Agilyx to develop styrene monomer production plant in Oregon

The facility will use its proprietary commercial pyrolysis system to convert polystyrene scrap into a liquid monomer.

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Recycling Today Staff

Agilyx Corp., Tigard, Oregon, has secured project financing and is proceeding with the construction of a 10 ton-per-day production facility near Portland, Oregon, that will convert various types of polystyrene scrap (foam cups, packaging materials and Styrofoam) into a styrene monomer through a proprietary pyrolysis process. The finished product will be a liquid that will be sold on the open market to refiners.

With this project development launch, Agilyx has expanded its commercial applications to include its first polystyrene pyrolysis plant. The plant is expected to begin producing styrene by the second quarter of this year, the company says. Ross Patten, CEO of Agilyx, says the facility will be the first of its kind in North America.
The Agilyx chemical recycling technology returns polystyrene scrap to a styrene monomer product that can be blended into the virgin styrene manufacturing cycle. The process transforms previously single-use polystyrene items and a widely used, durable manufacturing material (styrene) into a resource that can be fully recycled, the company says. It is greenhouse gas favorable over traditional styrene manufacturing.

"With global industry leaders at Davos this week endorsing the plan to recycle 70 percent of plastic packaging, we are ready," Patten says. "We're very pleased with the support we're receiving from key industry players to bring this viable economic pathway for reuse of plastic waste to market. Agilyx is excited to be part of a full circle solution that aligns with what's needed so urgently."

Patten adds that the facility will be the first of its kind in North America and one of the first of its type in the world. It also will have enough tolerances in place to allow it to handle as much as 5 percent contamination without affecting the quality of the finished product.

Agilyx says it hopes to tap the food packaging sector and the horticultural sector for infeed material.

The module on which the 10-ton-per-day operation is built also can be expanded to 25 tons per day or even 50 tons per day, Patten says. He says it is possible to sell different modules in different regions of the country that may be seeking polystyrene recycling project.

Prior to taking in scrap polystyrene, the Agilyx facility was taking in mixed plastic and converting it into a VGO (vacuum gas oil) quality synthetic oil.