Environmental Clean Technologies Limited
Appendix 4D
Half-year report

1. Company details

Name of entity:	Environmental Clean Technologies Limited
ABN:	28 009 120 405
Reporting period:	For the half-year ended 31 December 2022
Previous period:	For the half-year ended 31 December 2021

2. Results for announcement to the market

				$
Revenues from ordinary activities	down	94%	to	15,729
Loss from ordinary activities after tax attributable to the owners of Environmental Clean Technologies Limited	up	36%	to	(2,596,459)
Loss for the half-year attributable to the owners of Environmental Clean Technologies Limited	up	36%	to	(2,596,459)

Dividends
There were no dividends paid, recommended or declared during the current financial period.

Comments
The loss for the consolidated entity after providing for income tax amounted to $2,596,459 (31 December 2021: $1,903,827).

Refer to the 'Review of operations' within the Directors' report for further commentary on the results.

3. Net tangible assets

	Reporting period Cents	Previous period Cents
Net tangible assets per ordinary security	0.313	0.179

	Consolidated	
	31 Dec 2022 $	31 Dec 2021 $
Net tangible assets have been calculated as follows:		
Net assets/(liabilities)	5,107,432	2,535,304
Less: Intangibles	(586,418)	(560,684)
Add: Lease liabilities	469,589	622,269
	4,990,603	2,596,889
	No. of shares	No. of shares
Shares on issue at period-end	1,595,597,090	1,320,152,614

Right-of-use assets have been treated as intangible assets and therefore excluded from the net tangible asset calculation.

4. Control gained over entities

Not applicable.

5. Loss of control over entities

Not applicable.

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6. Dividends

Current period
There were no dividends paid, recommended or declared during the current financial period.

Previous period
There were no dividends paid, recommended or declared during the previous financial period.

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7. Dividend reinvestment plans

Not applicable

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8. Details of associates and joint venture entities

Not applicable.

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9. Foreign entities

Details of origin of accounting standards used in compiling the report:

Not applicable.

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10. Audit qualification or review

Details of audit/review dispute or qualification (if any):

The financial statements were subject to a review by the auditors and the review report is attached as part of the Interim Financial Report. The review report contains a paragraph that draws attention to the use of the going concern basis for the preparation of the financial statements.

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11. Attachments

Details of attachments (if any):

The Interim Financial Report of Environmental Clean Technologies Limited for the half-year ended 31 December 2022 is attached.

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12. Signed

As authorised by the Board of Directors

Jason Marinko
Chairman

Date: 27 February 2023
Perth

Environmental Clean Technologies Limited

(ABN 28 009 120 405)

Interim Financial Report - 31 December 2022

Environmental Clean Technologies Limited
Directors' report
31 December 2022

The directors present their report, together with the financial statements, on the consolidated entity (referred to hereafter as the 'consolidated entity') consisting of Environmental Clean Technologies Limited (referred to hereafter as the 'Company' or 'parent entity') and the entities it controlled at the end of, or during, the half-year ended 31 December 2022.

Directors
The following persons were directors of Environmental Clean Technologies Limited during the whole of the financial half-year and up to the date of this report, unless otherwise stated:

Non-Executive Directors:
Jason Marinko - Chairman
Tim Wise
James Blackburn

Executive Directors:
Glenn Fozard - Managing Director

Principal activities
During the financial period, the principal continuing activities of the consolidated entity consisted of investment, research, development, and the commercialisation of technologies that bridge the gap between today's use of low-grade and waste resources and tomorrow's zero-emissions future with an emphasis on producing clean energy, soil health and battery carbon products for the energy and resource sectors. Such activities included:
- building, commissioning and running the Bacchus Marsh commercial demonstration project (CDP);
- developing commercial opportunities for the Company's commercial site at Yallourn; and
- managing the development of, and extracting value from, the consolidated entity's intellectual property.

Bacchus Marsh Commercial Demonstration Project

Phase 1 of the CDP focuses on increasing the COLDry capacity to over 25,000 tonnes per annum, delivered through commercialisation of the technology, while retaining design features to allow ongoing R&D.

Phase 1 entailed the production of COLDry pellets, which would be further upgraded in Phase 2 into higher-value char and syngas, via the installation of a pyrolysis kiln that would also provide the waste heat to the COLDry process. The project was developed to be executed in two phases, commencing with the COLDry demonstration plant and followed by the pyrolysis kiln.

In April 2022, the Company announced a joint venture agreement with strategic partner GrapheneX aimed at delivering a Net Zero Emission Hydrogen Demonstration. As such, Phase 2 was updated, and the project was structured as follows:

Phase 1 – COLDry process scale up:

(1) Design, construction, installation and individual commissioning of each key stage of the process, including primary processing train, conditioning system and drying system; and
(2) Integration of the plant and equipment across each key stage of the process to establish continuous, steady state operations.

Phase 2 – Net Zero Emission Hydrogen Demonstration:

(1) Design, procurement, installation and individual commissioning of the char kiln; and
(2) Integration of the char kiln with the COLDry process to establish continuous, steady state operations and waste energy utilisation for drying; and
(3) Provision of plant and equipment by GrapheneX to process the syngas from the pyrolysis kiln into hydrogen and formic acid; and
(4) Trial of alternative applications utilising existing process assembly e.g., per- and poly-fluoroalkyl substances (PFAS) remediation.

The project was renamed "Viridian Hydrogen" in November 2022.

Phase 1 of the project achieved the successful wet commissioning of the primary processing train during December 2022 and included successful end-user trials of the produced COLDry pellets.

Phase 2 planning and detailed engineering activity is underway, encompassing site layout and civil works, kiln installation and planning for integration with the downstream plant and equipment to be provided by GrapheneX that will take the syngas that ECT produces and process it into hydrogen and formic acid.

The outcomes from this project will drive the development of the Company's proposed large-scale Net Zero Hydrogen Refinery planned for deployment adjacent to the Yallourn lignite mine in Victoria's Latrobe Valley.

The R&D objectives of the project include:

- Completing scale up from COLDry pilot scale including:
  - incorporating a fully bespoke 5-pass conditioning system; construction complete (status: commissioning complete);
  - incorporation of a higher capacity primary processing train (status: construction complete, wet commissioning complete);
  - incorporating packed bed dryer capacity and efficiency redesigns (status: scheduled for delivery under Phase 2);
- Integration with waste energy application (e.g. the char kiln) to provide drying energy for the COLDry process;
- Utilisation of syngas produced from the char kiln;
- Production of solid fuel COLDry pellets, to target specification;
- Production of char from solid fuel COLDry pellets, to target specification; and
- Integration with downstream hydrogen and formic acid (or similar hydrogen carrier chemicals) production plant.

COLDry Process

The COLDry process is a low temperature, low pressure, and therefore a low-cost method of de-watering lignite to produce an upgraded black coal equivalent. The process has progressed from pilot-scale to demonstration-scale allowing techno-economic validation ahead of the intended broader commercial roll-out.

The COLDry process produces pellets that are stable, easily stored, can be transported, and are of equal or higher energy value than many black coals. When used in energy generation, COLDry pellets have a significantly lower CO_2 footprint than the lignite from which they are made, providing a compelling emissions abatement solution.

The COLDry process also acts as a 'gateway technology', making an ideal front-end feedstock that enables numerous higher value upgrading applications such as coal to oil, gas and iron production. When integrated with the HydroMOR process, the COLDry process provides an essential and cost effective front-end drying and pelletising solution that enables the world's first and only lignite based primary iron production method.

Essentially, the COLDry process combines two mechanisms to achieve efficient, cost-effective de-watering; (i) lignite densification; and (ii) waste heat utilisation. Lignite densification is achieved through the destruction of the internal porous structures, mobilising the structurally trapped water within the lignite. Waste heat utilisation provides 'free' evaporative energy to remove the moisture, thereby minimising paid energy input, resulting in net energy uplift and net CO_2 reductions.

HydroMOR (previously Matmor) Process

HydroMOR is an improved version of the previously named Matmor process, which is a cleaner, lower-emission, one-step process for producing high-grade primary iron, using low-cost lignite instead of expensive coking coal as used in the conventional blast furnace process.

HydroMOR is an improvement over the Matmor process, deriving further advantage from its unique raw material base, especially the hydrocarbon-rich lignite used in the role of reductant. The process derives its name from the utilisation of hydrogen from the lignite to drive the reduction process used to produce metals from ore.

The HydroMOR process leverages a fundamentally different chemical pathway compared to the conventional blast furnace process, enabling the use of alternative raw materials, providing a lower-cost primary iron making alternative.

HydroMOR creates a high-grade iron product from lignite and ferrous media such as iron ore, mill scale or other iron bearing wastes or tailings. The process involves blending lignite with iron ore or other metal oxide bearing media to form a paste that is dewatered using the COLDry process. The 'composite' pellets are then fed into the Company's simple low cost, low emission, patented retort (vertical shaft furnace) where the remaining moisture is removed, the lignite volatiles are harnessed and the iron oxides are reduced to metal.

The HydroMOR process operates below 1000 degrees Celsius, compared to a blast furnace which operates at around 1500 degrees Celsius. Lower temperature operation requires less energy input and results in less thermal stress on the plant, enabling lower cost materials to be used in its construction.

HydroMOR metal product is an ideal feedstock for the production of specific grades and forms of iron and steel, via secondary processes such as electric arc, induction furnace or fully integrated steel making.

The benefits the Company sees in the application of the HydroMOR process include further reductions in capital cost due to its ability to achieve the required metal reduction at a lower temperature, and operating savings in terms of raw material efficiency improvements, as well as decreased CO_2 intensity. With the capital cost savings being applied to carbon offsets, this brings closer the potential of carbon emissions neutral steel production.

CDP Waste-to-Energy

The Company announced on 10 July 2019 that it had completed the purchase of a catalytic de-polymerisation (CDP) technology which is capable of producing automotive diesel from a range of hydrocarbon-based inputs including various waste and hydrocarbon streams such as waste timber, end-of-life plastics and low-rank coal.

The group is yet to devote further resources to the development of this activity as the focus has been on the completion of the Bacchus Marsh commercial demonstration facility.

Intellectual property

The consolidated entity owns both the COLDry and HydroMOR intellectual property. Aspects of the COLDry process are covered by patents in all major markets with significant brown coal deposits.

In November 2017, the Company submitted a Patent Cooperation Treaty application following the submission of an Australian provisional patent application in November 2016. This is the next step in the intellectual property protection of the Company's new HydroMOR technology platform. The filing sets in place the timetable for the subsequent national based process for IP protection, where individual patent submissions will be made in each geography of interest.

Due to its intrinsic reliance on COLDry for feedstock preparation, HydroMOR is afforded an additional degree of protection via COLDry patents. In markets where neither COLDry nor HydroMOR patents exist, the Company will employ other IP protection strategies.

Equity Lending Facilities ('ELF')

An ELF is an investment loan which is offered by ECT Finance Limited ('ECTF' a wholly owned subsidiary of the Company) to approved holders of ECT's options to pay for the exercise of options into fully paid ordinary shares. ELFs can also be secured by the issue of new shares. Loans are for a term of 2-3 years and accrue interest. The ELF borrower owns the shares and the voting rights but cannot trade the stock until the loan and interest is paid in full. The ELF borrower can repay the loan or part thereof, at any time, without penalty during the course of the term. If the borrower does not pay the loan by the expiry, the loan defaults but is settled by ECTF taking control of the security (the ECT shares) and returning it back to ECTs balance sheet via a selective buyback or other similar method. The loan is limited recourse secured by the ECT stock and therefore the borrower is not exposed to any costs of the unpaid loan at the end of the term.

During the year, ECTF continued to manage its portfolio of ELF loan receivables.

On 21 December 2022, the Company announced that ECTF was taking expressions of interest for a new ELF in relation to the ECTOE listed options that expired on 17 February 2023.

Review of operations

The loss for the consolidated entity after providing for income tax amounted to $2,596,459 (31 December 2021: $1,903,827).

Major Highlights:

Environmental Clean Technologies Limited

(i) Receipt of research and development tax incentive

In October 2022, the Company received the full amount of the research and development tax incentive receivable recognised in the financial statements at 30 June 2022.

(ii) COLDry Demonstration Project (Bacchus Marsh)

Progress of Phase 1 continued during the reporting period, despite residual COVID-related supply chain and labour market constraints, culminating in the successful completion of wet commissioning of the primary processing train in December 2022.

Panasonic Hydrogen Fuel Cell Trial at Bacchus Marsh

During November 2022, the Company announced the signing of a Term Sheet for the field trial of the Panasonic Hydrogen Fuel Cell technology as part of its COLDry Demonstration and Net Zero Hydrogen Project at JBD Industrial Park in Bacchus Marsh, northwest of Melbourne.

A presentation, approved by Optimal and Panasonic, provides an overview of the technology and trial and is available on the Company's website.

(iii) Net-zero Hydrogen Refinery Project (Yallourn)

Following purchase of a project site adjacent to the Yallourn mine, the feasibility study is ongoing, with the outcomes of the COLDry demonstration project at Bacchus Marsh intended to inform the engineering, investment decision and timeframe of the Yallourn project.

Financial results:
There were no sales of products from the consolidated entity's research and development activities during the period as a result of the ongoing construction of a new facility.

The 'Other Income' category of $281,621 (31 Dec 2021: $415,487) predominantly includes AusIndustry research and development tax incentive income of $280,616 (31 Dec 2021: $361,364). The research and development tax incentive received and receivable on the purchase of qualifying capital items has been offset against the respective asset carrying values and is therefore not recognised as income.

Total operating costs (excluding impairment and write-off expense, depreciation and amortisation, remeasurement of financial liabilities, share-based payments expense and finance costs) increased by $115,232 due to ramping up of operations.

Finance costs reduced by $250,561 as a result of having a convertible note issue in the prior financial year.

Depreciation and amortisation increased by $207,938 as additional plant and equipment is commissioned at Bacchus Marsh. Depreciation and amortisation are non-cash expense items.

There was an increase in share-based payments expense for the current period compared to the prior period of $601,572 due largely to the expensing of director incentive options issued in the latter half of the 2022 financial year. Share-based payments expense for the period was $650,196.

Finally, the change in fair value of financial liabilities represents the combined movement in the COLDry earn-out creditor (the present value of future commitments associated with the purchase of the COLDry intellectual property in 2009) and the HydroMOR deferred consideration (the present value associated with the purchase of the HydroMOR Test Plant assets in 2014). There was a net reduction in the combined liabilities resulting in a gain on remeasurement for the year amounting to $86,717.

Significant changes in the state of affairs
There were no significant changes in the state of affairs of the consolidated entity during the financial half-year.

Matters subsequent to the end of the financial half-year
On 3 February 2023, 26M ECTOE options (which were held as part of the security for an ELF entered into in 2021) were released to enable the holder of these options to participate in the new ELF announced on 21 December 2022. The original ELF is still secured by 65M fully paid ordinary shares which is adequate security for this ELF. As the options would have expired on 17 February 2023 it was in the Company’s interests to release the options to enable them to be used in establishing a new ELF.

On 17 February 2023, 1,159,847,596 of the 1,920,206,487 ECTOE options expired unexercised. The remaining 760,358,891 options were exercised via an ELF offered by ECTF. 760,358,891 fully paid ordinary shares were issued which are held as security for these ELFs.

No other matter or circumstance has arisen since 31 December 2022 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

Auditor's independence declaration
A copy of the auditor's independence declaration as required under section 307C of the Corporations Act 2001 is set out immediately after this directors' report.

This report is made in accordance with a resolution of directors, pursuant to section 306(3)(a) of the Corporations Act 2001.

On behalf of the directors

Jason Marinko
Chairman

27 February 2023
Perth

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Australia

DECLARATION OF INDEPENDENCE BY KATHERINE ROBERTSON TO THE DIRECTORS OF ENVIRONMENTAL CLEAN TECHNOLOGIES LIMITED

As lead auditor for the review of Environmental Clean Technologies Limited for the half-year ended 31 December 2022, I declare that, to the best of my knowledge and belief, there have been:

1. No contraventions of the auditor independence requirements of the *Corporations Act 2001* in relation to the review; and
2. No contraventions of any applicable code of professional conduct in relation to the review.

This declaration is in respect of Environmental Clean Technologies Limited and the entities it controlled during the period.

Katherine Robertson

Katherine Robertson
Director

BDO Audit Pty Ltd

Melbourne, 27 February 2023
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Contents

Environmental Clean Technologies Limited
Statement of profit or loss and other comprehensive income
For the half-year ended 31 December 2022

	Note	Consolidated 31 Dec 2022 $	Consolidated 31 Dec 2021 $
Revenue	4	-	251,927
Other income	5	281,621	415,487
Interest revenue calculated using the effective interest method		15,729	3,699
Total revenue and other income		297,350	671,113
Expenses			
Corporate costs		(1,002,373)	(846,328)
Depreciation and amortisation expense		(531,336)	(323,398)
Engineering and design costs		(212,783)	(248,923)
Sales and marketing		(143,258)	(188,641)
Impairment of receivables		(132,000)	-
Employee benefits expense		(91,978)	(233,890)
Occupancy expense		(81,240)	(52,542)
Legal costs		(59,566)	(42,617)
Finance costs		(45,596)	(296,157)
Travel and accommodation		(30,200)	(5,859)
Share-based payments expense	17	(650,196)	(48,624)
Changes in inventories		-	(117,830)
Change in fair value of financial liabilities	12	86,717	(170,131)
Total expenses		(2,893,809)	(2,574,940)
Loss before income tax expense		(2,596,459)	(1,903,827)
Income tax expense		-	-
Loss after income tax expense for the half-year attributable to the owners of Environmental Clean Technologies Limited		(2,596,459)	(1,903,827)
Other comprehensive income for the half-year, net of tax		-	-
Total comprehensive loss for the half-year attributable to the owners of Environmental Clean Technologies Limited		(2,596,459)	(1,903,827)
		Cents	**Cents**
Basic loss per share	16	(0.163)	(0.187)
Diluted loss per share	16	(0.163)	(0.187)

Environmental Clean Technologies Limited
Statement of financial position
As at 31 December 2022

	Note	Consolidated 31 Dec 2022 $	Consolidated 30 Jun 2022 $
Assets			
Current assets			
Cash and cash equivalents		3,261,879	4,403,198
Trade and other receivables	6	597,143	2,160,440
Other assets		41,475	53,351
Total current assets		3,900,497	6,616,989
Non-current assets			
Property, plant and equipment	7	4,987,333	4,655,378
Right-of-use assets		408,652	484,671
Intangibles		177,766	203,400
Total non-current assets		5,573,751	5,343,449
Total assets		9,474,248	11,960,438
Liabilities			
Current liabilities			
Trade and other payables		288,129	682,440
Borrowings	8	1,968,000	1,968,000
Lease liabilities		162,727	157,628
Provisions		21,415	5,531
Other financial liabilities	9	26,869	23,012
Total current liabilities		2,467,140	2,836,611
Non-current liabilities			
Lease liabilities		306,862	389,701
Provisions		4,821	1,864
Other financial liabilities	9	1,587,993	1,678,567
Total non-current liabilities		1,899,676	2,070,132
Total liabilities		4,366,816	4,906,743
Net assets		5,107,432	7,053,695
Equity			
Issued capital	10	88,943,874	88,943,874
Reserves	11	3,827,062	3,176,866
Accumulated losses		(87,663,504)	(85,067,045)
Total equity		5,107,432	7,053,695

Environmental Clean Technologies Limited
Statement of changes in equity
For the half-year ended 31 December 2022

Consolidated	Issued capital $	Reserves $	Accumulated losses $	Total equity $
Balance at 1 July 2021	81,091,892	118,285	(79,888,212)	1,321,965
Loss after income tax expense for the half-year	-	-	(1,903,827)	(1,903,827)
Other comprehensive income for the half-year, net of tax	-	-	-	-
Total comprehensive loss for the half-year	-	-	(1,903,827)	(1,903,827)
Transactions with owners in their capacity as owners:				
Contributions of equity, net of transaction costs	384,136	-	-	384,136
Share-based payments	298,774	538,958	-	837,732
Issue of shares and options on conversion of promissory notes	1,395,339	764,094	-	2,159,433
Share issue costs	(265,000)	-	-	(265,000)
Shares issued on exercise of options	865	-	-	865
Balance at 31 December 2021	82,906,006	1,421,337	(81,792,039)	2,535,304

Consolidated	Issued capital $	Reserves $	Accumulated losses $	Total equity $
Balance at 1 July 2022	88,943,874	3,176,866	(85,067,045)	7,053,695
Loss after income tax expense for the half-year	-	-	(2,596,459)	(2,596,459)
Other comprehensive income for the half-year, net of tax	-	-	-	-
Total comprehensive loss for the half-year	-	-	(2,596,459)	(2,596,459)
Transactions with owners in their capacity as owners:				
Share-based payments (note 17)	-	650,196	-	650,196
Balance at 31 December 2022	88,943,874	3,827,062	(87,663,504)	5,107,432

The above statement of changes in equity should be read in conjunction with the accompanying notes

Environmental Clean Technologies Limited
Statement of cash flows
For the half-year ended 31 December 2022

	Consolidated	
	31 Dec 2022	31 Dec 2021
	$	$
Cash flows from operating activities		
Research and development tax incentive	1,797,289	1,988,680
Receipts from customers (inclusive of GST)	88,922	256,138
Payments to suppliers and employees (inclusive of GST)	(2,361,405)	(2,666,370)
Interest received	15,160	3,699
Interest and other finance costs paid	(45,596)	(72,574)
Government grants received	-	1,200
Net cash used in operating activities	(505,630)	(489,227)
Cash flows from investing activities		
Payments for property, plant and equipment	(557,949)	(1,096,701)
Net cash used in investing activities	(557,949)	(1,096,701)
Cash flows from financing activities		
Proceeds from exercise of options	-	864
Proceeds from issue of convertible promissory notes	-	2,905,000
Proceeds from loans	-	1,180,248
Repayment of borrowings	-	(1,273,504)
Repayment of lease liabilities	(77,740)	(89,550)
Capital raising costs	-	(19,000)
Net cash (used in)/from financing activities	(77,740)	2,704,058
Net (decrease)/increase in cash and cash equivalents	(1,141,319)	1,118,130
Cash and cash equivalents at the beginning of the financial half-year	4,403,198	1,014,490
Cash and cash equivalents at the end of the financial half-year	3,261,879	2,132,620

The above statement of cash flows should be read in conjunction with the accompanying notes

Note 1. General information

The financial statements are those of Environmental Clean Technologies Limited as a consolidated entity consisting of Environmental Clean Technologies Limited and the entities it controlled at the end of, or during, the half-year. The financial statements are presented in Australian dollars, which is Environmental Clean Technologies Limited's functional and presentation currency.

Environmental Clean Technologies Limited is a listed public company limited by shares, incorporated and domiciled in Australia. Its registered office and principal place of business is:

388 Punt Road
South Yarra, Victoria, 3141
Australia

A description of the nature of the consolidated entity's operations and its principal activities are included in the directors' report which is not part of the financial statements.

The financial statements were authorised for issue, in accordance with a resolution of directors, on 27 February 2023. The directors have the power to amend and reissue the financial statements.

Note 2. Significant accounting policies

These general purpose financial statements for the interim half-year reporting period ended 31 December 2022 have been prepared in accordance with Australian Accounting Standard AASB 134 'Interim Financial Reporting' and the Corporations Act 2001, as appropriate for for-profit oriented entities. Compliance with AASB 134 ensures compliance with International Financial Reporting Standard IAS 34 'Interim Financial Reporting'.

These general purpose financial statements do not include all the notes of the type normally included in annual financial statements. Accordingly, these financial statements are to be read in conjunction with the annual report for the year ended 30 June 2022 and any public announcements made by the Company during the interim reporting period in accordance with the continuous disclosure requirements of the Corporations Act 2001.

The principal accounting policies adopted are consistent with those of the previous financial year and corresponding interim reporting period, unless otherwise stated.

New or amended Accounting Standards and Interpretations adopted
The consolidated entity has adopted all new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period.

Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

Going concern
For the financial half-year ended 31 December 2022, the consolidated entity incurred an operating net loss of $2,596,459 (31 Dec 2021: net loss of $1,903,827), had net cash outflows from operating activities of $505,630 (31 Dec 2021: net cash outflows of $489,227), net current assets at the reporting date of $1,433,357 (30 June 2022: net current assets of $3,780,378) and total net assets of $5,107,432 (30 June 2022: $7,053,695). The consolidated entity does not currently have a significant source of operating revenue and is reliant upon the receipt of research and development tax incentives, ELF loan repayments, equity capital or loans from third parties to meet its operating costs.

The ability to continue as a going concern is dependent upon several factors, one being the continuation and availability of funds. The reliance on future funding described above indicates a material uncertainty that may cast significant doubt about the consolidated entity's ability to continue as a going concern. The financial statements have been prepared on the basis that the consolidated entity is a going concern which contemplates the continuity of its business, the realisation of assets and the settlement of liabilities in the normal course of business.

To this end, the consolidated entity is expecting to fund ongoing obligations as follows:
- utilisation of its current cash resources;
- principal paid and interest earned from current ELF debt arrangements (treated as capital injections);
- issuance of the Company's securities under ASX Listing Rule 7.1; and
- the sale of product from the Company’s test facility in Bacchus Marsh.

Note 2. Significant accounting policies (continued)

Based on the above and cash flow forecasts prepared, the directors are of the opinion that the consolidated entity is well positioned to meet its objectives and obligations going forward and therefore that the basis upon which the financial statements are prepared is appropriate in the circumstances.

Should the consolidated entity be unable to continue as a going concern, it may be required to realise its assets and extinguish its liabilities other than in the ordinary course of business, and at amounts that differ from those stated in the financial statements. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or to the amounts and classification of liabilities that might be necessarily incurred should the consolidated entity not continue as a going concern.

Note 3. Operating segments

Identification of reportable operating segments
The consolidated entity's operating segment is based on the internal reports that are reviewed and used by the Board of Directors (being the Chief Operating Decision Maker ('CODM')) in assessing performance and in determining the allocation of resources. The consolidated entity operates predominantly in the environmental and energy industry, and a single geographic segment being Australia.

The CODM reviews operating performance of the consolidated entity based on management reports. At regular intervals, the CODM is provided management information at a consolidated entity level for the consolidated entity’s cash position and cash forecast for the next 12 months of operation. On this basis, no segment information is included in these financial statements.

Types of products and services
The principal products and services are as follows:

ECT (COLDry, HydroMOR and FEnEx CRC):	ECT represents the consolidated entity's primary activities of investment, research, development and commercialisation of technologies relating to the COLDry and HydroMOR processes and FEnEx CRC participation.
ECT Finance ('ECTF'):	ECTF is a subsidiary of the group, and represents the equity lending facility activities of the consolidated group. ECTF lends to shareholders at commercial interest rates allowing them to finance the acquisition of shares in the Company through limited recourse loan arrangements.

ECT provides funding to ECTF via intersegment loan accounts allowing ECTF to then advance funds to ECT shareholders (i.e. ELF borrowers) for the purpose of exercising their ECT options and acquiring shares in ECT. The shares in ECT are held as security by ECTF against the ELF borrowings until such time as principal and interest payments are made. ECTF may release partial allocations of ECT shares on receipt of repayments of ELF borrowings.

The loan made by ECT to ECFT is interest bearing giving rise to inter-segment revenue generated by ECT and inter-segment interest expense incurred by ECTF. At a consolidated level, all inter-segment loans are eliminated along with the related interest revenue and expense. Furthermore, all ELF borrowings advanced to shareholders, together with the related issue of ECT shares are eliminated as, pursuant to accounting standards, such loans, which are limited recourse borrowings in nature, are deemed to represent the issue of in-substance call options by ECT to shareholders, with any receipts from ECT borrowers that do not result in the release of shares accounted for as the receipt of option premium. Only when shares are released on receipt of loan repayments is an actual issue of share capital recognised.

Note 4. Revenue

	Consolidated	
	31 Dec 2022	**31 Dec 2021**
	$	**$**
Sales of wood briquettes	-	251,927

Note 4. Revenue (continued)

Disaggregation of revenue
The disaggregation of revenue from contracts with customers is as follows:

	Consolidated	
	31 Dec 2022 $	31 Dec 2021 $
Major product lines		
Wood briquettes	-	251,927
Geographical regions		
Australia	-	251,927
Timing of revenue recognition		
Goods transferred at a point in time	-	251,927

Note 5. Other income

	Consolidated	
	31 Dec 2022 $	31 Dec 2021 $
Net gain on derivatives	-	48,712
Government grants	-	1,200
Research and development tax incentive	280,616	361,364
Other income	1,005	4,211
Other income	281,621	415,487

Research and development tax incentive
The Company has recognised a receivable related to the research and development tax incentive of $477,569 at 31 December 2022 (30 June 2022: $1,794,182) which relates to eligible expenditure (refer to note 6).

Note 6. Trade and other receivables

	Consolidated	
	31 Dec 2022 $	30 Jun 2022 $
Current assets		
Trade receivables	-	30,250
Other receivables	132,000	159,286
Less: Allowance for expected credit losses	(132,000)	-
	-	159,286
Research and development tax incentive receivable	477,569	1,794,182
GST receivable	119,574	176,722
	597,143	2,160,440

Other receivables
Other receivables relate to the sale of the wood briquette business. During the period, management determined that the other receivables were impaired. Negotiations are currently progressing with the purchaser of the wood briquette business to either receive payment or additional security. As these negotiations are incomplete, management has recognised a loss on the receivable of $132,000 during the period.

Note 6. Trade and other receivables (continued)

Research and development receivable
The research and development tax incentive receivable as at 30 June 2022 was subsequently received in October 2022. The total amount received was $1,797,289.

Note 7. Property, plant and equipment

	Consolidated	
	31 Dec 2022 $	30 Jun 2022 $
Non-current assets		
Land and buildings - at cost	1,105,978	1,026,529
Less: Accumulated depreciation	(15,547)	-
	1,090,431	1,026,529
Leasehold improvements - at cost	70,396	61,593
Less: Accumulated depreciation	(12,264)	(2,235)
	58,132	59,358
Plant and equipment - at cost	8,618,824	7,947,274
Less: Accumulated depreciation	(4,793,693)	(4,392,889)
	3,825,131	3,554,385
Fixtures and fittings - at cost	12,102	12,102
Less: Accumulated depreciation	(12,102)	(12,102)
	-	-
Office equipment - at cost	30,324	28,489
Less: Accumulated depreciation	(16,685)	(13,383)
	13,639	15,106
	4,987,333	4,655,378

Consolidated	Land and buildings $	Leasehold improvements $	Plant and equipment $	Office equipment $	Total $
Balance at 1 July 2022	1,026,529	59,358	3,554,385	15,106	4,655,378
Additions net of R&D offset	79,449	8,803	671,550	1,835	761,637
Depreciation expense	(15,547)	(10,029)	(400,804)	(3,302)	(429,682)
Balance at 31 December 2022	1,090,431	58,132	3,825,131	13,639	4,987,333

Note 8. Borrowings

	Consolidated 31 Dec 2022 $	Consolidated 30 Jun 2022 $
Current liabilities		
Research and development structured finance loan	1,968,000	1,968,000

Research and development structured finance loan
The Company's R&D cashflow loan of $1,968,000 with Invest Victoria was extended for a further 12 months, with the loan to be repaid from the FY23 R&D incentive refund. The rollover approval includes a condition that the FY23 refund forecast must remain within the 80% loan-to-value ratio limit (i.e. the expected refund must be forecast to be greater than $2,460,000). The Company is currently in discussions with Invest Victoria to extend the loan for a further 12 months. The interest rate for this loan is 3.265%.

Note 9. Other financial liabilities

	Consolidated 31 Dec 2022 $	Consolidated 30 Jun 2022 $
Current liabilities		
Earn-out provision - COLDry	3,857	-
Deferred consideration - HydroMOR	23,012	23,012
	26,869	23,012
Non-current liabilities		
Earn-out provision COLDry	1,197,295	1,265,027
Deferred consideration HydroMOR	390,698	413,540
	1,587,993	1,678,567
	1,614,862	1,701,579

Refer to note 12 for information relating to the fair value measurement of other financial liabilities.

Note 10. Issued capital

	Consolidated 31 Dec 2022 Shares	Consolidated 30 Jun 2022 Shares	Consolidated 31 Dec 2022 $	Consolidated 30 Jun 2022 $
Ordinary shares - fully paid	1,595,597,090	1,595,597,090	88,943,874	88,943,874
ELF share capital	120,654,587	120,654,587	-	-
	1,716,251,677	1,716,251,677	88,943,874	88,943,874

Ordinary shares
Ordinary shares entitle the holder to participate in dividends and any proceeds on the realisation of net assets in the event of a winding up of the Company. The fully paid ordinary shares have no par value and the Company does not have a limited amount of authorised capital.

There was no movement in ordinary shares during the period.

There was no movement in ELF shares during the period.

Note 10. Issued capital (continued)

ECTOE Options on issue

There were 1,920,206,487 ECTOE options on issue at the start of the year which had an exercise price of $0.03. There was no movement in ECTOE options during the period. All options expired on 17 February 2023. The Company announced that ECTF offered an ELF to those options holders who held at least 333,334 options. ELF were issued which resulted in 760,358,891 options being exercised and the same number of fully paid ordinary shares were issued which are now held as security for these ELFs. The remaining 1,159,847,596 options lapsed without being exercised.

Note 11. Reserves

	Consolidated	
	31 Dec 2022 $	30 Jun 2022 $
Share-based payments reserve	2,145,971	1,495,775
Options reserve	1,681,091	1,681,091
	3,827,062	3,176,866

Share-based payments reserve
The reserve is used to recognise the value of equity benefits provided to employees and directors as part of their remuneration, and other parties as part of their compensation for services.

Options reserve
The balance of the options reserve recognises the value of consideration received for options issued that remain unexercised and value of options issued on settlement of convertible promissory notes. Such options may include those issued as share-based payments and receipt of principal and interest on ELF loan repayments which are treated as receipt of option premium for accounting purposes. Movements in the reserve are provided below.

	Share-based payments reserve	ECTOE options reserve	Total
Balance at 1 July 2022	1,495,775	1,681,091	3,176,866
Share-based payments for the period	650,196	-	650,196
Balance as at 31 December 2022	2,145,971	1,681,091	3,827,062

Note 12. Fair value measurement

The carrying values of financial assets and financial liabilities presented in these financial statements represent a reasonable approximation of fair value unless otherwise stated.

Note 12. Fair value measurement (continued)

The following tables detail the consolidated entity's liabilities, measured or disclosed at fair value, using a three level hierarchy, based on the lowest level of input that is significant to the entire fair value measurement, being:
Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date
Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly
Level 3: Unobservable inputs for the asset or liability

Consolidated - 31 Dec 2022	Level 1 $	Level 2 $	Level 3 $	Total $
Liabilities				
Earn-out provision - COLDry IP	-	-	1,201,152	1,201,152
Deferred consideration - HydroMOR	-	-	413,710	413,710
Total liabilities	-	-	1,614,862	1,614,862

Consolidated - 30 Jun 2022	Level 1 $	Level 2 $	Level 3 $	Total $
Liabilities				
Earn-out provision - COLDry IP	-	-	1,265,027	1,265,027
Deferred consideration - HydroMOR	-	-	436,552	436,552
Total liabilities	-	-	1,701,579	1,701,579

There were no transfers between levels during the financial half-year.

The carrying amounts of trade and other receivables and trade and other payables approximate their fair values due to their short-term nature.

The fair value of financial liabilities is estimated by discounting the forecast cash flows required to discharge the liability at the current market interest rate that is available for similar financial liabilities. Movements in the fair value of the financial liabilities are disclosed in the respective notes.

Valuation techniques for fair value measurements categorised within level 2 and level 3
The above financial liabilities have been valued using a discounted cash flow model.

Level 3 liabilities
Movements in level 3 liabilities during the current financial half-year are as follows:

Consolidated	Earn-out provision COLDry	Deferred consideration HydroMOR $	Total $
Balance at 1 July 2022	1,265,027	436,552	1,701,579
Remeasurement to fair value (charged to profit or loss)	(63,875)	(22,842)	(86,717)
Balance at 31 December 2022	1,201,152	413,710	1,614,862

Note 12. Fair value measurement (continued)

The level 3 liabilities unobservable inputs and sensitivity are as follows:

Description	Unobservable inputs	Potential range	Sensitivity
COLDry earn-out provision	Discount rate	11% - 21% (16% used)	A change in this rate of 5% would have an effect of: +5%: decreasing the carrying value of the liability by $311,572 (and decreasing the loss); and -5%: increasing the carrying value of the liability by $444,614 (and increasing the loss).
	Timing of production to discharge liability	Dec 2022 onwards	The rate of payment of the earn-out liability is linked to the expected timing of plant production. Obligations are currently forecast to commence next year from small production, escalating in forward years through commercial scale up. A change in timing of the commercial scale commencement of +1 year from that currently forecast would reduce the loss and liability by $185,464.
HydroMOR deferred consideration	Discount rate	14% - 24% (19% used)	A change in this rate of 5% would have an effect of: +5%: decreasing the carrying value of the liability by $91,753 (and decreasing the loss); and -5%: increasing the carrying value of the liability by $113,892 (and increasing the loss).
	Timing of significant trigger events	Dec 2022 to Dec 2029	Should the next major trigger event and subsequent events be delayed by +1 year from that currently forecast, that would reduce the loss and liability by $35,990.

Note 13. Commitments

	Consolidated	
	31 Dec 2022	**30 Jun 2022**
	$	**$**
Capital commitments		
Committed at the reporting date but not recognised as liabilities, payable:		
Property, plant and equipment	101,315	-
Patents *	64,795	64,795
	166,110	64,795

* Patent commitments represent maintenance payments pursuant to the registered patents of both COLDry and HydroMOR.

Note 13. Commitments (continued)

Royalty commitments

The Company has entered into agreements that require it to pay certain royalties on the production of its COLDry and HydroMOR technologies. These royalties arise pursuant to the:

● COLDry Equity Sale Deed (2009); and
● Matmor Royalty Payment Deed (2014).

The Company is committed to making certain royalty payments in the event that commercial value is derived from the application of the technologies as follows:

● from production utilising the COLDry technology of COLDry pellets, a royalty rate of $0.50 per tonne which is increased by CPI each anniversary of the agreement. This royalty is payable for a period of twenty years following the commencement of payments; and
● from revenue achieved through commercialisation and deployment of HydroMOR technology, less valid deductions as required under any technology licence, the Company is to pay 3%. This royalty is payable in perpetuity.

Coal supply agreement with EnergyAustralia

On 28 May 2021, the Company signed a coal supply agreement with EnergyAustralia for the supply of lignite from EnergyAustralia's Yallourn mine (refer ASX announcement dated 3 June 2021). The agreement requires that EnergyAustralia supply at least 50,000 tonnes (or other agreed amounts) to the Company for the next 5 years to support the Company's COLDry activities. There is no minimum purchase commitment incurred by the Company.

Note 14. Related party transactions

Parent entity

Environmental Clean Technologies Limited is the parent entity.

Disclosures relating to share-based payments to key management personnel are set out in note 17 'Share-based payments'. Refer also to 'other transactions with related parties' below.

Other transactions with related parties

The following other transactions occurred with related parties:

	Consolidated	
	31 Dec 2022 $	31 Dec 2021 $
Payment of forklift rent to key management personnel (i)	4,500	4,500

Notes:
(i) During the current half year, the Company continued to rent a forklift from Glenn Fozard at a cost of $750 per month (plus GST). The arrangement was initially for a 12-month period and has been extended on a month-to-month basis.

There were no other transactions with related parties during the current and previous financial half-year.

Receivable from and payable to related parties

There were no trade receivables from, or trade payables to, related parties at the current and previous reporting date.

Loans to/from related parties

There were no loans to or from related parties at the current and previous reporting date.

Note 15. Events after the reporting period

Expiry of ECTOE options
On 3 February 2023, 26M ECTOE options (which were held as part of the security for an ELF entered into in 2021) were released to enable the holder of these options to participate in the new ELF announced on 21 December 2022. The original ELF is still secured by 65M fully paid ordinary shares which is adequate security for this ELF. As the options would have expired on 17 February 2023 it was in the Company's interests to release the options to enable them to be used in establishing a new ELF.

On 17 February 2023, 1,159,847,596 of the 1,920,206,487 ECTOE options expired unexercised. The remaining 760,358,891 options were exercised via an ELF offered by ECTF. 760,358,891 fully paid ordinary shares were issued which are held as security for these ELFs.

No other matter or circumstance has arisen since 31 December 2022 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

Note 16. Earnings per share

	Consolidated	
	31 Dec 2022	**31 Dec 2021**
	$	**$**
Loss after income tax attributable to the owners of Environmental Clean Technologies Limited	(2,596,459)	(1,903,827)
	Cents	**Cents**
Basic loss per share	(0.163)	(0.187)
Diluted loss per share	(0.163)	(0.187)
	Number	**Number**
Weighted average number of ordinary shares used in calculating basic earnings per share	1,595,597,090	1,019,828,227
Weighted average number of ordinary shares used in calculating diluted earnings per share	1,595,597,090	1,019,828,227

Note 17. Share-based payments

Share-based payments made by the consolidated entity are described below. Such share-based payment arrangements relate to unlisted director incentive options granted during the year ended 30 June 2022.

	2022
	$
Share-based payments expenses of the period were classified as follows:	
Corporate costs expense	650,196
Share-based payments expense were incurred in relation to the following key management personnel:	
Jason Marinko	306,049
Tim Wise	306,049
James Blackburn	38,097
Total	650,195
Reflected in equity as	
Share-based payments reserve	(650,196)

In the directors' opinion:

- the attached financial statements and notes comply with the Corporations Act 2001, Australian Accounting Standard AASB 134 'Interim Financial Reporting', the Corporations Regulations 2001 and other mandatory professional reporting requirements;

- the attached financial statements and notes give a true and fair view of the consolidated entity's financial position as at 31 December 2022 and of its performance for the financial half-year ended on that date; and

- there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

Signed in accordance with a resolution of directors made pursuant to section 303(5)(a) of the Corporations Act 2001.

On behalf of the directors

Jason Marinko
Chairman

27 February 2023
Perth

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INDEPENDENT AUDITOR'S REVIEW REPORT

To the members of Environmental Clean Technologies Limited

Report on the Half-Year Financial Report

Conclusion

We have reviewed the half-year financial report of Environmental Clean Technologies Limited (the Company) and its subsidiaries (the Group), which comprises the statement of financial position as at 31 December 2022, the statement of profit or loss and other comprehensive income, the statement of changes in equity and the statement of cash flows for the half-year ended on that date, a summary of significant accounting policies and other explanatory information, and the directors' declaration.

Based on our review, which is not an audit, we have not become aware of any matter that makes us believe that the accompanying half-year financial report of the Group does not comply with the *Corporations Act 2001* including:

(i) Giving a true and fair view of the Group's financial position as at 31 December 2022 and of its financial performance for the half-year ended on that date; and

(ii) Complying with Accounting Standard AASB 134 *Interim Financial Reporting* and the *Corporations Regulations 2001*.

Basis for conclusion

We conducted our review in accordance with ASRE 2410 *Review of a Financial Report Performed by the Independent Auditor of the Entity*. Our responsibilities are further described in the *Auditor's Responsibilities for the Review of the Financial Report* section of our report. We are independent of the Company in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to the audit of the annual financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the *Corporations Act 2001* which has been given to the directors of the Company, would be the same terms if given to the directors as at the time of this auditor's review report.

Material uncertainty relating to going concern

We draw attention to Note 2 in the financial report which describes the events and/or conditions which give rise to the existence of a material uncertainty that may cast significant doubt about the Group's ability to continue as a going concern and therefore the Group may be unable to realise its assets and discharge its liabilities in the normal course of business. Our conclusion is not modified in respect of this matter.

Responsibility of the directors for the financial report

The directors of the company are responsible for the preparation of the half-year financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the half-year financial report that is free from material misstatement, whether due to fraud or error.

Auditor's responsibility for the review of the financial report

Our responsibility is to express a conclusion on the half-year financial report based on our review. ASRE 2410 requires us to conclude whether we have become aware of any matter that makes us believe that the half-year financial report is not in accordance with the Corporations Act 2001 including giving a true and fair view of the Group's financial position as at 31 December 2022 and its performance for the half-year ended on that date, and complying with Accounting Standard AASB 134 Interim Financial Reporting and the Corporations Regulations 2001.

A review of a half-year financial report consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

BDO Audit Pty Ltd

BDO
Katherine Robertson

Katherine Robertson
Director

Melbourne, 27 February 2023