

# Sustainable Site Developments for Plastic Waste Recycling & Energy Generation

Private & Confidential.  
For seed funding purposes to secure  
financial close only. Subject to contract.

Investment Summary

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Sustainable technology for UK sites to sort and grade waste plastic.

Recycled waste is sold on with waste residue converted into low carbon gas to generate energy.





**“We believe in a decarbonised future for sustainable energy and plastic waste recycling”**

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**Sean Lindgren** - Founder and CEO, Plastic Green Power Ltd.



## The Vision

A decarbonised future through sustainable energy production and recycling plastic waste, meeting tough imposed low carbon targets.

## The Mission

We will recycle waste plastic into a reusable high grade material. Any waste residue gets converted into low carbon gas, reducing the UK's reliance on fossil fuels.



**Return on investment  
in PGP will be  
8x over 5 years**

# 100<sub>years</sub>

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of combined specialist  
experience in **renewables,**  
**power generation and**  
**waste recycling.**

with our technical partner

**Reliagen<sup>®</sup>**



## Problem

# A Global Plastic Crisis

Globally, we produce 300 million tonnes of plastic waste each year<sup>1</sup>, that's the weight of the entire human population.

In Europe, less than 30% of waste is recycled properly:



**>1%**

ends up in  
the sea<sup>1</sup>



**31%**

goes to  
landfill<sup>1</sup>



**39%**

gets  
incinerated<sup>1</sup>

1. <https://ec.europa.eu/environment/circular-economy/pdf/plastics-strategy-brochure.pdf>

2. <https://www.gov.uk/government/statistics/local-authority-collected-waste-management-annual-results>



The UK sends  
**3.2m tonnes**  
of waste to landfill annually<sup>2</sup>



## Advanced Mechanical Recycling (AMR)



High-grade plastics are separated, recycled and sold to a market where demand is high, due to the UK's new Plastic Packaging Tax.

Through our partners there is a secured waste contract of 90,000 tonnes per year for 10 years.



Sorting and recycling of plastic waste

We are paid a gate fee to sort and grade plastics and other useful materials from part processed waste.



Sale of graded materials and chemicals

Tier 1 and 2 plastics are converted into materials and chemicals for sale. Lower tier plastics are split into fuels and recyclates.

**We aim to at least triple today's 9% average of plastic recycling.**



Project revenue from AMR in excess of **£8 million per year**



**Plastic Green Power Ltd**

## A Looming Energy Gap

The national grid relies on unreliable sources of energy. Our environment is being damaged by fossil fuels.

Flexible technologies are needed to balance the grid for a consistent energy supply that meets growing demand:



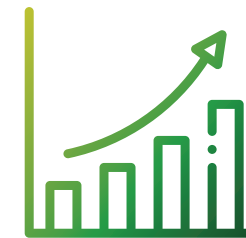
Coal power  
to be phased  
out by 2025<sup>3</sup>



Decarbonisation  
targets toughening  
from 2023



Wind and solar  
power are too  
inconsistent



Energy sector  
growth expected  
**390% within  
15 years**

3. <https://www.gov.uk/government/consultations/coal-generation-in-great-britain-the-pathway-to-a-low-carbon-future>



## Plastic Waste to Gas Power (PWGP)



Gas peaker units provide a reliable and efficient source of energy at times of high demand.

Initially we will install 20 MW units that run on natural gas with scope to futureproof the unit by converting to operate on low to zero emissions.

PWGP units will use low carbon gas derived from plastic rich waste residue. 90,000 tonnes of waste from AMR will produce ~30% residue.

**Peak demand means peak price.**



30,000t residue  
per year



22,565 MW  
per year



£1.5 million  
per year



Typical 20 MW  
natural gas peaker  
will generate  
**£4 million  
per year**

# Sustainable Integration Sites

After both phases have been established, we will develop a commercial scale site to integrate AMR and PWGP technologies to stack multiple revenue generation opportunities.



## Phase 1

### Advanced Mechanical Recycling (AMR)

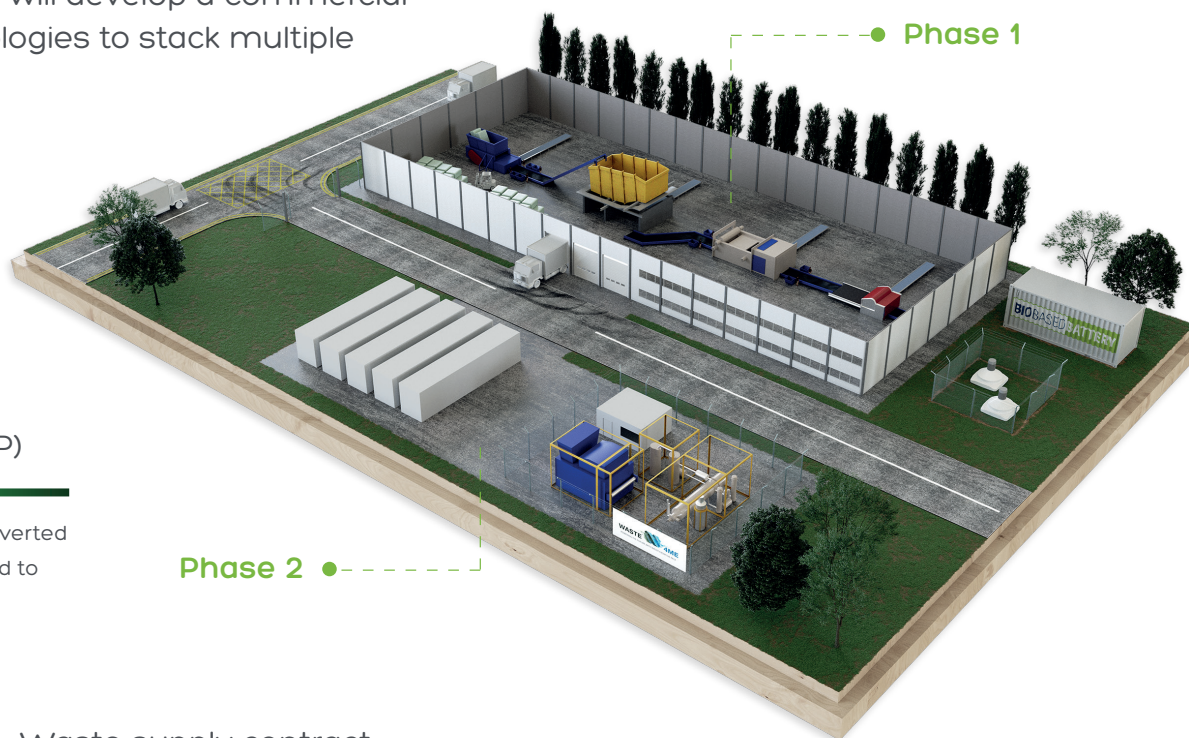
Deploy a waste sorting and recycling system to grade saleable material.



## Phase 2

### Plastic Waste to Gas Power (PWGP)

Waste residue will be converted into a low carbon gas used to generate electricity.



Planning and permits



Power purchase agreement



Waste supply contract



Offtake contracts



# 3

existing sites  
are ready to  
secure assets  
for development



10 sites identified for  
future development

## Site Revenue

	2021	2023
Site 1	Phase 1 - AMR £8,000,000	Phase 1 - AMR £8,000,000  Phase 2 - PWGP £1,500,000  20 MW Gas Peaker £4,000,000
Site 2	20 MW Gas Peaker £4,000,000	20 MW Gas Peaker £4,000,000  Phase 2 - PWGP £1,500,000
Site 3	20 MW Gas Peaker £4,000,000	20 MW Gas Peaker £4,000,000  Phase 2 - PWGP £1,500,000
Total	£16,000,000	£24,500,000

Illustrative only, subject to technical and commercial feasibility details



## Seed Funding Required: £750,000

Investment in PGP enables project development of our 3 secured sites to reach financial close, funding is required to complete:

Compliance	£35,000
Due diligence	£115,000
Legal fees	£225,000

Planning	£110,000
Marketing	£45,000
Other	£220,000

### Return for investors

A range of fees will be earned from both phases of the recycling and energy conversion processes:



Awaiting approval of Advance Assurance from HMRC for investors to claim 30% EIS tax relief on their investment .

For a full financial breakdown refer to our **Business Strategy** document.



Return on  
investment in  
PGP will be  
**8x over  
5 years**



An aerial photograph of a waste processing facility. A yellow truck is parked on the right, and a blue shredder is in the center. The ground is covered in a vast amount of colorful plastic waste. The text 'Contact' is overlaid in green.

## Contact

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Plastic Green Power Ltd registration number 12085821

Nothing is **wasted** with  **Plastic Green  
Power Ltd**