



Only 6% of plastic is recycled in the U.S....

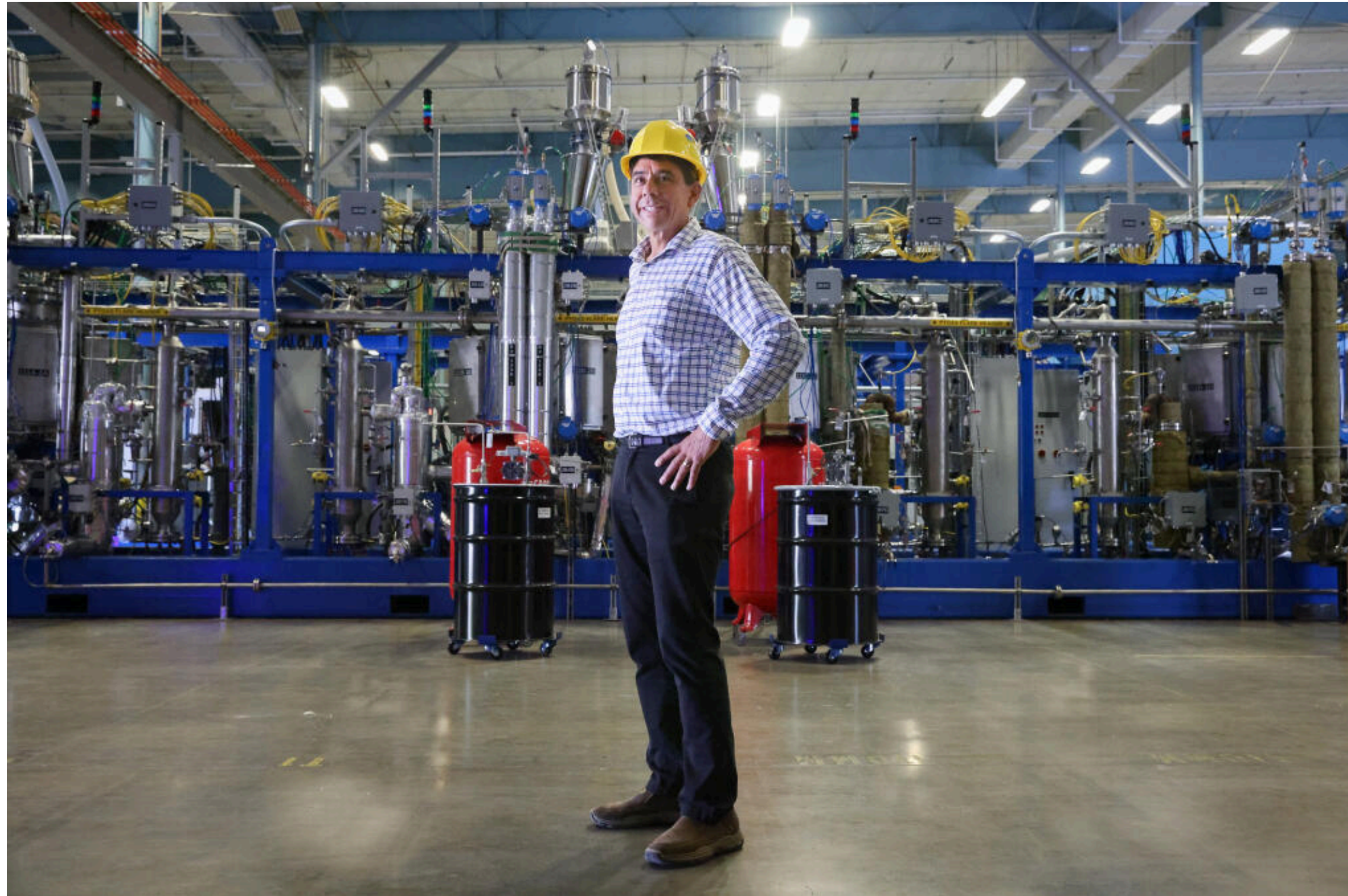
**Resynergi is here to change that.**

**Aug. 11, 2025**



# About me and Resynergi

Brian Bauer, Co-Founder and CEO



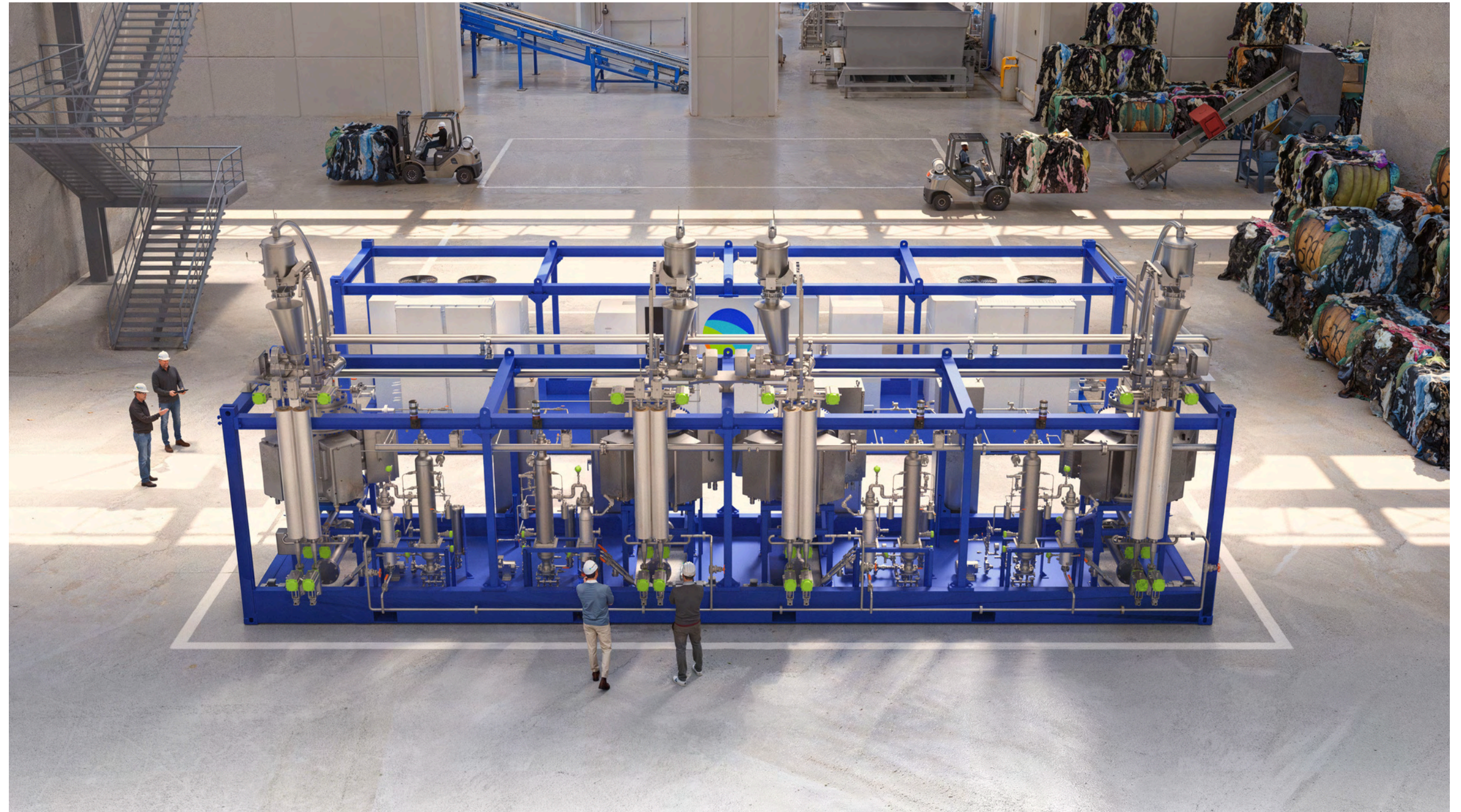
## Resynergi Brief History

- First headquarters here in room 7
- Strong sustainability community encouraged us to stay on campus for prototyping, moved into 1400 Suite A
- Presented at local conferences 5 of the last 7 years
  - Zero Waste: showed system in courtyard
  - SEC: open house tour of larger system, this year March
- 4 articles prior to permitting
  - 2 in North Bay Business Journal
  - 2 in Press Democrat



# Resynergi Is Purpose-Built for Communities

- **Friendly**
- **Safe**
- **Clean**

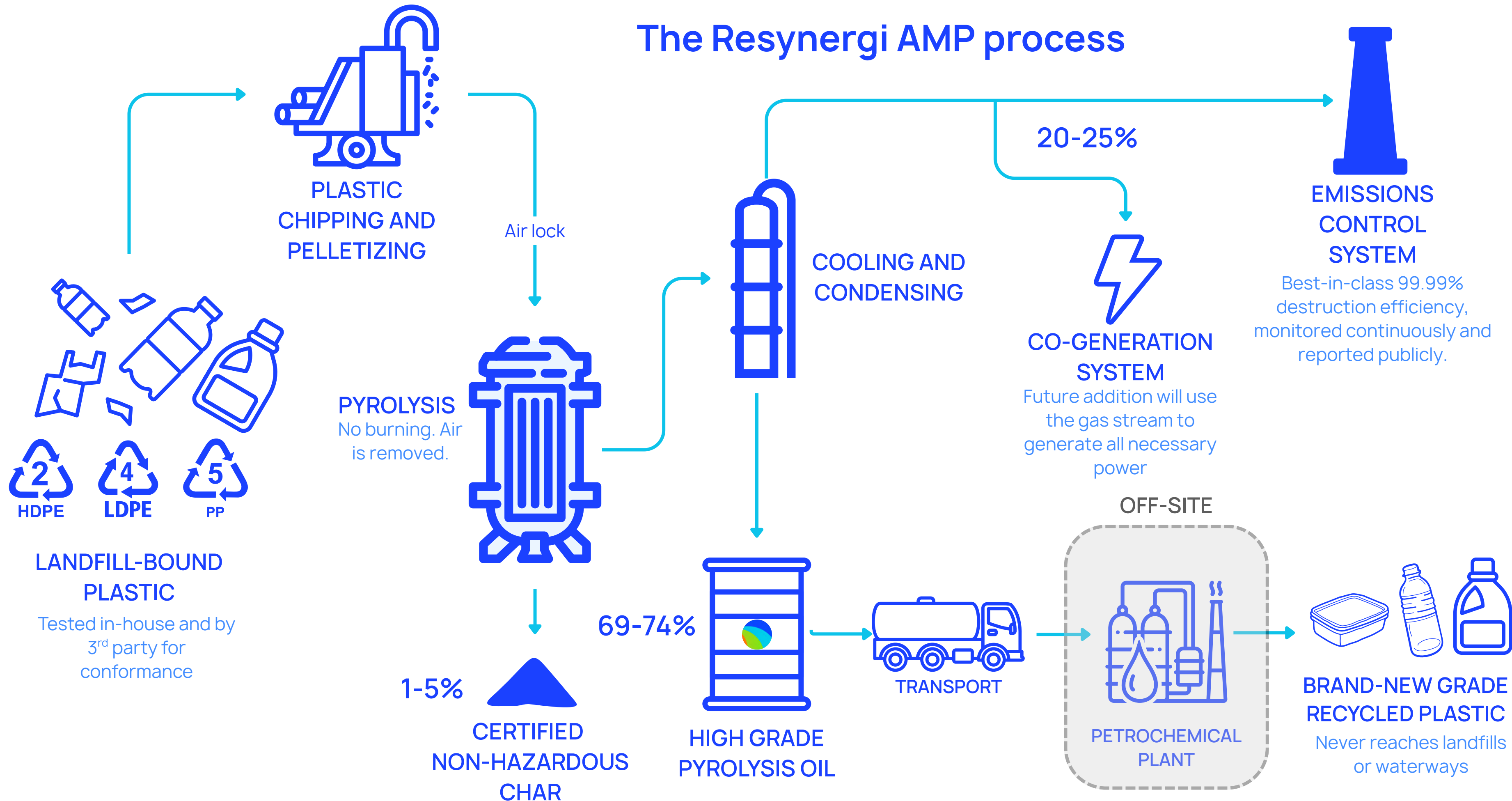




# Why we exist, based on past studies of Pyrolysis

Issue	Past Approaches	Resynergi Solution	Comparison
Incineration hazard (dioxins+)	Actual incineration of plastic: Burned with oxygen, high dioxins	No oxygen, no plastics are burned, no dioxins	Just like an EV is a car with a combustion engine
Very little is recycled	.1 to .6% is actually recycled (DOE) 1-14% (PIRG)	Up to 50%	High quality product means more can be used for recycling
Cause of lots of pollution	More than traditional drilling	Up to 68% less Greenhouse Gas	Lower CO2 than a semi-truck. Less VOCs than a car.
Produces toxic and hazardous wastes	Just a few sites have generated millions of pounds of hazardous waste	Zero hazardous waste, all products are useable (asphalt char, oil for virgin plastic, gases for powering system or sale)	Far fewer VOCs (volatile organic compounds) than a passenger car
Injustice of large sites near low income areas	Large centralized plants (500+ tons per day) in burdened areas	5 tons per day, processing local waste plastics. Less than 1 UPS truck of plastic.	Demonstration plant rather than full-scale operation

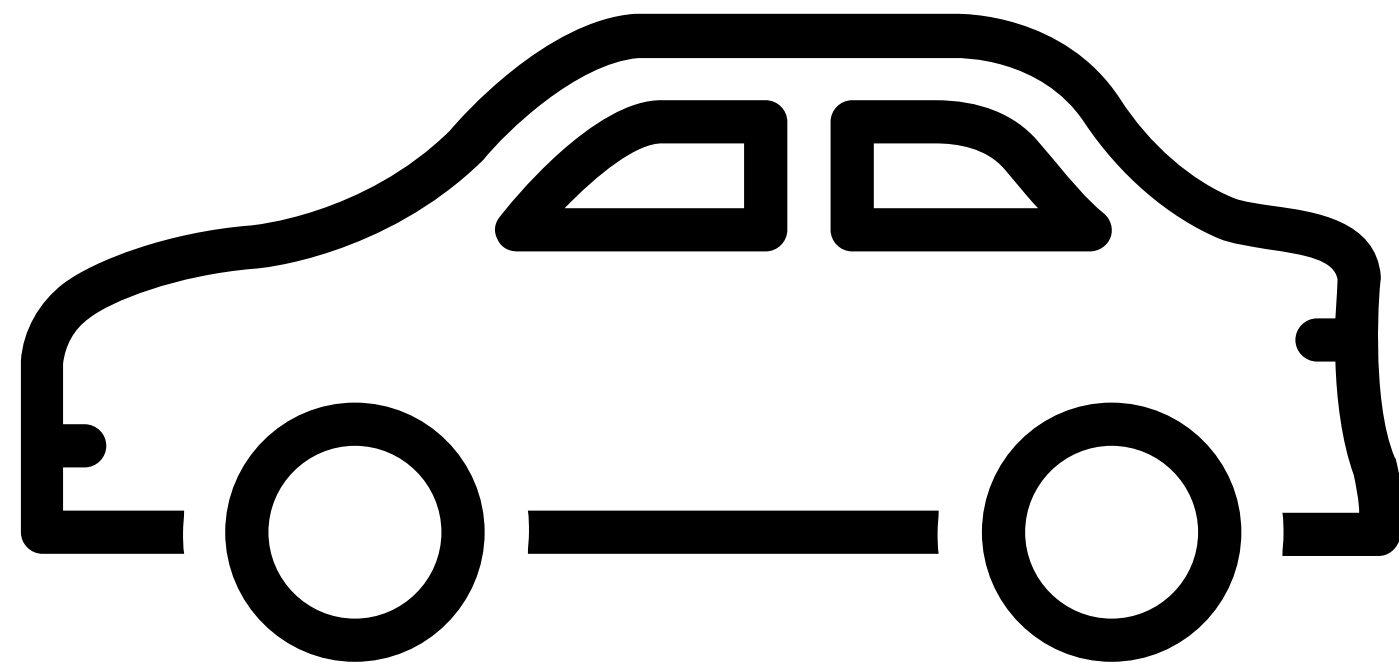
# The Resynergi AMP process



# Rate of VOCs in Resynergi Emissions

3 gas powered cars, driving one trip from Sebastopol to Credo High School and back, generates more VOCs than Resynergi will in 24 hours.

Ye, Y., & Weeks, I. (1997). Emission of 1,3-butadiene from petrol-driven motor vehicles. *Atmospheric Environment*, 31(8), 1157-1165.  
<https://www.sciencedirect.com/science/article/abs/pii/S1352231096003081>



# Concentration of 1,3-Butadiene in Resynergi Emissions

Resynergi concentration at source  
(0.0002 ppmv)



CAL-OSHA Continuous Exposure Limit (1 ppmv)

The concentration of 1,3-butadiene, sitting directly on top of the thermal oxidizer, is lower than is found in normal air samples in cities.

(U.S. Department of Health and Human Services, 2012)

# Resynergi's Community-Friendly Benefits

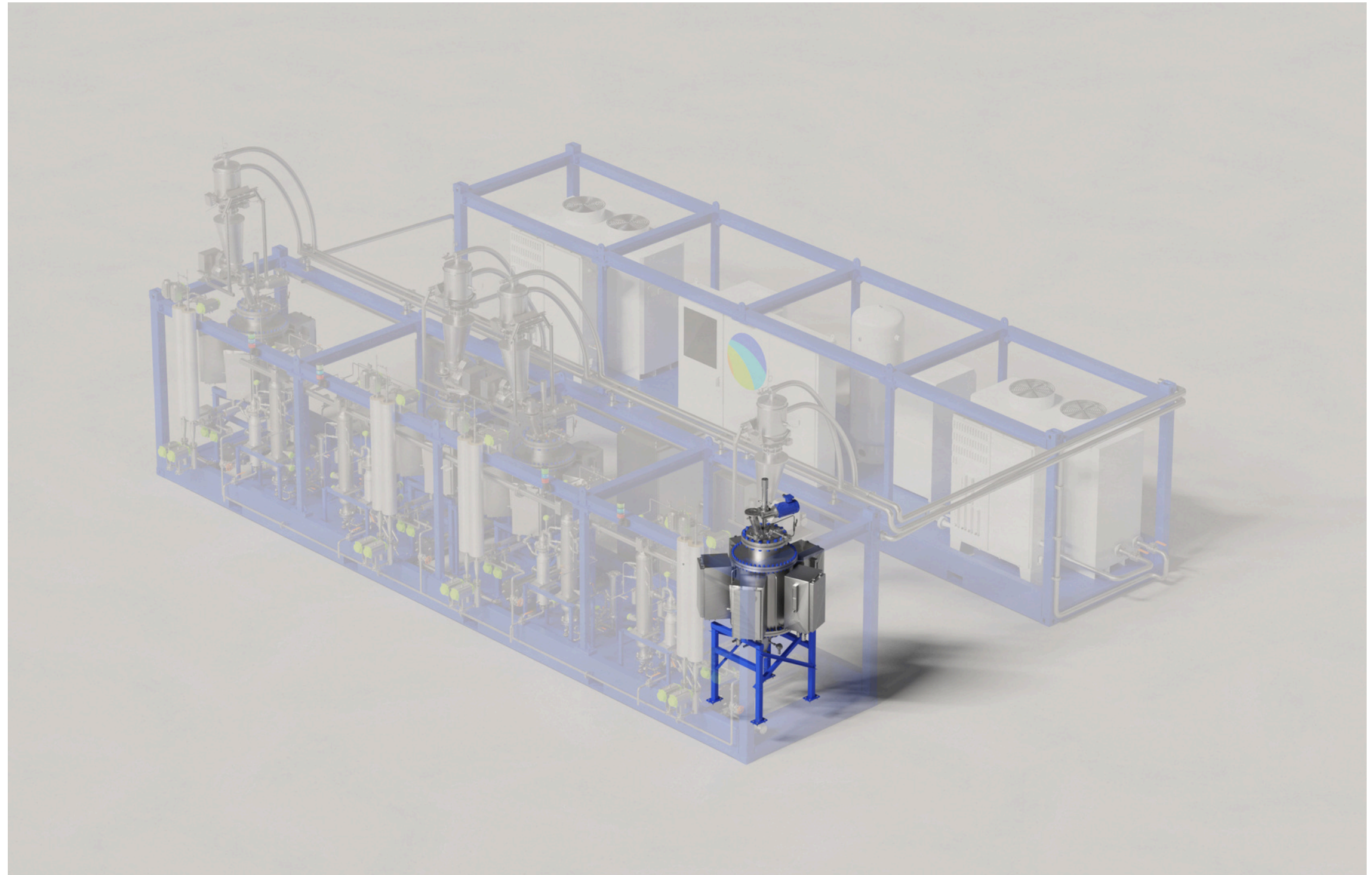
- Reduces carbon footprint by 68% over virgin oil
  - Source: CA-GREET standard Life Cycle Analysis
- No hazardous waste – solid or liquid
  - Cooling water is in a closed loop and never contacts oil, plastic, or other materials.
  - Char/ash can be used in concrete and has been tested by state-recognized 3<sup>rd</sup> party lab as non-hazardous.
  - All oil is sold as product.
- Less VOCs than a passenger car, less CO<sub>2</sub> than a semi-truck
- Quiet enough for cities
- Light industrial job opportunities
  - Skills transfer across manufacturing industries
- This site exists to process waste material from our community





# Small & Modular Makes It Possible

- **Seconds** vs 60+ minutes to turn plastic into oil
  - Solves problems faced by old pyrolysis technologies
- **Ultra-Fast = Ultra-Small**
  - Smaller means much safer and easier to monitor than old technologies



# Rigorously Tested Pilot

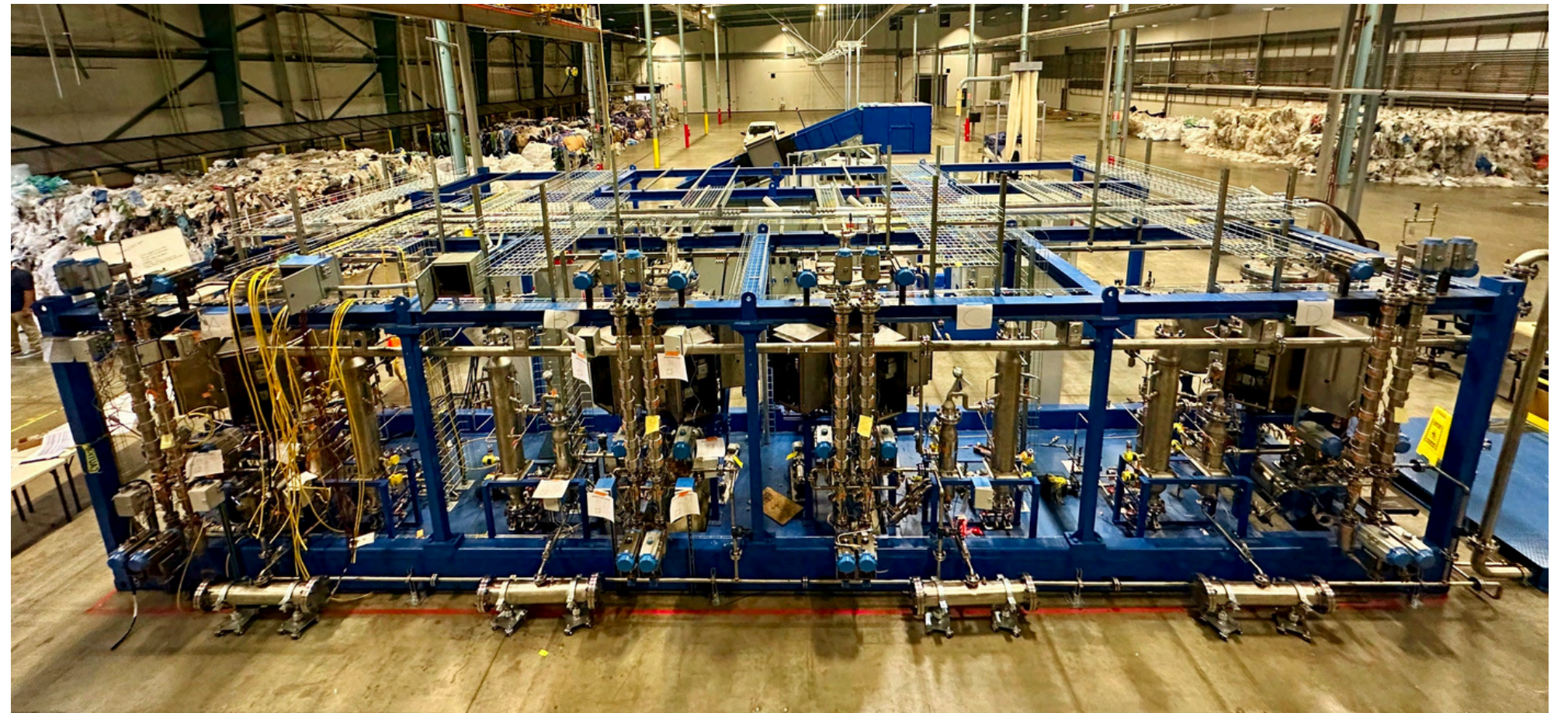
- Commissioned research system in 2021 with letter of support from the Air District
- 4 years at R&D scale
  - Commercial system uses exactly the same technology, just duplicated 4 times and sitting next to each other.
- Safety-certified and stamped by OSHA-approved Nationally Recognized Testing Laboratory after months of rigorous review
- Stamped “low-risk” by global risk management consultancy, PMO Global





# First Commercial Module, Work In Progress

- Low production risk through repetition
- Low operational risk through redundancy
- Come visit!

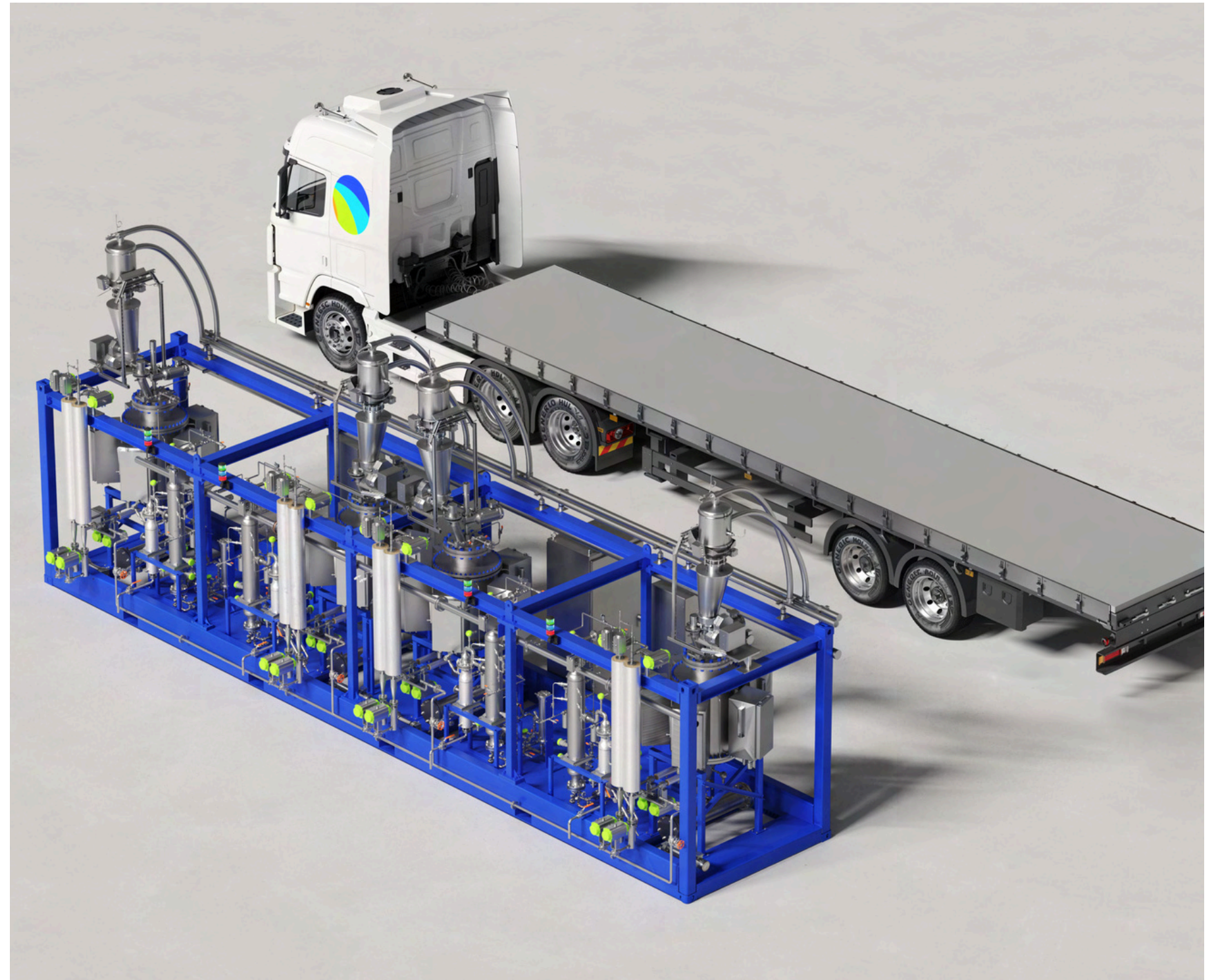


5 Ton Per Day Module in Rohnert Park, CA



# Central Fabrication; Decentralized Deployment

- Complete module fits in one shipping container
- Fast deployment (weeks)
- Portable. Goes to where the waste is.
- Economical
  - Saves on construction
  - Oil < 50% trash to ship
  - Accelerates cost curve







*Thank  
You!*

# Contact Us

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Sign up for a tour online at [Resynergi.com](https://Resynergi.com)



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