

MCCC Mitigation Working Group (2023-04-13 13:00 GMT-4) - Transcript

Attendees

+1 617-***-**42, Abdulrahman Mohammed -MDE-, Abigail Huebler -MEA-, Alexander Borkowski -MDInsurance-, Alicia Zhao, Alicia Zhao's Presentation, Amanda Hinh -MEA-, Amanda Sachs, Ann Bristow, Anna Marshall, Arjun Makhijani, Ava Richardson, B Ditzler, Becky Price, Ben Hobbs, BHarber, Bihui Xu -MDP-, Brian Megali, Cait Kerr, Chris Hoagland -MDE-, Chris Parts, Chris Stix, Christopher Beck -MDE-, Cindy Osorto -MDE-, Clinton Britt, David Von Hippel, Diana Younts, Dorothy Morrison, Douglas Presley, Dylan Voorhees, Earl Lewis, Elizabeth Bunn, Elliott T Campbell -DNR-, Erick Thunell -MDE-, Frances Stewart, Garrett Fitzgerald, Gerald Jackson, Hannah Allen, Holly Lindquist, Ian Ullman -MEA-, J D, J Moore, J Peter Kitzmiller, Jamal Lewis, James P. Wagner, Jana Davis, Jared Deluccia -PSC-, Jeff Silva, John Quinn, Josh Tulkin, Justin Mabrey -MDE-, Kathleen Marie Kennedy, Ken Choi -MDP-, Kevin Antoszewski -MDA-, Kim Pezza -MDE-, Korin Sharp -DGS-, Les Knapp -MDE-, Lindsey Mendelson, Lossa Zenebe, Marcia Ways -MDE-, Mariah Shriner, Mark Stewart -MDE-, Mark Szybist -OPC-, Matthew Goetz, Michael Powell, Michelle Dietz, Mike MAPDA, Myriam Tourneux, Nicola Tran -DHCD-, Nicole Condol (Jacobs), Paula Posas, Peter Doo, Rachel Lamb -MDE-, Rebecca Rehr, Regina Aris, Richard Emory, Robert Wright, Russ Owens, Ruth W, Shawn Kiernan, Sonya Harbaugh, Steve Dodge, Steve Smith, Steven J Smith, Susan Casey -MDE-, Suseel Indrakanti, Suzanne Dorsey -MDE-, Tim Shepherd -MDE-, Tiziana Bottino, Tom, Tom Weissinger, Vimal Amin -MDE-

Transcript

This editable transcript was computer generated and might contain errors. People can also change the text after it was created.

Mark Stewart -MDE-: You thanks. Please note. We're recording them for note-taking purposes. Please meet your microphone unless you're trying to speak to the group. That's great seeing so many people with us today. If there are any mwg media members who are joining my phone or anyone here, who's standing in for an mwg members today, please do let us know if you're on the phone. You can hit Star Six to meet an unmute.

Mark Stewart -MDE-: And to everyone else who's joining us today. Thank you for participating. In today's meeting. We'll have time for public comments later on to give everyone here, The opportunity to contribute to these discussion co-chair. Kim Coble is not able to make it today, but we are joined by co-chair of Mike Powell Powell. So let me turn it over to Mike to make any opening remarks. Hey Mike,

Michael Powell: Don't good morning, Mark. Good afternoon. I guess now really nothing much to say. We're going to talk briefly about the What was a pretty consequential General Assembly session and of course, resume our discussion of the where we are currently with planning and also on the electric vehicle. So we appreciate everybody participating. One thing I know Mark is going to be emphasizing here and we've been among ourselves. Talking about is How do we seek more public comments and comment from members of the of the working group? We don't want this to be solely us putting on seminars, we do want

to have an exchange of ideas and a discussion so be thinking about that and we'll be offering some suggestions.

Mark Stewart -MDE-: Great. Thanks Mike. And one thing that Kim Kobo asked me to be sure to hit on in her. Absence the the Moore Miller administration or I should say the more Miller transition team released its transition report. Of course, Kim Coble was a member of that transition committee. So one to be sure to, to share that with you all there. Of course, some things in there that are directly related to the work of the MWG, and the work of what we do here in the Climate Change program at MDE, you know, including goals to ensure that generates 100% of a clean energy by 2035.

Mark Stewart -MDE-: It's solar wind battery storage of Maryland, and a point of statewide chief sustainability, mitigation and resilience officer to work across agencies and assure the climate. And environmental targets are being reached that plus much. Much more is covered in the transition report so do check that out. Also, just while

Mark Stewart -MDE-: providing some updates from MDE wanted to share that yesterday. The US EPA announced a major update vehicle emission standards. The new rule puts the United States on a trajectory to have two thirds of light duty vehicles sold nationwide in 2032 be zero emissions vehicles. The rule also includes standards for medium and heavy duty vehicles. The proposed federal standards do not appear to exceed the California Advanced Clean Cars 2 or advanced clean truck standards which Maryland plans to adopt. So the federal actually might not lead to significant emission reductions in Maryland except for perhaps reducing some food graphic emissions. But it is a significant action for to help the United States, achieve the US climate goal.

Mark Stewart -MDE-: And then, finally, before we turn to welcoming some new members to the Nation, Working group, I'd wanted to share that after last month's meeting a couple of members reached out. There's a little bit of confusion about the role that

Mark Stewart -MDE-: That the Center for Climate Strategies CCS has as it relates to economy-wide modeling. So I think last meeting you all heard from both MDE's contractors. At the University of Maryland, the Center for Global Sustainability sharing that they're doing economy-wide GHG emissions modeling for the state. We also heard from Tom Peterson's group at CCS that they are doing an independent study and the part, you know, that I think was, you know, maybe not communicated well enough. And I just want to clarify, is that the climate partners, the coalition of environmental organizations across Maryland, have funded the independent study that CCS is doing so we invited to CCS to come. Give you that briefing on on how they're engaging through the climate partners, but I just want to differentiate because there's some confusion about way who's doing what. So just to be clear, the University of Maryland is

Mark Stewart -MDE-: Is contractor and CCS is working with the climate partners on this independent study.

Mark Stewart -MDE-: So we have a number of new members joining us today. So I am excited to turn the mike over to them to introduce themselves. So I'll start off, haven't confirmed. Everyone was able to make it but we'll see as we go. So, Mark Sibbets from the Office of People's Council. Let's see. Are you with us today? Yeah. Hey Mark,...

00:05:00

Mark Szybist -OPC-: I'm here. Can you hear me? A.

Mark Stewart -MDE-: do you want to take a minute to introduce yourself to everyone?

Mark Szybist -OPC-: A sure, Mark Shebis Office of People's Council. I'm an assistant people's counsel, I started with OPC on January 25th. I before this I was with Natural Resources, Defense Council, Environmental Organization, focusing on Pennsylvania Energy policy ended up in Baltimore for personal reasons and sort of have shifted. My focus to Maryland and ended up in this position at OPC. So I'm very happy to be here. Have you know, significant experience working on climate issues but but relatively new to the Maryland scene. So looking forward to working with all of you and digging into these important issues.

Mark Stewart -MDE-: Awesome. Thanks so much. Mark for joining us. We also have Sonya Harbaugh from Baltimore, Gas and Electric. Hey, Sonya doing introduce yourself.

Sonya Harbaugh: Thanks Mark. Hi everyone Sonya Harbaugh, I'm part of Baltimore Gas and Electric's strategy team and I serve as their entrepreneur and residence and kind of what that is intended to mean. Is, you know, my background is in a lot of innovation spaces related to clean, tech demand response, battery storage behind the meter technologies. One of my roles actually my role just before coming over to BGE in 2020. Was at the excellent corporate strategy level where I was running an EV startup that we grew from scratch called Steer. So eves and all of these topics are very near and dear in my to my heart and thank you for adding me to the community.

Mark Stewart -MDE-: Thanks for joining Sonya. And then Michelle Dietz, not a newcomer to the mwg. We've seen her around before but new and her official capacity it's holding Tncc so,...

Michelle Dietz: And I thank you guys.

Mark Stewart -MDE-: hey Michelle.

Michelle Dietz: Yeah, nice to see everybody. An excited to be officially on board with the medication work group. My name is Michelle Dietz. I'm the director of government relations for the Maryland, DC chapter of the Nature Conservancy. And I've been with a chapter for about a year and a half coming up on two years this summer. But I've been with the Nature Conservancy working on federal policy for quite a bit longer, but really excited to be working with you all and building new connections and relationships with you all. Thanks, guys.

Mark Stewart -MDE-: Thank you. And we also have Jamal Lewis from rewiring America joining the mitigation working group. Let's see. Jamal, are you able to Make it today.

Jamal Lewis: Yeah. Sorry. Jamal Lewis with rewriting America. Sorry, I'm in transit today for impromptu meeting but I am director of state and local policy for rewarding America. I that is a new relatively new title, I was working on federal policy for the last year, focused, large on.

Jamal Lewis: Getting the budget reconciliation pass and then focusing on implementation of the Inflation Reduction Act. So now I'm shifting focused to state and local policy Prior to that. I was at Green, to help you homes initiative and did a lot of work in the state, to advance healthy, safe, energy, efficient and find their friendly homes and excited to be part of the group and to work with all of you.

Mark Stewart -MDE-: Awesome. Thanks. Jamal. And let's see Fifth but certainly not final. Nick Nicola Tran from Dhcd. Hey Nicola.

Nicola Tran -DHCD-: Hey, everybody, can you hear me? Okay, great. I got a new headsets I gotta try this out. So I'm Nicola Tran. I'm the deputy director of Energy Programs at DHCD. We provide a variety of energy efficiency program to limit it. In Tom households across the state of Maryland. I've been with Dhcd for six years now, managing these energy programs before that. I worked for an energy efficiency, contractor doing the work in the homes for these kind of programs. So it's been what I've always been doing and we're looking to expand and do more over the next couple of years.

Mark Stewart -MDE-: Great. Well, thank you Nicole. And thank you all for for agreeing to participate in this wonderful process called the Mitigation Working group. We're excited to have you here. I think that we still have one vacancy, which is for an academic institution representative. So if anyone knows an academic who may be interested in joining this process than please do, let us know.

00:10:00

Michael Powell: Oh, Ian. I'll tell you nobody knows what happens in Annapolis because as soon as you need to leave Annapolis, you forget everything that happened in Annapolis. I'll make this very brief because we've got a lot to talk about today. And if anybody has any questions about a particular bill, just email me. I'll give you a copy of the bill and, and a greater synopsis. We did have some very consequential bills this year that I think change the the climate landscape. If you'll forgive that expression, a good bit and then we also had some smaller bills that they some minor changes. Let me run through some of these. The legislature did pass the the Clean trucks act of 2023. Now, this is a bill, which basically implements the, the California version of clean truck rule. I believe that the department would have adopted the California truck rule anyway, however, we now have it in statute.

Michael Powell: Um, that rule will basically much like we did with the clean cars at our. Let our mde did with a clean cars, I will set some percentage targets that the state will have to adopt for a larger vehicles standards ranging from 40% to 75% electric vehicles depending upon the class of the trucks, but the other thing that legislature did there was to set up a A fund of 10 million dollars. A year that Ian will keep a close eye on for grants to heavy and medium trucks and heavy equipment to provide a grant for up to 75% of the incremental costs, from using an electric vehicle rather than a typical fossil fuel vehicle. So that

Michael Powell: Unlike some of what we've got in the car area, does provide some substantial funding to jumpstart that activity. Secondly, that we did have a lot of back and forth on a bill that basically would have set a building code requirement for charging equipment on new construction. It was an interesting discussion because they really was no opposition. During the initial hearing on the bill. The only party who signed up in opposition was a mako and they basically went up there and said that that was a mistake. They really didn't mean to oppose it yet the parties couldn't agree on all parts of the bill as the bill. Finally came out, it requires that new presidential construction that has a a garage or a driveway or a carport, dedicated to that unit, okay? So you got your own parking space on, we'll be required to have.

Michael Powell: Need to be EV ready, at least, which means that you've got all of the electrical connections there, to put in the charging station and make it easy to adapt. But that was the basically, the single-family housing kind of of option, where the discussion went back and forth was on multifamily housing and all of the parties to the discussion agreed that we needed to begin to implement charging stations from Multifamily, but they were disagreements about how quickly that needed to be moved. I think the discussion was though, we're very quickly. Raising the percentage of new vehicles that have will be eV the total population of the Eagles out there will not turn over that quickly because an average cars

lasts about 15 years. So as I'm so Sonya could tell you they're going to be a lot of fossil fuel cars on the road.

Michael Powell: For a lot of years. So in the end of the day that part of the bill became a study and there has to be a report back from the Maryland Energy Administration on recommendations about what will be done with electric vehicles, looking at costs of various percentages that is you know 25% parking spaces, be EV or 50% or 10%. And also estimates of the total number of EVs that are expected to be on the road particularly years.

00:15:00

Michael Powell: We also had progress on on empower that's the program which provides for energy efficiency and for low and moderate income and we set more stringent requirements for what the utilities have to adopt for increasing energy efficiency.

Michael Powell: Then another very big bill. Perhaps the most consequential bill of the of the year was on Offshore Wind Maryland. Quadrupled the requirement for energy from wind energy. We went from I believe it was two. Megawatts of wind energy. We're going to require up to 8.5. Nicole, 8 8,500, megawatts of wind energy going to be required by 2031 and perhaps, even more importantly developing a system for coordinating and easing the way for a transmission system, to bring that energy assure any, most efficient manner, the advantage of offshore wind. We've spent a lot of time last year talking about how we need to accelerate solar energy. We're not building it fast enough.

Michael Powell: Offshore wind does have in the advantage that it's much more constant right offshore. The wind pretty much blows all the time. You don't have to worry about building as much storage for our nighttime. So that's a very significant increase if we achieve, those numbers will be one of the largest suppliers of wind power, maybe the largest supplier wind power in in the US.

Michael Powell: Um, we met I mentioned just a moment ago that we spent a lot of time talking about how to accelerate solar energy development in this state because we're not nowhere near the amount of levels that we need to to reach or the trend that we have to get to get to the hundred percent number. We didn't have a lot of activity on large utility scale solar, like we need. But there was a formation of a task force to study. What kind of solar incentive should be offered in this state with a report back to the legislature in December of 2023. So that Task Force will be before forming and looking at those kind of options. And my hope is that this group may want to have some input to that task force about what we recommend.

Michael Powell: Another bill that was a, I know a very big priority of many of the environmental organizations, as well as the Renewable Power Group was the new the extension and permanence of the Community Solar program. We had a pilot program for community solar, where relatively small utility but somewhat utility scale. Solar farms would be built primarily to serve a power to lower and moderate income. A families, though, not exclusively. And the idea was that we could maybe take the place of all those Ruth's that are not suitable for solar panels By having smaller community. Solar farms that was a pilot program, the legislature passed a statute, making it a permanent.

Michael Powell: Okay, what else do we do? We there we have a program in Maryland that provides grants and subsidies through MEA for charging equipment for electric vehicles. We it, the program had 1.8 million dollars historically in it per year for that charging equipment. The legislature made a relatively small increase in the amount of money available from 1.8 to 2.5 million and made more a higher

percentage rebate available. So that now rather than 40% of the cost of installing, an electric vehicle charger, it can be 50%, I think you'll hear

Michael Powell: Later in this discussion today, that that amount of money is not nearly adequate enough to do for the demand, it will run out fairly quickly, but it is still an increase in the amount of money available for charging of electric vehicles. One, that is a favorite of mine because I drive an electric vehicle is the legislature did reinstall really. Enact the provision allowing electric vehicles to use hov lanes even if it's only one person in the car. So if you have an electric vehicle, you can get a sticker from the state, allowing you to use hov lanes, even when traveling by yourself.

00:20:00

Michael Powell: We also the legislature adopted a bill setting targets for energy storage that the PSC is required to try to encourage energy storage and reach goals of 750, megawatts of energy storage by the end of 2026 rising eventually to 3,000 megawatts by 2033. Again that's a recognition that we need huge amount of storage not just for the day/night cycle of solar but seasonal cycles as well. We're going to use a lot more energy in the middle of a hot summer or the middle of a cold winter. Then we are on the shoulder months. Somehow we got to be able to shift a lot of power back and forth across those times.

Michael Powell: Um, a smaller, but I think potentially significant Bill, the legislature adopted procurement provisions for cement and concrete that the state would buy. Requiring the manufacturers to begin to provide environmental product declarations, saying what the greenhouse warming potential would be of their product so the state can begin to acquire

Michael Powell: Cement and Concrete that Has Less Greenhouse Warming Potential. When you look at our inventory of greenhouse gases, it's relatively small amount of it is from industrial because we really don't have a lot of industry left. But what there is is almost is a large part of it is cement and concrete. And so, managing to reduce that cement and concrete production of greenhouse gases, could be significant in meeting our standards. And then the last one I'll mention is Maryland has the net energy metering programs, where those of us who have solar panels on our roof, can earn net credits, but under the existing law of those expired, at the end of the year, the legislature passed a law, allowing us to cruise, those credits over a longer periods of time and also

Michael Powell: To provide that community solar programs could accrue those kind of credits. So that's what passed there were. Lots of other legislation that did not pass that, I think will be back next year. I one of the things I've been around in the game, long enough to know the first year of a four year gubernatorial cycle is often a time when ideas get floated, but the legislature doesn't necessarily feel a need to pass everything that year. So I would expect we're going to probably see a lot of climate legislation over the next couple years and remember that one of the key goals of this working group is to be an incubator for those kinds of ideas that we would give to the Commission and then the Commission would pass on to the administration and to the legislature for future actions.

Michael Powell: Again as I said, if anybody has any questions about any particular bills on the list or any of the environmental bills that didn't make my list, send me an email and I'd be happy to tell you what I know. mark,

Mark Stewart -MDE-: Thanks Mike. And and before we turn to the next agenda item. Any any members have any quick follow-up questions for Mike about any of the bills that you just touched on.

Mark Stewart -MDE-: Okay, we'll take advantage of his offer to to engage via email.

Mark Stewart -MDE-: So we set aside time the next 35 minutes or so. To have what we hope is a discussion among mwg members about really essentially, digesting what you've heard from energetics and EIC over the last two months, as they reported out findings and recommendations related to accelerating light duty Zero mission vehicle adoption in Maryland. So very quick recap, unless you're a first time caller then you know that in March and February entertain me, I see presented share with you. This is I just shared a link to the final report for fans, one of their study, which they presented last time. And what the staff did here was just trying to digest some of their recommendations and reflect them back to the mwg in discussion. Draft form really just

00:25:00

Mark Stewart -MDE-: Get input from everyone on. What did you hear? What? Where is your head now? And thinking about what level of state incentive, if any do you think should be provided to help individuals by electric vehicles and install home charging equipment, right? Their recommendations were more numerous and comprehensive than just narrowly.

Mark Stewart -MDE-: Helping individuals by EVs and install EV charging equipment but we thought it was maybe bite size enough that we have some conversation around just that piece and Hey everyone. Here is a stakeholder in that we are all potential vehicle buyers. You may or may not already be part of the transition to a zero emissions transportation sector. So I think we're all equal stakeholders in this conversation before I really opened the door to conversation and I'll tease it a little bit just in terms of some of the questions that we put in the discussion draft. Also if you didn't receive the discussion draft prior to this meeting. but that link out there, but I wanted to ask Michelle to

Mark Stewart -MDE-: Michelle Dietz to to share briefly an update on the project...

Michelle Dietz: Now, they don't.

Mark Stewart -MDE-: because TNC has has generously decided good. Work is happening here and more, good work, should continue to happen. So Michelle, do you want to share an update with everyone?

Michelle Dietz: Sure. And actually a minute I'm gonna pass it over to Kate Kerr for my team who's helping to manage this project for us but really excited that we can dig into a phase two of this work. Because I think there's just so much more that we can dive into and excited for a lot more collaboration and input from you all here in the mitigation working group and from our state agents partners too. So Kate, if you want to do a quick update on this phase two piece, that'd be great. Thank you.

Cait Kerr: Great. Thanks Mark. And Michelle and just to give a quick summary of what we're planning to do in Phase Two and we're planning to focus on taking the policy recommendations that came from phase one to the next level through program design and implementation with an equity lens. So this will include vehicle dealer engagement, technical support for fleet conversion and incentives initiatives, particularly targeting used car markets and low-income buyers and we will continue coordinating this project with the negation Working Group, as well as engaging with and gathering input from relevant agency staff, dealerships and community members. And this will also include additional facilitate meetings to solicit feedback and answer questions.

Cait Kerr: And in this approach will also allow us to further. Explore implementation pathways for policies that are just coming out of the 2023 legislative session. We know, the more administration has been working toward accelerating Maryland's, electric vehicle rollout. So this presents really great opportunity for us to work more closely with the governor's office on this and Energetics. And Vic are also on the call and they can answer any questions. You all may have regarding the scope of the Phase Two

Mark Stewart -MDE-: Well thank you Michelle and Cait for for Tnc's continued support of this project and also to to Russ and Dylan for joining us today to be part of the conversation that we hope will have together over the next 30 minutes or so. So I shared a link to this this the discussion draft and certainly not going to take time to read through it though. It's a fairly short document and really we're you know your question, one on the discussion draft is where of course is like to start our discussion at a high level. You know, what do you think the the policy goal should be for state level incentive? So, what we reflected out after thinking about the

Mark Stewart -MDE-: The, the study recommendations was to stack state incentives on top of federal incentives. So that Marylanders, especially those living in low to middle-income households, can purchase or lease, a new, or used EV and install at home charging equipment at no additional cost. To compared with the cost of purchase purchasing on leasing a new combustion vehicle. There's a lot of

Mark Stewart -MDE-: detail within that they of course we can dive into but but at the height at a high level we're just trying to start with the policy goal and it's want to offer that. That my team is happy to continue to reflect discussion, drafts back to you, based on the recommendations, the conversations that you have and then try to put some some cost numbers cost. Benefit numbers to whatever you think is is the right path for Maryland. To go to town to go down as a relates to state level incentives. So, starting at a high level, I know a couple of you have thought about that you reached out to me, prior to this meeting to share some initial thoughts on

00:30:00

Mark Stewart -MDE-: If, if state incentives should be available to low income all the way through middle-out, income households, I'll share some some people said, You know, maybe middle income doesn't need as high of a level of incentive, as much state support. So that was one thing that I heard from I think a couple of people one one commission member also, you know, provided of course, valuable perspective which I think that we heard also from the consultants that for low-income households they're very few low-income households who are in a position to purchase a new vehicle. So the used vehicle incentives are very important, the climate commission's recommendation last year, that financing options need to be more readily accessible to low-income.

Mark Stewart -MDE-: Households was, you know, brought up in some of the comments just, you know, reflecting back on. What what the climate commission, several months ago recommended that there should be, you know, low interest financing available to help someone purchase the launch a vehicle and see that their monthly cost of ownership. With an EV would be less than their monthly cost of ownership for a traditional gas reviews of power vehicle. So, you know, I think I think starting perhaps with your, your feet, your input on. Um, on state level incentives and whether or not you think that they should be available based on income level. And if if yes, then on what income levels is that low through middle-income, is that load of moderate income and we can get into these definitions, if you care to

Mark Stewart -MDE-: Any initial thoughts feedback on that kind of top level? What's the what's the goal of a state of

Mark Stewart -MDE-: Yeah, hey.

Ava Richardson: Hi Mark, thanks so much. Yeah, I think expanding it through in I I guess the difference between moderate versus middle, I'm not sure what that looks like. In terms of the the upper limit of it, a household income but I do think that middle income household should be included in the definition just because I think for a lot of people that incentive will go a long way even though. Kind of like statistically folks may be considered middle-income. They may not necessarily feel that they are depending on what those circumstances look like. Um, and then also, just, I'm just curious If there is a sense of the exact number of percentage of household low-income households that do pursue these incentives. I know I mentioned this in a previous meeting mark but I because I

Ava Richardson: I do think this is still a huge cost for many households. I'm to even buy a new or use the electric vehicle with the incentives. And I understand that the technology for conversions is not very efficient, but if that could be included and there could be incentives provided for that as that technology perhaps becomes more sophisticated. That could be really interesting to see whether or not that provides more access for folks to convert their existing vehicles to either hybrid or electric vehicle.

Mark Stewart -MDE-: That's very good points. So I see some hands from others. If you're not following along the discussion, draft, the income limits, that that we put in there. Just again, as to generate discussion, was using the federal limits for the used, EV federal program. So, that that would mean that anyone in Maryland who earns 150,000 or less per year and is a is married and filing joint, alert, jointly or surviving spouse or 112,500 for heads of household or 75,000 a year, less for all other filers, Those are the income limits that the federal program is using to determine who's eligible for the used federal tax. He used EVA Federal

Mark Stewart -MDE-: Tax credit program, or is it a rebate program or maybe it becomes rebate in 20.4? I don't remember. And, of course, those people of those incomes would also qualify for the federal new EV incentives as well. So those, those kind of starting place for us to think about, you know, how to, How do you also make this easy to communicate to people so that they know. Well, if you qualify for the federal program, you would also be qualifying for these state incentives. So, let's see. Kevin. Hey good seeing again?

00:35:00

Kevin Antoszewski -MDA-: Hey, thanks so much. Yeah, I I definitely agree that the more people who are able to take advantage of incentives. The better, you know, I think so often a lot of narratives around adapting to climate change or mitigating climate change are kind of framed around sacrifice and that can lead to a lot of resistance among people to, like, be willing to engage in programs or, you know, like not willing, not wanting to give up something in order to like, you know, collectively work towards a goal. So I think, you know, if we can frame this part of purchasing a vehicle is not a sacrifice, right? Because it would cost the same that the incentives could cover. The like incremental value between the cost of it. Combustion engine and electric engine. That's not a sacrifice for a person, they're just, you know, thinking about which car do I want? So I think that could be really a good way to kind of talk about things.

Kevin Antoszewski -MDA-: And and I also think kind of thinking about, you know, low-income folks who don't have the resources to purchase a car, whether it be new or used it, you know, think of we're going to seriously have a conversation about equity. We also need to think about public transportation and how to improve that infrastructure, kind of at the same time or in in tandem with these kinds of conversations,

Mark Stewart -MDE-: Yeah, yeah, great point. And, of course, we're not trying to focus on EVs in lieu of focusing on other transportation options, just trying to drive today's conversation toward the EVian centers, Let's see, Bob good seeing you again.

Robert Wright: Oh yes. I'm coming to you from the Grand Canyon. I think that the incentive should also be available from the Lower middle income all the way up to the middle. So I support that. I do have a question, which is, as the group, we tend to think we know what would work. Is there any attempt at some point in time to sort of survey people in those income levels to see what their reaction or response to incentive would be?

Mark Stewart -MDE-: I think that's a great idea. That was in part on my mind as we opened the floor to this discussion of members, though. It's very likely that our representation here does not match the representation of our state. So actually, I wonder because we've got Russ and Dylan are the contractors from Energetics and Vic on, and they're going to be engaging in the space two projects would, either of you be able to chime in a bit on to on Bob's Point, you know, briefly what what might face to do to try to, you know, ground truth. Some of these recommendations with our, you know, diverse population here in the state.

Dylan Voorhees: Russ, I'm happy to take a first step at that. Hello, everybody. I'm Dylan Voorhees with Veic. It's a great question. We do intend to do some targeted equity, oriented stakeholder, outreach to support. The low-income EV purchase program design recommendations that we make. They will be initial. And so we will recommend to TNC and MDE and others. How to do additional? Stakeholder engagement particularly for equity populations, and we also, so my organization Veic has done low income EV program design work for a number of other jurisdictions. And those are also based on evidence about what is impactful, There are important differences from jurisdiction to jurisdiction where, you know, Maryland,

Dylan Voorhees: look like upstate New York but there's a lot of This, there's a lot that we can apply from low-income targeted EV incentive design and other places and then we'll pair that with some targeted engagement with folks, in Maryland, to understand where there might be some differences. So that was a long version of yes, but we will not be that it will be more should be done in order to have really any program design that is focused on equity needs additional process.

Mark Stewart -MDE-: Great. Thanks Dylan our June good seeing you again.

Arjun Makhijani: Sorry, took me a while to get on camera and off. And on microphone.

00:40:00

Arjun Makhijani: i know Mark you just said that, you know you're just focusing on Like due to vehicles here and you're not excluding public transport. I as, you know, I don't attend all meetings and read all the literature, but I have not seen any document that addresses transportation priorities, equity and climate goals. That says, Okay, here's the priority. Here's where public transport fits. Here's where light duty Here's what delivery vehicles that which would reduce pollution say in areas, in Baltimore, that are polluted. Here's where conversion of diesel vehicles spits, here's where dredge trucks, which is a huge environmental justice issue in Baltimore bits. Is there such a thing?

Mark Stewart -MDE-: So that is a good question and the answer is yes, but it looks a lot of different ways, right? And I'm looking at The membership list here to see if any of our colleagues from MDOT on to talk about the planning that they're doing in this area.

Arjun Makhijani: I mean, in terms of money priorities, we've got one billion dollars a year and we're going to devote. These are the priorities for spending it. These are the impacts. Do we have something like that?

Mark Stewart -MDE-: Oh, go ahead. Chris

Chris Hoagland -MDE-: If I could. Yeah. So, you know, Mdot is working on their carbon pollution plan required by the new federal funding programs later this year. But since all of these are paid for from different parts of money and we in order me the climacies, we really can't pick and choose. We kind of have to do everything, right? We can't, you know, you know, put something lower than anything else on the priority list, really since our goals are so ambitious, but there will be more about how the individual funding streams will be spent later in the year between the climate plan that's drawing on everything across government. And also, the M dots Carbon Reduction strategy, which is do I believe in November the Feds

Arjun Makhijani: Okay. So so I'll make some general comments and in that context on the present proposal. I do think that clean free frequent safe, public transport. Should be the top priority. And I did. A, I cannot figure out how many million dollars this proposal gonna cost. But it's going to be at least tens of millions a year. Maybe a hundred or 200 million a year. That is a lot of money. To be giving to promote individual card, transport. I regard our current.

Arjun Makhijani: Mode of thinking, about transport to be completely unsustainable on a global level. And this is a global problem and we should see ourselves in that context. So we're setting an example being ambitious. We should be ambitious in the transformation of thinking on transportation, just like energy. So that's that's one thing. The other thing is we're losing the climate goal. If we just subsidize car purchases, rather than seeing where the mileage bang would be. So, for example, I don't see that we've talked about Special rebates for rural folks, where people may have to drive 100 miles a day to get to their job. Um,

Arjun Makhijani: We haven't talked about high mileage, individually owned vehicles, taxis, people who drive over uber and Lyft, who would wear the pollution would be reduced a lot, because a lot of stop and start. so I I think the present paper should be Set aside if I want to be polite. And we should revisit this idea that we're going to give money to everybody that wants to buy a new electric vehicle or even a used vehicle. I, I see that there are 75,000 lowest income level. It's not related to the poverty level currently

Arjun Makhijani: Most people who have incomes under 50,000 to buy a new car are single person households. They're not necessarily poor households, and if you're going to define households by income, rather than poverty level, You're going to be subsidizing, people who are going. We already have a lot of federal benefits. I have many questions as to whether we should be spending state dollars where we're required to have balanced budgets, unlike the federal government that can run a trillion dollar deficit every single year and so they can just offer 7,500 and worry about it later, which is what they routinely do. I'm sorry to be in polite. I'm not against deficits necessarily but I think doesn't encourage.

00:45:00

Arjun Makhijani: Clear thinking about things, especially when tax credits are concerned. I'm very worried that this is tax credits and we're spending tax credits even though we have to balance our budget without

a clear idea of priorities. And without a clear idea of equity, even though we know low-income people don't even buy recently, used cars. So electric vehicles are going not going to become old used cars for quite a long time and we won't know about their battery life. Their battery quality, the replacement problem of your buying an eight year old used car. There are too many issues here, the Russian to a conventional mode of thinking that will. So I really

Arjun Makhijani: would like to see this current proposal set aside for some really critical fresh thinking about how equity and climate would be promoted. And I would say we're going to subsidize individual vehicles with state funds. Um, if it's going to be directed to low-income households, they should be self-attestation of income. There should not be paperwork the way we have on energy affordability, which costs, huge amounts of overhead, huge amounts of grief and low participation. So, you know, and participation of that people who have the sort of emotional fortitude to go through that, and participation is 20% currently.

Arjun Makhijani: So we're we're jumping into this saying equity low income as if we have no experience on how these programs work. Currently in Maryland, low-income assistance is not working. 75% of the people don't even apply. And I am dismayed that we are jumping into this without either, thinking about the mileage problems. The rural urban problems, the pollution problems or the priorities. I really strongly recommend you set aside this paper and do some serious fresh thinking, and I would be happy to volunteer to help you do it. Thank you.

Mark Stewart -MDE-: On some other people in this conversation, let's say Mike hand up for a bit.

Michael Powell: Yeah. Um a couple comments up. First of all, we have to recognize that speed is very important here that the goal set by the climate solutions. Now, act are going to require us to move faster than what California cars or the the Clean Cars Act every time you want to use actually calls for. So we do have to find some way to do this very quickly. But the idea I want to throw out for consideration is when I haven't heard mention, when you look at what the Inflation Reduction Act, did it turns out that more incentives are available for least vehicles then own to vehicles that you can get a more of a federal credit? If you're leasing the vehicle rather than owning it and in fact, more vehicles, including more of the cheaper, electric vehicles are available and for federal

Michael Powell: Edits. If you lease them rather than buying we had been focused on purchasing, but obviously at least vehicle may be more affordable for a lower or moderate income. So I think it would be worthwhile if in phase two. We look at whether there's any advantages to providing incentives for leasing rather than merely purchasing,

00:50:00

Mark Stewart -MDE-: And thanks for that. Also really quickly. I talked with Kathleen Magruder from the Maryland Clean Energy Center Today, they were implicated in the commission's recommendation last year that there'd be a financing program developed especially to help LMI customers. Be able to, to finance the purchase of EV, You're a new or used to Evie and she's a shared briefly that that is something that they're they actually have a meeting on that later today. They're actively working toward development that sort of program. Let's see. Jamal, I know you're on your way to a meeting but I see your hand up. Are you? Able to still chime in here.

Jamal Lewis: Yeah, yeah. And I Definitely agree and don't discount what Arjun said. I in terms of income thresholds, I think it is. I agree speeds important and agree that The more people that have access, I think generally the better.

Jamal Lewis: But I do recommend that we have at least set aside for a long income households, because we often see with these types of programs and without us, set aside, they're the resources in exhausted, often gobbled up by middle-income households when when possible. So that was that was my one piece.

Mark Stewart -MDE-: Thanks Jamal. Sonya.

Sonya Harbaugh: hey guys, I guess some of my comments touch on a number of things that have been shared, I guess your question mark about the discussion topic. I agree that there should be an incentive for limited income customers middle income but I'm not so sure that we should not expand that. Broader someone had suggested more middle income, I was wondering from an approach perspective. Have we looked at who's buying cars and segmented that market. So, the number of new cars year every year who's buying those vehicles? Translate them into greenhouse gas, emissions impact. And then say This is the segment that has the biggest emissions footprint. And how can we accelerate that group fastest since we have the 2030 goal? Moving in front of us? They're trying to think strategically about where we can kind of to use the car analogy, right? Like push the accelerator down faster on the group that

Sonya Harbaugh: Potentially has the biggest impact, so that's, that's one thought. I think, you know, Mike to your point about leasing. I do think if we can leave at least the door open to new used leasing, I mean, I mentioned as the CEO of my new startups here, that was a subscription company. We had a lot of people coming to us, to subscribe to vehicles, so there's also a lot of new ownership models. We've seen the lowest number of new drivers license ever and it seems to be declining year over year. So kids aren't even driving as much anymore, right? They're relying on on ride share. So that dynamic is shifting too. So I think we want to be open to that.

Sonya Harbaugh: And then from my experience with fear a couple other things that we had as learnings, it wasn't just the cost of buying a new car that made the subscription month to month attractive. It was also. There's a lot of barriers inherent to credit and having access to credit that is just there's just some systemic racism built into that, right? If the cash up front is a problem and also the education piece is missing and I think that's across all Consumers essentially maybe save this audience here, but I think the thing we heard the most was, I had no idea. These cars were available, I had no idea. There's a car that would fit my family. I had no idea XYZ, so I don't know if we've considered I've been on most of these calls, but not all of them. But incentives, that could specifically be towards ride and drives and education. And if we have a goal of

Sonya Harbaugh: Cost parity with ice vehicles and people knowing that there are actually our options for them that work. I think that would be quite impactful.

Mark Stewart -MDE-: Yeah, thank you for that. And I wonder if Russ or Dylan have any data to share and response to your question about who's buying the vehicles? I can say, a couple of people who submitted comments before this meeting said, You know, anecdotally, You know, low-income households are not are not the ones buying, you know, vehicles, you know. I don't know how true that anecdote is, but I don't know if the study. I don't recall the study God into income distribution for vehicle, purchasing new or use but rest,...

Michael Powell: Yeah. Know,...

Mark Stewart -MDE-: until that was something.

Michael Powell: purchase or lease or rent.

Mark Stewart -MDE-: Right.

Russ Owens: And yeah, the the data that we had didn't get into any income levels of who was purchasing the vehicles, it was just essentially where the vehicles were were leased, or were purchased. And, and ours was just focusing on, just like a new car, persons, just an idea where that was not, not leasing, not used car purchases.

00:55:00

Dylan Voorhees: And I don't just This was also a question that came up earlier. I I would not expect that there is data about the income levels of folks who are taking advantage of the States, excise tax credit unless I'm missing something. I think that would be Speculative, but that's that's likely not available. It's possible that there's in fact, there's likely there's data from other Nationally or from other places about income levels for EV purchases that we could extrapolate from. But like, like, Russ, I'm not aware of that in Maryland.

Mark Stewart -MDE-: Okay, so I've got hands up from three more people and, and I think that's gonna bring us all the way through the time that we allotted for this. I just want to say and I think maybe it was Dylan earlier in the chat, indicated. This that I I think that the input that you all are providing now is really informative to this phase two and this is not and it was never intended to be the BL and all conversation at the mwg about this just piece of the energetic veic recommendations this is of course just wanting to check in with you all. After you've heard the recommendations to give you some opportunity to reflect on them and to inform Phase Two. Garrett.

Garrett Fitzgerald: Thanks Mark and hi folks. I think I agree with basically everything that that's been said, including the need to situate these investments in the context of investments in other mobility solutions. But on the, on the Evian sentence specifically very much support the concept of income qualified incentives. It sounds like you know, we broadly do I support the desire that others have shared to offer incentives to as many people as possible including up through middle income, but I do think it matters. How we define that term. I know a lot of folks that I consider to be have quite a bit of money who very much consider themselves middle income, right? Because there are other people who live five miles away from here that Nicola more money than they do. So I think I think these defining these terms really clearly.

Garrett Fitzgerald: Very soon will matter if we're going to kind of carry this forward into a proposal, it's very easy to want to give money to as many people as possible when it comes to the budget, the state budget, it will be very difficult to find that money. So, you know, I think it's important that we offer differentially higher incentives to load a moderate income households. Then we do to whoever the rest of middle income is defined to be. I think it's very important. As Jamal said that we have a set aside, we make sure that a lot of moderate income households have access to the funds. They don't just get gobbled up by folks, with more money, but the one piece of the, of the policy proposal, not sure. I totally agree with. I agree with the policy desire to help everybody by EVs and charging equipment at no greater cost in the cost of combustion equipment. But we know that there are projected to be significant savings

post purchase from these vehicles, right? Because of your lower fuel, use your maintenance all that stuff so I'm not I'm not.

Garrett Fitzgerald: Convinced, especially for kind of the folks that we might call middle income who are above the load of moderate income range. I'm not sure pure price, parity has to be the policy goal. I think it makes sense to have some level of incentive, in any kind of incentive helps drive behavior. I'm not sure we need to get to full price parity and and with support putting more resources into helping load of modern income, folks more. And maybe not getting to quite price parity for folks, that are that are at higher income levels and think it should be necessary.

Mark Stewart -MDE-: Thanks Garrett, and I think it was maybe one other person who submitted comments also suggested, maybe for the middle income household, it would be a lower level of mark,

Mark Szybist -OPC-: Thanks, Mark on Jamal and Garrett largely stole my thunder but I just want to build a little bit on their points about the potential set aside. I think for me the question that the eligibility issue raises is if there's a single pool of money available to everybody throughout this income spectrum, who will be claiming the money. And and I wonder if there's empirical evidence from other states including Maryland that have run programs about what the answer that question is my guess, is that data will show that low-income people have claimed very little of the available benefits and so on the set of side issue I mean it's very common in policy design whether it's renewable portfolio, standards or energy, efficiency, standards to have carve outs for segments of the market that are harder to reach. You know, low income for efficiency, rooftop solar for renewable portfolio, standards. And for that reason, I think that kind of consideration makes a lot of sense here too. For the reason that if

01:00:00

Mark Szybist -OPC-: Is not a carve out like that. Probably the low-income part of the population will will get very few of the incentives.

Mark Stewart -MDE-: Thanks Mark. Brian last word on this topic is going to you.

Brian Megali: Thank you. I'm gonna sound like a bit of a broken record, given the comments that I've been made just now, but I would like to add to the chorus of voices and expressing concern about Not having. You know, a significant portion of whatever Cindy's incentives were considering directed towards lower income. Marylanders. I've seen some, some research recently that I thought are relevant to the um that I thought is relevant to this discussion just you know on on the Sharp Uptick in new purchase prices for vehicles and we all know that EV skew higher than ice vehicles, although thankfully prices are coming down You know, these are are, you know, it's the average purchase price of vehicles. You know in as of I guess late 2022, early 2023 is nearly 48,000 and I think,

Brian Megali: This is a lot of, These are expensive pieces of equipment to be subsidizing when you know when we really should be thinking quite a bit more about other transit options. In addition, I've seen some, you know, I think we all had probably seen much said about the turn away from personal vehicles that was evidence, you know, within the the millennial generation a decade ago and now we're seeing the same for Jen's ears. You know, when when the data had been sort of dissected, it was seen that a lot of that, that turn away from personal vehicles was in among low income Americans, right? It's it was it was not, you know, a reflection of a particular Um, change in and taste and preferences. It was just a question of affordability. So people would like, likely want to have purchased vehicles. They just were priced that at the market for doing so.

Brian Megali: And then this is an issue for used car used car market as well, although prices in that and that market have come off quite a bit from the highs that we saw during the depths of the covid pandemic. So, Yeah, this is you know this is a concern that I share and this is you know been expressed by others during the discussion. So thanks for the time.

Mark Stewart -MDE-: Thanks, Brian. Also point out that Commission member Beth Harper has put some good comments in the chat as well. So this of course not, not the last time that the mwg is going to be discussing. This topic, we look forward to and thanks to TNC for your continued. Support of the project to having phase two study discussion on this. I believe is sometime in the summer time frame. We'll get back to you all with with the schedule for that. But but do you know that we will we Rebecca's in this topic and of course, this topic will be kept in, in balance with all of the other carbon reduction strategies that are needed. Both in the transportation sector and beyond

Mark Stewart -MDE-: um, so we need to turn our attention to another sizable topic of today, today's agenda, which is the report out from our partners at the University of Maryland who have been looking at What would Maryland's admissions projection? Look like, with our current policies that are on the books. There's also known as a reference case scenario As we discussed at the mwg before. You know we will hear referred to as the current policies scenario. One, note that what you see today is not inclusive of legislation that just passed a few days ago in the General Assembly. So, you know, advanced clean trucks, for instance is not, of course baked into the, the current policies scenario. You'll see

Mark Stewart -MDE-: So, let's see. I think that we, I saw a number of our partners on the line. Oh, there's Alicia. So at Alicia. Should I turn it over to you or to Kathleen first?

Alicia Zhao: Yeah, I can I can get us started. Thanks, Mark. Hi everyone. My name is Alicia Zhao and I am one of the people at the Center for a Global Sustainability at the University of Maryland working on this project. So let me share my screen.

01:05:00

Alicia Zhao: Okay, Cool and my colleagues Kathleen's Kennedy and Steve Smith are also on the call to help answer questions and also present later today. So on the agenda for today we'll be looking at preliminary modeling results for the current policies or reference scenario like Mark mentioned as well as a quick update on our csna or policy scenarios.

Alicia Zhao: As a quick refresher for the scenarios that we're modeling, the current policy scenarios are the on the books. Maryland policies. We also have some federal policies like the IRA and IHA investments as well as current relevant policies for surrounding states. And the questions that we're asking here is how much can our current policies reduce GHG emissions by and also, what is the gap that we need to close by 2031 and 2045 in order to meet the csna emissions targets? And then later we'll have the CSNA scenarios which will basically be the current policies plus new policies layered on to meet the csna targets. And these are just providing in alternative conceptual policy, pathway that can help achieve the emissions, reductions policies or reductions targets for June. But in December we'll have a final report with a concrete policy plan.

Alicia Zhao: So questions for this scenario is what additional policies in different sectors are needed in order to meet the 2031 and 2045 emissions targets.

Alicia Zhao: We've talked about GCM at this meeting before, but since it's been a little bit, I wanted to highlight a few key features. So we're using the Global Change Analysis, Model GCAM USA. And it has a 32, it has 32 global regions. Also 50 states in the USA, and the model runs in five years, time steps. At the state level. We have CO2 and energy consumption along with major sources of methane, nitrous, oxide and f gases. We also have electricity trade in the 15 grid regions and our key inputs GDP population and tech assumptions are harmonized with ea's annual energy outlook.

Alicia Zhao: So, as I mentioned earlier today, we'll be focusing on the current policy scenario. And here's a list of the key policies that we've included in the scenario for today, in the power sector, there is the RPS, Reggie planned call retirements IRA tax credits. In the transport sector, we've got the advanced clean cars 2 IRA EV tax credits that iija infrastructure funds as well as the CAFE Standards for Buildings and Industry. We have empower building energy performance standards and the IRA tax credits and rebates. For non co2s, we have the amac for HFCS the Maryland, Oil and Gas Methane regulations and the IRA methane fee. We also have a couple of other assumptions, including covid, impacts GHG, constraints for the rest of the states, and technology costs updates that are in line with nrels members.

Alicia Zhao: Oh sorry this got messed up a little bit but we are still missing a couple of policies since these are preliminary results. So to be added are the Maryland HFC regulations the Maryland Landfill Methane Regulations VMT reduction policies from MDOT and agriculture forestry and land use members. And yeah, like Mark mentioned before, these are implemented as they exist right now, and not any of the new rules or regulations that just passed or are being proposed, however, we will address this in the final version.

Alicia Zhao: Now we're we'll dive into the results. So overall we are seeing a 48% reduction in gross emissions across the economy by 2031 and that's below 2006 levels. As I mentioned earlier, Gcam works in five years, time steps. So, you're seeing the years in five years, the results in five years. So, to calculate 2031, we're using a linear interpolation between the 2035 results and the 2030 results.

Alicia Zhao: Just as a note agriculture forestry and land use, we're holding them constant at 2020 levels. Since we're still updating the data for that and for waste management, we're also holding the emissions constant at 2020 levels based on historical trends of landfill gas and waste generation as well as the continued efforts in waste reduction and diversion, However we will be implementing the landfill methane reduction. So we expected to actually reduce in the future. so looking at the chart here, the largest emissions, reductions are occurring in the power sector which is the dark blue bar at the very bottom By 2031 and followed by the transport sector, which is the blue bar above it.

01:10:00

Alicia Zhao: So you'll notice that there is a steady decline down to 2031 but kind of slows down afterwards and this is because many of the policies do expire after 2030. So this is just showing us that additional action is needed in order for us to reach longer term goals.

Alicia Zhao: So now I'll walk you through the results from each sector in the electricity sector. We're seeing over 80% reductions by 2031 and lots of solar and wind coming in. In this chart replacing, the fossil fuels, like the gas and gray. And coal is basically face out by 2025. I'm looking at the main sources of emissions, it's primarily gas and from imported electricity. however, gas does decrease through 2030 but then resurges into 2040. And several reasons for this. Coal is face out, so it needs a replacement. The tax credits are expiring in 2030. As I mentioned earlier and Rps, and Reggie policies are held consonant 2030 levels so they're not increasing even though the electricity demand is increasing.

Alicia Zhao: Looking at renewable generation and generation from low emission sources within Maryland. So this is not including the imports. The electricity grid reaches over 50% from renewables by 2031 And over 84% clean or low emissions by 2031.

Alicia Zhao: And since Maryland trades electricity within the PJM grid, we also model stringent electricity policies for the PJM states. So they are also getting more renewables and low emission sources as a result of the modeling. And here are just a couple of the policies that were what we are modeling for the PJM states.

Alicia Zhao: Moving on to the transport sector, we get about a 38% reduction below 2006 levels here. And as you can see from this chart, it's mostly from road vehicles, so that's from electrification and some efficiency changes. So, the policies were modeling include the Acc2 as well as the IRA tax credits which is going to orient. The fleet more towards EVs. And at the same time, we have the CAFE standards, which is going to increase efficiency for the ice cars that are on the road.

Alicia Zhao: And so breaking this down. We see that passenger service is growing over time. And most of this is attributed to cars and this is large car and truck. But it's basically SUV so cars and SUVs. And and freight is also increasing but a little flatter and mostly from rail, though. There, the increase is coming from shipping in trucks.

Alicia Zhao: And it's worth noting that overall freight trucks take up a small fraction of fuel consumption in Maryland. So most of the road vehicle fuel consumption is going to be coming from cars and SUVs and And yeah, we also worth noting that we are modeling Acc2. So that's having new LDV EV sales reaching 76% by 2031 and 100% by 2035.

Alicia Zhao: Okay, moving on to buildings, so we get almost 20% emissions reductions here and that's through a combination of energy, efficiency and electrification measures. We do see more reductions in the residential sector compared to the commercial sector though. The emissions are about about even between the two sectors by 2030. Gas contributes to most of the emissions though, it does decrease over time. And again we're modeling empower. That's IRA tax credits, and rebates. And just a quick note on beps. We do have it in the model though, it's not fully implemented. So we are seeing some effects from vets but we expect to get a little bit more reductions from it. Once it's fully implemented.

01:15:00

Alicia Zhao: Looking at building floor space, we have residential in blue and commercial in red and for our assumptions. We're assuming that residential buildings grow in line with the Maryland Department of Planning projections of households and the commercial buildings grow with the GDP.

Alicia Zhao: Looking specifically at the commercial building. We see that the share of electricity does increase pretty steadily up till 2045 and it hits about 75% of the fuel. Mix by 2045 and you see the gas and the oil shares. Decreasing Over here. You can see that the overall consumption is slowly decreasing as well though. Not as quickly as the electrification over here. And the chart over here, shows the consumption broken down by technology or sector. So here's all the sectors within the commercial buildings and you can see that the other sector which I can get into in a bit and the heating sector are the top two sectors using up energy.

Alicia Zhao: So, zooming into those two sectors depending so this just shows that depending on the sector, the trends can vary. So for the heating sector, electrification is definitely a sellerating. As overall

consumption is falling due to increase efficiency and the other sector consumption is dropping in 2030 and then and then increasing with more electrification. So the other sector includes like all other categories which is things like swimming pool, heaters, generators and etc.

Alicia Zhao: So a quick note about this, just going back to the last slide is We are modeling. That's which makes sense because I think half of the commercial buildings are eligible under bet. So you're seeing more electrification. We also have empower, which is implemented as it was last year, so it's on the there's no electrification. It's just efficiency measures and empower stops increasing after 2027 and the IRA tax credits also expire around 2030, 30, 35. So that's that can explain why there's kind of like a flattening out after 2030 as well.

Alicia Zhao: Okay. The rest for the residential sector, we see kind of an opposite trend where there is more of an increase in efficiency or decrease in consumption here and then but electrification is slowly increasing. And we're here again. It's tapering off a little bit after 2030. Again doing due to expiring policies and the two sectors taking up the most energy here are heating and hot water so we can dive into those.

Alicia Zhao: So in the heating sector on the left. Electrification is saying pretty steady as overall consumption is falling with efficiency measures. But in the hot water sector. Again, the behaviors a little different consumption is dropping in 2030, but increasing afterwards and gas charism.

Alicia Zhao: Great, and from here, I'll hand it off to my colleague Kathleen through the rest of the presentation.

Kathleen Marie Kennedy: Thanks Alicia. So here, we're looking at the industrial sector specifically for fuel use and we see that there's a 43% reduction below 2006 levels by 2031 and this is primarily due to historical, reductions in consumption. So the 2006 baseline was just very high but when you zoom in and look from today, going forward, we actually see an increase. So fossil fuel consumption will increase with demand even with hydrogen and biofuels coming in as an alternative in later years. And key policies, measured included in the scenario are empower and the hydrogen tax credits in the IRA. Next one.

01:20:00

Kathleen Marie Kennedy: So now we look at the other piece of the industrial sector which is the industrial process emissions things from non-combustion sources along with product use and we see that emissions are declining cement is expected to become the dominant source of emissions. Going forward while substitutes are owned, ozone depleting substances, ODS are expected to decrease substantially from where previously. They were the dominant source. And this is largely due to the a-max, which is our key policy implemented here. So ODS is basically, HFC is which are covered by the AIM Act. Next slide.

Kathleen Marie Kennedy: So agriculture, forestry and land use, as Alicia mentioned earlier, are currently held constant at 2020 levels. So we're working with state agencies to utilize state level data to refine our projections and we're hoping to incorporate results from a more targeted study on these sectors going forward. So we will have projections in future runs. They just weren't quite ready for today, unfortunately, But I wanted to mention these sectors do have implications for both emissions and sequestration. So trying to put these in context, a bit agriculture is a small net emission source. So it will be important for the 2031 goal but it's unlikely to substantially change the economy-wide numbers presented here just

because of the scale of the sector, And then for forestry and land use, this is a net sink. So this is not relevant for the 2031, gross emissions goal, but we'll be very important for the 2045 net zero goal. Okay.

Kathleen Marie Kennedy: And now we have a couple of summary slides trying to pull all of these detailed results together and give you an overall sense of what's happening. So again, our total economy wide projection is a 48% reduction by 2031, which means there is still a substantial gap to meet the 60% goal from the CSNA. And that's in terms of million metric tons of carbon 14.2. So we need 14.2 additional tons of reductions to meet the 2031 goal. And you'll note, when we break this down by sector and look at the percent reductions in each sector, only electricity meets the 60% reduction target, it does have very strong reductions 81% but all of the other sectors lag a little bit behind.

Kathleen Marie Kennedy: And to some extent, this is expected, right? You don't expect that every sector will decrease at the same rate, but it does get a little bit of a sense of how we'll spread out. That is Next slide. So here we move from thinking about the reductions just assuming in and looking at a snapshot of 2031 on its own. So once we get to 21 to 2031 in our modeling, what are the remaining emission sources? And those are broken down in the pie chart on the right. And you can see that with those strong reductions in the electricity sector. Transportation becomes very clearly. The dominant emissions source. But we also see that some of the sectors that were previously rather small become much more important. So things like buildings and the industrial processing product use become increasingly large players. Once you get rid of the sort of bulk emissions, that previously came blue electricity sector,

Kathleen Marie Kennedy: Next slide. So we previously mentioned our strategy for the policy scenarios and I wanted to revisit that just briefly not that you have this context for what the current policy scenario looks like. So the next steps from here are doing an exploratory scenario with these current policies included but also putting an emissions constraint on the model, to see which sectors have room for for the reductions. And then we can build out a course in Oreo, that includes best practices policies from examples in other states etc. And also drawing on our previous work from the America is all in Research suite. And then we can build out alternative pathways where we can emphasize different sectors, or technologies to see how they can support different pathways to reach the goal.

Kathleen Marie Kennedy: And we can do sensitivity analysis on those around assumptions about the IRA sensitivity to tax credits, or Maryland adoption rates, thinking about demand side sensitivities and variations on other state level policies. So that'll be future work. That will look forward to sharing with you in another meeting. And with that, we'll stop and happy to take any questions.

Mark Stewart -MDE-: Thanks so much Alicia and Kathleen. Um, so to the members let's say we have about 20 minutes for some conversation with our partners at the University of Maryland. So what questions or reactions do any of you have to that modeling and I'll start with members And then I saw also Josh wanted to get in with the question too. So Josh Allen few minutes Garrett that

01:25:00

Garrett Fitzgerald: Yeah, and I put this in the chat. I think to me it would be very useful to understand better. The way you're translating existing policies that are on the books into the assumptions that are driving the modeling that's been done here. I work from Montgomery, County represent counties on this call. You know, a number of us have climate goals and climate plans. We do a lot of this kind of analytical work trying to think about what would it take to achieve our local climate goals, geographically bound to climate goals, and it would be Helpful for us. Frankly for our own work to understand kind of how you're translating those things. But I think it's also important to end up with. Make sure we're ending up with

really realistic assumptions about the adoption rates. We're going to have from some of the incentives that are out there and

Mark Stewart -MDE-: Thanks and to the CDs Teamviewer respond in terms of your timeline for providing that additional level of detail.

Alicia Zhao: Um yeah, I mean we do have a spreadsheet that has all of our assumptions and how we're modeling each policy. So it's just very dense and more technical to look at but we're happy to share that and walk you through it if you think that would be helpful but yeah definitely had to make a few assumptions with some of the policies.

Mark Stewart -MDE-: Garrett is among our super nerdy members, who'd love for your spreadsheet.

Garrett Fitzgerald: Okay.

Alicia Zhao: Yeah, sounds great.

Mark Stewart -MDE-: Yeah, Mike. Go ahead, please.

Michael Powell: Yeah, just one on one assumption. There's a lot of literature out there now suggesting we may seem to clients long-term declines and commercial floor, space partly because the remote working but also demographics the aging population. So it might check that. I mean the literature from me with is about projecting commercial rental rates and and you know it's not climatological but there are a lot of people saying that we may have reached Max commercial floor. Space for what it's worth.

Mark Stewart -MDE-: Looks like Steve wants to react to that.

Steven J Smith: I was going to say that that's definitely a useful sensitivity to explore absolutely. And And I'll say that that, you know, overall in the US the commercial floor space trends. We have the least data about, I mean, the you know nationally we rely on the feedback survey you know which is inconsistent over. He has a lot of issues. So so our overall understanding of the commercial sector is rather poor so you know your point is well taken

Mark Stewart -MDE-: Mike are there any Maryland specific or regional specific data studies? That might be a helpful reference point with greater clarity on this issue than see Becky provides.

Michael Powell: I'm let me ask around, I'm not aware of a Maryland specific. Most of what I've seen have been urban specific, if you will projected commercial space and talking about what's going to happen to cities, and Certainly, if you look at numbers like conversions of commercial to residential and urban areas and office, vacancy rates is no question that right now, we have a decline, nobody wants to build new, um, The some of the research I've seen is about demographics and longer-term trends as we get an older population. That assumption is they're going to be even fewer people commuting into office spaces, which really what we're talking about. We're we still got a growth in warehouses, but that's about the only commercial floor space. That's really building out these days.

Steven J Smith: Well, we'll note that the commercial sector also includes all the retail spaces as well, you know,...

Michael Powell: Yeah.

Steven J Smith: even things like movie theaters and so on. So it's a pretty diverse sector.

Michael Powell: They're all closing to the malls are closing the the movie houses. Most of them are in bankruptcy right now. The Amazon effect is live and real. I mean, but, you know, we got to find actual numbers and anecdotal but for what it's worth, if you look at the commercial real estate industry, they're very Pessimistic about long-term trends right now.

01:30:00

Mark Stewart -MDE-: Thanks.

Mark Stewart -MDE-: Josh, I know the year a question. You want to go ahead?

Josh Tulkin: Thank you so much, and thanks for that presentation. It was really exciting to see those sort of that those numbers and data a lot of the policies that this group and many people have been fighting for to see them modeled. I was mostly going to geek out about the assumptions as well. So I'm not sure how productive that is but just to flag the questions that are on my mind, one of them just about funding and investment. Whether or not the model assumes an increase in state funding and support for electric vehicles and for building electrification, and efficiency beyond IRA and empower. You know, I'm interested in for the sort of any assumptions around Zev, if that came from the

Josh Tulkin: I well putting this have pizza aside. The other big question for me is around the rps. You know the this group has had had a pretty lengthy input process around barriers to deployment and we're pretty far behind on our solar deployment goals at the moment. So I have some I would just say bluntly. I have some reservations about assuming full achievement of the in-state solar and offshore wind goals by 2031, barring a change, or an update in policy. So having those in the reference case does raise some questions for me.

Mark Stewart -MDE-: Thanks Josh.

Josh Tulkin: Like this is one of those hearings where I was supposed to phrase that as a question. So I guess for me just you know,...

Mark Stewart -MDE-: No, no. Question understood.

Josh Tulkin: those numbers would be would be welcome just to be able to sort of figure out where You know, what's the sort of optimistic? Conservative assumptions that are going into the modeling.

Mark Stewart -MDE-: Sure. Cgs your react to that.

Alicia Zhao: Yeah, I think we will touch more on implementation in the report, but for the modeling we are assuming, you know, that we meet the rps goals that the Zeb targets are achieved. But we definitely have to have the caveat about you know, you we're not going to meet it just by doing nothing. We have to still implement tools to help us get there. I don't know if you want to see speak more on that mark.

Mark Stewart -MDE-: Um no. I mean one one, very general flag that I want to reiterate from the start of this session and reflecting on the comments that was also included in the chat, just just be clear with everyone, what you just saw what were projections for dust. The policies that are on the books in fact and and not including again the legislation that that passed in 2023. So you know, put a timestamp on you know, policies that are on the books as of several months ago and you know, projecting forward that. So

you know Peter you know pointed out that there there are some significant emissions that are being projected beyond 2040. That's right, because we don't yet have the policies to to achieve Maryland's. Net Zero 2045 goal and the effort ahead over the next couple of mwg meetings. We'll have our partners from the University of Maryland back to start looking at some of the modeling.

Mark Stewart -MDE-: Adults, you know if Maryland did this sort of new policy then we would see additional missionary reductions.

Josh Tulkin: I guess my very quick response of its okay, is as someone who finds myself in the trenches, in Annapolis, trying to lobby and fight for a lot of the funding, or some more implementation, and consequences for non-compliance or entertainment, for a lot of these policies, I will say that I am leaning into the challenging conversation about

Josh Tulkin: I guess what you're calling implementation. Feels very, very important to me especially because in some cases like this this group even has recently as a couple months ago was hearing feedback from individuals who are telling them not to be too greedy and they're requests for financial money. So we know that there's, you know, there's there's a pretty steep hill to climb in what successful implementation would look like. And I just want to make sure that, you know the, the plan starts by, you know, looking at what it would take to hit the goals, we have on the books. And this is coming from a little bit of trepidation from a previous version of a plan, that had a lot of someone abstract and aspirational ideas. And I can say for certain elements of them, like the conversations, never gone beyond some very, very top level theoretical policies that were in the previous plan and just really hoping to dig into those hard conversations this time around.

01:35:00

Mark Stewart -MDE-: Thanks Josh and...

Josh Tulkin: Thank you.

Mark Stewart -MDE-: developing a implementable plan is certainly top of my mind these days. Ian

Ian Ullman -MEA-: Thanks, Mark. I think you touched on a few of my questions. One area that I think some of us might be interested in this sort of how the modeling on on IRA was, you know, thought about for this. Because when I'm thinking about these results compared to results from just a year or two, from other other models that we saw, it's you know, seemed like a fairly significant difference. Obviously there been some changes the way we calculate, you know, fast stocks includes is different, but I think I was a little bit interested in the IRA modeling. And then you also just to keep going on a few of my other sort of thoughts.

Ian Ullman -MEA-: You know, I think I would be interested in thinking about, I know we're focused right now clearly on 2031, but as you reference there's a 2045 net, zero requirement as well. And I know I think previous models have looked beyond 2030 and and to sort of see what the trajectory might look like. Even if we're a little clearly further out, we get a lot more crude I understand. But I think it's it could be interesting to look at some of the longer term trends and that might even inform sort of our decision-making in the short term and for the 2031 goal. So I think I'd be interested in that and then obviously I think Josh has talked about the cost and we'll have to think about that. I think it's to you know how we Figure out what strategies make sense. When you know on a cost for you know greenhouse gas

Ian Ullman -MEA-: CO2 equivalent ton, You know, reduction. I think obviously, we're all going to be thinking about how we factor cost in, and then we have to figure out how to find pay for it. So, the sort of Some of the thoughts that I thought about in reaction to this modeling, I thought it was pretty interesting.

Mark Stewart -MDE-: Thanks, Ian. And yeah, we've given the challenge to to cgs to help us find the pathways not only to Maryland's 2031 goal, but it's about our 2045 goal. It's saying 2045. Poor sounds like a long time out but you know, check the calendar folks that means by the end of 2044, which is the 21 years from now, a net zero emissions economy. 21 years is a blink of time considering the size of the change that we're talking about. Um, Chris, I see your hands up. Go ahead.

Chris Hoagland -MDE-: Thanks Mark. A couple of a couple of reactions to someone what we use heard. I think it's the reference case is useful for that longer term as we saw in that one graph showing emissions outward as you expect as we typically see in a reference case, a current policy case. We've got reductions from all the things we've already done. But then, of course those taper out right? And so we start seeing, you know, emissions plateau, and then creep back up again. So the reference cases conclusions for 2045 certainly or that, you know, we need to keep putting in more policies continuously because the ones we have now, you know, obviously give us momentum for a couple more years but need much more than that. And then the questions about implementation. That's obviously, absolutely critical for where that fits into the sort of the workflow and the process for developing, the plan and sort of which scenarios consider that. I think what we would suggest everybody is, you know, when we put forward, the plan, the idea is, here's our plan to hit the goals.

Chris Hoagland -MDE-: Here's what it'll do. If we actually do the plan, right? It's sort of by definition, Our plan is to do the plan, right? But we also do sensitivity analysis where we say, What if parts of the plan fail? So in prior iterations of the planning we've talked to the mwg about constructing a pessimistic scenario, right? Where we've done some rough assumptions about. Well, what if we only get half as many EVs, right? That was one thing. We included in the pessimistic version. Last time, was we took our desired EV projections in the plan and we cut them in half.

Chris Hoagland -MDE-: What if the same thing happens for heat pumps? What if this other area fails, right? And then we see how much worse emissions are. So are so throughout the modeling, right? These models, they don't capture nuances for, you know, exactly how you know, implementable, an individual policy and is and what if it falls behind by a couple of years or the funding doesn't show up for item number 15 of 27, You know? So we so the plan will we will put forward the plan. And this is the plan, and we're gonna do the plan, but then it's the sensitivity analysis. What we call We run scenarios. We're particular things fail. So that's something that we definitely want the mwgs input on. What are the parts that we think are sort of most at risk? Most sort of where we see the largest implementation challenges and then we can build those into pessimistic scenarios where those fail and we see what the consequences are.

01:40:00

Mark Stewart -MDE-: Thanks Chris. I see him from Mark. Go ahead.

Mark Szybist -OPC-: Thanks, Mark. I had a question about the coal retirements. I think the slide on the electricity sector. Emissions, showed that Kohl's pretty much. In-state calls, pretty much gone by 2025, and I'm curious to what extent are those retirements economic and to what extent are they based on planned announcements already made and into the extent? They're economic. I think that same the 2025 bar showed. Also, a pretty big increase in wind and solar and I'm curious if you can, could parse out the

the degree to, which Kohl's decrease. During that time, is due to the increase in solar and wind into what extent. It may be due to other factors, like we're coming EPA regulations.

Michael Powell: Yeah, I can help you there, mark every coal plant in Maryland, has an announced closure by 2025 of it cold. They've all four informed PJM that not be burning coal after 2025. That's the Maryland plant. I'm not talking about imported, but Maryland.

Chris Hoagland -MDE-: There's one, there's one that's sort of in the gray area and that's warrior run. Josh. Just mentioned it in the chat and...

Michael Powell: I should.

Chris Hoagland -MDE-: their their parent company has said, they will be off, hold by 2025. That's specific. Plant has not Declared a retirement or conversion date yet? I don't know Josh. That may be What you're going to chime in on.

Michael Powell: Yeah.

Josh Tulkin: Um, yes, I did want to know too that warrior Rundon, Brandon Shores, haven't have not actually filed with PJM, their plans, to deactivate their coal units, the best of my knowledge.

Michael Powell: That Brandon Shores has announced closure of coal burning by 2025.

Josh Tulkin: I agree. They've announced it just that I don't believe they file with PJM yet.

Michael Powell: I'll let you check Pjm.

Mark Stewart -MDE-: Okay, and Alicia, do you want to

Josh Tulkin: I I believe, I mean, I'm pretty sure. But

Mark Stewart -MDE-: Alicia, if you want to explain how how the model beats this.

Alicia Zhao: Yeah, so we did model the coal generation based on the planned retirement. So It's not really interacting with how much solar and wind is coming in.

Mark Stewart -MDE-: any other questions or comments about this current policy scenario results that we just saw

Mark Stewart -MDE-: saw and we'll be sharing those slides with everyone. After the meeting too posted on the mwg website.

Mark Stewart -MDE-: So, we are. Heading way too quickly toward June really. And having a

Mark Stewart -MDE-: You know, by the end of June, the law requires that we have what we're calling a pathways report issued. The mwg will be you know brought into the fold here really almost at the same pace as we are at Mde working with the team of the University of Maryland. Looking at these policies scenarios looking at the different pathways to achieve Maryland's goals. You know, by the end of June, having having a report that lays out different options, different conceptual policies that would drive the emissions down from the, you know, nearly 50% level by the end of the century down toward a 60% reduction by 2031. I think in tonnage that's a nearly 15 million tons reduction that is still needed to be at to

be found through additional policies. That is a sizable reduction to be found and that is our focus. Moving forward is finding the pathway to achieve that and achieve all

Mark Stewart -MDE-: A Maryland's economic goals that are also included in in this act. We are opening a call for input. This is pretty even, you know, pathways report input. But if you've if you've thoughts that you haven't already shared through the climate commission process or otherwise with MDE over the years, you know, what new policies do you think that we should be? Considering we have this call for input, open on our website. You're welcome to send us the link. Here in the chat for you. We're asking by the middle of May, I think May 15th. well, if you haven't already, and many of you have already,

01:45:00

Mark Stewart -MDE-: You know, reached out to us and said, Hey if you have you thought about this have you thought about adjustments to Maryland's existing policies? And this way or that now is a great time to reach out, share those ideas that can be you know, folded into our thinking. As we as we move to record really just the conclusion of Phase One, which is what are the multiple pathways that Maryland has to achieve these goals. The real information listening is gonna happen. I think after that. So at the end of June, when we have this pathways report Mde, or other state agencies or partners at the University of Maryland will do listening a bit of a listening or around the state and collecting public input meeting with stakeholders to to get input on the conceptual policies that are presented in the pathways report. I expect July August, and into the fall, we'll be spending significant time in this around the state. So this is

Mark Stewart -MDE-: Not your only opportunity to provide input. This is an opportunity to share new ideas. Before we, we have the pathways report. Once we have to pathways report with conceptual ideas conceptual policies, you can provide input on those conceptual policies. You can continue to give us your good ideas on the new policies that are needed to achieve Maryland's. Ambitious, GSU, reduction goals. So lots and lots of opportunity for input throughout this year. Um, With that. I think we're pretty much at the public comments. Period are there additional participants on today's call. That would like to make any public comments. Lindsey good seeing you again. Go ahead.

Lindsey Mendelson: Yeah, thanks so much. Hello everyone, Lindsey Mendelson. I'm the transportation representative with the Maryland Sierra Club. And just wanted to talk a little bit about the heavy-duty omnibus regulation, and DMT targets for the upcoming climate plan. First off, I'm really grateful to see that the clean cars too regulation and the clean trucks regulation is moving forward. And thanks so much to everyone including Mde for your work, moving forward on those regulations. I want to just to take a little bit of time to encourage the state. To also adopt the heavy duty omnibus rule. I know this was disgusted, the act meeting previously, this is really important because it would reduce Knox pollution from heavy duty vehicles by 90%. And it's very much complementary to the Advanced Clean Trucks Regulation. Because it ensures that, you know, the diesel trucks that will continue to be sold.

Lindsey Mendelson: Will be reduced less pollution. In particular, This is also important because Baltimore City, Anne Arundel Baltimore, Carol Harford and Howard Counties are in on attainment of the EPA's 2015, ozone standards. So Marylanders in this region are breathing and air. That's not safe. And this regulation is a also important because, you know, even though they're the EPA has Knox, standards the

Lindsey Mendelson: Heavy duty omnibus standard is more stringent over the course of the program. And there's also loopholes and EPA's program that makes those standards more lenient under certain temperatures. So, it's really important, especially, because we're not attainment that we move forward with adoption. Finally, I also just wanted to encourage Mde to identify Vmt and Vmt per capita reductions

that are needed to achieve. The state's greenhouse gas goals. I've seen in Mdot's attainment report, that they mentioned that there's so-called progress on reducing Vmt, but there's no benchmarks or measurements to how that's happening in Vmt has been increasing since 2021 and even after the you know, covid pandemic. So I think it's really important that we take that into consideration and develop that target for our climate plan. Thanks so much.

Mark Stewart -MDE-: Thanks Lindsey. Uh, James good seeing you again.

James P. Wagner: Yes. Hi, thanks Mark. Yeah, I just wanted to chime in with the concerns I heard, especially from Josh about the Rps and I'm I've got one of these periodic rundowns from my utility company Potomac. Edison, I just wanted to read some numbers off of it. And I've watched this for years, probably eight maybe even 10 years and it's been moving very slowly, I just cut to the chase that for renewable energy in. For my utility in the mix is 6.76%. And of that solar is one point one, one percent.

01:50:00

James P. Wagner: The majority of that, 6.76 is wind at 3.79%. So I also question the projections that solar is gonna Leap have a tremendous, a tremendously higher contribution. I am not an expert in this but I'm just I just wanted to also express my questioning about that and maybe Mike Powell can answer a question for me. The You. You said Mike that's in 2025. Most power plants are getting off of coal. So what are they? What are they replacing their coal with? Is it gas? Then.

Michael Powell: If there's one proposal to convert a plant to a oil, peaker the other coal plants are are closing and you write that as Warrior. Run not formally announced but it'll happen in terms of what replaces them. It's what do we build? One of the things that we made A priority is to accelerate solar because if we don't build solar faster than what we're going to do is simply import it from PJM and we're going to get whatever mix PJM creates.

James P. Wagner: Okay. All right.

Mark Stewart -MDE-: Thanks James and and Mike and and yeah James it. It's a it's a good point. You're bringing up about solar deployment, I'm sharing in. Another link in the chat. Sorry, lots of links today shared in the chat, but a few months ago, Mde published our progress. Report showing, you know, indicating some some areas where, you know, we need to keep our, our eye, on the bald and see that we're achieving, at least the GGR plan. And eventually the GHG reduction plan,

Mark Stewart -MDE-: I say a hand from Jeff Silva. Hey, Jeff. Good senior.

Jeff Silva: Hi, thank you very much. I have a question for Mr. Powell basically, it has to do with At a at the Montgomery County. Climate. Energy Air Quality Action Committee meeting that they hosted last night. A particular Resolution. In the legislature, draw a lot of attention. It happened to be HR 1214. it has to do with the validity of the claims of third-party

Jeff Silva: They're here in Maryland, we could achieve by energy our electricity from different producers. Other than what petco Has in their. Basic portfolio. And as it turns out, there has been questions about, whether the claims That some of these third-party energy, producers are accurate now. I believe there what this resolute House resolution 1214 was mentioned, you know what the status on that is?

Michael Powell: I have not heard of that and I just very quickly tried to type in house resolution 1214 on the journal assembly page, and I don't see one by that number. So, No, there have been. the PSC I know

has been looking at the accuracy of third-party claims of what renewable power. Is you know when a company comes in and represents a certain amount of renewable power, what is it? Really there are regulations on that and defining who can do what and certainly, I would be careful there because there are a lot of very legitimate companies which are marketing, 100% renewable power.

01:55:00

Michael Powell: Understand the way that that market works, you don't track individual electrons, right? You don't buy an electron that came from this solar farm, what you do, is you pay a dollar or some amount for that electron, and then, that company produces, it gets the dollar and puts into the grid that electron. So it's really an accounting measure, but there are a lot of companies that are definitely putting into the grid, the amount of renewable power that you purchase, if you go to their companies,

Jeff Silva: All right, well, I know I can't be able to well, that's interesting because I try to be able to verify that and I wasn't able to, but I'm glad the PSC is on it and thanks for your information.

Mark Stewart -MDE-: And Jeff a couple people put in the chat, the link to that bill HB 1214. Garrett, I saw your hand coming up during that, was that to respond to the HP 1214 matter.

Garrett Fitzgerald: Yeah, just just to say and that and you can see that that bill was very heavily amended in the house before it passed the house. Where from my perspective the majority of the more important. Component of the bill was all removed so you can get a sense from looking at the version that was introduced. And looking at the amendments that you see, you can see when you click on the links that were shared in the chat, kind of what the folks in the House Economic Matters Committee took out very much intentionally and then I think they're it wasn't very meaningful Bill at that point. I think it just didn't get much attention to move forward in the Senate.

Michael Powell: Yeah, looking it up real quickly. I see it did not get any Any passage in the Senate so it died in the house.

Mark Stewart -MDE-: Problem. All right, thanks and I see a hand from Ann Bristow. Go ahead, please.

Mark Stewart -MDE-: And I'm not sure if you're trying to talk to us, but Yes,...

Ann Bristow: Yeah, I tried doing it. Can you hear me now? I wrote it into chat.

Mark Stewart -MDE-: we can.

Ann Bristow: I'm out here in Garrett County and they Allegheny County commissioners interoperation to the RPS cleanup bill have advocated, the AES warrior run, be transition to burning, Woody biomass for electricity. And I wonder if that's why they haven't thought with PJM yet because they're looking at a conversion. To what he buy on that. That's something to keep on your radar screen. Thank you for your time.

Mark Stewart -MDE-: Thanks Ann. I have just I think a minute left in the scheduled meeting any final public comments.

Mark Stewart -MDE-: All right. Well, seeing none. Thank you for attending today and we look forward to being back together in about a month from now. Take care, everyone.

Meeting ended after 02:10:35 🙌