TECHNOLOGICAL FALSE STARTS, LOST INVESTMENTS, AND POOR PERFORMANCE

Agilyx's first Tigard, OR, demonstration facility received at least $25 million in private investments. However, the company was forced to temporarily shut the plant down after its product failed to compete with the low price of oil, sending some of those investments down the drain.

Agilyx also received over half a million dollars in tax credits from the Oregon Department of Energy through the Business Energy Tax Credit program to build a facility in Portland that was owned and operated by Waste Management. Waste Management abandoned the facility after the plant was unable to overcome technical difficulties.

Agilyx has since reopened and retrofitted the Tigard plant to convert polystyrene into styrene. However, in 2018, only around one-tenth of the plastic waste Agilyx processed was actually turned into styrene. A similar volume of plastic was burned in cement kilns, which are commonly used to burn hazardous waste (and have weaker emissions standards and reporting requirements). This implies that the fuel Agilyx produced was either too contaminated or of too low quality to be turned back into plastic.

In 2019, Agilyx processed just 641 tons of polystyrene, a tiny fraction of the 560,000 tons of container/packaging waste generated in the U.S. each year.

WHERE IS AGILYX GOING?

Planned: Partnership with Ineos to build a PTF facility in Channahon, IL. Operation is scheduled for 2022.

Planned: Partnership with Monroe Energy for a plant in Trainer, PA which would produce jet fuel for Delta Airlines.

CLIMATE EMISSIONS

Agilyx has a huge carbon footprint -- its operation largely turns plastic into greenhouse gas emissions while producing a relatively small amount of styrene, which may or may not be recycled. In fact, the Agilyx facility released over 3 times as much carbon dioxide for each kilogram of styrene produced in 2019, not counting the emissions from burning the styrene product in cement kilns.
THE VERDICT

Without greater transparency from Agilyx, it is impossible to verify the company’s claim that some of its styrene is in fact being recycled into polystyrene. After several false starts, Agilyx’s technology, business model, and impacts on health and climate come nowhere close to a proven solution to mitigate the industry’s plastic waste problem.