EASTMAN

A Material Revolution to Enable True Circularity in Manufacturing

Oct. 2023 | *Approved for external use*

Construction at Eastman's molecular recycling facility in Kingsport, Tenn., is nearly complete

A materials innovation company

Eastman is a materials innovation company that is:

- Dedicated to **enhancing the quality of life** in a material way
- Committed to **mitigating climate change, mainstreaming circularity** and **caring for people and society**
- Celebrating the inclusion of its **diverse global workforce; 14,500 employees**
- **A Fortune 500 company** with approx. 10.6 billion USD in revenue and **more than 100 years of vital innovations**

TOP 100 Barron's Most Sustainable Companies 2021
WSJ 100 Most Sustainably Managed Companies 2020
New Plastics Economy Global Commitment
US Plastics Pact
ENERGY STAR Award 2019 Partner of the Year Sustained Excellence
America's Most JUST Companies Forbes 2017
cefic
PLASTICS EUROPE
Pioneering PET circularity since 1994 petcore EUROPE
PLASTICS RECYCLERS EUROPE making plastics circular
Responsible Care® Our commitment to sustainability

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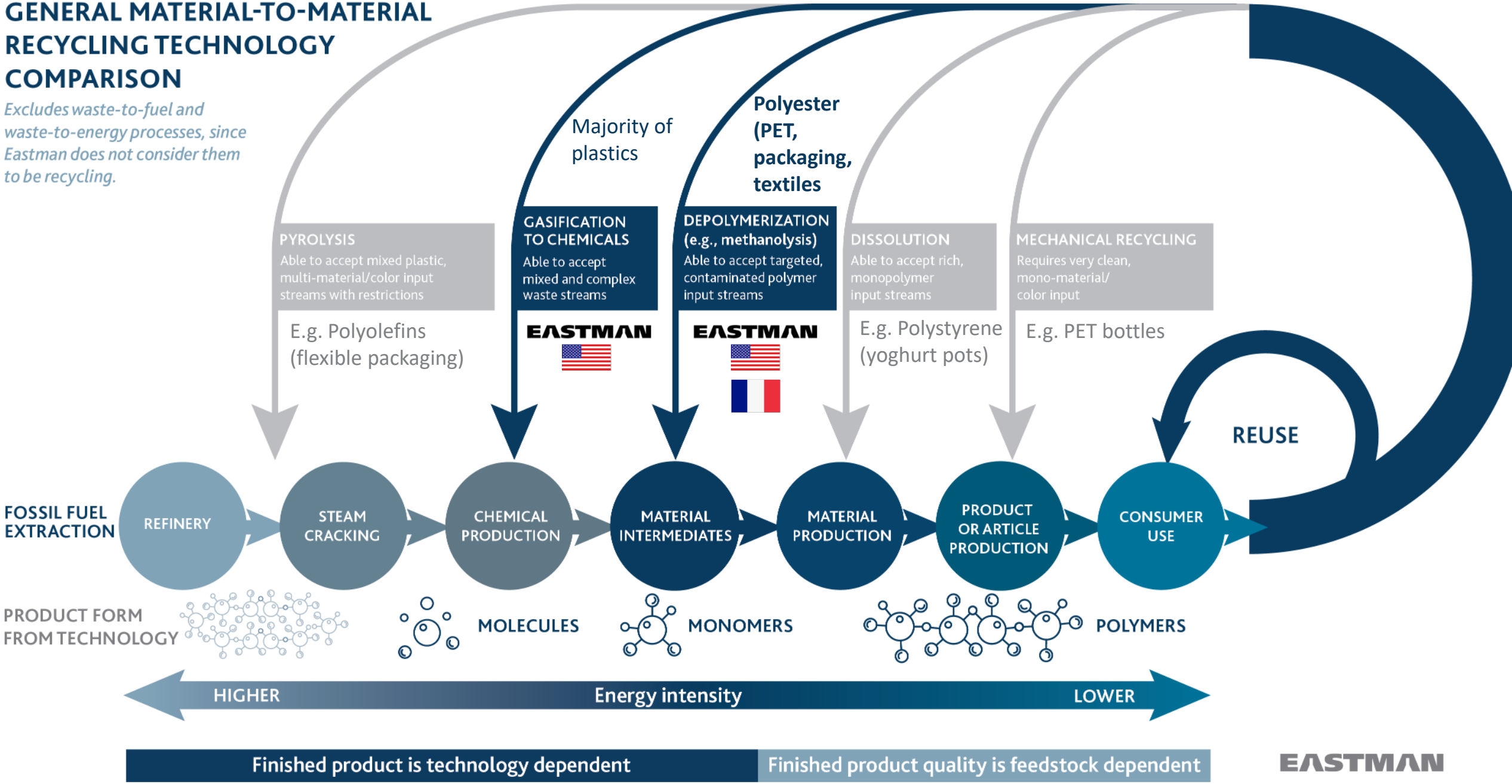
GENERAL MATERIAL-TO-MATERIAL RECYCLING TECHNOLOGY COMPARISON

Excludes waste-to-fuel and waste-to-energy processes, since Eastman does not consider them to be recycling.



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Methanolysis – Polyester Renewal Technology (PRT)

What is PRT?

PRT does not turn plastic waste into fuels.

Waste feedstock

Mix of hard-to-recycle polyester plastic waste

→

MECHANICAL PURIFICATION PROCESS

Feedstock is cleaned via mechanical purification process.

→

DEPOLYMERIZATION

PRT (depolymerization) unzips waste plastics into their molecular building blocks ("monomers").

→

POLYMER PRODUCTION

Monomers are used to manufacture new plastics for any application, without sacrificing the quality

→

High quality products

Durable food containers, small appliances, water bottles

If **feedstock** is **95%** polyester rich

PRT has among the highest % of material recovery rates amongst chemical recycling technologies.

87% of feedstock turns into **high-quality** plastic again

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Diverting hard-to-recycle material from landfill

Colored rejects from mechanical recyclers

Post consumer purge from mechanical reclaimers

Green strapping.
Used strapping that held items to pallets.

PET trays
Curbside collected consumer waste.

Textile purge.
Waste from the textile industry making dyed polyester fiber.

Pre-consumer fiber
Waste generated in the textile value chain.

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Renew is available for all markets and applications.

Renew
Circular Solutions
from Eastman

Eastman Tritan™ Renew

Eastman Renew
Circular Solutions for packaging

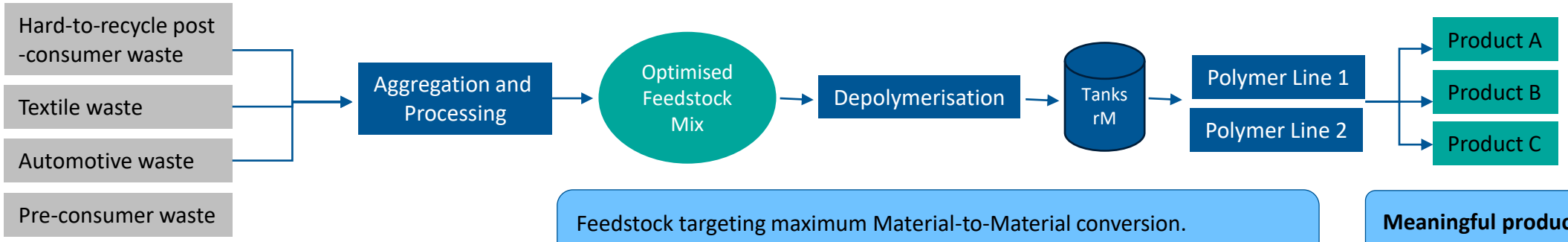
Eastman Cristal™ Renew

Eastman Eastar™ Renew 6763

Apparel | Appliances | Automotive | Cosmetic Packaging | Electronics | Eyewear | Food & Beverage Packaging | Healthcare Packaging | Hydration | Personal Care Packaging | Serveware & Storage | Textiles

Credit-Based Mass Balance reduces operational complexity

With Mass Balance

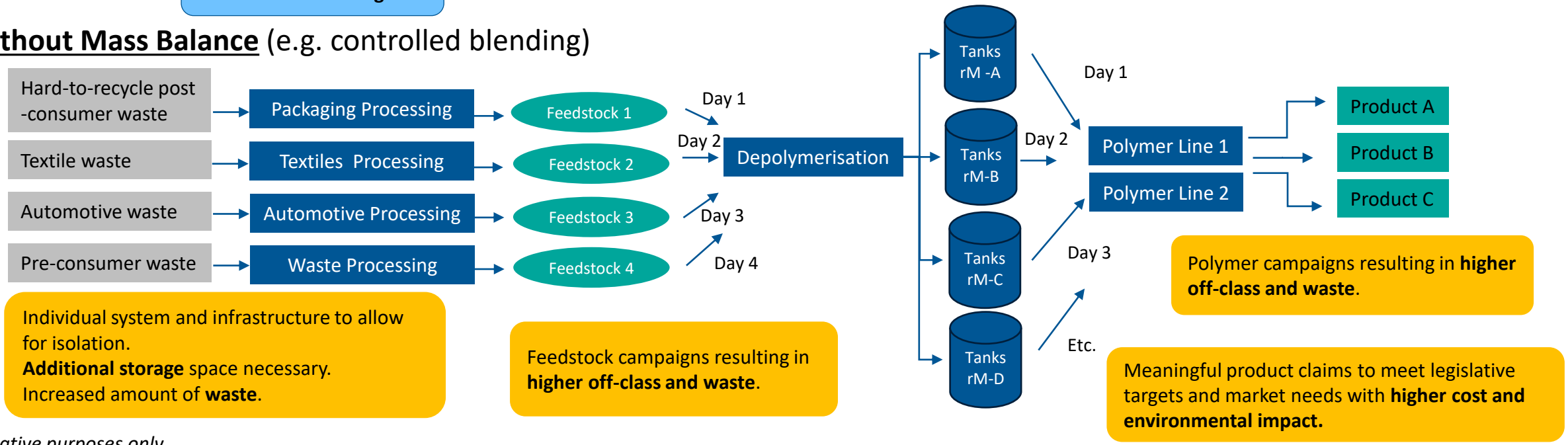


Feedstock targeting maximum Material-to-Material conversion.
Continuous operation maximising yields and minimising waste.

Meaningful product claims.

Unit operation system and infrastructure **sharing**.

Without Mass Balance (e.g. controlled blending)



Individual system and infrastructure to allow for isolation.
Additional storage space necessary.
Increased amount of **waste**.

Feedstock campaigns resulting in **higher off-class and waste**.

Polymer campaigns resulting in **higher off-class and waste**.

Meaningful product claims to meet legislative targets and market needs with **higher cost and environmental impact.**

For illustrative purposes only.

Eastman's molecular recycling project in Port-Jérôme-sur-Seine, Normandy, France

Key facts and figures

- **200,000+ tonnes** of waste processed/year.
- Phase I of plant start-up in **2026**
- **$1 billion** of investment for phase I
- **350 direct jobs**
- **1,500 indirect jobs in recycling, energy and infrastructure**
- **40-hectare plot** on the industrial zone of Port-Jérôme

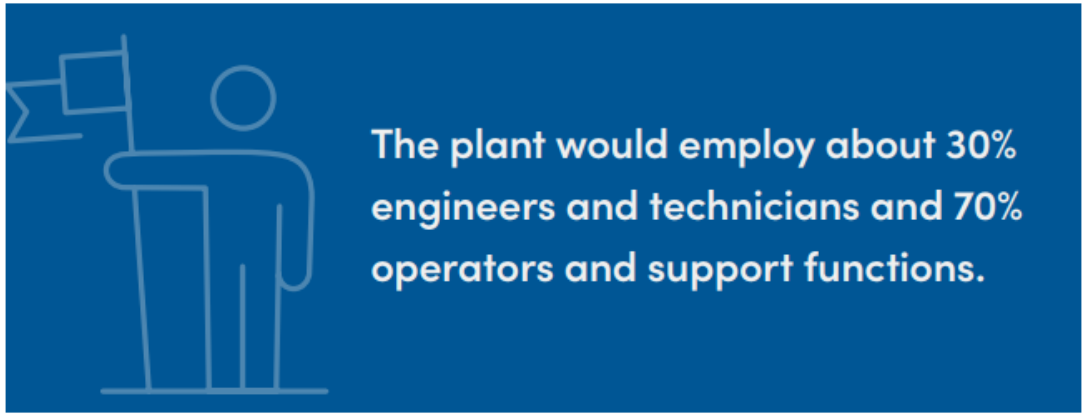
Feedstock and plant capacity

As of April 2023, Eastman has secured 70% of the feedstock it would need to reach full capacity for the first phase of the plant. Eastman's objective is to secure 80% of the feedstock for phase one by the end of 2023. At full capacity, after both ramp-up phases, the plant would be able to treat more than 200,000 tons of polyester-rich waste, compared to the 160,000 tons initially announced.

	Phase I *(tonnes)*	Phase II *(tonnes)*	Total *(tonnes)*
Total waste input*	140,000+	140,000+	280,000+
Hard-to-recycle polyester waste treated by the plant	110,000+	110,000+	200,000+
rPET and specialty output	100,000+	100,000+	200,000+

*Non-polyester waste inputs separated in the preparation step are planned to be processed by mechanical and or chemical recycling.

Human resources



Eastman's plant in Normandy would create employment for approximately 350 people and lead to 1,500 indirect jobs in recycling, energy and infrastructure. Operators and engineers would be recruited in advance to take into account a training period. Hiring efforts are expected to ramp up beginning in 2025.

Energy plant

Energy plant — Phase I *Operated by Veolia*		
Energy plant	Two 50-MW boilers	Cogen unit
Fuel	200,000 tonnes/year	Mix of biomass and RDF

To provide Eastman's recycling facility with the energy it would need at the different stages of its process, Eastman intends to partner with Veolia, who would build an energy plant on the Eastman plot in Port Jérôme. This energy plant would produce steam, heat and electricity and be fueled by a mix of biomass (recycled wood) and refuse-derived fuel (RDF).

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The world's largest molecular recycling facility

Kingsport, Tennessee, USA

Construction is almost complete.

Startup expected by end of year.

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Questions?

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