

## FACT SHEET

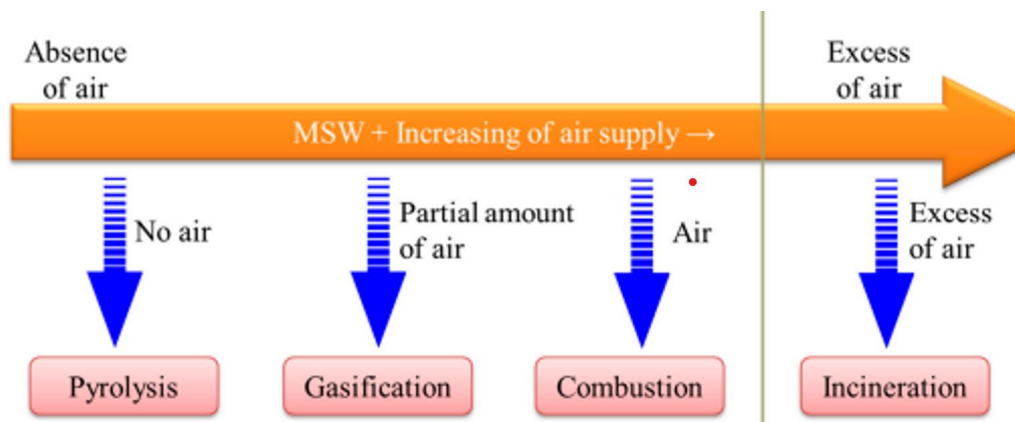
### WHAT IS GASIFICATION'S TRACK RECORD?

The process Fulcrum proposes to use is called “gasification.”

It is proposing to build a plant that will heat diverse municipal waste streams (MWS) to produce “syngas” (synthetic gas) which will then be further refined and transformed in aviation fuels.

Both gasification and a similar process, pyrolysis<sup>1</sup>, are often referred to as “advanced recycling” or “chemical recycling.” The aim of these processes is to convert MWS into a solid, liquid, or gas which can then be sold for use as industrial raw materials or fuel.

The chart below shows the process of gasification and relationship to pyrolysis and conventional methods of dealing with MWS, combustion and incineration.



***A review of gasification plants around the world.*** The international organization GAIA (Global Alliance for Incineration Alternatives), says gasification:

*“...has a more than three-decade long track record with which to test vendor claims about the technology’s suitability for waste treatment. Unfortunately, gasification plants have made very little operational data available...Existing data does show that dozens of projects have failed, for a variety of technical*

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## WHAT IS GASIFICATION? (Cont.)

*and financial reasons...These failures highlight a widespread inability to meet projected energy generation, revenue generation, and emissions targets, or to simply maintain consistent operation.”*

GAIA’s review also states that many of these plants fail for financial reasons:

*“In general, costs are higher and more uncertain than project proponents foresee, and revenues are lower and more uncertain. Research on facilities in Europe finds that many facilities have failed due to economic problems, citing inadequate revenues and costs from preparing feedstock.”*

**Reuters News Service reviewed 30 “advanced recycling” projects across three continents.** This review found that most of the projects were based on agreements between small, advanced recycling firms and big oil and chemicals companies or consumer brands. It’s investigation concluded that all were either operating on a modest scale or had closed down.

And it found that more than half were years behind schedule on previously announced commercial plans. Three of these companies, the review stated, had recently gone public, and all had seen their stock prices decline since their market debuts.

***A review of eleven gasification plants in England.*** The country-wide NGO network, UK Without Incineration, found:

*“Gasification and pyrolysis constitute some of the riskiest technologies in the waste industry and are synonymous with bankruptcies, failures and broken promises. This perception is well deserved, with the lack of examples of success starkly contrasting with a litany of failures.”*

### Sources:

[Gasification Failures in the UK](#), United Kingdom Without Incineration, 2016

[Global WTER \(Waste to Energy Research and Technology\) Council](#)

Reuters, [The Recycling Myth](#), July 29, 2021

[Waste Gasification and Pyrolysis: High Risk, Low Yield Process for Waste Management](#), GAIA, 2017

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