



THE TRADING NAME OF PYROLYSISE LTD

## Frequently Asked Questions

CLEAN-TECH ENERGY. WASTE RECYCLING. LAND RECLAMATION.

# Frequently asked questions

## 1. How much has been invested to date and by who?

- Roughly £500,000 has been invested into GreenMine since inception in October 2022. In addition, circa £1.5 million has been invested personally by founder and MD John Bell, in pursuit of this venture since 2017.

## 2. Have the director/shareholders invested their own funds in addition to external investment, and in what proportion?

- John Bell has invested circa £1.5 Million in this initiative; he is the majority shareholder with circa 60%.
- Osanan Barros, Director has been working with GreenMine since 2021 in return for an equity stake of circa 15.21 % on a sweat for equity basis.
- 350 PPM's team of 10 has been working with GreenMine since 2021. 350 PPM's costs on this in return for an equity stake of circa 12.7% has been

roughly £250,000. Although not officially sweat equity 350 PPM has committed to staff and costs in support of development.

## 3. What are the current monthly overheads?

- The overhead breakdown is shown in detail in the GreenMine IM. Categories are shown for pre-construction project development costs, which we term cost of sales and operational costs.

## 4. How much capital reserve do you still have, and how long will it last without further investment?

- As the project and sites develop, the figures will change on a regular basis. As an early-stage company pushing for growth we aim to have a cash runway of three months at all times.

# Frequently asked questions

## 5. The IM mentions revenue generation from January 2025 - are you on track for revenues currently?

- We expect to generate revenue from our first industrial waste site in July 2025 at £3.7 million gross per annum per site.

## 6. What level of investment are you currently seeking?

- We require £2 million of working capital to develop and commission the first of six industrial waste sites that will guarantee a sustainable revenue from July 2025
- We expect to secure 90% lease finance for the plant on the industrial sites which should minimise shareholder dilution.
- A further £10 million of institutional debt/equity funds Q1/2 2025 is required for industrial site preparation and procurement of 70% of European plant components to be attached to the waste carbonisation plant (WCP) reactor. (In process)

- 2025/ 2026, we will be looking for £100M to begin the acquisition of circa 12 capped landfill sites suitable for reclamation, and initiate dialogue with potential eco-friendly property development partners.

## 7. As this will likely be equity, what are you offering to attract investors?

- High returns within the first 18 months from the current base value of £8 million, to a valuation multiple of circa £66 million from industrial waste site revenue.
- Share buybacks in the short term. Our plan is an IPO in three to five years.
- Updated Monthly valuations and rolling forecast
- Insurers will mitigate risk by underwriting the industrial waste site projects covering performance and warranty

# Frequently asked questions

## 8. How many sites are you looking at currently?

- We have secured one site and will target a minimum of five more industrial waste sites to be activated from July 2025 to December 2025 for a sustainable gross revenue of £22.4 million.

## 9. How do you select sites?

### The industrial sites

- These are selected based on accessing early planning and permitting approvals, with grid access that enables the rapid deployment of plant for proof of concept.
- We have the necessary skill sets within the team to build on local knowledge and industry experience combined with extensive project management capabilities.

### The landfill sites

- We will target the most economically viable sites and have already developed a GIS-based software platform to analyse suitable landfill sites for reclamation.

- Brownfield proximity for redevelopment opportunities with access to backfill.
- Beneficial to the community.
- Risk mitigation.
- Manageable volumetrics for a three-year excavation maximum.
- Viable, easy access to the energy grid.

## 10. Who will manage the GreenMine industrial waste sites?

- Our in-house team.

## 11. Do you have an explanation of what drives the scaling of the valuation?

- Positive developments and achieving pipeline targets and milestones that move us closer to increasing revenues, our plan includes adding one site per month to the pipeline.
- The payback period is projected at 2 years.
- The ROI for the period from now to December 2025 is 10.37% and 154.41% on a 3 year basis.

# Frequently asked questions

## 12. How will the sites and plant be financed (e.g. by GreenMine/site owner)?

- We will lease the industrial waste sites over a 20-year period with five-year break clause and will finance pre-construction development as required. We intend to lease finance the WCP plant over three to five years against back-to-back feedstock and offtake contracts.

## 13. What is going to be your highest revenue earner from the offtakes on industrial sites?

- From RDF feedstock at £85 per tonne, we will generate two offtakes at conservative values:
  - Biochar for use in the agricultural industry at £200 per tonne.
  - Electricity to the grid at £ 55 per MWH.

## 14. Are there plans to lobby local authorities to adopt this technology nationwide?

- Yes, this process has already commenced in Greater Manchester, Lancashire, Shropshire, Northumberland, and north and south Wales.

## 15. Do you anticipate any problems securing grid access?

- The benefit of the WCP technology on industrial sites is that it is small scale and therefore does not require a large capacity grid connection. Typically, 2-3MW will be sufficient.
- In the context of landfill reclamation, many landfills have the benefit of installed gas recovery systems that are already grid-connected.

## 16. When do you anticipate, you can begin landfill reclamation for development?

- We are preparing for it now by accumulating data to prepare for due diligence on selected sites. Our target is to identify and secure the first economically viable and least-risk landfill reclamation projects for Q2 2025.

# Frequently asked questions

## 17. What are the benefits of landfill mining and landfill reclamation?

- Reclaiming historic closed landfill sites for an alternative end use (termed ‘landfill reclamation’) is a concept that can be traced back to at least 1953. A report prepared in 2013 identified three UK case studies of landfill reclamation for the construction of infrastructure and/or residential housing undertaken between 1980 and 2000.
- As with most land-reclamation projects, the primary driver for reclaiming a landfill is land value.
- Urban expansion to meet the increased demand for housing in the UK during the past few decades has meant that many of these landfills now occupy areas of land that are desirable for residential development.
- The process of landfill reclamation is distinct from ‘landfill mining’ in that the value is in the land being reclaimed and not the materials contained therein.
- The viability of future landfill-reclamation projects across the UK, is putting pressure on local authority

planning departments to allow the reclamation of historically damaged land.

- Across the UK there are around 22,000 landfill sites, suggesting a significant opportunity for recovering value from previously discarded materials. Enhanced landfill mining (ELFM) has been identified as a concept to recover value from landfills through optimised valorisation of the resources extracted. This approach, including waste-to-energy (WtE), waste-to-material (WtM) and waste-to-land (WtL) options can also assist in addressing critical and secondary raw material demands and scarcity. **Source: Journal of Environmental Engineering & Science. Volume 15 Issue 2, June 2020, pp.**
- **REE: (Rare Earth Elements):** Previous work had determined significant aluminium and copper are contained in the soil-like fines fraction, which does not include the separate metals fraction (i.e. aluminium cans, copper wires etc). **Source: Detritus. Source: Developing the case for enhanced landfill mining in the UK. January 2019.**

# Frequently asked questions

## 18. Is the plant carbon negative?

- The actual carbon negative impact will need to be calculated. However, it is safe to say that the impact is negative. If the waste is not recycled into energy, it will be turned into fuel and exported. This has significant carbon emissions associated with it. The local authority in north Wales is very supportive of dealing with its own waste issues and reducing carbon miles by exporting or importing its waste. It will look favourably on a project of this nature. **Source: Stopford Engineering.**

## 19. Will planning and permitting approvals be difficult or lengthy?

- We have selected Stopford to act as our engineer, procure and construct manager (EPCM). This role ensures that the plant is designed, constructed and commissioned to a high standard, meets UK engineering best practice, and utilises the best available technology.

- The role will provide us with a project management service to include time and budget management.
- Stopford is also providing planning and permitting support. The first site in Sandycroft, Deeside, north Wales is a site well known to Stopford and based on past experience with the local authority, support for the project from the authority is highly likely. This should in principle fast track the whole planning process which we hope to achieve within six months. **Source: Stopford Engineering.**



# Frequently asked questions

## 20. Has the technology been approved for use in the United Kingdom and what are its advantages?

- The plant, has been designed to German standards, and been subjected to extended testing in Brazil, independently confirmed by Stopford that it can be operated and validated to EU and UK standards. The entire validation process will be overseen by Stopford which has an extensive track record of managing the delivery of similarly complex waste-to-energy projects.
- Stopford has also undertaken high-level due diligence and the plant will be operated and regulated against stringent air emission limits.
- 70% of the components will be procured directly from European suppliers (instead of South America) and assembled in advance of plant arrival and installation.
- Stopford will witness the commissioning of the plant in South America and the UK
- After commissioning we will secure DNV (Det Norsk Veritas) approval of manufacturer (AoM) to

confirm compliance with international standards, regulations. **Source: Stopford Engineering.**

## 21. What are the technological advantages?

- Operates at much higher temperatures than pyrolysis technologies currently available in Europe.
- The waste is converted into two streams, a high calorific gas stream and an inert solid char meaning there is no downstream equipment required to separate the gas from any liquid produced at lower temperature pyrolysis technologies in operation in the UK.
- The char will not have volatiles present, which again requires further treatment.
- Another advantage of the technology is that it does not require a thermal oxidiser to treat any post-combustion gases, a requirement in the UK and EU, under the Waste Incineration Directive 2010/75/EU.
- The technology is operated to 1200 °C and two seconds residence time, required by the WID, which has a major positive impact on CAPEX and OPEX. **Source: Stopford Engineering.**



# Frequently asked questions

## 22. What are the planning and development risks?

- In the UK, any waste-to-energy conversion, irrespective of the technology must follow the Waste Incineration Directive (WID). This is to make sure that the emissions from these plants are controlled. The carbonisation plant will need to meet WID. The local authority is not going to have an issue with a plant that falls under WID, as long as it complies with the strict emission limits. An advantage of keeping the plant below the 3t/h threshold for waste processing with the two technologies that are under consideration, is that the plant does not have to be scrutinised by the Environment Agency. The local authority in Sandycroft is very used to dealing with waste-to-energy plants, with two nearby operations already approved: Syngas and a MERF plant. There is very little risk of NIMBY response, as the site is surrounded by industrial operations.

- Some may very much benefit from our project as potential suppliers.
- Once the plants are fully operational and data is made available, it is the intention to apply for an end-of-waste licence. This will allow the plant to operate outside the WID protocols, making the process easier, and more importantly cheaper.

**Source: Stopford Engineering**

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COMPANY

Pyrolysis Ltd

SECURITY

Equity

COMPANY STRUCTURE

Limited Company

CLASS OF SHARES

Ordinary Full Voting Shares

SECTOR

Environmental/Clean Tech/Waste  
Recycling/Land Reclamation

VALUE OF PREVIOUS FUNDRAISE

2022/23  
Pre-seed round: £500k

INVESTMENT DOMICILE

United Kingdom

EXIT

The company anticipates listing in Year 4

For more information, please register your interest and visit [www.greenmine.world](http://www.greenmine.world) or email [investment@pyrolysis.com](mailto:investment@pyrolysis.com)