

Eastman Reveals New Process to Decrease Plastic Waste

By: Justin Hartsell

Kingsport, Tenn. — On Oct. 23, 2019, [Eastman Chemical Company](#) announced it had begun a new process to decrease plastic waste, called “[carbon renewal technology](#).” Carbon renewal technology, a process created at Eastman, “breaks down waste plastics into molecular building blocks like carbon, oxygen and hydrogen.” Utilizing this new process, Eastman plans to convert a diverse collection of plastics, “such as single-use plastics, textiles, and carpet,” into products that can be used “an infinite number of times without degradation of quality.”



Plastics piled-up in a landfill. (Photo source:

https://www.greenbiz.com/sites/default/files/styles/gbz_article_primary_breakpoints_kalpicture_screen-md_1x/public/shutterstock_426187984.jpg?itok=HxMoJgBg&tamp=1564006289.)

[According to National Geographic](#), 40% of plastic materials products are single-use, and ultimately end up in landfills across the globe.

“Many of these products, such as plastic bags and food wrappers, have a lifespan of mere minutes to hours,” writes Laura Parker for [National Geographic](#), “yet they may persist in the environment for hundreds of years.”

In being able to help address this environmental issue, Eastman has plans to consume 50 millions of plastic waste with this new process by 2020 and hopes to “significantly expand that amount” in the future.

“The problem of waste plastics is not one that can be solved by a single company,” said Eastman’s Board Chair and CEO Mark Costa, “but Eastman is taking definitive action to do our part.”

[According to the American Association for the Advancement of Science \(AAAS\)](#), 8300 metric tons of plastic have been created from the invention of plastics to now, with 9% being recycled, 12% incinerated, and 79% “accumulated in landfills or the natural environment.”

Eastman claims carbon renewal technology is “a significant and definitive step to accelerate the circular economy.”

[The Waste and Resources Action Programme \(WRAP\)](#) in the United Kingdom [describes a circular economy](#) as “an alternative to a traditional linear economy (make, use, dispose)” where resources are kept “for as long as possible.” Then, companies “extract the maximum value from them [resources] whilst in use, [and] then recover and regenerate products and materials at the end of each service life.”



Mark Costa, Board Chair and CEO of Eastman Chemical Company. *(Photo source:*

https://www.timesnews.net/news/local-news/costas-to-tal-compensation-lower-in-2020/article_efcc11b8-ae83-11eb-bdd9-7f72c9d135c0.html.)

“Closing the loops of waste plastics is a complex problem that has to be solved with innovative solutions,” said Costa. “With the right people world-class technologies and our unique vertical integration, Eastman is uniquely positioned to scale up this solution quickly.” Costa continued, “With carbon renewal technology, we will revolutionize recycling at the molecular level.”

Parker writes that plastic became prevalent after World War II, with plastic being what “revolutionized medicine with life-saving devices, made space travel possible, lightened cars and jets—saving fuel and pollution—and saved lives with helmets, incubators, and equipment for clean drinking water.” Parker then argues, “The conveniences plastics offer, however, led to a throw-away culture” that has caused plastic waste to accumulate in landfills.

“Eastman is a company of problem solvers,” said Costa, “and our people have the capabilities to tackle the world’s biggest problems.”

[Earlier this year, Eastman became part of Ellen MacArthur Foundation’s \(EMF\) Circular Economy 100 Network](#), an organization devoted to increasing circular economies. According to [EMF’s mission statement](#), EMF “has emerged as a global thought leader, establishing the circular economy on the agenda of decision makers across business, government, and academia.” ◇