

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

### Meeting Minutes

Monday, November 18, 2024, 9:00am-11:00am E.T.

Meeting Location: Online via Google Video

#### Attendees

Member Names	Affiliation	Present
Sen. Benjamin Brooks	Senate of Maryland	
Del. Mike Rogers	Maryland House of Delegates	X
Stephanie Cobb Williams	Maryland Department of the Environment, designee	X, Bradley Baker
Evie Schwartz	Maryland Energy Administration, designee	X
Josh Kurtz	Maryland Department of Natural Resources, designee	X, Bob Sadzinski
David Chy	Public Service Commission	X
David Beugelmans	Gordon Feinblatt, LLC	X
Stacey Onoh/Oriaifo	Exelon	X
Scott Elias	CleanCapital	X

#### Meeting Overview and Member Roll Call

- Bradley Baker introduced the meeting and called roll
- Recommendations that go into the report, will help inform recommendations next year

#### A Circular Economy Approach to Solar Photovoltaics in Maryland – Center for Global Sustainability (UMD) and Ralph O’Connor Sustainable Energy Institute (JHU)

- The research team at the University of Maryland and Johns Hopkins University gave a presentation of the study associated with the working group.

#### Policy Recommendations Voting

Members of the working group voted on recommendations as an amendment to the report.

- a. **NOT PASSED** - The General Assembly should consider a delayed start landfill ban for solar PV modules starting between the years 2028 and 2035 (this range is when the anticipated surge of decommissioned panels is expected to occur).
  - i. (1) If a landfill ban is enacted now, solar panel owners will just establish a default practice of shipping solar panels out of state to be disposed of,
  - ii. (2) a delayed start will give the solar panel recycling industry more time to prepare for the surge of solar panels coming offline in those years,

- iii. (3) a delayed start will also give the State of Maryland more time to develop policy and funding sources that would be complementary to a landfill ban.
  - iv. (4) Assuming there is enough to practically supply and support solar recycling, reuse, refurbishment, and repair.
- b. **NOT PASSED** - The General Assembly should consider the efficacy of Post Consumer Recyclability (PCR) phased goals in the manufacturing of new solar panels sold in the state. This recommendation could be paired with the delayed start landfill ban.
- i. The goal should take into consideration factors such as: consumer affordability, the cost of recycling, and Maryland's renewable energy goals.
- c. **PASSED** - Version 1: The General Assembly should consider implementing incentives to bring a solar panel recycler to Maryland or work with surrounding states to establish a regional solar recycler.
- d. **NOT PASSED** - Version 2: The General Assembly should consider working with surrounding states to establish a regional solar recycler, which could include Maryland.
- e. **NOT PASSED** - The General Assembly should require decommissioned recycled solar panels to be sent to a recycler, with acceptable certifications (e.g. "R2" or "e-stewards").
- f. **PASSED** - The General Assembly should consider the development of a stewardship organization, typically a non-profit, to help manage the end-of-life collection of residential solar panels.
- i. Residents who own their solar panels may not have considered the full costs, complexity, or plans for the decommissioning of their systems.
  - ii. There is already a robust system to manage solar panel decommissioning from utility-scale solar systems over 2MW. Some of these requirements include decommissioning plans that get updated and approved every 5 years and bonding requirements that would pay for solar panel decommissioning.
- g. **NOT PASSED** - Version 1: The General Assembly should consider establishing incentives to promote reuse, repair, refurbishment & recertification, or donation of solar panels, before recycling is considered. The goal would be to have a local closed loop recycling economy in Maryland, or a regional recycling economy.
- h. **PASSED** - Version 2: The General Assembly should consider establishing incentives to promote reuse, repair, refurbishment & recertification, or donation of solar panels, before recycling is considered.
- i. **PASSED** - The General Assembly should consider incentives for workforce development/training to reduce breakage during decommissioning and transportation due to gaps in laborer training or insufficient shipping practices
- j. **NOT PASSED** - The General Assembly should consider funding a study to determine appropriate end-of-life management financing sources for residential PV solar panels.
- i. Solar panels, taking into consideration the costs of financing the stewardship organization, consumer affordability, the cost of recycling, and Maryland's renewable energy goals.

- k. **PASSED** - The General Assembly should consider an advance recovery fee for residential solar to help pay for the stewardship organization's cost of collection and processing of solar panels owned by residents.
  - i. The fee should take into account consumer affordability, the cost of recycling, and Maryland's renewable energy goals.
  - ii. The assumption is that recycling costs will reduce in the future

The working group discussed meeting dates for 2025 and many agreed that resuming meetings after the 2025 legislative session would be optimal.

### Public Comment

- Should there be a concern about the number of abstentions preventing certain recommendations from moving forward?
  - o There are certain stakeholders' viewpoints that are missing from this working group, like residential solar, that may not have changed the votes but are important to consider.