

The Solar Photovoltaic Systems Recovery, Reuse, and Recycling Working Group

Meeting Minutes

Thursday, May 23, 2024, 1:00pm-3:00pm E.T.

Meeting Location: Online via Google Video

Attendees

Member Names	Affiliation	<i>Present</i>
Sen. Benjamin Brooks	Senate of Maryland	X
Del. Mike Rogers	Maryland House of Delegates	X
Tyler Abbott, Chair	Maryland Department of the Environment, designee	X
Evie Schwartz	Maryland Energy Administration, designee	X
Josh Kurtz	Maryland Department of Natural Resources, designee	
David Chy	Public Service Commission	X
Diana Menendez	Chesapeake Climate Action Network	X
Pearl Donohoo-Vallett	Pepco Holdings	X
David Beugelmans	Gordon Feinblatt, LLC	X
Stacey Onoh/Oriaifo	Exelon	X
Scott Elias	CleanCapital	X (designee)
Bob Sadzinski	Maryland Department of Natural Resources	X

Non-members

Stephanie Vo, Kathleen Kennedy, Cindy Osorto, Andrew Kays, Morgan Mills, Shannon McDonald, Robert Nicholson, Leah Meredith, Nitzan Goldberger, Evan Vaughan, Caleb Flora, Will Ward, Mary, Chris Hoagland

Why we are here, Schedule, Introductions, and Expectations

- Opening remarks from Bradley Baker and Tyler Abbott
 - Tyler Abbott, MDE Director of Land and Materials Administration, Chair of Solar WG
- Members introduced themselves
 - Bradley Baker, Program Manager for Resource Management Program at MDE
 - Wanted to be a part of WG because he worked at Arizona Department of Environmental Quality and managed Cathode Ray Tube (CRT) enforcement and dumping cases. So he is motivated by the mismanagement of electronics recycling and CRTs and doesn't want the same thing to happen with solar panels. But, we have time to work through the issues and mitigate the problems we've seen with electronics recycling in the past.
 - Sen. Benjamin Brooks, representing the 10th Legislative District in Baltimore County, serves on the Triple E (Education, Energy and Environment) Committee.
 - Evie Schwartz, MEA designee; MEA promotes clean, affordable, reliable energy and in a just, equitable manner, been with MEA for 9 months, in the solar industry for 10 years.
 - Pearl Donohoo-Vallett, Director of Regulatory Affairs at Pepco and Delmarva, previously led the decarbonization team.
 - David Bugelmanns, Gordan Feinblatt law firm , works with utilities and solar developers, solar CPCN plans and the decommissioning plan components.
 - Stacy Onoh, Manager of Community Solar at BGE.
 - Leah Meredith, Senior Manager over Mid-Atlantic Region at SEIA, alternate for Scott Elias, SEIA is a national trade group for solar and storage industry.
 - Bob Sadzinski, Director of Power Plant Research Program at the Maryland DNR, they do the Certificates of Public Convenience and Necessity (CPCNs) for the state, do the environmental socioeconomic impacts of solar projects and make recommendations to the PSC.
 - Bob Nicholson, Sustainability and Recycling Manager at SEIA, primary focus has been recycling infrastructure within the US for EoL PVs.
 - Del. Mike Rogers, member of Economic Matters Committee.
- Non-members made introductions as well.
- MCCC Working Groups
 - Solar PV group is one of the four new work groups on the MCCC.
- Schedule
 - May 23, June 17, July 15, August 19, September 16, October 18, November 18
 - See work plan for meeting topics:
https://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Doclib_SP_SRRR/Work%20Plan.pdf
 - Send speaker recommendations to Bradley Baker.
 - We will likely have more meetings in the Nov/Dec time frame depending on our progress on the report.

Roles and responsibilities of UMD and JHU

- Introduction to research team
 - University of Maryland, School of Public Policy, Center for Global Sustainability
 - Dr. Kathleen Kennedy
 - Bradley Phelps
 - Stephanie Vo
 - Steve Smith
 - Johns Hopkins University, Whiting School of Engineering, Department of Electrical & Computer Engineering

- Dr. Susanna Thon
- Sreyas Chintapalli
- Statutory Requirements under the CSNA
 - Full text here:
<https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Pages/SPSRRRWG.aspx>
 - Review of solar PV systems currently used in Maryland
 - Review best practices for managing end-of-life solar PV systems
 - Review other end-of-life programs for PV systems
 - Comparisons with other forms of energy generations
 - Recommend and analyze financing mechanisms
 - Recommend and analyze infrastructure
- Timeline
 - Preliminary results on August 19th
 - Final study on November 15th

Discuss other considerations

- Tyler Abbott: I appreciate all the work that you've already put into this work group.
- Sen. Brooks: When we're talking about the things in the panel that we can recycle, but we should also address those things that are really hazardous to the environment and to the individuals who are going to experience difficulty recycling. A full spectrum on the good and the bad.
 - Tyler Abbott: That's a good point, and we can talk to our solid waste folks in this administration.
- Del. Mike Rogers: Lots of good content from what I'm hearing. I know that storage is something that is pretty important. Senator Brooks and I had the chance last summer to travel to Thailand and some of the things that are evolving in the storage arena can play a significant role in energy as it relates to solar, winds and other forms of clean energy. To the extent that we might be able to include that as part of the conversation might be helpful.
 - Tyler Abbott: Do we have another work group on the storage side?
 - Cindy Osorto: We do, the Energy Resilience and Efficiency WG, which also just launched this week.
 - Del. Rogers: So perhaps there is some potential for cross pollination between the groups so we both benefit from what is out there.
 - Tyler: They all still fall under the MCCC and all of it certainly gets aggregated in the end as well.
 - Cindy: We have an upcoming meeting and all are public: June 18th in-person. Cindy can share more details with Bradley.
- Evie Schwartz: I wanted to say that it'd be nice to hear some personal stories. I just listened to a story from someone who is an academic but is personally decommissioning panels on the ground. That's a perspective we don't always hear. One of the things he mentioned is that he's decommissioning systems that are 7-12 years old, so the assumption that we're talking about projects that are 20. 30. 40 years old is also a false assumption. I think that perspective was interesting, especially from a worker, installation perspective. More feedback on front end, workforce development and training on how to extend the lifetime of systems through that. I wanted to recommend that. I was curious, in general, as we meet more people and we want to make sure to invite them to be public participants in this process, what's the best way to get on your email list?
 - Bradley: We do have a running email list, so if you want to invite folks please let me know and we can get them added.
 - Tyler: It also all goes up on the Climate Commission website.

- Cindy: Andrew mentioned worker training for solar panels and how that could develop over time. We actually have a Just Transition Employment and Retraining Working Group, which I am leading, and there will be a meeting in-person at MDE next Friday. CivicWorks will be presenting about how they approach energy efficiency, solar panels, weatherization, a lot of relevant topics. Feel free to join that meeting.
- Sen. Brooks: When I made the purchase of my panels, I didn't know a whole lot about it, but I did want to reduce or mitigate the costs of energy. And the panels that I was offered—I didn't know about the quality and the different types of panels.--I guess the more efficient panels. I went with what the sales person told me at the time was the best. Since we've advanced in technology, we should encourage salespersons to offer the best of panels that they can, even though they might be a little more expensive, if they can get a longer useful life out of those panels then it could definitely save those particular homeowners in the long run.

Open to the public

- Andrew Kays: Going back to Dr. Kennedy's work summary: with all the economic analysis that they're going to be performing, is there going to be a discussion about the potential business development within the state for this type of recycling program, maybe link to existing training programs for solar installers.
 - Bradley: One of the things that Shannon McDonald is working on is developing recycling markets in the state of Maryland. There was a law that required us to do that, passed 2-3 years ago. As a part of this, we want to bring recycling markets to Maryland. It would be nice if it could be in the surrounding state but we think it'd be better in Maryland itself. It'll be part of the conversation and is something that we are working on.