

Federal Advisory Committee Act
Clean Air Act Advisory Committee

Mobile Sources Technical Review Subcommittee

**Virtual Meeting
November 30, 2022**

Welcome & DFO Opening Remarks

Due to health and safety concerns regarding the coronavirus, this MSTRS meeting was held remotely via Microsoft Teams. Julia Burch, the Designated Federal Officer (DFO), welcomed all members, press, and the public to the Mobile Sources Technical Review Subcommittee (MSTRS) meeting. Ms. Burch announced she is stepping down as DFO and that from this point forward, Jessie Mroz will be the DFO for the MSTRS. Ms. Mroz introduced herself and reviewed the meeting agenda. She noted that the meeting is open to the public, and there will be time later in the day for public comment.

Rich Kassel welcomed all attendees. Mr. Kassel introduced himself, noting that he has been working in the mobile sources and air pollution sector for over 30 years and is currently the MSTRS Chair. Mr. Kassel then stated that the goal of the MSTRS is to help the EPA understand current issues from the point of view of all stakeholders and make the best transportation and air quality decisions. This meeting is meant to share the attendees' expertise, and the group's suggestions and comments will help tailor the direction of the EPA's work.

Mr. Kassel also remarked that the work Ms. Burch has done as DFO has been pivotal for the committee. He stressed that especially with COVID-19 difficulties, Ms. Burch has done a great deal of work for the MSTRS over the past two years.

Virtual Meeting Agenda

10:30 – 10:35 am	Welcome	
10:35 – 10:40 am	DFO opening remarks	
10:40 – 10:45 am	Welcome from Rich Kassel, MSTRS Chair	Rich Kassel
10:45 – 11:15 am	MSTRS Introductions	Rich Kassel
11:15 – 11:35 am	Remarks from Sarah Dunham, OTAQ Office Director	Sarah Dunham
11:35 am – 12:05 pm	Future of Mobility Report Overview and Recommendations Britney McCoy, Climate Analysis and Strategies Branch Chief	Britney McCoy
12:05 – 1:00 pm	Lunch break	
1:00 – 2:00 pm	Presentation on New EJ Screen Tool Matthew Lee, EPA's Office of Environmental Justice and External Civil Rights	Matthew Lee
2:00 – 2:30 pm	OTAQ regulatory update Bill Charmley, Assessment and Standards Division	Bill Charmley

	Director, OTAQ	
2:30 – 3:30 pm	BIL, IRA, and Interagency Collaboration Karl Simon, Transportation and Climate Division Director, OTAQ & Michael Berube, Deputy Assistant Secretary for Sustainable Transportation, Office of Energy Efficiency and Renewable Energy, U.S. DOE	Karl Simon and Michael Berube
3:30 – 3:45 pm	Break	
3:45 – 4:30 pm	Preparing for Spring 2023 MSTRS Focus Area Discussion Rich Kassel, MSTRS Chair	Rich Kassel
4:30 - 4:45 pm	Public Comment	
4:45 - 5:00 pm	Final Remarks and Close Out	Rich Kassel

Previous meeting minutes as well as materials associated with this virtual meeting are available online on the EPA’s MSTRS website (<https://www.epa.gov/caaac/mobile-sources-technical-review-subcommittee-mstrs-caaac>). A list of attendees is provided in Attachment 1. This summary focuses on the verbal discussions that took place during the meeting. A copy of the meeting chat log is provided in Attachment 2.

Introductions of MSTRS Members

MSTRS Chair Rich Kassel asked each member to introduce themselves. Members shared their company, role at their company, and mobile transport and air quality experience. Mr. Kassel noted the stakeholders represented on the committee were very diverse, including railroads, clean vehicles, the power sector, state agencies, and environmental justice advocates.

Remarks from Sarah Dunham, OTAQ Office Director

Sarah Dunham, the Director of the Office of Transportation and Air Quality (OTAQ), welcomed the new members and mentioned how impressed she is with the diversity of expertise. Ms. Dunham stated that while she usually provides an overview of the work OTAQ has been doing since the last MSTRS meeting, this time she wants to focus on the MSTRS Future of Mobility Report and how OTAQ is working to address the Report’s recommendations.

Ms. Dunham remarked that since the last meeting, a lot of work has gone into digesting the recommendations of the Future of Mobility Report. Britney McCoy, the Climate Analysis and Strategies Branch Chief, was selected to monitor the progress on the recommendations and ensure the reviewing team was on track. She mentioned that OTAQ has rethought its original approach of having separate groups each prioritize and address two recommendations as a start, and they now established a cross-sectional team that is reviewing all of the recommendations holistically. While the recommendations are being reviewed and prioritized, they have also been integrating recommendations in current work where there is clearly an opportunity to implement them, such as increasing public outreach regarding new fuel regulations. Years of work has been put into this report, and Ms. Dunham sees a clear trajectory for the Agency’s response and implementation of the recommendations.

Discussion:

One member expressed surprise that the EPA has not taken a more holistic approach to fuels, commenting that considering fuels in a fuel-neutral way makes air quality worse for environmental justice (EJ) communities. The member also expressed frustration that new locomotive engines are not being required, stating that communities cannot wait another 15 years to have hydrogen fuel cell technology in use by these engines. Ms. Dunham thanked the member for their comment.

Overview of the Future of Mobility Report

Britney McCoy, OTAQ Climate Analysis and Strategies Branch Chief

Britney McCoy is the Climate Analysis and Strategies Branch Chief within the Transportation and Climate Division of OTAQ and has been working on reviewing the Future of Mobility Report since it was submitted to the EPA. The MSTRS started in 2017 discussing mobility trends, electric vehicles (EVs), and autonomous vehicles. Between September 2019- June 2021 the MSTRS met regularly to develop insights and recommendations to address a series of questions related to mobility trends in four primary areas:

1. Technology- Electrification of vehicles
2. Fuels- Increasing renewable and/or low-carbon fuel use
3. Personal mobility- Changes in personal transport patterns and community development
4. Goods movement- Adjusting to changes in the transport of goods due to the increase in online sales

In the final Future of Mobility Report, a total of 208 recommendations were submitted: 59 for technology, 13 for fuels, 79 for personal mobility, and 57 for goods movement. The recommendations have provided important insight to the EPA. The top three recommendation areas were related to cross-government collaboration (31 recommendations), equity (24 recommendations), and regulations (23 recommendations). Some of the main findings of the report are:

- To achieve greenhouse gas (GHG) and future mobility goals, the transportation sector must be decarbonized. This means accelerating the use of zero-emission vehicles and using low carbon liquid fuels.
- Databases, models, and monitoring must be improved for proper mobility analyses.
- The EPA should incorporate social equity and EJ concerns into its analyses.
- The EPA should increase collaboration with stakeholders, across agencies, and all levels of government.
- Outreach programs and public education is critical.

Discussion:

One member asked whether the recommendations from the different areas were being considered together, noting that some of the recommendations could likely be combined. Dr. McCoy responded that they are currently in the process of merging similar recommendations together.

Another member asked how this report's recommendations are being integrated with the EPA's decarbonization strategy. Dr. McCoy responded that many of the recommendations might be covered by the Memorandum of Understanding (MOU) between the EPA, the Department of Transportation (DOT), the Department of Housing and Urban Development (HUD) and the Department of Energy (DOE), but the work on the MOU is still in the early stages. She noted that the same people working on the MOU are working on the report recommendations, so they will be able to identify where report recommendations will be addressed under the MOU.

EJScreen, EPA's Environmental Justice Screening Tool

Matthew Lee, EPA Office of Environmental Justice and External Civil Rights

Matthew Lee, from the EPA's Office of Environmental Justice and External Civil Rights, gave a presentation on EJScreen, a web-based GIS tool for EJ screening and mapping. The tool combines environmental and socioeconomic data to highlight areas where vulnerable populations may be disproportionately impacted by pollution. The key features of EJScreen are that it uses annually updated environmental and demographic data; it uses the highest resolution data available, which is the census block group; data can be downloaded for further evaluation; and it is designed to be intuitive and simple to use. Mr. Lee noted that EJScreen is not a labeling tool and does not identify "EJ communities," nor does it have data addressing every EJ concern. Results in the tool are presented as percentiles because this puts the data into perspective and helps users compare one geographic area to another. The results can be viewed on maps or within reports.

New developments in the tool include:

- Threshold maps have been released.
- EJScreen data now extends to Puerto Rico, to US Virgin Islands, Guam, American Samoa, and Northern Mariana Islands.
- Five supplemental demographic indexes are now available: low income, unemployment, limited English proficiency, less than a high school education, and low life expectancy.
- Environmental indicators are being added on a national level, such as lead exposure.
- Climate indicators have been improved.

Mr. Lee then provided a live demonstration of EJScreen.

Discussion:

A member stated they were impressed by EJScreen but also noted that there are other EJ tools available from the EPA and other agencies. The member asked if there was a listing of all the various tools available and when to use each one. Mr. Lee responded that the EPA has tried to do that in the past just for its tools, but they stopped trying to show this because the list of available tools was constantly changing. He stated that the EJScreen website does list some of the EPA and state tools available.

Regarding cancer risk, a member asked whether specific carcinogens driving the risk are identified in EJScreen. Mr. Lee responded that you cannot find individual pollutants and their

cancer risk on EJ screen, but some of that data is available from other programs, including AirToxScreen.

To be responsive to the MSTRS Future of Mobility Report, one member believes EPA should include layers in EJScreen for bikeability and walkability data. The member suggested that the tool could rate how accessible it is to get to schools, public transportation, and job areas through automobile and non-automobile modes. Mr. Lee agrees that those would all be useful things to add to EJScreen.

Mobile Source Regulatory Programs Development Overview

Bill Charmley, OTAQ Assessment and Standards Division Director

Bill Charmley, the Assessment and Standards Division Director for OTAQ, provided a regulatory update.

The current renewable fuel standard program only established volume targets through 2022, and the EPA is designing a proposal very soon for standards for 2023 to 2025. In the new proposal, these standards will be based on economic and environmental factors and will be stricter than the previous proposal. The EPA is hoping to sign the final rule by June 14, 2023.

Seven states: Illinois, Iowa, Minnesota, Nebraska, Ohio, South Dakota, and Wisconsin have petitioned the EPA for the removal of the 1-psi fuel volatility waiver for E10 gasoline per section 211(h)(5) of the CAA. Under this rule, refineries would be required to provide a lower volatility gasoline for blending, and this will require changes to the fuel distribution system. The earliest this rule would go into effect is summer of 2023.

The EPA has completed actions towards one Executive Order (EO) of the Biden administration and is actively working on actions responsive to another EO. A January 2021 EO encompasses reconsideration of California's 2012 Advanced Clean Car I Waiver and reconsideration of the Light-duty Vehicle GHG "SAFE" rule standards. Both of these actions have been completed. The second EO from August 2021 involves setting standards for (1) NO_x from heavy-duty vehicles and reconsidering the Phase 2 GHG standards for 2027, (2) long term standards for light- and medium-duty vehicles, and (3) long term GHG "Phase 3" standards for heavy-duty vehicles. In response to this EO, the EPA issued a proposal in March 2022 to strengthen the heavy-duty engine emissions standards for vehicle model years 2027+. This included more stringent NO_x standards, longer relative regulatory useful life, new test procedures, and a longer emissions warranty. The EPA is working to finalize this rule by the end of 2022. The EPA is also developing new GHG standards for heavy-duty vehicles produced between 2027 to 2030+. The proposed rule should be completed by March 2023, and the final rule should be completed by December 2023. The EPA has also begun a new rulemaking for micropollutant (GHGs and criteria pollutants) emissions from light- and medium-duty class B2/3 vehicles produced between 2027-2030. The proposed should be completed by March 2023, and the final rule by March 2024.

The EPA has proposed PM aircraft engine standards. This rule would domestically implement the international standards agreed to by the International Civil Aviation Organization (ICAO) in

2017 and 2020. The standards would apply to new aircraft engines in 2023. In addition, ICAO has begun work on new CO₂ standards for commercial aircraft. After technical work is performed, there could also be an update to the NO_x and PM standards for these aircraft.

The EPA has studied lead emissions from aircraft, particularly large piston-engine aircraft. Approximately 70% of the lead entering the air today is emitted from these aircraft. The EPA will evaluate comments on its endangerment finding that was proposed in October 2022, and then issue a final determination in 2023.

The California Air Resources Board, San Joaquin Valley Air Pollution Control District, and the California Air Pollution Control Officers Association petitioned the EPA to address harmful locomotive emissions. On November 9th, 2022, OTAQ responded by establishing a team to develop recommendations and options to address locomotive emissions. In addition to this effort, the EPA plans to revise the 40 CFR 1074 locomotives section to not limit states' authority to address air quality.

Discussion:

One member asked how the EPA would be reaching out to communities for input if there is a positive endangerment finding for lead emissions from aircraft. Mr. Charmley responded that the EPA has had significant engagement with communities near airports over the years, including those in Alaska. The member requested that outreach be performed by the EPA and that the lessons learned from its experience from the ethylene oxide community engagement process be applied here.

A member asked if the on-highway vehicle standards would be accomplished through fuel changes. Mr. Charmley responded that currently the proposal is focused on more stringent emission standards, and it is too early to say if the rule will involve fuel controls.

One attendee asked for a more thorough description of the rulemaking process for locomotives. Mr. Charmley replied that the EPA team will engage with known stakeholders and with others who request outreach, noting that the EPA has heard from many groups over the years on this issue. In developing a rule, the Agency reviews literature regarding technology, emissions, and emissions controls; reviews and determines what the Clean Air Act allows; considers what stakeholders have said they want; and considers what approach might best reduce emissions, including voluntary programs. Another member asked whether an EPA regulatory action was a possibility rather than only having states or voluntary actions to address locomotive emissions. Mr. Charmley responded that both regulatory action and voluntary programs are being considered.

Decarbonizing Transportation: Engagement Across Federal Programs
Karl Simon, OTAQ Transportation and Climate Division Director and Michael Berube,
Deputy Assistant Secretary for Sustainable Transportation, Office of Energy Efficiency
and Renewable Energy, U.S. DOE

As part of the overall U.S. climate strategy, there are two EOs tackling mobile emissions, EO 14008 and EO 14037. EO 14008 establishes a whole government approach to reducing GHG emissions. EO 14037 has the goal of having 50% of new light-duty vehicles sales be zero emissions vehicles by 2030. The U.S. also set a long-term goal of achieving economy-wide decarbonization by 2050.

To accomplish these goals, the EPA is coordinating with the U.S. DOE, DOT, and HUD to define an aligned transportation decarbonization vision. On September 15, 2022, the agencies signed a Memorandum of Understanding (MOU), which establishes a partnership to achieve the 2050 net-zero emissions target set by the Biden administration. The MOU sets seven goals:

1. Decarbonize the transportation sector
2. Reduce air pollution
3. Cut costs for consumers
4. Enable an equitable transition
5. Secure domestic supply chains
6. Support good paying domestic jobs
7. Lead global decarbonization efforts

The agencies have identified 14 activities to achieve these goals. These include:

- Expanding collaboration to the MOU agencies' research centers
- Transforming the electric grid
- Decarbonizing aviation through sustainable aviation fuel
- Promoting hydrogen fuel cell infrastructure
- Collaborating with rail companies to develop green energy sources and reduce emissions
- Decarbonizing off-road vehicles, maritime vessels, and port equipment
- Improving transportation options for underserved and disadvantaged communities, including public transportation, bicycles, electric vehicles, and e-mobility solutions
- Aligning investment in transit-oriented development.

The agencies have produced a blueprint to achieve decarbonization titled, "Transportation Decarbonization: An Interagency Approach at The Federal Level," which is currently being reviewed by senior leadership teams and the White House. Members are invited to provide feedback on the blueprint at the upcoming annual Transportation Research Board (TRB) meeting, where it will be presented.

Mr. Simon and Mr. Berube spoke about landmark legislation, including the Bipartisan Infrastructure Law (BIL) of November 2021 and the Inflation Reduction Act (IRA) of August 2022. This legislation has provided the EPA with over \$100 billion in funding for environmental justice initiatives, green bank support, and GHG grants. Key OTAQ programs funded through this legislation include the Clean School Bus Program, Clean Heavy-duty Vehicles, and Clean Ports.

Discussion:

One member remarked that the White House net-zero plan for 2050 seemed to leave out how to address the liquid fuel use that will still be occurring in 2050. Mr. Berube agreed and responded that it is unclear what consumer behavior will be in 2050 at a point where liquid-fueled vehicles have not been sold for 10 years – will people want to “get rid of the dinosaur” or keep them forever? The DOE believes that ethanol will be a critical resource in the future, with starch-based fuels providing up to a 70% reduction in GHGs.

Another member asked whether the IRA and BIL funding will be used to further the goals of the decarbonization strategy and EJ goals. Mr. Simon responded that the EPA has prioritized EJ communities with their funding and believes these concerns are being addressed by the other agencies through their programs as well, such as through the funding provided for road building.

One attendee asked whether the federal agencies would also engage with states to help them consider these issues with their funding as well. Mr. Berube noted that they are collaborating with states on some things, like electric charging infrastructure. The states also need to focus on decarbonizing fuels. Mr. Simon noted that states are free to use the federal MOU as a model for a state-level agreement between their varying state agencies.

One member asked how the agencies are coordinating with the Treasury Department to ensure all the actions taken under the IRA to address fuels are given the proper tax credits. Mr. Simon responded that there may be some initial guidance put out to address this, but since a lot is being done quickly under the new legislation, there are likely to be changes as the programs are implemented.

On incentive programs, one member noted that the programs are competitive, and encouraged the agencies to streamline the programs to make them simple, especially for smaller groups with few or no dedicated staff to work through complicated application processes. Mr. Simon replied that this point is well-taken, and they have been striving to make the application processes as simple as possible, such as through the lottery process that was done for the school bus rebates. Mr. Berube added that with the amount of award funding available, the reward to application ratio should be good and worth the time it takes to apply.

One member asked whether there will be a retrospective on how well the programs are working once they are beginning to be implemented, so that future projects can be targeted to be most effective. Mr. Simon replied that the EPA intends to do that with the Clean School Bus Program, and their awards and structure for the awards will be revised in the future depending on the feedback received.

Preparing for Spring 2023 MSTRS Focus Area Discussion

Rich Kassel, MSTRS Chair

Mr. Kassel briefly reviewed the past work the MSTRS has done through working groups and noted that the committee would be entering a new phase. He asked for members to put forth any ideas they have for future MSTRS discussions and topics for potential future workgroups. The following questions, comments, and suggestions for topics were brought forth by members.

- Legacy fleet –
 - How do we transition from older fuel-inefficient vehicles to newer fuel-efficient vehicles? Currently most of the work is on new vehicle purchases, which tends to focus on the larger companies and their fleets, but more exploration on how to reach the existing fleet and smaller companies is needed.
 - Railroads have a similar issue with legacy engines. The industry is not interested in upgrading their products. Environmental groups have been working hard to decommission vehicles, but a rail merger could undo the impact they may have had.
- Small fleets –
 - Small fleets comprise the majority of vehicles, so it is important to address them through education and other programs.
 - More is needed to address small fleets. The education component is not available, and the charging infrastructure is also not there for them.
 - The DOE has a Clean Cities program that can lend a lot of insight to the EPA. A lot of electrification information is needed by small fleets, but they could also use information on newer non-electric vehicles.
- Ports –
 - Work is needed to address ports, which have a high capability to upgrade to electrification, but there is pushback from industry in this area. Electrification of marine ports is still in its infancy.
 - On ports, are there grants for barges or bonnet technology or is it limited to drayage or gantry technology?
- Proposals for funding –
 - The four-agency MOU structure could be carried forward to allow groups to collaborate or only have one proposal when applying for grants or other funding programs.
 - It would be nice to have a state-wide application for funding.
 - How will the IRA affect existing incentives?
- EJ and other goals –
 - There is overlap in criteria to accelerate GHG reductions and address EJ.
 - There needs to be an alignment between EJ and pollution reduction practices.
 - EJ is not a priority for some agencies, such as DOT. Some agencies express a concern about EJ but do not change any of their practices.
- Recordkeeping and tracking -
 - It would be nice to have a public scorecard for cities so it would be possible to see what other similarly sized cities are doing to reduce emissions.
 - There is a need to account for cumulative impacts.
 - It would be helpful to have some recordkeeping from programs like the IRA to show how much money, technology, and infrastructure actually went into EJ areas.
 - With all the money being spent through the IRA and other initiatives, how can states get credit in the MOVES model for all the changes they are implementing?

- Best practices –
 - What are the best use cases for certain things, such as when allocating space for bike lanes is useful? This could be an area the MSTRS could look into if such guidance does not already exist.
 - The group could focus on what’s needed to push best practices across the county to move to an equitable decarbonized future.
 - It could be good to have the California Advanced Clean Fleets regulation in other places of the country.
 - There has been amazing progress in off-road vehicles going to zero-emissions rather than just getting cleaner. Using lessons-learned from this for other sectors could be helpful.
- Micro-mobility –
 - We need the EPA, DOT, HUD, and DOE to promote mobility strategies, mobility access, and land use considerations at the micro level nationwide.
 - What could the MSTRS do around the topic of micro-mobility? Is there is a need for better data, or do we need some policy or land-use best practices?
 - We need models and data to feed those models to answer questions about micro-mobility. Maybe this could be the next stage of what is done in a MSTRS working group.
 - The priorities of the audience for any report we produce will matter. Is the priority to reduce emissions or improve mobility? These two targets may overlap but are not the same. For instance, the use of e-bikes will not reduce truck emissions.
- Safety and emissions –
 - Nothing has been mentioned today about collaboration with the National Highway Traffic Safety Administration (NHTSA) on safety and emissions reductions. This could be a breakout session at the next meeting if there is enough interest.
 - The U.S. DOT is starting a new program on safety also, so it is not only NHTSA.
- Heavy-duty infrastructure would be a good area for discussion.
- The group could look into near-shore vessels, which operate a lot like buses, in that they return home every night. Europe is way ahead of the U.S. on addressing these vessels.

Public comment

No comments were made.

Closing remarks

Mr. Kassel sincerely thanked everyone for attending the meeting. He reminded the members that the expertise and information shared during these meetings will be used to improve mobile source emissions in the future. Mr. Kassel and others expressed their desire to hold the next meeting in person.

Ms. Mroz also thanked everyone for their participation. She noted that the EPA is planning for the next meeting to take place in person in Ann Arbor, Michigan, and she will be sending

members a Doodle poll soon to request information about dates for that meeting. She then adjourned the meeting.

Attachment 1

MSTRS Virtual Meeting Attendance List¹	
Name	Organization
Chris Bliley	Growth Energy
Dave Cooke	Union of Concerned Scientists
Elaine O’Grady	Northeast States for Coordinated Air Use Management
Erik White	National Association of Clean Air Agencies
Joanne Rotondi	Hogan Lovell
Lori Clark	North Central Texas Council of Governments
Matt Barth	Institute of Electrical and Electronics Engineers
Matthew Spears	Cummins Inc.
Megan Green	Mecklenburg County Government
Michael Cleveland	Association of American Railroads
Michael Geller	Manufacturers of Emission Controls Association
Rich Kassel	Tri-State Transportation Campaign
Steven Douglas	Alliance for Automotive Innovation
Michael Berube	U.S. Department of Energy
Rachel Muncrief	International Council on Clean Transportation
Michael Replogle	Institute for Transportation and Development Policy
Matt Rudnick	General Motors Company
Raquel Garcia	Southwest Detroit Environmental Vision
Tara Ramani	Texas A&M Transportation Institute
Lubna Shoaib	East-West Gateway Council of Governments
Mary Arnold	Civics United for Railroad Environmental Solutions, Inc.
John Boesel	CALSTART
Kathryn Valdez	Xcel Energy
Kate Zyla	Georgetown Climate Center
Ellen Mantus	Health Effects Institute
Aaron Katzenstein	South Coast Air Quality Management District
Clay Pope	Capitol Access Partners
Diep Vu	Marathon Petroleum Company
Cynthia Williams	Ford Motor Company
Other Attendees	
Christopher Voight	
Deborah Dutcher Wilson	
Doug Greenhaus	
Greg Schroeder	
Jeff Clark	
Jennifer Koenen	
Jessie Mroz	
Julia Butch	
Karl Simon	

¹ This list of meeting attendees is not comprehensive due to a number of unidentified call-in participants.

MSTRS Virtual Meeting Attendance List¹	
Name	Organization
Keesha Esqueda	
Kylie McKinley	
Marc Corrigan	
Michael Moltzen	
Nina Wimberley	
Sarah Roberts	
Steve Hurd	
Contractor Support	
Lesley Stobert	
Charlotte Dungan	

Attachment 2

Chat messages:

[11:51 AM] Esqueda, Keesha N

Are we supposed to be seeing Slide 16?

[11:52 AM] Dave Cooke

On Slide 6 now.

[1:34 PM] Mary Arnold, CURES (Guest)

What data informed the recently White House-released Beta mapping?

[1:39 PM] Valdez, Kathryn A

Will the EPA and CEQ maps ever be merged?

[1:43 PM] Steven Douglas

Given the move toward vehicle electrification, have you considered adding EV charging in the Critical Service Gaps section? This should include both public charging and residential charging. DOE has good data on public charging, but 80-90% of charging occurs at home because home charging is vastly cheaper, more convenient and reliable. Yet, to my knowledge, there is a virtually no information on residential charging availability.

[1:54 PM] Mary Arnold, CURES (Guest)

The tools that communities are most interested in are the ones that direct funding to them and the ones used for permitting.

[1:55 PM] Lee, Matthew T.

<https://screeningtool.geoplatform.gov/en/frequently-asked-questions#3/33.47/-97.5><https://screeningtool.geoplatform.gov/en/frequently-asked-questions#3/33.47/-97.5>

[3:52 PM] Mroz, Jessie

Please raise your hands so I know to call on you. Thanks! :)

[3:55 PM] Rachel Muncrief

National ACF regulation?

[3:56 PM] Rachel Muncrief

How much is Smartway doing on Electrification lately?

[3:57 PM] Rachel Muncrief

HDV infrastructure is a great topic to work on.

[3:58 PM] Marc Corrigan

Just a comment for some thought if it is helpful. Is there an effort, or any benefit from expanding the US rail system further, build parallel tracks for redundancy and to get more freight off of the roads. Probably already being considered... but I wonder if there is opportunity there that is not being considered. Thanks. No discussion needed, but if appropriate, give it some consideration.

[4:01 PM] Michael Replogle (Guest)

EPA and other agencies need to do more to encourage pedal assist e-bikes and slower lighter e-cargo vehicles. That's a big opportunity in urban and suburban areas.

[4:03 PM] Voigt, Christopher G. (VDOT)

MOVES model validation for the higher road grades encountered in project-level analyses would be a topic of interest to DOTs. The model currently generates very anomalous looking emission factor-speed curves for higher road grades, as was reported to the MOVES review workgroup (Oct.2019). What is the current model validation process for higher road grades? How can it be improved - better algorithms, better field data etc.? What field data are available for actual emission rates by vehicle and fuel type for higher road grades? Do we need to get more and/or better field data for this purpose?

[4:05 PM] Rachel Muncrief

Agree with non-road ZEVs!

[4:08 PM] Jennifer J. Koenen

With the ambitious goals being proposed for going almost entirely electric, it was briefly touched on about the need for precious metals in order to meet these production goals. Has there been any discussion, consideration, or concern of the timelines being met with the long (decades) environmental studies that these mines require to be approved, let alone receive a permit to operate?

[4:08 PM] Matt Barth

Answer to Chris Voigt: yes, more data are needed. Right now road grade is addressed in MOVES, but it also a vehicle load issue combined with road grade, and the amount of time a truck spends at a given speed. We can talk more offline

[4:11 PM] Voigt, Christopher G. (VDOT)

Matt - Thanks. Chris

[4:12 PM] Ramani, Tara

on the point Rich made re. balancing/ co-optimizing goals of decarbonization and criteria pollutant reduction goals, extending this to local-scale analyses of impacts for different transportation and technology scenarios appears to be an area of relevance. ties into some of the analysis needs raised in the future mobility report.

[4:21 PM] Green, Megan

FYI - CDC has a tool that attempts to quantify cumulative impacts: [EJI Explorer \(cdc.gov\)](https://www.cdc.gov/eji/explorer/)

[4:22 PM] Green, Megan

probably more accurate to say characterize, not quantify

[4:22 PM] Green, Megan

Ramani, Tara (External)

on the point Rich made re. balancing/ co-optimizing goals of decarbonization and criteria pollutant reduction goals, extending this to local-scale analyses of impacts for different transportation and technology scenarios appears to be an area of relevance. ties into some of the analysis needs raise...

EPA's TEAMS model might be a starting point for this kind of analysis

[4:23 PM] Rotondi, Joanne

battery recycling initiatives? As greater electrification is required, this could be an opportunity to provide for incentives/flexibilities to encourage recycling (particularly given scarcity of raw materials), and conversely a missed opportunity to not. Perhaps also a good topic for intra-agency coordination with other EPA divisions?

[4:36 PM] Lori Clark

Following up on Megan's point, I'm also curious about ARE those agencies hearing from new/different community members? And how many voices are showing up?

[4:37 PM] Deborah Dutcher Wilson

For MOVES research: Apologies if this has been discussed, as I had to drop off earlier for other meetings. Something our state agencies have mentioned during MJO MOVES meetings, is the impact that tampering may have on emissions determined in MOVES. At this time, it's not something that's included. It would be helpful if this topic could be researched and hopefully added in a future MOVES model. Also, many states are unable to use something as a credit/benefit in their SIPs if it is not included as part of the models (e.g., MOVES). So, if States are doing something to reduce tampering, it cannot be included or funded, even if it's causing a benefit. Of course, if it's not shown as a negative impact to begin with, it cannot be included as a benefit. However, it's the funding that is the issue and that may be taken away.

[4:45 PM] Rotondi, Joanne

Apologies but I have to drop off. A huge thank you to the EPA team. Looking forward to hopefully seeing folks in person in the Spring!

[4:47 PM] John Boesel

I like the idea of meeting in person next time too!

[4:48 PM] Michael Replogle (Guest)

Hope to meet you all in person in the spring.