

COMMONWEALTH OF AUSTRALIA  
OFFSHORE MINERALS ACT 1994

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NO.	South Australia/	/ ADL
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**APPLICATION FOR EXPLORATION LICENCE  
IN THE SOUTH AUSTRALIA ADJACENT AREA**

To the Designated Authority of **South Australia**

DEM Licensing – Mineral Tenements  
Department for Energy and Mining  
GPO Box 320  
ADELAIDE SA 5001

via email: [DEM.Tenements@sa.gov.au](mailto:DEM.Tenements@sa.gov.au)

**APPLICANT TO COMPLETE ITEMS 1 TO 7**

	<b>(1)</b> Full name and address of each applicant	<b>(2)</b> % SHARE	
Applicant 1	<b>entX Limited</b>	100	%
Applicant 2			%
	<b>(3) TOTAL</b>	100	%

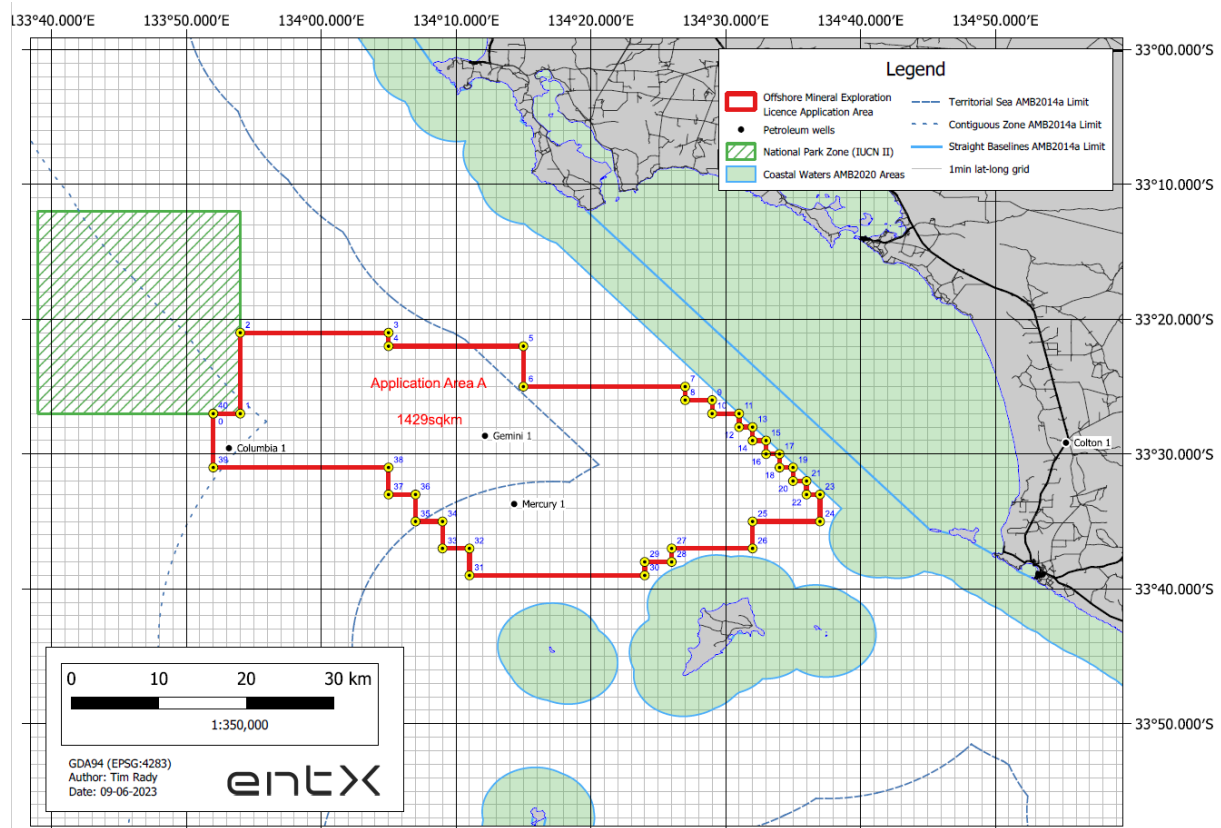
**(4)** Signature of Applicant or Agent



**Bryn Jones**  
Managing Director

**(5) Date Submitted:** 26 May 2023

## A. Location Map of the identified blocks in the application



## B. Proposed Activities and Expenditure

To efficiently and cost-effectively advance the evaluation of the evaporite potential in the offshore Polda Basin, a staged exploration approach has been defined. The objective is to focus on the most prospective regions as quickly as possible, while eliminating those that are deemed not prospective or carry a high level of technical risk. The stages are designed to align with key decision gates at the end of each licence phase.

There is an abundance of historical well and drill hole core and cutting data (Mercury.1, Gemini.1 and Columbia.1), along with associated sample analyses that contain valuable information on the stratigraphy. It is recommended to begin with a thorough analysis of this core and cutting data, to reduce ambiguities in some of the existing stratigraphic information. Fieldwork to outcrops of Mesoproterozoic and Jurassic strata on the Eyre Peninsula may facilitate this work. Reinterpretation of 2D seismic data acquired in the 1970's and 1980's will help to delineate the known salt trend in the central offshore area within the licence application area.

Following this initial desktop and field work, airborne geophysics such as gravity, magnetics and FTG can provide an un-invasive, continuous and high-resolution view of the basin structure and may be successful in directly identifying salt features, such as diapirs and pillows in the application area. A broad east-west survey will also help to define basin architecture and identify new depo-centres prospective for evaporites.

On the basis of our understanding of the geology background and the historical works, entX proposes to conduct the following non-intrusive exploration activities below to fully understand the salt evaporites within the application area.

**Year 1:** Collation, review, and reinterpretation of historic data of known areas of salt identification, in Mercury 1 to determine Palaeozoic and Proterozoic stratigraphy. In addition, a chemo-stratigraphy analysis will be undertaken on core from Mercury.1 to assess mineral composition of the salt.

**Year 2:** Interpret legacy 2D seismic data to understand the character of known salt evaporite, including distribution, burial depth, and thickness.

**Year 3:** Explore the option of either acquiring airborne full tensor gradiometry, gravity and magnetics data or reprocessing legacy seismic 2D data to map the potential extension of salt evaporite within the application area.

**Year 4:** If results from previous exploration phases are encouraging, a decision to continue exploring, via the planning and acquisition of additional data via infill 2D or 3D seismic or other environmentally sensitive methods to confidently define the salt evaporite deposits.

### **C. Technical Qualifications of Applicant**

Since our inception in 2007, entX has a strong focus in developing resources across Australia and overseas.

As a company, we hold ourselves to the extremely high governance standards (expected of a listed entity) backed through the engagement of an experienced board, with a collective 120+ years' across the resource and energy sectors.

Our management team is made up of a broad cross section of scientists and engineers, stemming from backgrounds in Oil and Gas, Nuclear, Mining, Defence, Automotive, and Regulatory sectors. Our resources team is made up with experienced professionals from companies such as ExxonMobil, Total, Santos, Beach Energy, Haliburton, and Schlumberger.

#### **Key Management Personnel**

##### **Mr Glenn Toogood B.App.Sc (Geology), MCESM General Manager Hydrogen and Clean Fuels**

Glenn is responsible for the development of entX Hydrogen strategy, securing early-stage growth options in future-facing clean energy commodities, ventures and innovation. Prior to joining entX, Glenn held senior management positions in energy, resources, and aviation, at companies including Santos, Beach Energy, Qantas Airways and ExxonMobil. He has more than 20 years' experience, working across Australia, Asia and Europe. He specialises in the development and deployment of energy production concepts and operational structures as well as the enhancement of corporate profile and reputation across both private and government sectors.

Glenn holds a Masters in Corporate Strategy and Sustainability from Monash University, a Bachelor of Applied Geology from Federation University and has completed an Advanced Leadership Program at IMD in Lausanne, Switzerland.

**Mr. Tim Rady B.Sc (Hons) (Petroleum Geophysics), MBA  
Exploration Manager**

Tim is an exploration geophysicist with 17 years' experience in oil & gas exploration, specialising in seismic interpretation, basin and play analysis, prospect maturation and opportunity evaluation.

Tim has previously worked for Santos, Premier Oil and Total Energies on a broad range of new ventures, exploration and development projects in Australia, Brazil, Norway, Bangladesh, Vietnam, Malaysia, Indonesia, Thailand and Papua New Guinea. Tim holds a B.Sc (Hons) (Petroleum Geophysics) from the Australian School of Petroleum and a Master of Business Administration from London Business School.

In areas where technical deficiencies exist, entX has access to a highly capable network of technical consultants with the required subsurface expertise to explore evaporite deposits in sedimentary basins.

Further details on entX Senior Management personnel can be found on <https://www.entx.com.au/corporate/senior-management/>.

**D. Technical advice available to the applicant**

The Polda Basin is an east-west striking, intracratonic basin about 25 km wide extending 350 km from the Eyre Peninsula to the centre of the Great Australian Bight. It encompasses an area of about 10,000 km<sup>2</sup> and is defined by a Proterozoic–Jurassic sedimentary fill.

Geoscience Australia has recently undertaken a basin wide assessment of the Polda Basin for its salt potential and has cooperated with entX on its current exploration licence work programs to assess the presence of salt in both the onshore and nearshore (3nm) areas of the Polda Basin.

**E. Financial Resources of the Applicant**

Attached to this application (Attachment.2) is the Most Recent Audited Financial Report (FY22) for entX which demonstrates the financial resources within entX to fulfill its exploration funding commitment on the Mineral Exploration Licence over the four (4) year term.

**F. Applicant – Multiparty**

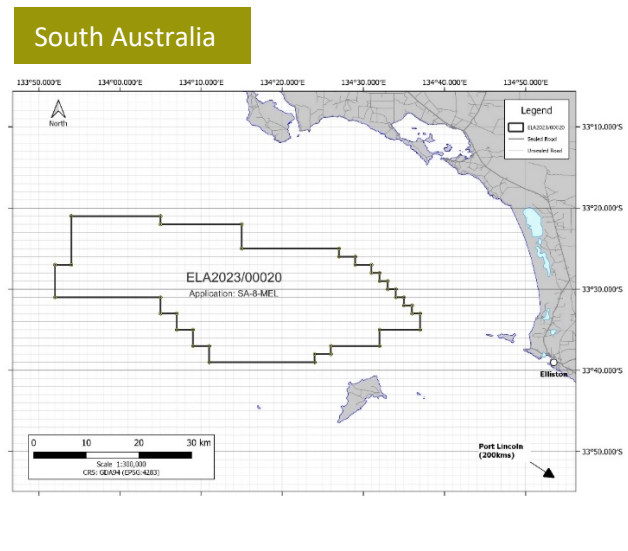
The application is submitted by a single entity, being entX Limited.

**G. Environmental Effects of proposed exploration**

The proposed exploration work program outlined in this application is non-intrusive in nature. The exploration activities to be undertaken within the work program will be predominantly focussed on appraisal of existing data including drill hole cuttings from Mercury.1, Gemini.1 and Colombia.1, as well as assessment and reprocessing of existing 2D seismic data. Where onsite activities will be undertaken, these will be isolated to airborne survey (undertaken under relevant regulatory and licence requirements) and community consultation activities.

**H. Other matters for consideration**

entX has a strong experience level in assessing the salt potential of the Polda Basin. entX currently holds South Australian exploration licences GSEL, 781, 784, GSELA 786 and EL 2023/00013 in the eastern portion of the Polda Basin, where there is an active exploration program currently in place.

<p>6. Reference Point: <b>Port Lincoln, South Australia</b></p>		<p>OFFICE USE ONLY</p>	<p>APPLICATION FEE \$3,000</p>
<p>Distance from: <b>Port Lincoln, 200kms</b></p>			<p>RECEIPT NO. ISSUE</p>
<p>Direction from: <b>Northwest of Port Lincoln</b></p>			<p>RECEIVED ON:</p>
			<p>BY..... (RECEIVING OFFICER)</p>

<b>Block Identifier:</b>
Plan Name: Radstock, Talia, Topgallant Special
Plan Scale: 1:100,000

Primary#	Identifier	Primary#	Identifier	Primary#	Identifier
1175	K,P,U, Z	1319	C-E	1394	E,K
1176-77	F-Z	1320-21	A-E	1395	A-K,M-P,R-U
1178-79	L-Z	1322	A-P,S,T,U,X,Y,Z	1396	A-U
1247	E,K,N-Z	1323-26	A-Z	1397	A-T
1248-53	A-Z	1327	A-D,F-Z	1398	A-L
1254	A,B,F-J,L-Z	1328	L,Q,R,V,W	1399	A,B,F,G
1255	L,Q,R,V,W,X				

**Proposed Work Program**

**Table.1 – Polda Basin (Offshore Minerals Act, Exploration Licence Application)**

Licence Year	Proposed Works	Estimated cost
1	Geological and Geophysical (G&G) studies	\$100,000
2	Geological and Geophysical (G&G) studies	\$100,000
3	Geological and Geophysical (G&G) studies	\$250,000
4	Geological and Geophysical (G&G) studies	\$100,000

## Concluding notes

We thank you for the opportunity to apply for this Offshore Minerals Exploration Licence.

Yours sincerely,



**Bryn Jones**  
Managing Director

entX Limited  
Level 10, 111 Gawler Place, Adelaide SA 5000  
[www.entX.com.au](http://www.entX.com.au)  
ABN 31 164 573 728 | ACN 164 573 728

## Attachments

1. Application Area Map
2. Most Recent Audited Financial Report (entX FY22)

133°50.000'E

134°00.000'E

134°10.000'E

134°20.000'E

134°30.000'E

134°40.000'E

vertex_ind	long_DM	lat_DM	long_DD	lat_DD
0	133° 51	-33° 27'	133.86666667	-33.45
1	133° 54	-33° 27'	133.9	-33.45
2	133° 54	-33° 21'	133.9	-33.35
3	134° 5	-33° 21'	134.08333333	-33.35
4	134° 5	-33° 22'	134.08333333	-33.36666667
5	134° 15	-33° 22'	134.25	-33.36666667
6	134° 15	-33° 24'	134.25	-33.41666667
7	134° 26	-33° 24'	134.45	-33.41666667
8	134° 26	-33° 25'	134.45	-33.43333333
9	134° 28	-33° 25'	134.48333333	-33.43333333
10	134° 28	-33° 27'	134.48333333	-33.45
11	134° 31	-33° 27'	134.51666667	-33.45
12	134° 31	-33° 28'	134.51666667	-33.46666667
13	134° 31	-33° 28'	134.53333333	-33.46666667

vertex_ind	long_DM	lat_DM	long_DD	lat_DD
14	134° 31	-33° 29'	134.53333333	-33.48333333
15	134° 33	-33° 29'	134.55	-33.48333333
16	134° 33	-33° 30'	134.55	-33.5
17	134° 33	-33° 30'	134.56666667	-33.5
18	134° 33	-33° 30'	134.56666667	-33.51666667
19	134° 35	-33° 30'	134.58333333	-33.51666667
20	134° 35	-33° 31'	134.58333333	-33.53333333
21	134° 35	-33° 31'	134.6	-33.53333333
22	134° 35	-33° 32'	134.6	-33.55
23	134° 37	-33° 32'	134.61666667	-33.55
24	134° 37	-33° 35'	134.61666667	-33.58333333
25	134° 31	-33° 35'	134.53333333	-33.58333333
26	134° 31	-33° 37'	134.53333333	-33.61666667
27	134° 26	-33° 37'	134.43333333	-33.61666667

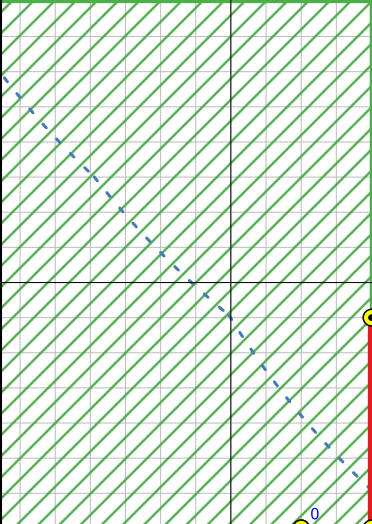
vertex_ind	long_DM	lat_DM	long_DD	lat_DD
29	134° 24	-33° 37'	134.4	-33.63333333
30	134° 24	-33° 38'	134.4	-33.65
31	134° 11	-33° 38'	134.18333333	-33.65
32	134° 11	-33° 37'	134.18333333	-33.61666667
33	134° 9	-33° 37'	134.15	-33.61666667
34	134° 9	-33° 35'	134.15	-33.58333333
35	134° 7	-33° 35'	134.11666667	-33.58333333
36	134° 7	-33° 32'	134.11666667	-33.55
37	134° 5	-33° 32'	134.08333333	-33.55
38	134° 5	-33° 30'	134.08333333	-33.51666667
39	133° 52	-33° 30'	133.86666667	-33.51666667
40	133° 51	-33° 27'	133.86666667	-33.45

33°10.000'S

33°20.000'S

33°30.000'S

33°40.000'S



### Legend

- Offshore Mineral Exploration Licence Application Area
- Territorial Sea AMB2014a Limit
- Contiguous Zone AMB2014a Limit
- Petroleum wells
- National Park Zone (IUCN II)
- Coastal Waters AMB2020 Areas
- Straight Baselines AMB2014a Limit
- 1min lat-long grid

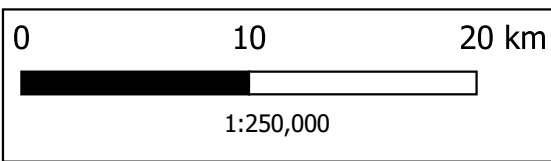
Application Area A

1429sqkm

● Columbia 1

● Gemini 1

● Mercury 1



GDA94 (EPSG:4283)  
 Author: Tim Rady  
 Date: 07-12-2022



The logo for entX, featuring the lowercase letters 'ent' followed by a stylized 'X' composed of two mirrored chevron-like shapes. The background of the entire page is a photograph of Earth from space, showing a bright sun rising over the horizon, with a green and blue arc overlaid on the image.

# entX

## **Financial Report**

For the half year ended 30 June 2022

**CLEAN ENERGY  
TECHNOLOGIES**

entX Limited | ABN 31 164 573 728



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## CORPORATE INFORMATION

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**ABN 31 164 573 728**

### **Directors**

Anthony Kiernan AM (Chair)

Bryn Jones (Managing Director)

Tim Goyder (Non-Executive Director)

Tim Wise (Non-Executive Director)

Lucy Gauvin (Non-Executive Director)

### **Company secretary**

Damien Connor

### **Registered office**

Level 10, 111 Gawler Place

Adelaide, SOUTH AUSTRALIA 5000

### **Principal place of business**

Level 10, 111 Gawler Place

Adelaide, SOUTH AUSTRALIA 5000

### **Share registry**

Computershare Investor Services Pty Ltd

Level 5, 115 Grenfell Street

Adelaide, SOUTH AUSTRALIA 5000

+61 8 8236 2300

### **Auditors**

Grant Thornton Audit Pty Ltd

Level 3, 170 Frome Street

Adelaide SOUTH AUSTRALIA 5000

## DIRECTORS' REPORT

Your Directors present their report together with the financial statements of the consolidated entity, being entX Limited ("entX", "Company") and its controlled entities ("the Group") for the half year ended 30 June 2022 and the Independent Review Report thereon.

Following shareholder approval at the Company's Annual General Meeting held on 6 May 2022, effective from that date, the Company changed its name to from PhosEnergy Limited to entX Limited.

### DIRECTOR DETAILS

The names of Directors who held office during or since the end of the half year and until the date of this report are as below. Directors were in office for this entire period unless otherwise stated.

<b>Mr Anthony Kiernan AM</b>	Non-Executive Chairman
<b>Mr Bryn Jones</b>	Managing Director
<b>Mr Tim Wise</b>	Non-Executive Director
<b>Mr Tim Goyder</b>	Non-Executive Director
<b>Ms Lucy Gauvin</b>	Non-Executive Director
<b>Mr Richard Hacker</b>	Alternate Director to Mr Goyder ( <i>resigned on 22 February 2022</i> )

### PRINCIPAL ACTIVITIES

At entX we are focused on the development and utilisation of innovative clean-energy technologies aimed at recovering useful energy resources from unconventional sources and waste streams. This key value proposition provides a unique pathway to ultimately unlock commercial opportunities to meet a growing demand globally for renewable and sustainable energy supplies.

entX has divided its business into three pillars:

- The Technology Incubator,
- Smart Semiconductor Technology, and
- Zero Carbon Fuels.

Within the three pillars, entX focuses on practical commercial innovation and deployment to decarbonise processes and products, replace high emissions products and processes and innovate new offerings to aid decarbonisation. These pillars are inherently linked to identified key strategies to accelerate industrial emissions reductions - energy efficiency, industrial electrification, low carbon fuels and energy sources and Carbon Capture Utilisation and Storage (CCUS).

### FINANCIAL REVIEW

At 30 June 2022, the Group had net assets of \$4,647,364 (31 December 2021: \$4,796,114) and cash at bank of \$4,327,339 (31 December 2021: \$4,686,819).

The Group reported a net loss for the period of \$1,161,202 (30 June 2021: \$489,263). The increased loss is the result of increased staffing and activity associated with progression of the Company's technologies, having raised additional funds in June 2021 for this purpose.

During the reporting period the Company reported a net cash outflow of \$359,380 (30 June 2021: net cash inflow of \$3,804,985). Offsetting expenses for the period were cash receipts of \$1,304,480, comprising cash inflows from the issue of new shares (\$798,750), Grant receipts (\$310,058), Research and Development tax incentive for FY20 claim (\$100,436), Corporate office rental (\$73,846) and Urtek LLC management fees (\$21,846).

### CHANGES IN EQUITY

The following changes in equity took place during the half year ended 30 June 2022:

#### Shares

The number of fully paid ordinary shares (Shares) on issue increased from 120,037,609 (1 January 2022) to 133,187,609 (30 June 2022), consisting of:

- 1,500,000 Shares issued to a third party pursuant to a services agreement between the Company and the service provider. The issue price of the shares was \$0.10, raising \$150,000.
- 8,650,000 Shares issued following the exercise of options, raising \$648,750. The options had an exercise price of \$0.075 each and expiry of 31 March 2022.
- 3,000,000 Shares issued following the vesting and exercise of an equivalent number of Performance Rights. No funds were raised from the issue of these Shares.

## DIRECTORS' REPORT

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### CHANGES IN EQUITY....continued

#### Unlisted Options

The number of unlisted options (Options) on issue decreased from 26,910,416 (1 January 2022) to 16,229,334 (30 June 2022), consisting of:

- 8,650,000 Options exercisable at \$0.075 each and expiring on 31 March 2022, were exercised into Shares. 1,600,000 Options exercisable on the same terms, expired unexercised on 31 March 2022.
- 1,181,082 STI Options, previously issued to management as part of their respective employment agreements, were lapsed following an assessment against performance targets for the performance period ended 31 December 2021. The remaining 629,334 STI Options vested during the period. STI Options are exercisable at \$0.04 each on or before 31 December 2024.
- 750,000 Options were issued to an employee of the Company pursuant to their employment agreement with the Company. The exercise price, expiry and vesting dates of the Options are linked to the Company being admitted to the official list of ASX. As at the date of this report the Company has not been admitted to the Official List of ASX, therefore none of the Options have vested and the exercise price, expiry and vesting dates remain unknown.

#### Performance Rights

The number of performance rights (Rights) on issue decreased from 3,000,000 (1 January 2022) to nil (30 June 2022), with 3,000,000 Rights vesting and being exercised into Shares during the reporting period.

### SIGNIFICANT CHANGES IN THE STATE OF AFFAIRS

Following shareholder approval at the Company's Annual General Meeting held on 6 May 2022, effective from that date, the Company:

- changed its name to entX Limited; and
- adopted a new Constitution; and
- appointed Grant Thornton Audit Pty Ltd as the Company's Auditor.

There were no further significant changes in the state of affairs of the Company not otherwise stated herein.

### DIVIDENDS

There were no dividends declared or paid during the reporting period and the directors recommend that no dividend be paid.

### EVENTS ARISING SINCE THE END OF THE REPORTING PERIOD

There were no further significant events after the reporting date.

### LIKELY DEVELOPMENTS

There are no likely developments that will impact on the Group other than as disclosed elsewhere in this report.

### REVIEW OF OPERATIONS

#### The Technology Incubator

The Technology Incubator has been established as the first pillar for entX and is dedicated to opportunity evaluation and IP capture and proof of concept. It is where the team monitors trends in sector and technology development and conceptualises or acquires new technology opportunities for rapid testing and evaluation

#### CarbonX Process

The CarbonX Process is a technology for the conversion of waste carbon dioxide (CO<sub>2</sub>) into methanol and other commercial organic compounds without prohibitive energy input. This technology has the potential to revolutionise carbon emitting industries that are currently reliant on emerging carbon capture, utilisation and storage technologies (CCUS) to meet emissions targets.

Until now, the conversion of CO<sub>2</sub> into useable chemicals has been technically possible but commercially challenging, with existing technologies hampered by the large amount of energy input required. The CarbonX Process offers the opportunity of a low-cost solution with low energy input to deliver a range of commercially viable products, including methanol and other C1 and C2 carbon compounds.

The Company has a program underway with the Australian Nuclear Science and Technology Organisation (ANSTO) to optimise both the CarbonX reactor environment and the catalyst structure to provide design inputs for a pilot plant facility planned for deployment in 2024.

#### Developing an Australian supply chain for Radioisotope Heater Units ("RHUs")

RHUs have been used in the global space industry for many years to provide internal heat to keep electronics warm in extreme environments, such as lunar night and deep space.

During the half year the Company completed a program under the Australian Space Agency Moon to Mars Demonstrator Feasibility grant, with its partners Moonlode (space engineering) and Auranos (radioisotope and thermal modelling). The program successfully demonstrated a credible commercial supply chain for Australian supply chain RHUs for lunar night survival and deep space applications.

The Company's unique RHU design is intended to provide cost, permitting and safety advantages over the incumbent RHU technology, without the use of restricted fissile material, thereby creating a commercial opportunity for the Company to develop RHUs for sale to the global space industry.

A program of work with the University of South Australia has been initiated to develop the isotope supply chain for the Company's unique RHU design and the Company is considering the applicability of several commercialisation support programs to build the supply chain for these units.

#### Zero Carbon Fuels

##### The PhosEnergy Process

The Company's most advanced technology is the PhosEnergy Process, a patented science developed to recover uranium from phosphate fertiliser production. EntX and global uranium company Cameco Corporation ('Cameco') are jointly commercialising the PhosEnergy Process via a registered Colorado company called Urtek LLC ('Urtek'), which is beneficially owned 74.21% by Cameco and 25.79% by entX.

The Company continues to believe that the long-term fundamentals of the uranium/nuclear fuel market are strong with movement from major world economies to bolster nuclear programs to achieve ambitious carbon emission targets with long term, reliable power.

The PhosEnergy Process has the potential to play a significant role in the strengthening nuclear fuel market with sustainably sourced uranium. The 'Green' uranium from the PhosEnergy Process not only has the potential to provide cost-competitive uranium but also reduce the environmental distribution of uranium through the broad-acre application of phosphate fertilizers.

##### The Limestone Coast Hydrogen Hub (LCH2)

The Company has signed a Memorandum of Understanding ("MOU") with Kimberly-Clarke Australia (KCA), the largest natural gas user in the Limestone Coast area of South Australia, to investigate initial partial replacement of up to 20% of their existing energy supply input with hydrogen. This replacement, combined with other electrification initiatives, have the potential to assist KCA in meeting their target of net zero carbon emissions by 2030.

The Company recently completed a Scoping Study on the supply of green hydrogen to the facility with GPA Engineering. The Company and KCA are now evaluating the study with a view to making a decision on proceeding to a Feasibility Study in Q4 2022.

## DIRECTORS' REPORT

### REVIEW OF OPERATIONS...CONTINUED

#### Smart Semiconductor Structures

##### GenX Energy

GenX Energy Units ("GenX Units") uniquely combine metals, semiconductors and beta-radiation into smart structures that produce constant DC power over very long time frames.

The highly reliable, low voltage power that can be produced by GenX Units is vital for a range of terrestrial devices in critical industry applications such as telecommunications and remote sensing systems.

The most immediate application for GenX Units is in the space industry, where high reliability, low maintenance power is critical to the success of missions where the cost of deployment is very high.

GenX Units can potentially replace sub-optimal remote power sources with a simple and safe generator that supplies constant DC power for up to several decades without the need for refuelling or recharging.

In March 2022 the Company was awarded a \$2.4 million Cooperative Research Centre Project Grant (CRC-P Grant) by the Federal Government to develop commercial GenX prototypes.

The CRC-P Grant underpins a \$6 million development program utilising specialist skills from entX's partners at the University of South Australia, the University of Adelaide, the University of Western Australia as well as important contributions from industry partners Duromer and DEWC Systems (now Asension).

The program is aimed at establishing a highly efficient, economically-robust manufacturing process for the GenX units. This will involve building numerous units which will be used in field tests due to start in less than three years.

##### GenT Energy

GenT is a thermovoltaic (TV) technology which utilises the unique GenX electrode system in combination with selected low bandgap semiconductors to convert infrared radiation (waste heat) to electrical energy. GenT may provide an opportunity for the energy from waste heat in industrial processes to be effectively utilised to create power that may be recycled to the operation.

The Company is completing a program of work under a grant from the Innovative Manufacturing Co-operative Research Centre (IMCRC) to develop prototype GenT system for testing in various temperature environments.

On successful completion of the demonstration testing, the Company will assess the viability of commercial scale manufacture of GenT units.

#### Team

With the award of grant funding and significant momentum being generated on all of the Company's development projects the Company has secured additional expert specialists to grow the team's capabilities and experience base:

- Dr Julian Kelly – As a founder of the Company's CarbonX, GenX and GenT technologies Dr Kelly has been a key contributor to the Company's technical developments to date. The Company is pleased to welcome Julian in an executive capacity as Chief Technology Officer. Julian will lead the Company's Technology Incubator pillar as well as provide valuable technical input to the Company's current technology developments;
- Glenn Toogood – Glenn is a highly effective energy executive with experience in corporate development, government and community relations and asset management. Glenn leads the LCH2 hydrogen development for entX.
- Dr Massey de los Reyes – Massey has a PhD in materials science specialising in ceramics and brings a wealth of experience in the commercial use and handling of radioactive materials. Massey joins the Company as Principal Scientist and will lead the development of the CarbonX Process as well as provide expert advice to the team in support of other projects.
- Jake Winterbury – Jake Joins the Smart Semiconductor Technology team as a Development Engineer. Jake brings unique experience in the commercialisation of R&D projects in the automotive industry.

#### AUDITOR'S INDEPENDENCE DECLARATION

A copy of the Auditor's Independence Declaration as required under section 307C of the Corporations Act 2001 is included on page 8 of this half year financial report and forms part of this Directors' Report for the half year ended 30 June 2022.

Signed in accordance with a resolution of Directors.



Bryn Jones  
Managing Director  
14 September 2022



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Grant Thornton Audit Pty Ltd  
Grant Thornton House  
Level 3  
170 Frome Street  
Adelaide SA 5000  
GPO Box 1270  
Adelaide SA 5001  
T +61 8 8372 6668

## Auditor's Independence Declaration

### To the Directors of entX Limited

In accordance with the requirements of section 307C of the *Corporations Act 2001*, as lead auditor for the review of entX Limited for the half-year ended 30 June 2022, I declare that, to the best of my knowledge and belief, there have been:

- a no contraventions of the auditor independence requirements of the *Corporations Act 2001* in relation to the review; and
- b no contraventions of any applicable code of professional conduct in relation to the review.

GRANT THORNTON AUDIT PTY LTD  
Chartered Accountants

B K Wundersitz  
Partner – Audit & Assurance

Adelaide, 14 September 2022

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**CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME  
FOR THE HALF YEAR ENDED 30 JUNE 2022**

		30 June 2022	30 June 2021
	Notes	\$	\$
<b>Continuing operations</b>			
Revenue	5(a)	21,846	26,352
Other income	5(b)	736,871	-
Foreign exchange gain		73	35
Corporate and administrative expenses	6(a)	(725,571)	(214,171)
Research and development expenses	6(b)	(692,820)	(299,413)
Business development expenses		(280,612)	-
Share based payments	16	(220,948)	(2,066)
<b>Loss before financing costs</b>		<b>(1,161,161)</b>	<b>(489,263)</b>
Finance costs		(7,041)	-
<b>Loss before income tax</b>		<b>(1,168,202)</b>	<b>(489,263)</b>
Income tax benefit		-	-
<b>Loss attributable to owners of the parent</b>		<b>(1,168,202)</b>	<b>(489,263)</b>
<b>Other comprehensive income, net of income tax</b>			
<i>Items that may be reclassified to profit or loss</i>			
Exchange differences on translation of foreign operations		(246)	(1,056)
Other comprehensive loss net of tax		<b>(246)</b>	<b>(1,056)</b>
<b>Total comprehensive loss attributable to owners of the parent</b>		<b>(1,168,488)</b>	<b>(490,319)</b>
Basic loss per share (cents per share)		(0.93)	(0.84)
Diluted loss per share (cents per share)		(0.93)	(0.84)

The accompanying notes form part of these financial statements.



**CONSOLIDATED STATEMENT OF FINANCIAL POSITION**  
**AS AT 30 JUNE 2022**

		30 June 2022	31 December 2021
	Notes	\$	\$
<b>Assets</b>			
<b>Current assets</b>			
Cash and cash equivalents	7	4,327,339	4,686,819
Trade and other receivables	8	563,486	239,790
<b>Total current assets</b>		<b>4,890,825</b>	<b>4,926,609</b>
<b>Non-current assets</b>			
Intangible assets	10	318,278	201,894
Property, plant and equipment		51,423	53,080
Right to use asset – office Lease	12	292,745	355,476
<b>Total non-current assets</b>		<b>662,446</b>	<b>610,450</b>
<b>Total assets</b>		<b>5,553,271</b>	<b>5,537,059</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Trade and other payables	11	457,181	202,156
Lease liability	12	119,825	115,356
Employee benefits	15	129,107	157,647
<b>Total current liabilities</b>		<b>706,113</b>	<b>475,159</b>
<b>Non-current liabilities</b>			
Lease liability	12	199,026	265,108
Employee benefits	15	768	678
<b>Total non-current liabilities</b>		<b>199,794</b>	<b>265,786</b>
<b>Total liabilities</b>		<b>905,907</b>	<b>740,945</b>
<b>Net assets</b>		<b>4,647,364</b>	<b>4,796,114</b>
<b>Equity</b>			
Issued capital	13	9,512,854	8,714,104
Reserves	14	701,126	537,055
Accumulated losses		(5,566,616)	(4,455,045)
<b>Total equity</b>		<b>4,647,364</b>	<b>4,796,114</b>

The accompanying notes form part of these financial statements.

**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY  
FOR THE HALF YEAR ENDED 30 JUNE 2022**

30 June 2022	Issued capital	Foreign currency translation reserve	Share based payment reserve	Accumulated losses	Total equity
	\$	\$	\$	\$	\$
<b>Balance at 1 January 2022</b>	<b>8,714,104</b>	<b>276,921</b>	<b>260,134</b>	<b>(4,455,045)</b>	<b>4,796,114</b>
Loss for the year	-	-	-	(1,168,202)	(1,168,202)
Other comprehensive loss, net of income tax	-	(246)	-	-	(246)
<b>Total comprehensive loss</b>	<b>-</b>	<b>(246)</b>	<b>-</b>	<b>(1,168,202)</b>	<b>(1,168,448)</b>
Shares issued during the year	798,750	-	-	-	798,750
Cost of shares issued during the year	-	-	-	-	-
Share based payments	-	-	220,948	-	220,948
Transfer between equity items	-	-	(56,631)	56,631	-
<b>Balance as at 30 June 2022</b>	<b>9,512,854</b>	<b>276,675</b>	<b>424,451</b>	<b>(5,566,616)</b>	<b>4,647,364</b>

31 December 2021	Issued capital	Foreign currency translation reserve	Share based payment reserve	Accumulated losses	Total equity
	\$	\$	\$	\$	\$
<b>Balance at 1 January 2021</b>	<b>2,791,452</b>	<b>278,190</b>	<b>54,564</b>	<b>(2,925,079)</b>	<b>199,127</b>
Loss for the reporting year	-	-	-	(1,529,966)	(1,529,966)
Other comprehensive loss, net of income tax	-	(1,269)	-	-	(1,269)
<b>Total comprehensive income</b>	<b>-</b>	<b>(1,269)</b>	<b>-</b>	<b>(1,529,966)</b>	<b>(1,531,235)</b>
Shares issued during the year	6,195,000	-	-	-	6,195,000
Cost of shares issued during the year	(272,348)	-	-	-	(272,348)
Share based payments	-	-	205,570	-	205,570
<b>Balance as at 31 December 2021</b>	<b>8,714,104</b>	<b>276,921</b>	<b>260,134</b>	<b>(4,455,045)</b>	<b>4,796,114</b>

The accompanying notes form part of these financial statements.

**CONSOLIDATED STATEMENT OF CASH FLOWS  
FOR THE HALF YEAR ENDED 30 JUNE 2022**

		30 June 2022	30 June 2021
	Notes	\$	\$
<b>Cash flows from operating activities</b>			
Receipts from customers		95,236	30,744
Interest received		87	-
Research and development refund		100,436	-
Payments to suppliers and employees		(1,462,970)	(520,759)
<b>Net cash outflows from operating activities</b>	<b>19</b>	<b>(1,267,211)</b>	<b>(490,015)</b>
<b>Cash flows from investing activities</b>			
Grant income received		310,059	-
Payments for property, plant and equipment		(7,997)	-
Payments for intangible assets	<b>10</b>	(124,327)	-
<b>Net cash inflows/(outflows) from investing activities</b>		<b>177,735</b>	<b>-</b>
<b>Cash flows from financing activities</b>			
Repayment of lease liability	<b>12</b>	(68,654)	-
Proceeds from issue of shares	<b>13</b>	798,750	4,195,000
Proceeds of loans from directors	<b>18</b>	-	100,000
<b>Net cash inflows from financing activities</b>		<b>730,096</b>	<b>4,295,000</b>
Net (decrease) / increase in cash and cash equivalents		(359,380)	3,804,985
Cash and cash equivalents at beginning of the period		4,686,819	256,972
Effect of exchange rate fluctuations on cash held		(100)	(985)
<b>Cash and cash equivalents at 30 June</b>	<b>7</b>	<b>4,327,339</b>	<b>4,060,972</b>

The accompanying notes form part of these financial statements.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## FOR THE HALF YEAR ENDED 30 JUNE 2022

### ACCOUNTING POLICIES

#### NOTE 1: STATEMENT OF COMPLIANCE

These interim consolidated financial statements are general purpose financial statements prepared in accordance with the requirements of the Corporations Act 2001, applicable accounting standards including AASB 134 'Interim Financial Reporting', Accounting Interpretations and other authoritative pronouncements of the Australian Accounting Standards Board ('AASB'). Compliance with AASB 134 ensures compliance with IAS 34 'Interim Financial Reporting'.

This condensed half year report does not include full disclosures of the type normally included in an annual financial report. Therefore, it cannot be expected to provide as full an understanding of the financial performance, financial position and cash flows of the Group as in the full financial report.

It is recommended that this financial report be read in conjunction with the annual financial report for the year ended 31 December 2021 and any public announcements made by entX Limited during the half year.

The accounting policies adopted are consistent with those of the previous financial year and corresponding interim reporting period, except as set out below. For the purpose of preparing the half year report, the Company is a for profit entity.

#### NOTE 2: BASIS OF PREPARATION

The interim report has been prepared on a historical cost basis. Cost is based on the fair value of the consideration given in exchange for assets. The functional and presentation currency of entX Limited is Australian dollars. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency.

##### (a) Significant accounting judgements, estimates and assumptions

The preparation of interim financial reports requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expense. Actual results may differ from these estimates.

In preparing this interim report, the significant judgments made by management in applying the Group's accounting policies and the key sources of estimation uncertainty were the same as those that applied to the financial report for the year ended 31 December 2021.

##### (b) Going concern

The financial statements have been prepared on the going concern basis of accounting. The Directors consider that this basis is appropriate because they are of the opinion that, should the need arise, the Company can raise additional funding in order to meet its operating expenditure and commitments for the 12 months from the date of signing these financial statements.

#### NOTE 3: ADOPTION OF NEW AND REVISED ACCOUNTING STANDARDS

##### Standards and Interpretations in issue not yet adopted

The Directors have reviewed all of the new and revised Standards and Interpretations in issue that are relevant to the Group and effective for the half year reporting periods beginning on or after 1 January 2022. As a result of this review the Directors have determined that there is no material impact of the Standards and Interpretations in issue not yet adopted on the Group and, therefore, no change is necessary to Group accounting policies.

##### New or amended Accounting Standards and Interpretations adopted

The Group has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period. The Group has determined there is no material impact of the new and revised standards. Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

#### NOTE 4: SEGMENT REPORTING

The Directors have considered the requirements of AASB 8 – Operating Segments and the internal reports that are reviewed by the chief operating decision maker (the Board) in allocating resources, and have concluded that at this time there are no separately identifiable segments.

#### NOTE 5: REVENUE AND OTHER INCOME

##### a) Revenue

	6 months to 30 June 2022	6 months to 30 June 2021
	\$	\$
Management fees	21,846	26,352

The Group's revenue comprises management fees charged to Urtek LLC. Refer to Note 9 for details in relation to Urtek LLC and to Note 18 for details in relation to the management services provided to Urtek LLC.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE HALF YEAR ENDED 30 JUNE 2022

### NOTE 5: REVENUE AND OTHER INCOME...continued

#### b) Other Income

	6 months to 30 June 2022 \$	6 months to 30 June 2021 \$
Research and development tax concession <sup>1</sup>	486,520	-
Grant income	176,584	-
Rental income – shared corporate office	73,625	-
Interest income	142	-
	736,871	-

<sup>1</sup> Represents the research and development tax concession amounts for:

- FY20 claim received during the reporting period (\$100,436); and
- FY21 claim receivable (\$343,980); and
- Estimate of claim for FY22 based on research and development expenditure for the 6 months to 30 June 2022 (\$142,540).

### ACCOUNTING POLICIES

#### Research and development (R&D) tax concession

The Group is entitled to claim R&D tax incentives in Australia. The R&D tax incentive is calculated using the estimated eligible expenditures multiplied by a 43.5% non-refundable tax offset. It has been established that the conditions of the R&D incentive have been met and that the expected amount of the incentive can be reliably measured. Estimated amounts receivable are recognised as research and development tax concession income.

#### Grant Income

Government and other grants are not recognised until there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received. Government grants shall be recognised as income over the periods necessary to match them with the related costs which they are intended to compensate on the systematic basis. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognised in profit or loss in the period in which they become receivable.

### NOTE 6: EXPENSES

#### a) Corporate and administrative expenses

	Note	6 months to 30 June 2022 \$	6 months to 30 June 2021 \$
Regulatory and compliance		165,854	29,037
Personnel expenses	6(c)	324,559	46,960
Corporate consultants		76,845	83,566
Lease amortisation		62,731	0
Depreciation		9,654	236
Office & website/IT expenses		52,541	19,281
Insurance		10,071	23,103
Travel		4,632	1,907
Other		18,684	10,081
		725,571	214,171

#### b) Research and development expenses

	Note	6 months to 30 June 2022 \$	6 months to 30 June 2021 \$
Technologies research and development expenses		377,572	203,607
Personnel expenses	6(c)	307,306	94,092
Amortisation of intangibles	10	7,942	1,714
		692,820	299,413

Technologies research and development expenses relate to expenditure incurred on the CarbonX, GenX, GenT and RHU technologies.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE HALF YEAR ENDED 30 JUNE 2022

### NOTE 6: EXPENSES...continued

#### c) Personnel expenses

	6 months to 30 June 2022 \$	6 months to 30 June 2021 \$
Personnel expenses allocated to research & development expenses	307,306	94,092
Personnel expenses allocated to corporate and administrative expenses	324,559	46,711
Personnel expenses allocated to business development expenses	87,652	-
	<b>719,517</b>	<b>140,803</b>

### NOTE 7: CASH AND CASH EQUIVALENTS

	30 June 2022 \$	31 December 2021 \$
Cash at bank and on hand	4,327,339	4,686,819

### NOTE 8: TRADE AND OTHER RECEIVABLES

	30 June 2022 \$	31 December 2021 \$
Prepayments	37,356	120,582
Research and development tax concession <sup>1</sup>	486,520	100,436
Other receivables	39,610	18,772
	<b>563,486</b>	<b>239,790</b>

<sup>1</sup> Represents the research and development tax concession amounts for:

- FY21 claim receivable (\$343,980); and
- Estimate of claim for FY22 based on research and development expenditure for the 6 months to 30 June 2022 (\$142,540).

### NOTE 9: INVESTMENT IN ASSOCIATE

The Company and Cameco Corporation developed a process for the extraction of uranium from phosphoric acid streams produced in the production of phosphate-based fertilisers, 'the PhosEnergy Process'. Urtek LLC, a USA incorporated company is the entity in which the research and development is being undertaken. UFP Investments LLC (UFP), a USA incorporated company in which the Company has a legal and beneficial interest of 28.66%, holds the joint investment of 90% in Urtek LLC with Cameco owning the remaining 10% directly.

The beneficial ownership in the PhosEnergy Process held through Urtek LLC is Cameco Corporation 74.21% (2021: 74.21%); entX Limited 25.79% (2021: 25.79%).

The share of the associate's losses for the half year is US\$6,567 (30 June 2021: US\$6,051), which has not been recognised as the carrying amount of the Company's equity accounted interest in this associate is \$0 (31 December 2021: \$0). The associate's net assets as at 30 June 2022 is US\$60,038 (31 December 2021: US\$81,583).

### NOTE 10: INTANGIBLE ASSETS

	30 June 2022 \$	31 December 2021 \$
Cost	338,411	214,085
Accumulated amortisation	(20,133)	(12,191)
Net carrying amount	<b>318,278</b>	<b>201,894</b>
<b>Reconciliation of intangible assets</b>		
Carrying amount at the beginning of the year	201,894	61,961
Additions	124,326	146,395
Amortisation charges for the year	(7,942)	(6,462)
Carrying amount at the end of the year	<b>318,278</b>	<b>201,894</b>

Intangible assets consist of the patent and intellectual property associated with the CarbonX Process, GenX devices and GenT Energy Units measured at cost. Additional capitalised costs during the half year ended 30 June 2022 mostly comprised of international patent application filing costs for the GenX Betavoltaic device patents.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
FOR THE HALF YEAR ENDED 30 JUNE 2022**

**NOTE 11: TRADE AND OTHER PAYABLES**

	30 June 2022	31 December 2021
	\$	\$
Trade payables	162,990	81,912
Accrued expenses	64,278	40,859
Deferred grant income	182,752	49,278
Other payables	47,161	30,107
	<b>457,181</b>	<b>202,156</b>

**NOTE 12: RIGHT-OF-USE ASSETS AND LEASE LIABILITIES**

	30 June 2022	31 December 2021
	\$	\$
<b>Lease Liabilities</b>		
Opening balance	(380,464)	(407,752)
Interest in the period	(7,041)	(6,781)
Lease payment in period	68,654	34,069
<b>Balance at the end of the period</b>	<b>(318,851)</b>	<b>(380,464)</b>
Classified as:		
Current	(119,825)	(115,356)
Non-current	(199,026)	(265,108)
	<b>(318,851)</b>	<b>(380,464)</b>
<b>Right-of-use asset</b>		
Balance on initial recognition	407,752	407,752
<i>Accumulated amortisation</i>		
Balance at the beginning of the period	(52,276)	-
Amortisation in period	(62,731)	(52,276)
Balance at the beginning of the period	(115,007)	(52,276)
<b>Balance at the end of the period</b>	<b>292,745</b>	<b>355,476</b>

**NOTE 13: ISSUED CAPITAL**

The capital structure of the Group consists of equity attributable to equity holders consisting of issued capital, reserves and accumulated losses. Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, from the proceeds.

**a) Movement in ordinary shares on issue**

	30 June 2022		31 December 2021	
	Number	\$	Number	\$
<b>Balance at beginning of period</b>	<b>120,037,609</b>	<b>8,714,104</b>	<b>58,087,609</b>	<b>2,791,452</b>
Shares issued – Placement	1,500,000	150,000	41,950,000	4,195,000
Shares issued – Entitlement Offer and Additional Offer	-	-	20,000,000	2,000,000
Transaction costs on issue of shares	-	-	-	(272,348)
Shares issued – exercise of options	8,650,000	648,750	-	-
Shares issued - vested performance rights	3,000,000	-	-	-
<b>Balance at end of period</b>	<b>133,187,609</b>	<b>9,512,854</b>	<b>120,037,609</b>	<b>8,714,104</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE HALF YEAR ENDED 30 JUNE 2022

### NOTE 14: RESERVES

#### a) Share based payments reserve

The share-based payments reserve is used to recognise the value of equity-settled share-based payment transactions provided to Directors, other key management personnel, staff and consultants. Refer to Note 16 for further details.

	30 June 2022	31 December 2021
	\$	\$
Share based payment reserve	424,451	260,134
<b>Movement associated with performance rights ("Rights") &amp; Options during the period:</b>		
Balance at the beginning of the period	260,134	54,564
Options granted	220,948	205,570
Rights granted	-	-
Transfer between Equity Items	(56,631)	-
Balance at the end of the period	424,451	260,134

#### b) Foreign currency translation reserve

The foreign currency translation reserve is used to record the exchange differences arising from the translation of the financial statements of foreign subsidiaries.

	30 June 2022	31 December 2021
	\$	\$
Foreign currency translation reserve	276,675	276,921

### NOTE 15: EMPLOYEE BENEFITS

	30 June 2022	31 December 2021
	\$	\$
<b>Current</b>		
Annual leave accrued	83,860	50,080
Long Service Leave accrued	45,247	42,634
Bonus accrued	-	64,933
	<b>129,107</b>	<b>157,647</b>
<b>Non-current</b>		
Long Service Leave accrued	768	678
	<b>768</b>	<b>678</b>

### NOTE 16: SHARE BASED PAYMENTS

#### a) Recognised share-based payment expense

The expense recognised during the half year is shown in the table below:

	30 June 2022	30 June 2021
	\$	\$
Share options	220,948	2,066
	<b>220,948</b>	<b>2,066</b>

Share-based payments expense recognised on the Statement of Profit or Loss and Other Comprehensive income as 'Share based payments' during the half year, was in relation to options previously issued that were subject to vesting conditions. The expense recognised during the half year is impacted by estimates in relation to timing and likelihood of vesting.



**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
FOR THE HALF YEAR ENDED 30 JUNE 2022**

**NOTE 16: SHARE BASED PAYMENTS...continued**

**b) General terms of share-based payments**

**Options**

The following table outlines the details of outstanding options at 30 June 2022:

	Other terms	No. of Options	Earliest Vesting Date
<p><u>Exercise Price</u> Each option is exercisable at price equal to the issue price of shares in the Company to be offered pursuant to the Prospectus for an Initial Public Offering of the Company. <sup>1</sup></p> <p><u>Expiry Date</u> Each Option expires on the third anniversary of the date of the Company's admission to the official list of ASX. <sup>1</sup></p> <p><i>In the event the recipient (who has been assisting with tasks relating to possible listing on ASX) is no longer an eligible employee of the Company, these Options will lapse in accordance with the rules of the Company's Employee Incentive Plan.</i></p>	<ul style="list-style-type: none"> <li>• 250,000 will vest on the date of the Company's admission to the official list of ASX;</li> <li>• 250,000 will vest 12 months from the date of the Company's admission to the official list of ASX; and</li> <li>• 250,000 will vest 24 months from the date of the Company's admission to the official list of ASX.</li> </ul>	750,000	Date of the Company's admission to the official list of ASX <sup>1</sup>
Exercisable at \$0.145, expiry 31 December 2024	Vested immediately on issue date	2,250,003	31 Dec 21
Exercisable at \$0.145, expiry 31 December 2024	Vest after 12 months of issue date	2,249,999	31 Dec 22
Exercisable at \$0.145, expiry 31 December 2024	Vest after 24 months after issue date	2,249,998	31 Dec 23
Exercisable at \$0.04, expiry 31 December 2024	Vest immediately on date of issue	250,000	31-Dec-21
Exercisable at \$0.04, expiry 31 December 2024	<p><u>Incentive options</u> Options vest subject to satisfaction of performance criteria over the period to the expiry date. Options not vested by the expiry date, will lapse. Performance criteria for the Incentive Options relate to the achievement of corporate and key project milestones.</p> <p>As at 30 June 2022, none of these options have vested.</p>	500,000	31-Dec-21
Exercisable at \$0.04, expiry 31 December 2024	<p><u>Short-term incentive (STI) options</u> Options vested subject to satisfaction of performance criteria for the performance period ended 31 December 2021. Unvested Options lapse. Performance criteria for the STI Options related to the achievement of short-term corporate and technical milestones.</p> <p>During the half year period to 30 June 2022, 1,181,082 options have vested and 1,181,082 lapsed.</p>	629,334	31 Dec 21
Exercisable at \$0.04, expiry 31 December 2024	<p><u>Long-term incentive (LTI) options</u> Options vest subject to satisfaction of performance criteria for the performance period ended 31 December 2023. Unvested Options lapse. Performance criteria for the LTI Options relate to the achievement of long-term corporate and technical milestones.</p> <p>As at 30 June 2022, none of these options have vested.</p>	7,350,000	31 Dec 23
		<b>16,229,334</b>	

<sup>1</sup> The Company may make a future application to the ASX for admission to the Official List. There is no guarantee that an application will be made in the future. There can also be no certainty that any such application would be successful.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE HALF YEAR ENDED 30 JUNE 2022

### NOTE 16: SHARE BASED PAYMENTS...continued

The movement in the number of options and weighted average exercise prices are as follows for the reporting period:

	Weighted Average Exercise Price	6 months to 30 June 2022	Weighted Average Exercise Price	6 months to 30 June 2021
Balance at the beginning of the period	\$0.080	26,910,416	\$0.075	10,250,000
Granted during the period	-	750,000	-	-
Exercised during the period	\$0.075	(8,650,000)	-	-
Lapsed/forfeited during the period	\$0.060	(2,781,082)	-	-
Opening balance (30 June 2022)	\$0.086	16,229,334	\$0.075	10,250,000
Vested and Exercisable at the end of the period	\$0.115	3,129,337	\$0.075	10,250,000

Weighted average remaining contractual life of Options as at 30 June 2022 is 2.51 years (30 June 2021: 0.75 years), excluding the 750,000 Options whereby the expiry date is unknown.

#### Options granted during the period to 30 June 2022

On 24 March 2022, 750,000 options were issued, at nil cost, to an eligible employee of the Company. Each option is exercisable at price equal to the issue price of shares in the Company to be offered pursuant to the Prospectus for an Initial Public Offering of the Company and expire on the third anniversary of the date of the Company's admission to the official list of ASX. The Options vest as follows:

- 250,000 vest on the date of the Company's admission to the official list of ASX;
- 250,000 vest 12 months from the date of the Company's admission to the official list of ASX; and
- 250,000 vest 24 months from the date of the Company's admission to the official list of ASX.

During the reporting period the Company progressed activities to support a possible future application and admission to the official list of ASX. There is no guarantee that an application will be made in the future. There can also be no certainty that any such application would be successful. As at 30 June 2022 and as at the date of this report the Company has not listed on the ASX and does not have an application pending.

Given the option particulars (exercise price, expiry and vesting dates) are contingent on the Company's admission to the official list of ASX, the Company has concluded that the fair value of the options is unable to be reliably valued and as such no amount has been recorded in the Statement of Profit or Loss and Other Comprehensive Income for the half year ended 30 June 2022. The Company will continue to reassess the fair value of these options as circumstances change; in particular when there is greater certainty regarding the possibility of the Company being admitted to the official list of ASX.

#### Options exercised during the period to 30 June 2022

During the half year period 8,650,000 options, exercisable at \$0.075 each and expiring on 31 March 2022, were exercised into an equivalent number of fully paid ordinary shares in the Company.

#### Options lapsed/forfeited during the period to 30 June 2022

During the half year period 1,650,000 options, exercisable at \$0.075 each and expiring on 31 March 2022, expired and lapsed unexercised.

A further 1,181,000 short-term incentive (STI) options, exercisable at \$0.04 and expiring on 31 December 2024, lapsed following an assessment against the performance criteria for the performance period ended 31 December 2021. The performance criteria for the STI options related to the achievement of short-term corporate and technical milestones.

#### **Performance Rights (Rights)**

No performance rights were issued during the half year ended 30 June 2022.

During the half year 3,000,000 Rights vested and were exercised into an equivalent number of fully paid ordinary shares in the Company following an assessment against the respective performance conditions. The Rights were granted to key executives of the Company in 2019 for no consideration and expiry date of 31 March 2022.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE HALF YEAR ENDED 30 JUNE 2022

### NOTE 17: LIST OF SUBSIDIARIES

The consolidated financial statements include the financial statements of entX Limited and its subsidiaries listed in the following table:

Name	Country of Incorporation	% Equity interest	
		30 June 2022	31 December 2021
<b>Parent Entity</b>			
entX Limited	Australia	100	100
<b>Subsidiaries</b>			
PhosEnergy Inc.	USA	100	100
HPEL Developments Pty Ltd	Australia	100	100
CarbonX Developments Pty Ltd <sup>1</sup>	Australia	100	-
GenT Developments Pty Ltd <sup>1</sup>	Australia	100	-
GenX Energy Pty Ltd <sup>1</sup>	Australia	100	-
RHU Solutions Pty Ltd <sup>1</sup>	Australia	100	-

<sup>1</sup> CarbonX Developments Pty Ltd, GenT Developments Pty Ltd, GenX Energy Pty Ltd and RHU Solutions Pty Ltd (“New Subsidiaries”) were incorporated in Australia on 2 February 2022. The New Subsidiaries are each wholly owned subsidiaries of entX Limited.

### NOTE 18: RELATED PARTIES

The consolidated financial statements include the financial statements of entX Limited and its subsidiaries: PhosEnergy Inc., HPEL Developments Pty Ltd, CarbonX Developments Pty Ltd, GenT Developments Pty Ltd, GenX Energy Pty Ltd and RHU Solutions Pty Ltd. entX Limited is the ultimate parent of the Group.

#### Transactions with Key Management Personnel

During the half year ended 30 June 2022, key management personnel including non-executive directors received compensation in the form of short-term employee benefits, post-employment benefits as part of their respective employment arrangements with the Company.

During the half year ended 30 June 2021 (prior period), the Company entered into loan agreements on arm’s length equivalent terms, for \$50,000 each, with Mr Kiernan and Lotaka Pty Ltd (“Lotaka”), an entity of which Mr Goyder is the sole director. The loans were settled in cash in August 2021.

#### Transactions with other related parties

The following table provides the aggregate (expense)/income recognised during the half year relating to related parties as follows:

	Note	30 June 2022	30 June 2021
Related parties:		\$	\$
UFP Investments LLC	(i)	-	-
Urtek LLC	(ii)	(21,486)	(26,352)

- (i) The Group has a 28.66% (2021: 28.66%) legal and beneficial interest in UFP Investments LLC and is accordingly an associate – see Note 9. The Group did not have any transactions with UFP during the reporting period.
- (ii) The Group has a 25.79% (2021: 25.79%) beneficial interest in Urtek LLC and is accordingly an associate– see Note 9. The Company provided management services to Urtek LLC during the half year. Amounts were billed at an amount agreed between the Company and Cameco Corporation and are due and payable under normal payment terms. No amounts were outstanding at 30 June 2022 (31 December 2021: \$Nil).

#### Terms and conditions of transactions with related parties

Other than where stated, services provided by related parties are made in arm's length transactions both at normal market prices and on normal commercial terms.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS FOR THE HALF YEAR ENDED 30 JUNE 2022

### NOTE 19: CASHFLOW INFORMATION

#### Reconciliation of loss to net cash used in operating activities

	30 June 2022 \$	30 June 2021 \$
Loss for the reporting period	(1,168,202)	(489,263)
Share based payments	220,948	2,066
Amortisation of intangible assets	7,941	1,714
Depreciation of property, plant and equipment	9,654	236
Amortisation – right-of-use asset	62,731	-
Interest expenses	7,041	-
Grant income	(176,584)	-
Foreign exchange (gain) / loss	(73)	(71)
<b>Operating loss before changes in working capital</b>	<b>(1,036,544)</b>	<b>(485,318)</b>
(Increase)/decrease in assets:		
Trade and other receivables	(350,470)	(35,417)
Increase/(decrease) in liabilities:		
Trade and other payables	148,253	23,031
Provision for annual leave, long-service leave/bonus	(28,450)	7,689
<b>Net cash outflows from operating activities</b>	<b>(1,267,211)</b>	<b>(490,015)</b>

### NOTE 20: COMMITMENTS AND CONTINGENCIES

During the reporting period the Company was awarded a \$2,427,689 cash funding grant from the Commonwealth Department of Industry, Science, Energy and Resources (Commonwealth) as part of a Cooperative Research Centres Projects (CRCP) grant for development of the Company's GenX Betavoltaic Battery Pilot Manufacturing Process technology (the "CRCP Grant"). The CRCP Grant commenced in May 2022 and is expected to conclude in April 2025. The cash funding for the CRCP Grant is being received by the Company in quarterly receipts from the Commonwealth, in advance of required cash outflows.

As part of the CRCP Grant, the Company will work collaboratively with three research institutions and two industry partners and together are committed to contributing \$3,597,067 (net of grant funds) over the life of the project, including in-kind contributions of \$1,653,509.

There are no further commitments and contingencies at 30 June 2022.

### NOTE 21: EVENTS SUBSEQUENT TO REPORTING DATE

There were no further significant events after the reporting date.

## DIRECTORS' DECLARATION

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In the opinion of the directors of entX Limited (the 'Company'):

- (a) the accompanying financial statements and notes:
  - i. give a true and fair view of the Group's financial position as at 30 June 2022 and of its performance for the half year then ended; and
  - ii. comply with Australian Accounting Standards.
- (b) there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.
- (c) the financial statements and notes thereto are in accordance with International Financial Reporting Standards issued by the International Accounting Standards Board.

This declaration is signed in accordance with a resolution of the Board of Directors.



Bryn Jones  
Managing Director

Dated this 14 September 2022



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## Independent Auditor's Review Report

To the Members of entX Limited

Report on the review of the half-year financial report

### Conclusion

We have reviewed the accompanying half-year financial report of entX Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 30 June 2022, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the half year ended on that date, a description of accounting policies, other selected explanatory notes, 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 entX Limited does not comply with the *Corporations Act 2001* including:

- a giving a true and fair view of the entX Limited's financial position as at 30 June 2022 and of its performance for the half year ended on that date; and
- b 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 our audit of the annual financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

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## INDEPENDENT AUDITOR'S REVIEW REPORT

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### Directors' responsibility for the half-year 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 gives a true and fair view and is free from material misstatement, whether due to fraud or error.

### Auditor's responsibility

Our responsibility is to express a conclusion on the half-year financial report based on our review. We conducted our review in accordance with Auditing Standard on Review Engagements ASRE 2410 *Review of a Financial Report Performed by the Independent Auditor of the Entity*, in order to state whether, on the basis of the procedures described, 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 30 June 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.



GRANT THORNTON AUDIT PTY LTD  
Chartered Accountants



B K Wundersitz  
Partner – Audit & Assurance

Adelaide, 14 September 2022