

Highlights

- **MoU Signed with Soil Health Solutions Provider:**
 - ECT & ESG Agriculture signed a binding MoU for an offtake agreement and sustainable soil health solutions development.
 - Independent certified testing confirmed successful blending and drying, solving a critical technical barrier for lignite-nitrogen fertiliser manufacture.
 - All milestones completed, leading to a signed Heads of Agreement (HoA) establishing the principles and intent of the detailed Joint Venture Agreement targeted for signing Q3 CY2024.
- **Advancement of Bacchus Marsh Project (Phase 1):**
 - EPA Approval:
 - Application lodged for producing agricultural products, char, and syngas.
 - Approval will facilitate modifications to plant to produce lignite-nitrogen fertiliser for at-scale agriculture.
 - Approval expected in Q3 CY2024.
 - Planning & Approvals:
 - Local council works permit application submitted for COLDry project construction.
 - Presentations to Council completed.
 - Approval expected in Q3 CY2024.

31 July 2024: Environmental Clean Technologies Limited (**ASX: ECT**) (“**ECT**” or “**Company**”) is pleased to provide an update on recent developments and release its Appendix 4C for the quarter ending 30 June 2024.

Activity Update

ECT signs MoU with Soil Health Solutions Provider

The Company signed a binding Memorandum of Understanding (MoU) with ESG Agriculture on 4 April 2024 to develop a lignite-nitrogen fertiliser soil health product using ECT's net-zero COLDry technology. The initiative aims to create a product that reduces conventional fertiliser use, maintains and improves crop yields, and adds carbon to the soil, improving soil health.

Key activities under the MoU included:

- Test program to determine the optimal lignite-nitrogen product blend
- Assessment of the granulation process options to inform plant design, costing and best fit
- Product analysis to confirm efficacy.

All activities were successfully completed during the reporting period, with ISO-accredited laboratory HRL Technology conducting initial tests, which indicated a successful blending of lignite and nitrogen with almost no nitrogen loss (<1%).

ECT Signs HoA with Soil Health Solutions Provider

Following the reporting period and successful completion of the MOU activities, ECT signed a Heads of Agreement (HoA) with ESG Agriculture, setting the stage for a detailed Joint Venture Agreement. This agreement establishes the working relationship between parties and proposes upgrading ECT's existing COLDry demonstration plant, targeting an initial production of 30,000 tonnes of COLDry lignite-nitrogen fertiliser annually.

The plant has been modified to produce sufficient lignite nitrogen fertiliser for field trials. Initial field trials will commence in the coming weeks, followed by large-scale trials over the next 3-6 months across South Australia, Victoria, NSW, and Queensland.

The project will proceed in two stages:

Stage 1 – Baseline Demonstration

Focuses on integrating the COLDry process with large-scale granulation to sell commercial quantities of fertiliser while converting field trials into bankable off-take agreements.

Stage 2 – Optimisation

Optimise key operational and process parameters to “sweat the asset”, increasing earnings based on a de-risked baseline of operations and performance. This is expected to increase the plant's earnings substantially.

HoA Objectives

The HoA is designed to achieve several key objectives:

- Establishing a Joint Venture Agreement (JVA)
- Developing a Project Funding/Financing Plan
- Creating a Project Execution Plan

Tackling Australia's Soil Health Challenge with Innovative Lignite-based Solutions

Australia's nutrient-poor, heavily weathered soils face significant challenges due to over-reliance on fertilisers and extensive land clearing, leading to erosion, salinity, and acidity.

ECT's partnership with ESG Agriculture aims to address these issues by developing and commercially producing a granulated lignite-nitrogen product using ECT's COLDry process for blending and drying. This innovative product offers numerous benefits:

- **Enhanced Nutrient Retention:** Lignite improves soil structure, enhancing water and nutrient retention.
- **Improved Soil Carbon Levels:** Restore and replenish soil carbon levels, promoting long-term soil health and sustainability.
- **Cost-Effective Solution:** Combining lignite, a low-cost feedstock, with nitrogen creates an affordable alternative to traditional fertilisers.

- **Reduced Emissions:** Fertiliser use in the agricultural sector emits ~3.3¹ million tonnes of CO_{2-e}, second only to animal CO₂ emissions. Using a lignite-nitrogen fertiliser reduces emissions by 50%.

COLDry: Solving Lignite-Nitrogen Fertiliser Manufacturing Problems

Blending

The adoption of lignite-nitrogen fertilisers has faced significant challenges due to blending materials with divergent properties. The COLDry process overcomes this, producing a uniform mixture.

Drying

Drying lignite is a major cost and carbon emissions hurdle in adopting lignite-nitrogen fertilisers. In addition, high-temperature drying methods decompose nitrogen fertilisers, reducing their effectiveness and creating hazardous by-products like biuret, which is toxic to plants.

The COLDry process addresses these issues through its innovative low-temperature drying technology, removing moisture without reaching temperatures that cause thermal decomposition of the nitrogen fertiliser.

The COLDry process successfully tackles the blending and drying challenges that have hindered the adoption of lignite-nitrogen fertilisers.

COLDry Project Update: Planning & Approvals

ECT lodged an Environment Protection Authority (EPA) application for the COLDry commercialisation project under the Pilot Pathway process, which expedites select projects. This application covers operations to produce agricultural products, char and syngas for further development. EPA approval is expected in Q3 CY2024, aligning with the project timeline targeting production in Q1 CY2025.

COLDry Project Update: Local Council Approvals

ECT also lodged a local council works permit application for the COLDry commercialisation project, covering necessary approvals for construction activities related to producing agricultural products. Approval is expected in Q3 CY2024, supporting the EPA application and the HoA with ESG Agriculture.

Commentary to Appendix 4C

Operating activities had net cash outflows of \$0.98M during the quarter, comparable to the prior quarter.

During the June 2024 quarter, the Company finalised the share placement, which commenced in the prior quarter. The placement raised \$1.5M, of which \$0.27M was received in the June quarter.

There were no other significant variations in cash flows compared to the previous quarter.

¹ IPCC emissions factor for Urea of 1.73t CO_{2-e} per tonne of Urea multiplied by the annual consumption of 2.4 million tonnes per annum.

Cash payments of \$0.108M (\$0.093M in the previous quarter) were incurred to related parties of the entity for salaries and directors' fees. The variation relates to the timing of superannuation payments and pay-as-you-go withholding.

For further information, please contact:

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Appendix 4C

Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity

Environmental Clean Technologies Limited

ABN

28 009 120 405

Quarter ended ("current quarter")

30 June 2024

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers		14
1.2 Payments for		
(a) research and development	(353)	(1,081)
(b) product manufacturing and operating costs		
(c) advertising and marketing		
(d) leased assets		
(e) staff costs	(389)	(1,233)
(f) administration and corporate costs	(230)	(1,234)
1.3 Dividends received (see note 3)		
1.4 Interest received	4	18
1.5 Interest and other costs of finance paid	(11)	(65)
1.6 Income taxes paid		
1.7 Government grants and tax incentives		1,309
1.8 Other (provide details if material)		
1.9 Net cash from / (used in) operating activities	(979)	(2,272)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities		
	(b) businesses		
	(c) property, plant and equipment	(6)	(680)
	(d) investments		
	(e) intellectual property		
	(f) other non-current assets		
2.2	Proceeds from disposal of:		
	(a) entities		
	(b) businesses		
	(c) property, plant and equipment		
	(d) investments		
	(e) intellectual property		
	(f) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
2.6	Net cash from / (used in) investing activities	(6)	(680)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	270	3,500
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities		
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings	(27)	(1,073)
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	Net cash from / (used in) financing activities	243	2,427

Quarterly cash flow report for entities subject to Listing Rule 4.7B

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,503	1,286
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(979)	(2,272)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(6)	(680)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	243	2,427
4.5	Effect of movement in exchange rates on cash held		
4.6	Cash and cash equivalents at end of period	761	761

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	761	1,503
5.2	Call deposits		
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	761	1,503

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	108
6.2	Aggregate amount of payments to related parties and their associates included in item 2	

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

7. Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1 Loan facilities		
7.2 Credit standby arrangements		
7.3 Other (please specify)	984	984
7.4 Total financing facilities	984	984
7.5 Unused financing facilities available at quarter end		
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
<p>The Company has a lending facility with Invest Victoria for \$0.984M which has an interest rate of 4.515%, matures 31 October 2024 and is secured by the Company's R & D Tax Incentive. No further drawdowns will be made against this facility.</p>		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(979)
8.2 Cash and cash equivalents at quarter end (item 4.6)	761
8.3 Unused finance facilities available at quarter end (item 7.5)	
8.4 Total available funding (item 8.2 + item 8.3)	761
8.5 Estimated quarters of funding available (item 8.4 divided by item 8.1)	(0.8)
<p><i>Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.</i></p>	
8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:	
8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
<p>Answer: The Company expects that net operating cash flows in the coming quarter to be similar to the quarter ended 30 June 2024. Thereafter the Company expects that net operating cash flows would reduce following the completion of the joint venture arrangements as announced on 15 July 2024. Some costs that are currently met by the Company would be expected to be met by the joint venture.</p>	
8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
<p>Answer: Yes, the Company is engaging with various stakeholders as part of its corporate strategy to raise further cash to fund its operations. The funding initiatives being considered by the Company include both short term and long-term arrangements and take into account the operational requirements of the Company. The raising activities remain ongoing and incomplete. The Company believes that these arrangements will be successful and intends to provide an update to shareholders in accordance with its continuous disclosure obligations.</p>	

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes. Refer 8.6.2 above. The raising activities currently being undertaken are being conducted as part of the Company's overall strategy which has been outlined in the announcement dated 15 July 2024.

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 July 2024

Authorised by: Board of Directors
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.