

We transform an environmental problem into an energy solution



OPPORTUNITY

Single-use plastic waste management has become a major global problem. The global production of this type of plastic amounts to 8.3 billion tons. Chile contributes with almost one million tons of plastic waste per year. In terms of reuse, our country only recycles 8% of all plastics, generating the accumulation of tons of this material, producing an island on the north coast of our country which in 2019 was three times the size of continental Chile.



DESCRIPTION

EcoFuels has developed a technology enabling the revaluation of plastic waste, converting it into liquid or gaseous fuels. The objective of the technology is to increase recycling capacity by reducing up to 80% the high logistics costs of traditional plastic recycling, especially for institutions that must comply with the Extended Producer Responsibility and Recycling Promotion Act, REP (for its acronym in Spanish). In addition to being portable, EcoFuels uses separate or mixed plastics. Finally, the technology does not require that the plastics are clean, avoiding the use of 5.3 liters of water, which are approximately used to recycle one kilogram of plastic (water footprint 0).



SOLUTION

EcoFuels is a portable and easy-to-use modular device which by means of a highly efficient thermochemical process (up to 75%), upgrades and transforms plastic waste into liquid and/or gaseous fuels. The device can treat various classifications of plastic waste, both separately and in mixtures: polypropylene (PP), high/low-density polyethylene (LDPE/ HDPE) and polystyrene (PS).

TECHNOLOGY ✓

TRL 4. Laboratory validated technology

PROTECTION ✓

Technology with a pending patent (PCT / CL2020 / 050074) claiming an efficient system for obtaining liquid fuel from plastic waste or polymeric material.

¿HOW DO WE DO IT?



1 We crush a wide variety!



2 We feed the device where the thermochemical process is carried out!



3 We extract the liquid that will serve as fuel.

Watch in Youtube!



MARKET OPPORTUNITY

Market size: USD 972 million (2019)
CAGR: 8.2%
Segment: Plastic to fuel
Projected market size: USD 1,825.9 million (2027)

BUSINESS MODEL.

Two potential business models:

1. EcoFuels will manufacture and market portable devices for sale to multiple industries requiring the revaluation of plastic waste.
2. EcoFuels will license the technology to companies with global manufacturing and marketing competence.

METRICS

- 75% efficiency in the conversion of plastics.
- 90% reduction of gas emissions compared to other thermochemical systems.
- Does not use water, thus leaving no water footprint

TEAM



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