

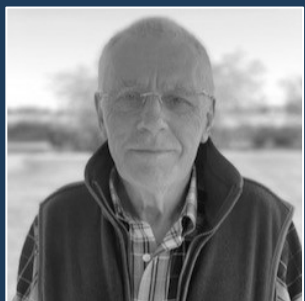


THE TRADING NAME OF PYROLYSISE LTD

## Information Memorandum

CLEAN-TECH ENERGY. WASTE RECYCLING. LAND RECLAMATION.

# John Bell, Managing Director



I am firmly of the mindset that as a consumer society we are damaging the flora and fauna with our general waste, particularly plastics. We are breathing, eating and drinking microplastics, living in a biosphere of plastics.

I have witnessed first-hand, plastic debris washed up on the beaches and in the river systems of Africa, South America, the Middle East and Southeast Asia, some of the poorest economies in the world affected by wealthier economies.

After buying a dairy farm in Northern Victoria, in the first few months I had personal experience of seeing livestock lose condition and dying; Post-mortems revealed ingestion of silage wrapping, plastic bags, baler twine, wire, aluminium cans. I spent months clearing 1,250 acres to prevent paddock and forage pollution.

Our waste impacts not only domestic animals but all wildlife on a major scale, on land and in the rivers and oceans.

We CAN protect the environment better, and we CAN, if managed logically and pragmatically, transition from fossil fuels, the industry I worked in for 45 years, to a cleaner environment and efficient safe energy solution.

Landfill sites not only pollute the atmosphere and induce health problems they occupy valuable land that can be reclaimed for agriculture, housing or community beneficial leisure amenities.

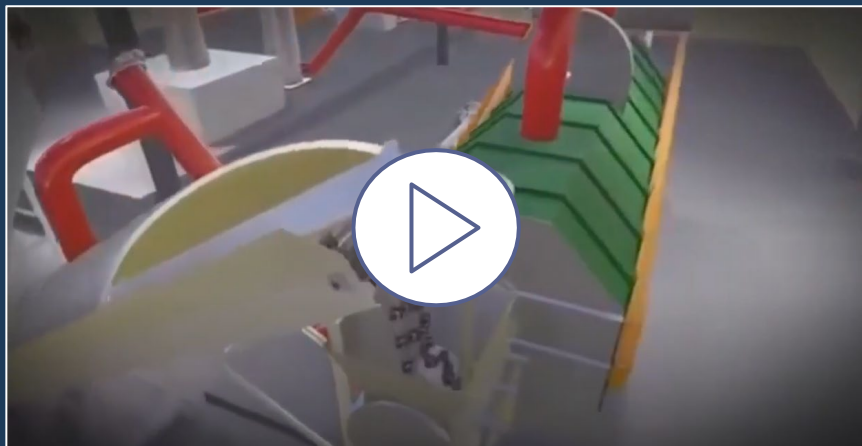


# What we do

GreenMine delivers a scalable, circular and regenerative solution to waste streams with massive potential through proven pyrolytic technologies meeting existing EU and UK emission standards.

GreenMine's objective is to reduce reliance on landfill with our low-capex cost effective Waste Carbonisations Plant (WCP) as opposed to incineration. While working toward a cleaner environment and greenhouse gas reduction we are ultimately reclaiming and repurposing valuable land for housing, amenity use and potentially, energy generation.

## The technology



## Monetising waste & landfills worldwide



# The problem



- Over 500 operational landfill sites throughout the UK.
- Landfill sites can cause fires or explosions, contaminate soil and water, alter the fauna, reduce property values in surrounding areas, affect the climate.
- There are circa 1,500 aging coastal landfill sites, ticking timebombs threatening to leach pollution onto the beach and into the sea.
- Short term exposure to elevated levels of ammonia and hydrogen sulphide from such sites can have multiple short-term effects to public health
- Many capped landfill sites emit noxious gases.
- We have mapped all landfill sites in the UK using our GIS based software and continue to gather and analyse relevant statistical data which will enable us to focus on selective sites.

# Environmental, health & commercial impact

## UK landfill responsible for:

- 6% Greenhouse gas emissions
- Contaminated river and stream systems
- Polluted atmosphere and leachate contaminated soils
- Microplastics
- Pathogenic microbes
- Landfill gas, methane, CO<sub>2</sub>, H<sub>2</sub>S, volatile organic compounds, particulate matter and bioaerosols
- Redundant land in close proximity to residential areas
- Environmental challenge, coastal erosion

## Impact:

- Health problems, lost work production /school days
- Housing shortage, growing population
- Greenbelt encroachment, land shortage
- Global Flora and fauna environmental damage
- Recycled microplastics, cloud and rainfall contamination
- Food and water contamination
- Liability and maintenance costs, capped landfill sites
- Beaches contaminated with landfill waste

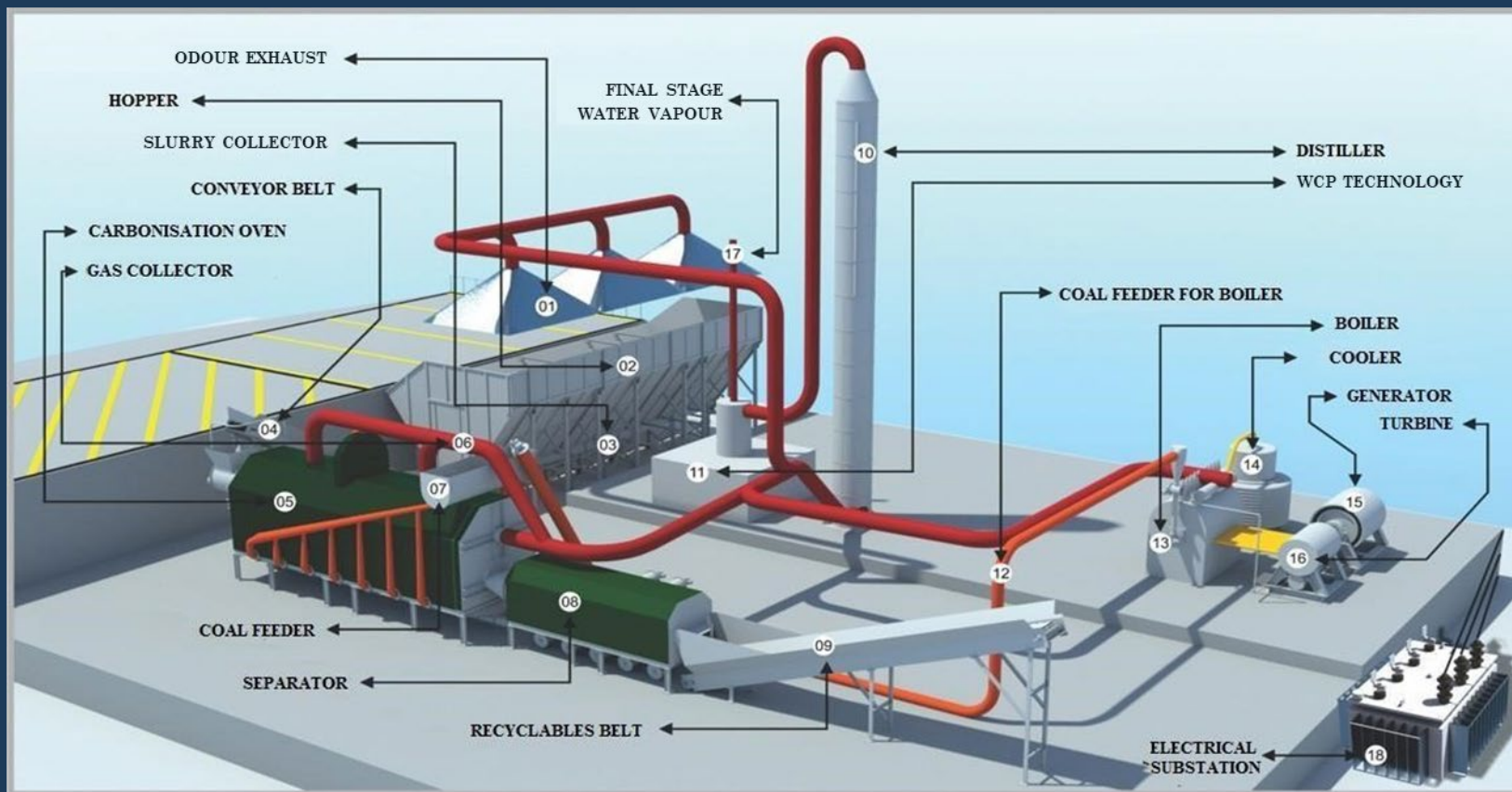


# Our solution



- Our waste carbonisation plant processes unsegregated municipal waste at 900 degrees centigrade or medical waste at 1200 degrees centigrade.
- Innovative technology to mitigate pollutant emissions and solid residues during processing.
- All gases from the enclosed waste carbonisation process are retrieved and recuperated by a highly efficient distilling structure.
- Offtakes are biochar, biofuels, electricity, recycled metals, minerals, glass and carbon credits.
- Modular in design, containerised and skid mounted, SWIP compliant, can be built and commissioned within six months.
- A three tonne per hour plant occupies a footprint of less than 1,000 sqm.
- Operational track record in Brazil.
- Proven pyrolytic technologies meeting existing EU and UK emission standards.

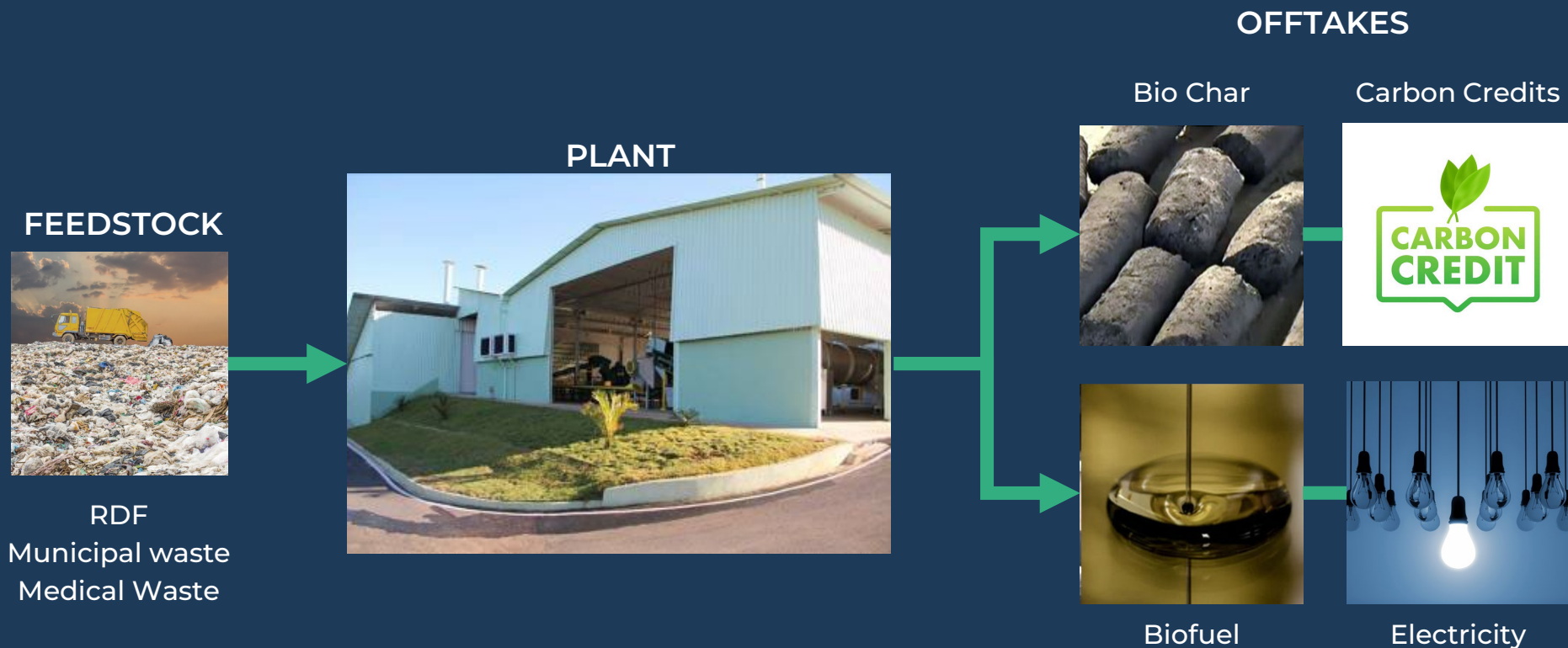
# The technology



Internal Layout Of Equipment

- |                     |                       |                            |               |                                    |
|---------------------|-----------------------|----------------------------|---------------|------------------------------------|
| 1. Odour Exhaust    | 5. Carbonisation Oven | 9. Recyclables             | 13. Boiler    | 17. Odour Final Stage Water Vapour |
| 2. Hopper           | 6. Gas Collector      | 10. Distiller              | 14. Cooler    | 18. Electrical Substation          |
| 3. Slurry Collector | 7. Coal Feeder        | 11. WCP Technology         | 15. Generator |                                    |
| 4. Conveyor Belt    | 8. Separator          | 12. Coal Feeder For Boiler | 16. Turbine   |                                    |

# The bonus benefits





# Our technology: Phase 1 Industrial site

## Technology Risk and Approvals

- The plant has been subjected to extended testing in Brazil through proven technology.
- Successfully operated meeting EU and UK emission standards.
- The validation process for UK compliance in Brazil and UK will be overseen by Stopford Consultancy.

## Planning & Development Risk

- GreenMine has sought to minimise risk through careful industrial site selection.
- The first plant will be in an established industrial area.
- The low tonnage throughput for waste processing is within the Local Authority control for planning and permitting.
- Future industrial sites will follow a similar selection process in order to allow development to proceed as efficiently as possible.

# Business plan

## PROOF OF CONCEPT & UK COMPLIANCE

- Q3, 2024: Lease suitable industrial sites, 20-year term, for swift planning and environmental approval with ready supply of waste supply contracts and offtake options.
- Issue scope of work for first 3 tonne per hour plant.
- Raise additional institutional funds for implementation of **Phase 1**.
- Install, commission, performance monitor first showcase plant Q4, 2024.

## EXPANSION, CONTINUITY & SUSTAINABLE REVENUE

- Lease a minimum of 6 industrial waste sites generating £311,000 per site per month.
- Planning and permit approvals 6 months per site
- Scope of work for additional 5 x 3 tonne per hour WCP.
- Install commission and start up plants over 6 consecutive months generating £22.4m/annum gross.
- Continue UK expansion, acquiring industrial waste sites and installing WCP.
- Expansion of WCP into International Markets.

## UK LANDFILL RECLAMATION

- Q2/3 2024: Build on GIS based software dashboard and shortlist selective landfill sites for reclamation.
- Q4 2024: **Phase 2** Institutional capital raising for landfill site acquisition.
- Q2 2025: Landfill site selection, complete due diligence and appoint developer partner.
- Q4 2025: First site reclamation planning application.
- Q1 2026: First site excavation and backfill remediation.
- Q2 2028: First site redevelopment platform complete ready for development.

# Revenue

**Phase 1** revenue comes from the development of our WCP technology in industrial locations, processing third party supplied Refuse Derived Fuel (RDF) and then selling power and by-products recovered from the process.

**Phase 2** revenue derived from the deployment of our WCP technology to historic capped landfill locations where it will be used to remediate and regenerate land, releasing it for valuable development.

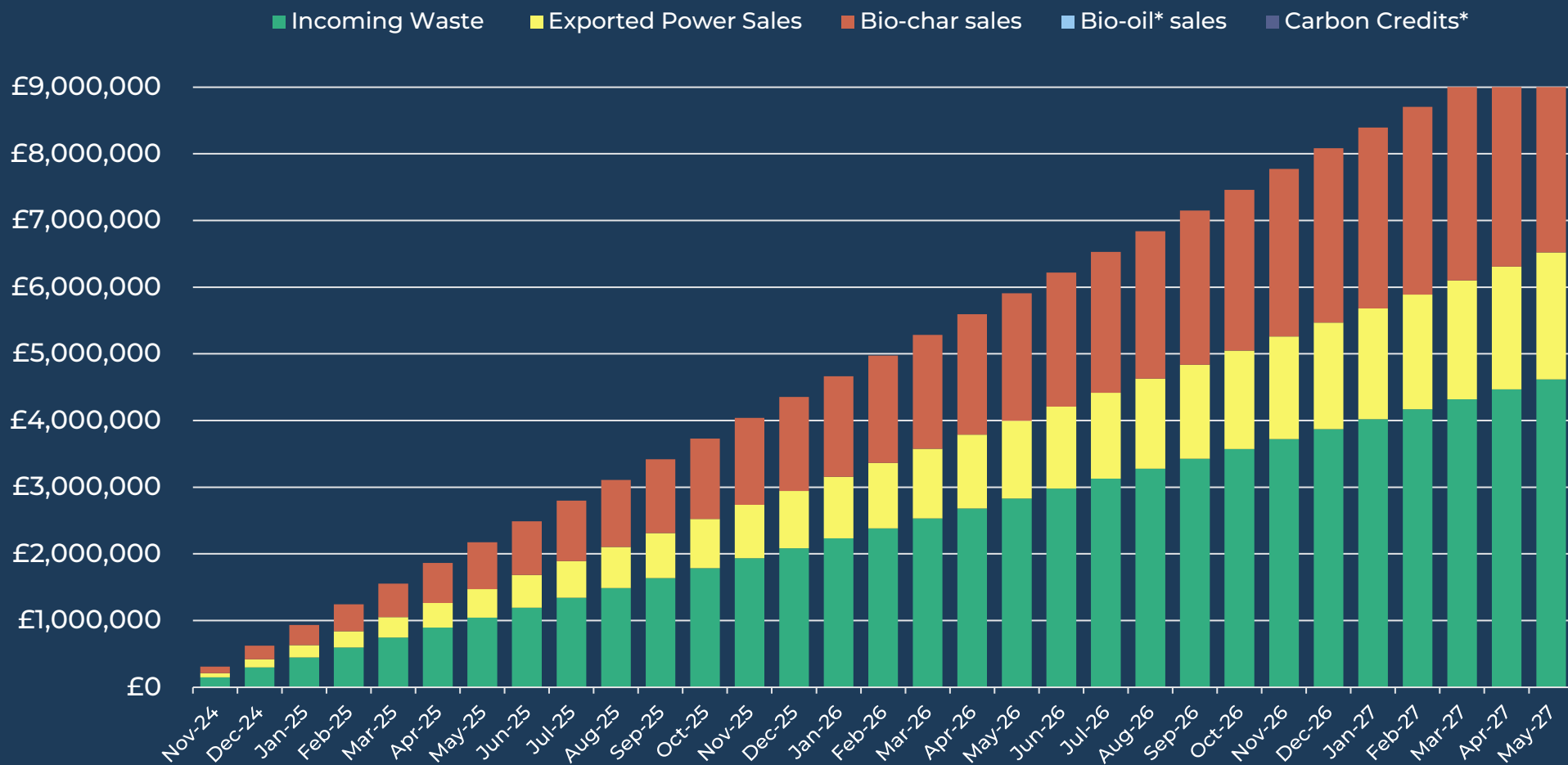
Many UK landfill sites are closed but remain active and a liability for decades post closure, requiring extensive management. Apart from energy recovery from landfill gas and resource extraction from in-situ mining, other benefits of landfill mining include land reclamation, thereby mitigating long-term management obligations.

Landfills contain valuable minerals, ferrous metals, copper, aluminium, palladium, tin, zinc, nickel, steel, glass, waste electrical and electronic equipment.

The recovery of Rare Earth Elements (REE's) and critical metals as well as recycled plastics, bioenergy offtakes are capable of revenues to meet excavation costs in part in the absence of gate fees. However, reclaiming valuable land for further development adds commercial value, compounding the case for undertaking landfill mining on a large scale.



# Revenue



\* Evolving market, assumed zero sales for the financial model

# Phase 1 revenue: Industrial waste site

## Plant statistics from first Industrial waste site

Maximum Annual Operating Hours	8,760 hours
Planned Maintenance/Downtime %	15%
Actual Operating Hours	7,446 hours
Actual Annual Tonnage Processed	22,338 tonnes
Energy generation per tonne of waste processed	0.6 megawatt hours
Recovered Bio-Char % less 10% for parasitic load	27%
Recovered Bio-Char tonnage for sale	6,031 tonnes
Recovered Bio-Oil %	2%
Recovered Bio-Oil tonnage for sale	447 tonnes

Key Plant Metrics: Revenue Items	£GBP per unit	Revenue Projections	Annual	Monthly	Weekly	Daily
Incoming Waste Gate Fee - 2024	80 per tonne	Incoming Waste	1,787,040	148,920	34,366	4,896
Exported Power Sales - 2024	55 per megawatt hour	Exported Power Sales	737,154	61,430	14,176	2,020
Bio-char sales	200 per tonne	Bio-char sales	1,206,252	100,521	23,197	3,305
Bio-oil sales	0 per tonne	Bio-oil sales*	0	0	0	0
Carbon Credits	0 per tonne offset	Carbon Credits*	TBC	TBC	TBC	TBC
		<b>TOTAL REVENUE</b>	<b>3,730,446</b>	<b>310,871</b>	<b>71,739</b>	<b>10,220</b>

\* Evolving Market; assumed zero value for financial model

# Phase 1 financials: Industrial waste site

Plant revenues based on one 3 tonne per hour WCP plant on six sites to demonstrate sustainability

Waste feedstock sourced from local waste management companies under Supply Contracts

Gate Fees: £80 per tonne

Offtake contracts with agri-fertiliser companies for bio-char and Power Purchase Agreements

Electricity: £55 per MWh

Biochar: £200 per tonne

6 sites and plant per annum	£22.4 million per annum	134,028 tonnes of RDF per annum
12 sites and plants per annum	£44.7 million per annum	268,056 tonnes of RDF per annum
24 sites and plants per annum	£89.5 million per annum	536,112 tonnes of RDF per annum

REVENUE	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25
6 PLANT	1	2	3	4	5	6							
INCOMING WASTE	£148,920	£297,840	£446,760	£595,680	£744,600	£893,520	£1,042,440	£1,191,360	£1,340,280	£1,489,200	£1,638,120	£1,787,040	£1,935,960
EXPORTED POWER SALES	£61,430	£122,860	£184,290	£245,720	£307,150	£368,580	£430,010	£491,440	£552,870	£614,300	£675,730	£737,160	£798,590
BIO-CHAR SALES	£100,521	£201,042	£301,563	£402,084	£502,605	£603,126	£703,647	£804,168	£904,689	£1,005,210	£1,105,731	£1,206,252	£1,306,773
BIO_FUEL SALES*	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
CARBON* CREDITS	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0
TOTAL REVENUE	£310,871	£621,742	£932,613	£1,243,484	£1,554,355	£1,865,226	£2,176,097	£2,486,968	£2,797,839	£3,108,710	£3,419,581	£3,730,452	£4,041,323

\* evolving market, assumed zero sales for the financial model

# Phase 2: Landfill mining

- The application of the WCP technology presents a huge opportunity to mine legacy/problematic landfills.
- Bringing on early-stage development partners to realise the value of recycled land, with prospective uses being renewable energy parks, housing, commercial or mixed use regeneration.
- The GreenMine model will allow land to be acquired cheaply, with significant land value appreciation.
- In addition to land value appreciation offtake revenues include, biochar, biofuel, electricity from bio coal, carbon credits.
- Recovery of recyclable materials and long-term participation in revenue generation from recycled sites.
- Recycled metals examples, ferrous metals, steels, glass, aluminium, palladium, nickel, copper, aluminium, zinc, tin, electrical and electronic equipment.

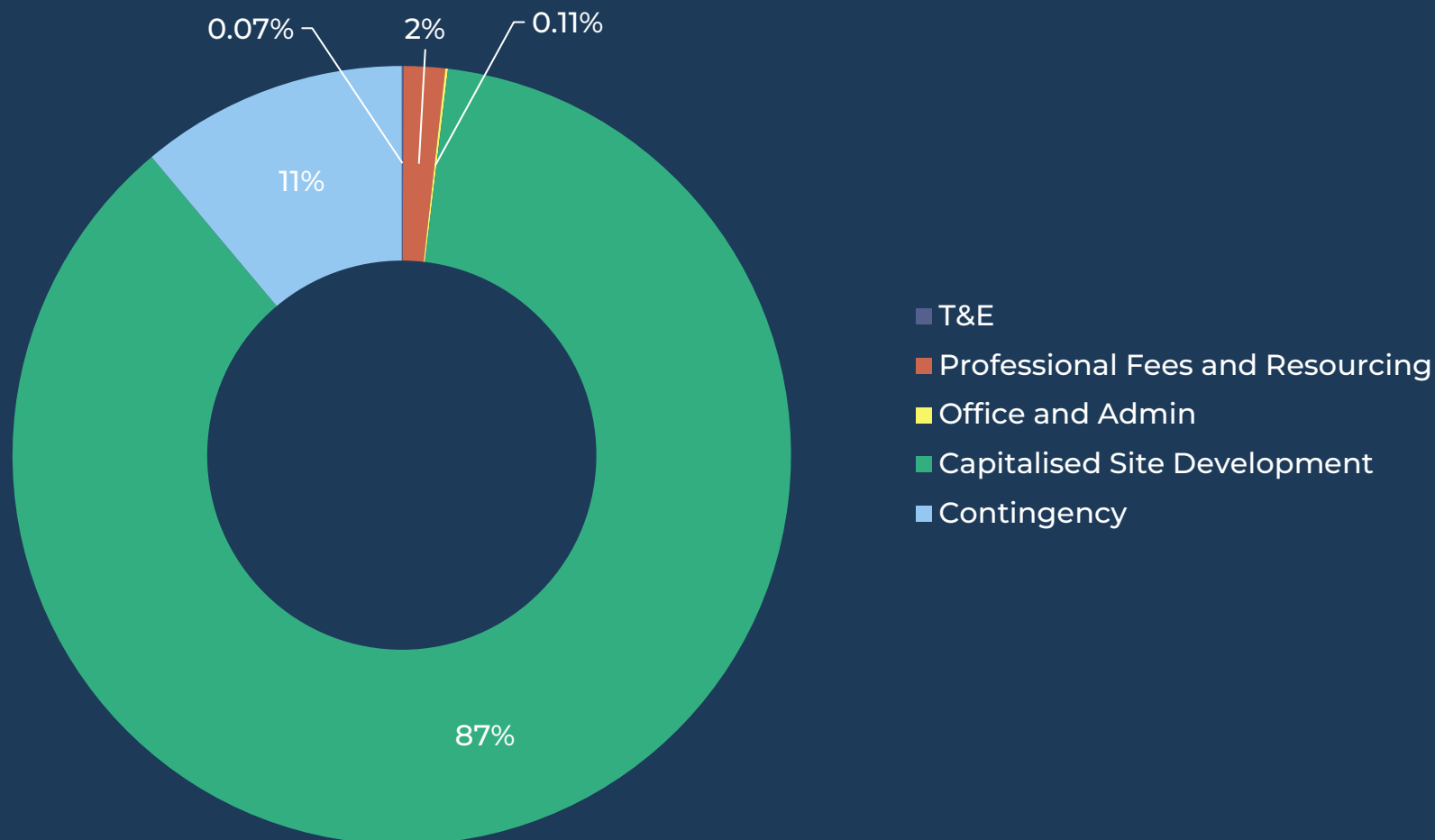


# Milestones





# Fund allocation: 3 years to May 2027



# Why invest in GreenMine?

- Opportunity to tap into a sector with annual revenues of GBP25-30 billion.
- Annual compound sector growth rates in the range of 3-7%.
- Strong revenue generation from start-up with each industrial site contributing GBP3.7M annually.
- Opportunity to recycle land burdened by waste and participate in revenue generation from redevelopment.
- Scalable business model and technology aligned to Government drivers on climate change and carbon reduction.
- Application and development of proven technology to the UK waste market.
- Management team led by industry and infrastructure professionals.



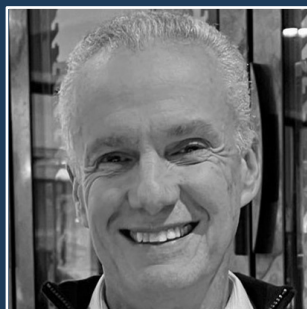
# Management team



**JOHN BELL**

Managing Director

A seasoned entrepreneur who previously built a unique world first global project management and well engineering company to the oil and gas industry, with contract values to £2bn plus. Chairman and major shareholder of a listed oil and gas company. Proven skills in leadership, project management and contractual negotiations, procurement and logistics, John is very committed to this environmental project and has invested £1.5m in the business so far.



**OSANAN BARROS**

Director

A highly accomplished professional with extensive experience in international markets and a comprehensive understanding of dealing with diverse economic and cultural environments. Osanan's background is Management, Risk Management and Finance and his expertise extends to consulting services in the energy, commodities, and mining sectors.



**CHRIS FARMER**

Project Manager

A qualified Chartered Surveyor, specialising in minerals, waste and environmental management. Chris has worked in the mineral extraction and waste management sectors for 25 years, involved in a wide range of disciplines including quarry and landfill site development. Since 2011, Chris has run his own waste brokerage and consultancy business, achieving sales over £40M.

# Independent validation

GreenMine engaged Stopford Engineering under an EPCM contract



- Validate equipment certification HSE and structural compliance.
- Industrial waste site due diligence, planning application and environmental permitting.
- Plant technical due diligence and validation of Brazilian and EU certification.
- Issue UKCA Marking standards in scope of work for UK compliance.
- Witness plant manufacturing construction, UK commissioning.
- Sourcing and procurement of UK equipment.
- Monitoring emissions and equipment performance after commissioning.
- Develop HS&E management systems.
- Validate operations and maintenance systems.

# Support Team members include



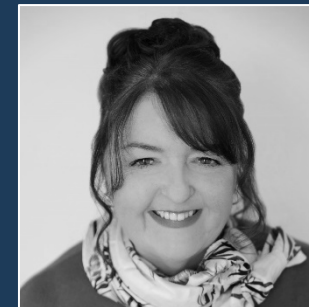
**NICHOLAS DIMMOCK**  
Head of Investor Relations



**HELEN PASSFIELD**  
Head of Finance



**PAUL VOUSDEN**  
Corporate  
Communication



**DR JACQUI TAYLOR**  
Climate Policy  
Development



**ALEXANDRA ELLISON**  
Corporate Services



**AMANDA JACK**  
Investor Relations



**JANE MAHER**  
Public Relations



**COLM MACQUEEN**  
Grants, Subsidies &  
Credits

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## SHARE ISSUE DETAILS

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)