EPEAT Program
Continuous Monitoring Outcomes Report

Photovoltaic Modules and Inverters
PVMI-2021-01
November 10, 2021

1.0 Background

EPEAT® is a comprehensive voluntary sustainability Type 1 ecolabel that helps purchasers identify sustainable technology products and services. Central to EPEAT are conformity assurance activities that meet the technical rigor and credibility needs of the institutional purchasers who rely upon EPEAT. The EPEAT Program ensures the ongoing conformance of EPEAT-registered products through an ongoing surveillance process known as Continuous Monitoring. Continuous Monitoring activities occur throughout the year and test the ability of Participating Manufacturers to prove conformance with EPEAT Criteria on an ongoing basis.

Some Continuous Monitoring activities require that Investigations be conducted in discrete timeframes called Rounds. The EPEAT Program develops an individual plan for each Continuous Monitoring Round, which specifies the EPEAT Criteria to be investigated, the method of investigation that GEC-approved Conformity Assurance Bodies (CABs) must use and the specific dates when the Investigation activities must be completed. The EPEAT Program also selects the Participating Manufacturers and EPEAT-registered products and assigns Investigations to CABs, which must fully participate in and are responsible for implementing Continuous Monitoring Round activities with their Participating Manufacturer clients. Participating Manufacturers are required to cooperate fully with their GEC-approved CAB during Round activities.

To maintain the level of transparency relied on by purchasers, the EPEAT Program publishes an Outcomes Report at the conclusion of each Round to summarize the activities conducted and to identify the products and Participating Manufacturers that received major nonconformances and the actions taken to restore accuracy of the EPEAT Registry.

This document summarizes the activities and results of Continuous Monitoring Round PVMI-2021-01 conducted for the Photovoltaic Modules and Inverters category.

2.0 Overview of Continuous Monitoring Round PVMI-2021-01

2.1 Investigation Activities

As per the published Round Plan, Continuous Monitoring Round PVMI-2021-01 used Level 1 Investigations (documentation review activities to determine Participating Manufacturers' conformance with specific EPEAT Criteria). Participating Manufacturers had a discrete time period to provide their CABs with evidence supporting conformance with the selected EPEAT Criteria. GEC-approved CABs reviewed the documentation, made recommendations on conformity based solely on the evidence provided by Participating Manufacturers, and sent Investigation Reports to the EPEAT Program. The EPEAT Program made the final decisions on conformity for the Investigations.

2.2 Criteria Investigated

The products and Criteria selected for investigation in Continuous Monitoring Round PVMI-2021-01 were selected randomly using a random number generator.

Table 1: Criteria Investigated in Round PVMI-2021-01

Criteria Number	Criterion Title
6.1.1	Declaration of recycled content in product
10.1.1	Elimination of substances of concern in product packaging

3.0 Summary of Investigations and Final Decisions on Conformity for PVMI-2021-01

Highlights from this Continuous Monitoring Round are:

- **2** investigations completed
- **2** decisions of Nonconformance *Further details provided in Section 4*

4.0 Further Details on Nonconformances for PVMI-2021-01

Table 2 below provides a further breakdown of the nonconformances by Criterion.

Table 2: Breakdown of Nonconformances by Criterion for PVMI-2021-01

Criteria Number	Criterion Title	Total Nonconformances
6.1.1	Declaration of recycled content in product	1
10.1.1	Elimination of substances of concern in product packaging	1

The underlying reason for the nonconformances in both Investigations was insufficient evidence to demonstrate conformance.

4.1 Major Versus Minor Nonconformances

All nonconformances must be categorized as either major or minor. Minor nonconformances are non-critical or clerical in nature and do not materially affect the validity of conformance with EPEAT Criteria. All nonconformances that do not meet the definition of minor are categorized as major.

Both nonconformances in this Round were major nonconformances.

4.2 Minor Nonconformances

For Level 1 Investigations, nonconformances may be categorized as minor for the following reasons:

- Minor human error in data entry (e.g., value cited for EPEAT-product registration is insignificantly above or below the actual value).
- Minor administrative errors (e.g., broken URLs, reports/certificates marginally outdated).
- No documentation provided by a Participating Manufacturer where the Participating Manufacturer indicated the product has reached end-of-life and is no longer available on the market.

There were no minor nonconformances found in Continuous Monitoring Investigation PVMI-2021-01.

4.3 Major Nonconformances

Major nonconformances may be found due to a demonstrated nonconformance, insufficient evidence provided to demonstrate conformance, or because no documentation was provided. Major nonconformances were found for both Criteria investigated in this Round, and in both cases, the nonconformance was due to insufficient evidence submitted to demonstrate conformance.

Criterion 6.1.1 requires Participating Manufacturers to disclose the minimum percentage, by weight, of recycled content in the product for multiple components on the EPEAT Registry. The Manufacturer may indicate that there is no minimum recycled content in one or more components, or the whole product, but information must be provided for the product and all 9 specific components (PV Modules) or 7 specific components (PV Inverters). The amount of recycled content disclosed on the EPEAT Registry cannot exceed the calculated amount of recycled content in each component, and the product, based on the evidence required in verification requirements a) and b).

Criterion 10.1.1 requires evidence to demonstrate that each packaging component in scope does not contain heavy metals over the threshold. Supplier statements covering each component, or documentation of a conformance assurance system can be provided.

5.0 Actions to Restore Conformance

Where the final conformity decision is nonconformance (whether major or minor), Participating Manufacturers must make corrections to restore the accuracy of the EPEAT Registry during the Corrective Action Phase. These activities may include providing additional evidence to demonstrate conformance with the Criterion or unselecting the Criteria in the EPEAT Registry. Where the product was found nonconformant and is no longer available in the marketplace, the product must be archived.

During the Corrective Action Phase, Participating Manufacturers must also develop Corrective Action Plans for other EPEAT-registered products that may be affected by the same underlying issue causing the nonconformance but were not the subject of investigation (called “similarly affected products”).

The following actions were taken to restore accuracy to the EPEAT Registry as a result of Continuous Monitoring Round PVMI-2021-01:

- **1** investigation — Additional data provided by Participating Manufacturers, bringing the products into conformance with the Criterion
- **1** investigation — Manufacturer corrected disclosure in the EPEAT Registry

Table 3 in Section 7 identifies the Participating Manufacturers and products that received major nonconformances in Continuous Monitoring Round PVMI-2021-01.

6.0 Key Findings

6.1 Providing Evidence for all Components Required by Criterion 6.1.1 and Ensuring EPEAT Registry Declarations are Up to Date

Participating Manufacturers must update their EPEAT Criteria selections and disclosures as needed to reflect changes (including but not limited to changes in product materials, components, contract services or corporate activities) if any of the changes impact how they are conforming with the Criteria and/or their ability to successfully meet the Criteria.

For 6.1.1 specifically, evidence must be provided for all components with more than 0% recycled content disclosed on the EPEAT Registry.

6.2 Conformity for all Packaging Components

Manufacturers are reminded to ensure that evidence provided for Criterion 10.1.1 addresses all packaging components identified in the European Union Packaging Directive and the Model Toxics in Packaging Legislation, including inks and labels.

7.0 Identification of Major Nonconformances and Corrections Made by Participating Manufacturers

In the interest of transparency, the EPEAT Program identifies the Participating Manufacturers and products that received major nonconformances and the actions taken to restore accuracy of the EPEAT Registry. Minor nonconformances are generally clerical in nature and do not materially affect the validity of products in the EPEAT Registry. As such, these are not identified in the table below.

Table 3: Summary of Major Nonconformances and Corrections Made by Participating Manufacturers

Participating Manufacturer	Product	Product Type	Country	Criterion Number	Criterion Title	Required or Optional	Underlying Reason for Nonconformance	Corrective Action Taken
First Solar, Inc.	Series 6	Photovoltaic modules and inverters	Hungary	6.1.1	Declaration of recycled content in product	Required	Insufficient evidence to demonstrate conformance.	Manufacturer corrected information in the EPEAT Registry.
First Solar, Inc.	Series 6	Photovoltaic modules and inverters	Mexico	10.1.1	Elimination of substances of concern in product packaging	Required	Insufficient evidence to demonstrate conformance.	Manufacturer provided evidence demonstrating conformance.

Document Control and Change History						
Issue	***Revision***	***Owner***	***Approver***	***Description***	***Approval Date***	***Effective Date***
1	*0*	*EPEAT Conformity Assurance Manager*	*Director, EPEAT Program*	*Initial release*		
1	*1*	*EPEAT Conformity Assurance Manager*	*Director, EPEAT Program*		*2018 Dec 11*	*2018 Dec 11*
2	*0*	*Senior Manager, Ecolabels and Resources*	*Senior Director, Ecolabels and Manufacturer Resources*	*Reformatting of document. Addition of standardized text.*	*2021 Mar 25*	*2021 Mar 30*