



# SIERRA CLUB

## MARYLAND CHAPTER

P.O. Box 278  
Riverdale, MD 20738

**Committee: Environment and Transportation**

**Testimony on: HB 1092 - Recycling – Prohibition on the Chemical Conversion of Plastic**

**Position: Support**

**Hearing Date: February 26, 2025**

The Maryland Chapter of the Sierra Club urges a favorable report on HB 1092. This bill would change the definition of recycling to exclude chemical conversion processes as well as prohibit the building of a facility in Maryland that converts plastic to fuel or feedstock through certain chemical conversion processes. If passed, this bill would go into effect October 1, 2025.

The plastics industry is gearing up to increase production four-fold by 2050 amidst a global plastic pollution crisis that threatens our land, oceans, wildlife, and human health. This crisis was caused largely by excessive production of cheap, single-use plastic with the knowledge decades ago that mechanical recycling of plastic would never be adequate to address plastic waste created.<sup>1</sup>

The industry is promoting “chemical recycling,” also referred to as “advanced recycling,” as a new solution to the plastic pollution crisis. These processes<sup>2</sup> break down plastics into their monomer components with heat, pressure, and solvents, in a low-oxygen chamber, after which the components could then be used, in principle, to make new plastic via repolymerization, creating a circular economy in plastic.

In practice, however, the chemical conversion of plastic is mostly **not** being used to create new plastic, but to transform plastic back into fossil fuel for combustion, which is not recycling. Despite fifty years of experimentation, the technology for chemical conversion of plastic is not mature and is not delivering on conversion of plastic to plastic.

According to report by Beyond Plastics and the International Pollutant Elimination Network (IPEN), as of September 2023, eleven chemical recycling plants had been built in the United States. These plants have encountered a variety of problems including high costs along with low quality end products, fires, and spills.<sup>3</sup> By September 2024, two of the eleven plants had closed. Most of the nine remaining plants were “still not operating at full capacity...with minimal production of actual recycled plastic.”<sup>4</sup> Three of the remaining plants “have a stated purpose of only making feedstock for plastic production. Two only make fuels, and four make a

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<sup>1</sup> See *Plastic Wars* (<https://www.pbs.org/wgbh/frontline/film/plastic-wars/>), produced by PBS, and *The Story of Plastic* (<https://www.storyofplastic.org/>), produced by The Story of Stuff Project.

<sup>2</sup> Primarily pyrolysis and gasification.

<sup>3</sup> Beyond Plastics and International Pollutant Elimination Network (IPEN). 2023. *Chemical Recycling: A Dangerous Deception*, October. <https://www.beyondplastics.org/publications/chemical-recycling>

<sup>4</sup> Beyond Plastics and IPEN. 2024. Fact Sheet: “Why Chemical Recycling Won’t Solve the Plastic Pollution Problem,” based on updated findings from *Chemical Recycling: A Dangerous Deception*, October 2023, *Ibid*. <https://static1.squarespace.com/static/5eda91260bbb7e7a4bf528d8/t/66d724a67a85c90bb98e309c/1725375657031/CHEMICAL+RECYCLING+FACT+SHEET+-+Updated+September+2024.pdf>

combination of fuels, chemicals, and plastic feedstocks. ...Some plants have experienced fires and explosions.”<sup>5</sup>

The processes for converting plastic back into fossil fuel are energy intensive, have a large carbon footprint, and create a new waste stream of toxic contaminants in addition to the environmental impacts of burning the contaminated fossil fuels.<sup>6</sup>

- Just as for mechanical recycling, the plastic still needs to be sorted by type. Additives and contaminants have to be stripped out.
- The process produces a new waste stream of gas products, oil products, and solvent products (“char”) for disposal.
- Pyrolysis creates new contaminants, including high concentrations of dioxin, furans, heavy metals (mercury, cadmium, and lead), and particulates.
- Each stage of the process demands a lot of energy and has an enormous carbon footprint.

This bill does not preclude the eventual development of plastic-to-plastic technologies. Repolymerization is not banned. However, even if chemical conversion of plastic to plastic worked, it would be much more expensive than mechanical recycling. *The fact is, no form of plastic recycling – mechanical or chemical – will be able to compete economically in a market is flooded with cheap virgin plastic.*<sup>7</sup> The solution to the plastic pollution crisis going forward is clear: produce less plastic, especially single-use plastic.

To summarize, plastic is made from fossil fuels, most commonly from fracked gas. Maryland has banned fracking because of its environmental impact. Now the industry wants us to allow a process that turns plastic into a contaminated fossil fuel in an expensive, polluting, high-energy process. Furthermore, building these plants will add to existing environmental injustices by burdening communities with safety and health risks as well as the risks associated with increased extraction of fossil fuels. This is not recycling. Let’s prevent these plants from coming to Maryland.

We respectfully request a favorable report on HB 1092 to ban these processes in Maryland and ensure that they are not classified as recycling.

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<sup>5</sup> *Ibid.*

<sup>6</sup> Global Alliance for Incinerator Alternatives (GAIA). 2020. *All Talk and No Recycling: An Investigation of the U.S. “Chemical Recycling” Industry*. Berkeley, California. [www.no-burn.org/chemical-recycling-us](http://www.no-burn.org/chemical-recycling-us).

<sup>7</sup> GAIA. 2021. “Questions and Answers: Chemical Recycling.” [https://www.no-burn.org/wp-content/uploads/2021/11/Questions-and-Answers\\_Chemical-Recycling.pdf](https://www.no-burn.org/wp-content/uploads/2021/11/Questions-and-Answers_Chemical-Recycling.pdf)