

Plastic Program Advisory Group

Meeting Minutes

Two sessions held on:

Monday, 26 October 2021, 8:00-9:30 AM EDT

Tuesday, 27 October 2021, 8:00-9:30 PM EDT

Main Discussion Topic: Chemical Recycling Methodology Revision

Verra and South Pole are currently revising the *Plastic Waste Recycling Methodology*, expanding the scope to include criteria and procedures applicable to chemical (advanced, tertiary) recycling activities. The revised methodology is planned to undergo public consultation in January 2022. Verra solicited input from the Plastic Program Advisory Group (PPAG) regarding three components of the revised methodology. The feedback received is summarized below.

1) Output quality and displacement of virgin materials

The *Plastic Waste Recycling Methodology* currently includes an applicability condition that requires projects to show that the output of the recycling facility (e.g., pellets, flakes) is used to process/manufacture plastic products, replacing the use of virgin plastic. As a result of expanding the methodology to include chemical recycling activities, Verra proposes revising the applicability condition to require that projects demonstrate the output of the recycling facility is of a quality that *enables* it to be used to produce a material that can replace virgin plastic. Under this proposed revision, use of an output for the production of fuel and/or energy recovery would not be eligible.

Feedback Received:

- There is a risk that while a high-quality output could enable the replacement of virgin plastic, the actual end use of the recycled material is highly dependent on project context.
- There are concerns that the end product (e.g., plastic polymers, fuel) of a chemical recycling process may change throughout the project lifetime due to differing market and production demands. It is important for projects to continually demonstrate that their output is of the quality necessary to produce recycled plastic and replace virgin material.
- Since individual monomers cannot be tracked in complex chemical recycling value chains, a mass balance approach could enable project proponents to demonstrate that an output is not used to generate fuel.

During the public consultation, Verra will solicit input from stakeholders on the types of verifiable evidence that could be provided to demonstrate compliance with this applicability condition.

2) Requirements for composite materials

Currently, the *Plastic Waste Recycling Methodology* includes an exception to the applicability condition that requires projects to demonstrate that the output of a recycling facility replaces the use of virgin plastic. Composite materials are allowed an exception to this requirement as long as the plastic polymers cannot be separated and recycled independently, and the processed material is used in a product designed to be durable (i.e., with a lifetime of more than 10 years). Verra is considering removing this exception.

Feedback received:

- Those that supported maintaining the exception argued that downcycling is a better alternative for composite materials compared to other end-of-life scenarios, such as the production of refuse-derived fuel (RDF), use of waste material in cement kilns, and dumping.
- There are concerns that, if this exception is removed, alternatives that are lower on the waste management hierarchy would be incentivized over reprocessing/downcycling.
- In this context, the exception serves as a safeguard. The exception could be updated to include more stringent requirements for qualifying end markets (e.g., municipal infrastructure, pavers and planters, roads).

During the public consultation, Verra will seek input from those projects that would be directly impacted by removal of the exception for composite materials. Verra will also consider whether it would be feasible to maintain the exception with the intent to remove it or phase it out over time.

3) Energy intensity and GHG emissions associated with recycling activities

Verra recognizes that it is preferable for projects to use recycling technologies with less energy input and fewer GHG emissions. Generally, processes with less depolymerization and repolymerization are less energy intensive. Verra proposes a new applicability condition that would require project activities that include chemical recycling to demonstrate that collected and sorted waste materials cannot be recycled using a technology with a lower energy intensity and/or fewer GHG emissions, while maintaining a quality that allows the output to be used to replace virgin plastic.

Feedback received:

- Members generally agreed with the intent of the requirement, emphasizing that project activities resulting in fewer GHG emissions are favorable; however, concerns were raised about whether projects could feasibly comply with such a requirement. A third-party database with high quality information about GHG emissions and energy use of recycling technologies does not yet exist. It would be very difficult for early-stage technologies to access the necessary data to provide sufficient information to meet the proposed requirement.
- Suggestions were made to:
 - Specify that emissions should be compared to that of virgin plastic production;
 - Set a benchmark (e.g., emissions must be 10% less than of those from virgin plastic production);
 - Establish a threshold (e.g., projects must perform the proposed analysis if their energy intensity per tonne is above a certain level); and
 - Provide more detail about where the data for this assessment would come from and how it would be monitored and verified. For example, would GHG intensity be a self-reported statement verified by the auditor, or would the GHG emissions have to be separately assessed and certified by a third-party?

Verra will consider the input provided by the PPAG and solicit additional feedback on these requirements, particularly data availability, during the public consultation.

Verra has initiated dialogues among AG members on the following topics:

- Project participation in multiple crediting programs;
- Linkages between GHG emission reductions and plastics; and
- Impact equivalency of different types of plastics.