

COLDry Commercialisation Bacchus Marsh Project Update

Highlights:

- COLDry project scope complete for a doubling of throughput capacity
- Project now forecast to divert 35,000 tonnes per annum of plastic-contaminated waste biomass from landfill
- High value downstream applications and customers identified for our initial products including activated char, agricultural char and syngas
- Progress made on project costing, environmental approvals and R&D reaffirms estimated project completion in late 2024
- In parallel, preliminary planning for a Waste Innovation Hub and a Hydrogen Pilot Plant are progressing well.

Environmental Clean Technologies Limited (ASX: **ECT**) ("**ECT**" or "**Company**") is pleased to provide the following update on the status of its COLDry Project at Bacchus Marsh (**the Project**).

COLDry Project Scope Finalised

The completion of the Project scope marks an important milestone in the Project's development and lays a solid foundation for successful implementation.

The scope of the facility includes an increase in throughput capacity from its current 60,000, to 120,000 tonnes per year, including up to 35,000 tonnes of plastic-contaminated organic waste.

This scope was approved by the Board following a thorough techno-economic assessment of various options, to maximise return on asset and enterprise value.

Delivering Net-Zero Solutions

The goal is to deploy Australia’s first fully integrated facility to convert plastic-contaminated waste biomass and lignite into high-value products. These products include activated char, agricultural char, fertilisers, synthetic fuels and low-cost clean hydrogen for emission-free power and transport.

Key benefits of this innovative approach include:

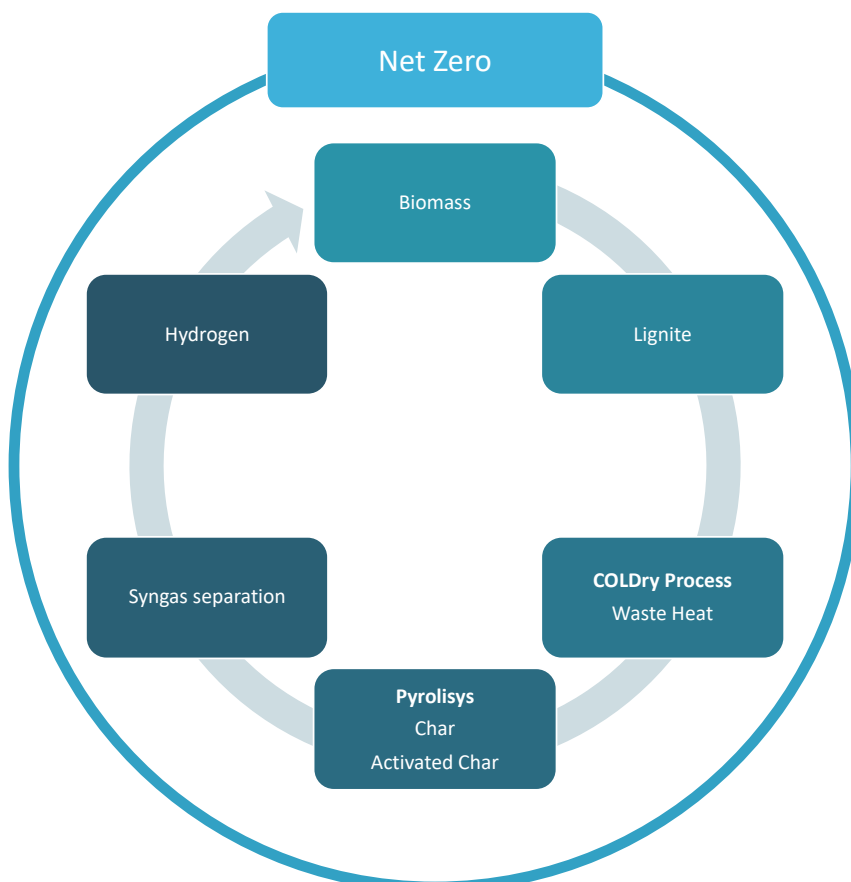
- Low CAPEX
- Low OPEX
- Waste inputs
- Low product cost

Plastic-contaminated biomass is a growing problem, leading to it being redirected to landfill, where it can take centuries to break down and can persist longer in the form of microplastics.

Our COLDry technology offers a patented solution to address this, diverting up to 35,000 tonnes of plastic-contaminated biomass from landfill annually for this project alone.

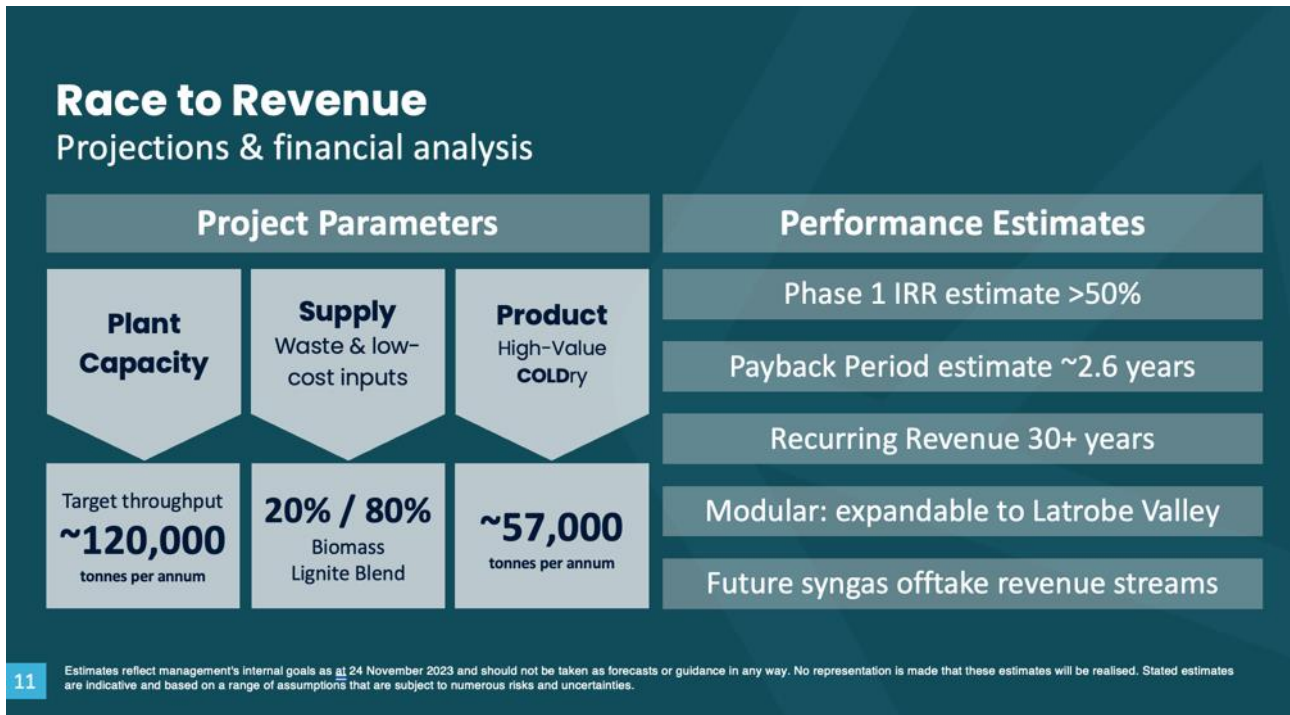
We are assessing expansion opportunities at our property adjacent to the Yallourn power station and mine in Victoria’s Latrobe Valley, and have been invited to participate in projects globally.

This will further assist with the diversion of plastic-contaminated waste from landfill while supporting the decarbonisation of the economy at lower cost.



The scope of the Project blends plastic-contaminated biomass with lignite to create a composite feedstock that delivers low-cost, net-zero solutions.

Our techno-economic analysis indicates that sales to our initial target market - Activated Char manufacturers - presents a compelling business case, supporting our 'race to revenue' strategy.



Activity

Hydrogen Pilot Project – On Target

Low-cost clean hydrogen

Hydrogen is a crucial element in the quest for emission-free power and transport.

The high cost of hydrogen presents a barrier to hydrogen market activation.

Pyrolysis of biomass blended lignite can yield clean hydrogen in high volumes and at low cost.

We are currently scoping a pilot project to deploy alongside the COLDry commercial Project that will demonstrate the techno-economic credentials of this method of hydrogen production as a viable contribution to decarbonising the economy.

Optimisation and Waste Innovation Hub – On Target

The COLDry plant scope optimises the general arrangement and layout for efficient operations and increased productivity, ensuring the project's success.

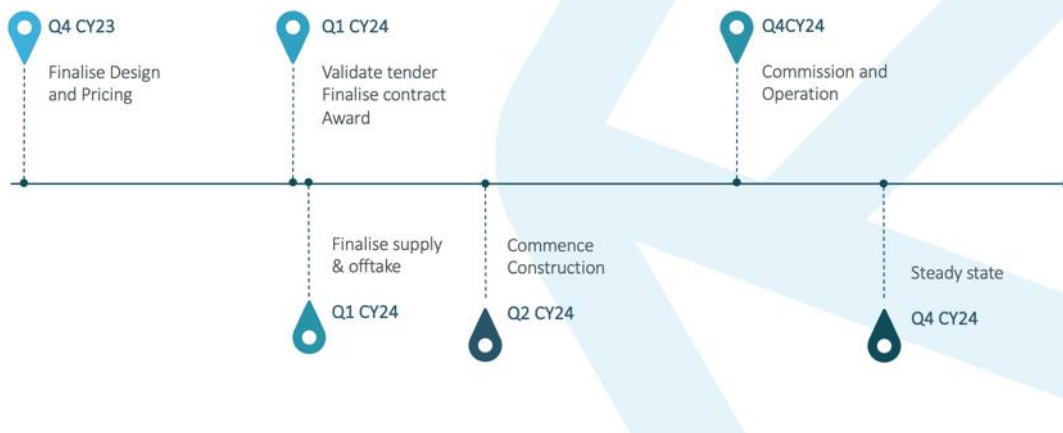
This scope aligns with our ambition to establish a waste innovation hub in cooperation with the site owner, creating new business opportunities and partnerships.

Leveraging synergies across industries and applications, we can contribute to the shift towards a circular economy through modern manufacturing methods, smart technologies, and collaboration.

Cost Management and Project Schedule – On Target

- Equipment and construction packages are currently being costed to align with the revised plant capacity and layout, ensuring accurate cost accounting and alignment with project goals.
- Tender process and contract awards for these packages are scheduled for the coming quarter.
- Project schedule is on track, with a target date for plant operation in December 2024.

ECT 2024 COLDry commercialisation schedule



Environmental Approvals – On Target

- EPA Pathway application lodged 8 December 2023
- Pathway application determines whether a short-form or long-form approval process is required
- Anticipated response by 22 Dec

Research & Development – On Target

Our Research and Development team has played a crucial role in gathering empirical data to inform the scope:

- Extensive testing of different lignite sources and analysis of the material qualities of our biomass supply.
- Collaborating with Monash University to study the performance of Activated Carbon from various inputs and applications.
- Raw material blending model developed to analyse the cost, performance, and quality of and tailor our products to meet the demands of our target markets.



Photos (above, left to right): ECT R&D Manager Dr Wei Xie sampling lignite from the local Maddingley mine and a delivery of plastic-contaminated compost provided for testing.

ECT Chairperson Jason Marinko commented:

“We are in the right the place at the right time to meet today’s challenges and offer investors a low-tech risk, low development risk, low capex, highly scalable, near-term breakeven investment opportunity to participate in a major energy transition theme where governments and large industry players are desperate to find solutions.”

We look forward to providing regular updates as the project advances.

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This announcement is authorised for release to the ASX by the Board.

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