from internal combustion engines. Mr. Mabrey informed the Council that the standards are tweaked slightly to prevent backsliding from the result of more ZEVs being in a vehicle manufacturers fleet. The ACC II program will cover MY 2027-2035 and was approved by the California Air Resources Board (CARB) on August 25, 2022, and became effective on November 30, 2022.

Under the ACC II program, CARB has tried to streamline much of the program to ease compliance. Only pure ZEVs (battery electrics and hydrogen fuel cell vehicles) and plug in hybrids that have at least 50 miles of all electric range will earn ZEV credits. Some of the flexibilities are early action credits and historical credits from the current ACC I program that will roll over into ACC II, as well as a pooling mechanism that allows vehicle manufacturers to move their credits from one state to another. One of the biggest changes to the ACC II program is that California was not part of the pooling in ACC I but will be in ACC II. Earned ZEV credits can be banked and traded to other manufacturers and no vehicle manufacturers in Maryland, or any other state, have been fined that has California's ZEV program for failing to meet ZEV requirements. Many manufacturers have a surplus of credits available in their ZEV accounts.

Mr. Mabrey presented the ZEV requirements graph, showing the benefits of the flexibilities and ZEV stringency from 2026 to 2035. Mr. Mabrey informed the Council the graph shows the benefit of the flexibilities in terms of how much they have the potential to reduce the actual percentage of new vehicle sales that have to be ZEV. As the flexibilities phase out, even with maxing out all of the options, the requirements do get closer and by 2032 most of the flexibilities are gone as the state peaks closer to 100% by 2035.

Mr. Mabrey stated that Maryland and many other states were unable to adopt these regulations by the end of calendar year 2022, meaning the state cannot enforce ACC II in 2026. Due to the 2-year lead time requirement that exists under Section 177 in the Clean Air Act (CAA), Maryland and other states must revert back to federal Environmental Protection Agency (EPA) requirements for 2026. Conversations between OEM and states are ongoing regarding how to handle this year, but for now MDE is treating 2026 as a year when OEMs can earn early compliance credits if they were to place more vehicles than the regulations require. 2025 is the last year of ACC I and the requirement is 7%, and 2026 will be set to 7% as well. If an OEM delivers more than 7% of their fleet as ZEVs that year, they will earn early action credits. This will ensure Maryland will receive ZEVs during this gap year. Mr. Mabrey presented the next steps to the Council, which included that MDE adopts California's ACC II standards through Incorporation by Reference, the state is on scheduled to have the regulation in effect by September 4, 2023, and to have ACC II become enforceable for MY 2027.

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Mr. Quinn asked if MDE could review the process and summarize the recent engagement by other states. Mr. Mabrey noted that MDE needs to update our regulations whenever California does to stay consistent. Mr. Tim Shepherd noted that MDE has updated this regulation 7 times since adoption in 2007. Whenever California makes a change to the rule, Maryland must do so as soon as possible and cannot create a third program. Mr. Quinn followed up about the press concerning the previous administration not adopting the rule, and that it has been routine to make changes to the regulations as required based on the 2007 law. Mr. Shepherd agreed that since it is in law, the state is required to implement the regulations and that there was hesitation from the past administration, but the state is moving forward now. Mr. Quinn asked if there was any push back, which then Mr. Shepherd stated no, that other states are on the same page as Maryland, that this is different than adoptions a decade ago, but most OEM's have announced business plans for electrifying their entire fleet, and lines up with requirements of ACC II. Mr. Shepherd further stated that the Department has been pleasantly surprised with manufacturers being supportive of the rule, though they noted that continued incentives and infrastructure development were needed. Mr. Hoagland informed the Council that a letter was forwarded to them from the Alliance for Automotive Innovation which discussed some of the issues about incentives and infrastructure.

Dr. Ross Salawitch questioned infrastructure development and noted that he is an EV driver and is disappointed in the pace of the development of the infrastructure. Mr. Hoagland stated Maryland is investing in EV charging infrastructure and that there are bills before the Legislators this session to increase investment. Mr. Hoagland also mentioned that under the Inflation Reduction Act Maryland is receiving \$60-65 million dollars through the National Electric Vehicle Charging Infrastructure (NEVI) program to supplement state funding to deploy more infrastructure. Mr. Shepherd agreed with Dr. Salawitch that infrastructure is a need, and that all the agencies have been investing in infrastructure under the VW settlement and that MDE contributed the maximum of 15% towards infrastructure totaling to nearly 11.7 million dollars. MDE has been focusing on workplace charging and level 3 fast charging as well. Mr. Shepherd stated this has been a very popular program and MDE will be doing a third round. The Maryland Energy Administration (MEA) continues their rebate program for individuals and businesses. MDOT will receive \$65 million dollars from NEVI for corridor infrastructure. Maryland is one of the better states on infrastructure and has installed just shy of 1,300 charging stations for a total of 3,600 outlets, not counting residential homes. There will be a continued push and a big push federally for infrastructure. Mr. Shepherd stated there is a bigger interest from businesses with more ability to put them in on their own. Mr. Shepherd also informed the Council the charging stations being installed are Gen4 180kw DC Fast Charger. Mr. Shepherd ended with informing the Council that the airport is putting in new chargers, but MDE is working on making hubs to charge.

Mr. Hoagland stated we have to keep building and that Maryland is at an 18:1 ratio, 1 public charger per 18 registered vehicles, and the state would like to get that down 15:1, meaning the state will need to keep investing in charging infrastructure. Mr. Thomas Killeen made a comment that he has an electric car and 98% of the time it is charged at home and gets about 275 miles on a charge. Mr. Shepherd added that there is a need for public infrastructure, but studies show that 85% of all charging is done at home or the workplace, so there has been a lot of focus on what

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people want first as MD starts to build out its program. Corridors and shopping centers will play an important role, but the interest for most EV drivers is workplace and residential.

Dr. Megan Latshaw stated she fully supports this regulation and believes the state needs to move forward, but agrees with some of Dr. Salawitch's comments and what was presented in the Alliance for Automotive Innovation letter that some people do not have the ability to have a charging station at home or have a job that provides a charging station, so the potential impact on the people in the state who cannot afford some of what others can is important to think about. Dr. Latshaw also commented she would like to see MDE engage in conversations with BGE or Constellation about the grid and building codes.

Dr. Benjamin Hobbs asked if there will be public comments after this discussion. Mr. Quinn stated yes - other meeting participants would be invited to speak but wanted to have a discussion between the Council first. Dr. Hobbs said it is possible something may come up during public discussion that the Council will want to discuss, and asked if we can circle back and have further discussion if needed. Mr. Quinn said yes. Dr. Hobbs felt the public comment should have gone first, but Mr. Quinn stated this is how the meeting has been managed in the past and apologized for not making that clear in the beginning.

Mr. Larry Schoen agreed with everything that has been said thus far and stated this is an area of transportation where we generate a lot of emissions statewide and nationwide and that he is in support of the proposed regulation. Mr. Schoen would like to know more about the letter from the Alliance for Automotive Innovation and questioned whether they mentioned hydrogen vehicles. Mr. Mabrey stated that hydrogen fuel cell vehicles are a zero-emission vehicle technology, so they do earn credits. There have been issues with hydrogen vehicle outside of California, in that the infrastructure is very expensive; on the order of 1.5 million dollars per station. It will be difficult for Maryland to generate the funds to install hydrogen fuel cell vehicle infrastructure in the state, making it a challenge for these vehicles to expand into Maryland. The expense of hydrogen infrastructure has been a significant barrier for Maryland. California has been able to invest hundreds of millions of dollars into their hydrogen fuel cell infrastructure every year, and Maryland does not have those resources. Mr. Hoagland noted that hydrogen fuel cell vehicles are eligible to be credited under this regulation, and that they would be treated like a battery electric vehicle under the program. Mr. Mabrey stated there have been discussions that have been added to the Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) run by MDOT that they have a hydrogen fuel station provider/manufacturer. MDE has worked with OEM's on how to develop the infrastructure, but OEMs want the states to mainly fund the infrastructure. MDE's focus has been on the more tangible goal of battery electrics and putting in fast chargers. A fast-charging station can be \$100-150,000 versus \$1.5 million dollars for a hydrogen station.

Dr. Robert Wright commented that hydrogen fuel cell refueling is not practical at home, and doubts there will be many public places to refuel. Dr. Wright supports this regulation, but does not know how the state will accommodate fuel cells for the public, though the application could be utilized for large fleets.

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Mr. Quinn asked for public comment. Ms. Sari Amiel, an Associate Attorney at the Sierra Club, commented in favor of the Council supporting Maryland's adoption of the ACC II rule. Ms. Amiel stated that Maryland's CCA of 2007 requires the state to adopt California's vehicle standards, including this rule. Adopting this rule is critical for complying with the Climate Solutions Now Act requirement that Maryland reduce GHG emissions 60% by 2031 and notes that this rule is critical for protecting public health. Ms. Amiel noted that 17 other states have adopted the ACC rule and a number of global car companies have made public statements in support of the ACC rule and more funding for chargers is becoming available from additional funds under the federal Infrastructure Investment and Jobs Act.

Mr. Kevin Shen, a Policy Analyst from the Union of Concerned Scientists, supports the ACC II rule. Mr. Shen stated pollution from mobile sources are the largest contributing source category for both Maryland's ozone and climate change issues. Maryland has been a leader in adopting policy, such as California's Clean Car standards. Mr. Shen commented that the new vehicle standards would help Maryland's ozone attainment goals and benefit the health of the state's residents. Mr. Shen also commented on the Omnibus rule.

Mr. Schoen asked to make a motion or follow up motion to recommend state level measures to improve the infrastructure and building codes should be conducted by other boards or state authorities. Mr. Quinn asked if Mr. Schoen would like this motion to be part of the motion to move the ACC II regulation forward or whether to make these two separate motions. Mr. Schoen agreed to two separate motions.

*A motion to approve the amendments to the regulation as presented was made by Dr. Robert Wright and seconded by Dr. Sania Amr.
All members present voted in favor.*

Mr. Quinn asked Mr. Schoen if he would come up with another motion for advocacy on infrastructure advancement or recommendations that the state move towards more accelerated infrastructure advancement. Mr. Hoagland stated that ZEEVIC exists to advance EV infrastructure and other ZEV infrastructure projects in the state, so there is another council to address this issue. Mr. Quinn stated AQCAC could send a note to advise ZEEVIC to move as quickly as possible on infrastructure advancement. Mr. Quinn said he would be willing to work with the Department to send a letter from the Council to ZEEVIC suggesting we pass this and it would work best if infrastructure advances as quickly as possible. Mr. Quinn asked for approval from the Council to move forward and use the Council's name on the joint letter from the Department and asked Mr. Hoagland if this would be okay. Mr. Hoagland stated MDE would be happy to work with the Council on this.

Mr. Schoen made a comment about building codes, and that there is a general rule in building codes that you can continue to operate a building in its current form (generally with some exceptions), so a way to advance infrastructure would be through a finance program from the state to allow building owners to invest \$150,000 in a charging station. There may be creative ways to advance this process and that he would be happy to be a part of a discussion on this.

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Dr. Sania Amr stated beside the building code, there is also the DOT and other agencies affected by infrastructure or overseeing infrastructure and they could be a part of this. The letter should address that MDE would be working with DOT. Mr. Weston Young mentioned that after listening to the ZEEVIC conversations, one of the biggest issues seems to be multifamily residential buildings. An incentive program would be helpful, unless the county has a requirement, when constructing these buildings to make the rental unit more appealing since it is difficult for tenants living in these properties to buy a ZEV unless their workplace offers charging stations. This is one of the topics ZEEVIC frequently comes back to knowing this is controlled at the county level. If there was a model ordinance that the Maryland Associations of Counties could pass on it would help. Mr. Quinn asked Mr. Hoagland for a 15 minute presentation at the next AQCAC meeting on all the infrastructure things going on in the state, and if this could be put on the agenda. Mr. Hoagland said yes, MDE is happy to do this and we can draw in the latest from ZEEVIC and MDOT and the Legislation session will be over so MDE can talk about what passed this year addressing funding.

Dr. Latshaw commented on the Alliance for Automotive Innovation letter, stating that the letter suggested every new unit in a Multi-Unit Dwelling (MUD) with available parking has at least one EV parking space.

Briefings

Advanced Clean Trucks and California Air Resources Board's Omnibus – Tim Shepherd

Mr. Shepherd presented to the Council a briefing on upcoming regulations pertaining to medium and heavy-duty trucks (MHD), specifically Advanced Clean Trucks (ACT) and CARB's Omnibus regulations. All new vehicles (light, medium, and heavy-duty) have to meet emissions certification standards set by either the EPA or CARB. CARB has more stringent emissions regulations for MHD vehicles – the ACT regulation requires a growing percentage of vehicles sold to be zero emissions and the Heavy-Duty omnibus regulation reduces NOx emissions.

House Bill 230 and Senate Bill 224 would require Maryland to adopt the ACT by December 1, 2023, and if adopted by the end of year, the first year it would go into effect is MY 2027 (January 2, 2026). ACT requires certain manufacturers of MHD trucks to sell ZEVs as an increasing percentage of annual truck and bus sales in California.

The Heavy-Duty Omnibus regulation's earliest adoption date would be December 2023, meaning it would go into effect in MY 2027 (January 2, 2026). This regulation requires a 90% reduction in tailpipe NOx emissions for on-road heavy-duty engines from the current 0.20 g/NOx/bhp-hr to 0.02 g/NOx/bhp-hr. CARB adopted the Omnibus NOx reductions in 2021 and phases reductions to 0.02 g/NOx/bhp-hr. Mr. Shepherd informed the Council of EPA's Clean Truck Program that is similar to CARB's Omnibus regulation, which will begin implementation in 2027. Mr. Shepherd then compared the Omnibus regulation to the EPA's Clean Truck Program.

Mr. Quinn stated the two points he got from the briefing were that Legislation is needed to do

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this and Mr. Shepherd is not asking for an action on this item. Mr. Hoagland informed Mr. Quinn we do not need Legislation to do this, MDE has existing authority, but there is Legislation moving for ACT and from the Department's perspective we would welcome authorizing Legislation, but we do not need Legislation. Mr. Shepherd also informed the Council that 6 states (Massachusetts, New York, New Jersey, Washington State, and Oregon) have adopted the ACT program in addition to California, and additional states are looking to adopt this year or next year. MDE hopes to bring ACT and Omnibus to the Council for consideration in June.

Dr. Salawitch asked if there is anything in the regulations about Black Carbon emissions. Mr. Shepherd stated no. Mr. Shepherd stated Black Carbon emissions are a large part of the inventory and it would be good to consider at the appropriate time, and Black Carbon emissions decreased during Covid from reduced stop and go traffic.

Building Energy Performance Standards Update – Mark Stewart

Mr. Mark Stewart presented to the Council a briefing on MDE's Building Energy Performance Standards. Mr. Stewart started the presentation off with a recap of the briefing given to the Council at the previous meeting in December 2022. After the refresher, Mr. Stewart showed the Council a map of the locations of the covered buildings required to follow these standards, followed by a graph presenting the covered building count by description. Warehouses, offices, housing, and stores are the four highest covered buildings that will need to follow these regulations.

Mr. Stewart went through the process a covered building owner will need to go through; benchmarking, annually beginning in 2025, assessing, annually beginning in 2025, and achieving standards/alternative compliance, annually beginning in 2030. Mr. Stewart then presented to the Council slides from the Lawrence Berkeley National Laboratory (LBNL) referring to a preliminary energy and emissions impact assessment for the upcoming regulations. The slides included an overview of building stock analysis, data sources and modeling methodology, energy and emissions reductions, cumulative emissions, electricity and gas energy reductions, and model sensitivity analyses.

Mr. Stewart gave an overview of outreach given to stakeholders, which included 14 meetings with over 400 people in attendance representing over 300 different organizations. A questionnaire was sent out after these meetings and MDE received written comments from stakeholders and took these into account when working through the regulation. Mr. Stewart reviewed the stakeholder input, such as things to be more clear on, flexibilities, and recommendations. Mr. Stewart stated that MDE is hoping to present the proposed regulation in June, followed by a Notice of Proposed Action in July and public hearings later in the year. MDE may be on schedule to adopt regulations by the end of 2023. This is later than the deadline in the Climate Solutions Act, but the Department is working as fast as they can to meet the requirements.

Dr. Salawitch asked what the 20% reduction by 2030 is relative. Mr. Stewart stated the law says a covered building has to achieve a 20% reduction from 2025 levels of average buildings of similar construction. LBNL will model what is energy consumption going to look like in 2025.

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The law says from the 2025 level there needs to be a 20% reduction from the average of buildings of similar construction. Dr. Salawitch followed up with another question asking if this regulation includes heating as the natural gas levels are very small. Mr. Stewart said the vast majority of energy consumed in buildings is electrical, so when looking at the natural gas/onsite fuel use coupled with the totaled with energy consumption from electric consumption, it gets lost in the numbers.

Mr. Quinn asked Mr. Stewart for his perspective – that there is no action on this regulation, the process and if it will be completed in the fall. Mr. Hoagland responded that there is no action today and this is a briefing and hopefully in June it will be an action item. Dr. Latshaw stated one of the concerns she heard through Johns Hopkins is whether the grid can handle this change. Mr. Stewart responded saying that yes this is something MDE is looking into and noted that utility companies have done a great job looking into these issues, there is a process at the Public Service Commission (PSC) right now and an electrification study. One of the mandates of PSC is to have one of the most reliable electric grids in the country. Mr. Quinn commented on behalf of BGE that the grid is not adequate to achieve the overall goal but can be built to be in the timeframe and has recommendations on implementation. Mr. Schoen supports the standards, and commented this misses transportation and land use impacts of buildings, and believes we should look more broadly into the transportation issues, with agreeance from Dr. Latshaw.

Ms. Louisa Rettew with the Baltimore County Government, who is also on the Building Energy Transition Implementation Task Force, stated MDE is parsing the data for building use but should also consider looking at the building ownership. Mr. Stewart thanked Ms. Rettew for mentioning the task force that will be launching in the next few months and will have to recommend incentives available to help owners of buildings to achieve the goals of the Climate Solutions Now Act. The financing tools available in the public sector are different than private, and that is something that will be brought into the task force conversation.

Additional Item

Mr. Hoagland made the Council aware of the event at Montgomery Park during the afternoon that the Governor is planning to discuss ACC II at an event laying out his vision and the roll of electric vehicles, addressing climate change and improving air quality in overburdened communities. He mentioned to keep an eye out for the news and the impacts of the Council's important work.

Mr. Quinn reminded the Council of upcoming meetings – June 12, September 11, and December 11.

The meeting was adjourned around 10:44 a.m.