



# HALF YEAR REPORT

## 31 December 2023

THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE  
30 JUNE 2023 ANNUAL REPORT OF THE COMPANY  
LODGED ON 11 SEPTEMBER 2023



ASX Code: LEL

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## CONTENTS

Directors' Report	2
Auditor's Independence Declaration	37
Consolidated Statement of Profit or Loss and Other Comprehensive Income	38
Consolidated Statement of Financial Position	39
Consolidated Statement of Changes in Equity	40
Consolidated Statement of Cash Flows	41
Notes to Consolidated Financial Statements	42
Directors' Declaration	48
Auditors' Independent Review Report	49
List of Mineral Concessions	51
JORC Mineral Resources	52
JORC Code Competent Persons' Statements	54
Securities Information	57

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## CORPORATE DIRECTORY

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Farooq Khan	Executive Director

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# DIRECTORS' REPORT

The Directors present their report on Lithium Energy Limited ABN 94 647 135 108 (ASX Code: LEL) (**Company** or **LEL**) and its controlled entities (the **Consolidated Entity** or **Lithium Energy**) for the financial half year ended 31 December 2023 (**balance date**).

LEL is a company limited by shares that was incorporated in Western Australia on 14 January 2021 as a wholly-owned subsidiary of Strike Resources Limited (ASX:SRK) (**Strike** or **SRK**). Lithium Energy (holding various battery minerals assets) was spun-out of Strike following the successful completion of LEL's \$9 million initial public offering (**IPO**) under a Prospectus (dated 30 March 2021).

The Company was admitted to the Official List of the Australian Securities Exchange (**ASX**) on 17 May 2021 and commenced quotation/trading on ASX on 19 May 2021.

Lithium Energy has prepared a consolidated financial report incorporating the entities that it controlled during the financial half year.

## OPERATING RESULTS

	December 2023	December 2022
<b>Consolidated</b>	\$	\$
Total income	920,956	978,273
Total expenses	(1,904,930)	(10,857,760)
Loss before tax	(983,974)	(9,879,487)
Income tax expense	-	-
<b>Loss after tax</b>	<b>(983,974)</b>	<b>(9,879,487)</b>

## FINANCIAL POSITION

	December 2023	June 2023
<b>Consolidated</b>	\$	\$
Cash	2,362,698	9,436,225
Exploration and evaluation expenditure	28,787,978	21,251,803
Receivables	160,566	484,628
Other assets	1,545,855	2,147,532
Liabilities	(421,670)	(1,196,495)
<b>Net assets</b>	<b>32,435,427</b>	<b>32,123,693</b>
Issued capital	34,574,590	34,574,590
Reserves	14,345,389	13,049,681
Accumulated losses	(16,074,110)	(15,050,839)
	32,845,869	32,573,432
Non-controlling interest	(410,442)	(449,739)
<b>Total equity</b>	<b>32,435,427</b>	<b>32,123,693</b>

# DIRECTORS' REPORT

## CASH FLOWS

Consolidated	December 2023 \$	December 2022 \$
Net cash flow used in operating activities	(1,647,691)	(2,516,229)
Net cash flow used in investing activities	(7,411,815)	(5,822,182)
Net cash flow from financing activities	-	13,978,211
Net change in cash held	(9,059,506)	5,639,800
Effect of exchange rate changes on cash held	1,985,979	(434,347)
<b>Cash held at half year end</b>	<b>2,362,698</b>	<b>11,878,004</b>

## DIVIDENDS

No dividends have been paid or declared during the financial half year.

## CAPITAL MANAGEMENT

### Securities on Issue

The following securities were on issue as at balance date:

Class of Security	Quoted on ASX	Unlisted	Total
Fully paid ordinary shares	103,010,000	-	103,010,000
Executive Options (\$0.30, 18 March 2024) <sup>1</sup>	-	10,000,000	10,000,000
Broker Options (\$0.30, 4 May 2024) <sup>2</sup>	-	4,000,000	4,000,000
Executive Options (\$1.39, 29 November 2024) <sup>3</sup>	-	3,500,000	3,500,000
SIP Options (\$1.595, 15 February 2025) <sup>4</sup>	-	100,000	100,000
Broker Options (\$1.50, 20 September 2025) <sup>5</sup>	-	750,000	750,000
Executive Options (\$1.06, 4 October 2025) <sup>6</sup>	-	17,500,000	17,500,000
SIP Options (\$1.32, 30 November 2025) <sup>7</sup>	-	400,000	400,000
SIP Options (\$0.935, 10 August 2026) <sup>8</sup>	-	250,000	250,000
<b>TOTAL</b>	<b>103,010,000</b>	<b>36,500,000</b>	<b>139,510,000</b>

- 1 Refer Section 16.3 (Rights Attaching to Executive Options) of the Company's Prospectus (dated 30 March 2021) for terms and conditions of the Executive Options
- 2 Refer Section 16.2 (Rights Attaching to Broker's Options) of the Company's Prospectus (dated 30 March 2021) for terms and conditions of the Broker Options
- 3 Refer LEL Announcement dated 2 December 2021: Notification regarding unquoted securities – LEL and Annexure B (Terms and Conditions of New Executive Options) of LEL's Notice of Annual General Meeting and Explanatory Statement dated 18 October 2021 and released on ASX on 28 October 2021
- 4 Refer LEL Announcement dated 18 February 2022: Notification regarding unquoted securities – LEL
- 5 Refer LEL Announcement dated 21 September 2022: Notification regarding unquoted securities – LEL
- 6 Refer LEL Announcement dated 5 October 2022: Notification regarding unquoted securities – LEL and Annexure B (Terms and Conditions of Executive Options) of LEL's Notice of Annual General Meeting and Explanatory Statement dated 22 August 2022 and released on ASX on 2 September 2022
- 7 Refer LEL Announcement dated 5 December 2022: Notification regarding unquoted securities – LEL
- 8 Refer LEL Announcement dated 16 August 2023: Notification regarding unquoted securities – LEL



# DIRECTORS' REPORT

## Option Issues

The following options were issued during the financial half year:

Class of Unlisted Options	Issue Date	Exercise Price	Expiry Date	Number of Options
SIP Options (\$0.935, 10 August 2026) <sup>8</sup>	14 August 2023	\$0.935	10 August 2026	250,000

## Securities Incentive Plan

The Company has adopted a Securities Incentive Plan (**Plan** or **SIP**)<sup>9</sup> pursuant to which the Board may offer to eligible persons the opportunity to subscribe for securities in the Company on such terms and conditions as the Board may decide and otherwise pursuant to the rules of the Plan. The purpose of the Plan is to:

- (a) assist in the reward, retention, and motivation of 'Eligible Participants' (which includes directors<sup>10</sup>, employees, consultants, contractors and service providers);
- (b) link the reward of Eligible Participants to shareholder value creation; and
- (c) align the interests of Eligible Participants with shareholders of the Company by providing an opportunity to Eligible Participants to receive an equity interest in the Company in the form of securities (which includes a share, a right to a share, an option over an issued or unissued security and a convertible security).

The Company's original Plan<sup>11</sup> was adopted in March 2021 (prior to the Company's admission to ASX). The Company has reviewed and updated the Plan in light of changes to the Corporations Act, which was adopted by shareholders at the Company's 2023 AGM<sup>12</sup>.

9 Refer LEL Announcement dated 17 May 2021: Securities Incentive Plan Terms; a summary of the Plan is also in Section 16.4 (Securities Incentive Plan) of the Lithium Energy Prospectus (dated 30 March 2021).

10 The issue of securities to Directors and Key Management Personnel will require prior shareholder approval, as required under the ASX Listing Rules and/or Corporations Act, as applicable.

11 Refer LEL Announcement dated 17 May 2021: Securities Incentive Plan Terms; a summary of the Plan was also in Section 16.4 (Securities Incentive Plan) of the Lithium Energy Prospectus (dated 30 March 2021).

12 Refer LEL Notice of Annual General Meeting and Explanatory Statement dated 12 September 2023; summary of the Plan is also in Annexure A to the Explanatory Statement.

# DIRECTORS' REPORT

## REVIEW OF OPERATIONS

### Solaroz Lithium Brine Project (Argentina)

(90%)

#### Strategic Partnership Discussions – Multiple Non-Binding Indicative Offers Received

Lithium Energy has received approaches and engaged with multiple major third parties active in the EV battery sector, in relation to forming a strategic partnership to develop the Company's flagship Solaroz Lithium Brine Project in Argentina (**Solaroz** or the **Project**).

Through a formal invitation, expressions of interest from a number of these international industry parties were narrowed to a short list of five companies which were determined to be preferred strategic partners for Lithium Energy.

As a result of this process, Lithium Energy has received multiple Non-Binding Indicative Offers (**NBIO**) from the companies on its preferred partner shortlist, most of whom have already undertaken site visits to Solaroz and are in the final stages of completing their due diligence on the Project. These NBIOs include offers for joint venture partnership as well as for an outright acquisition of Lithium Energy's interest in Solaroz.

Lithium Energy is currently advancing detailed discussions with these preferred participants with a view to advancing the NBIO's to binding offers and selecting a preferred participant. Lithium Energy will keep shareholders apprised of developments and the final terms of agreement with its selected participant if and when such an agreement is finalised.

Whilst Lithium Energy is pleased with the receipt of the NBIOs, it cautions that the current NBIO's received are non-binding, incomplete proposals and there can be no guarantee that any such transaction will proceed or realise value for the Company. Given the non-binding and uncertain nature of the NBIOs, shareholders and investors should not consider them material and they do not impact on Lithium Energy's financial position. Shareholders and investors should not rely on the existence of these NBIO's in their investment decisions relating to the Company.

#### Mineral Resource Upgrade

Lithium Energy has achieved a significant upgrade to its maiden JORC Inferred Mineral Resource Estimate<sup>13</sup> at Solaroz, converting a total of 2.4Mt of Lithium Carbonate Equivalent (**LCE**) into the JORC Indicated Mineral Resource category within a Total Indicated and Inferred Mineral Resource of 3.3Mt LCE.<sup>14</sup>

The 2.4Mt LCE Indicated Mineral Resource, within the 3.3Mt LCE Total Indicated and Inferred Mineral Resource, is based on drilling completed to date, together with extensive geophysics in the 'Central Block' of concessions (Chico I, V and VI, Payo 2 South and Silvia Irene) (refer Figures 2 and 16) totalling ~4,618 hectares out of the total ~12,000-hectare area of the Solaroz concessions.

<sup>13</sup> Refer LEL ASX Announcement dated 29 June 2023: Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina

<sup>14</sup> Refer LEL ASX Announcement dated 26 October 2023: Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource

# DIRECTORS' REPORT

Further potential for resource expansion will be tested by future drilling, with lithium mineralisation remaining open at depth within the deep sand unit and underlying bedrock sediments, which were not fully tested in a number of holes due to drill rig limitations. In addition, further potential for resource expansion exists within the Northern Block of concessions (Payo 1 and Payo 2 North), where only one hole has been drilled to date (SOZDD007) and where this hole also could not fully test the extent of lithium mineralisation in the Deep Sand Unit due to drill rig limitations.

Solaroz has an upgraded JORC Mineral Resource as follows:

- **Total Mineral Resource of 3.3Mt LCE** (at a zero Li mg/l cut-off grade), comprising:
  - **Indicated Mineral Resource of 2.36Mt LCE;** and
  - **Inferred Mineral Resource of 0.9Mt LCE.**
- Within the 3.3Mt LCE Total Mineral Resource, there is a **high-grade core of 1.3Mt of LCE** with an average concentration of **400 mg/l Lithium** (at a 320 mg/l Li cut-off grade).

Further details are in the Company's ASX Announcement dated 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource".

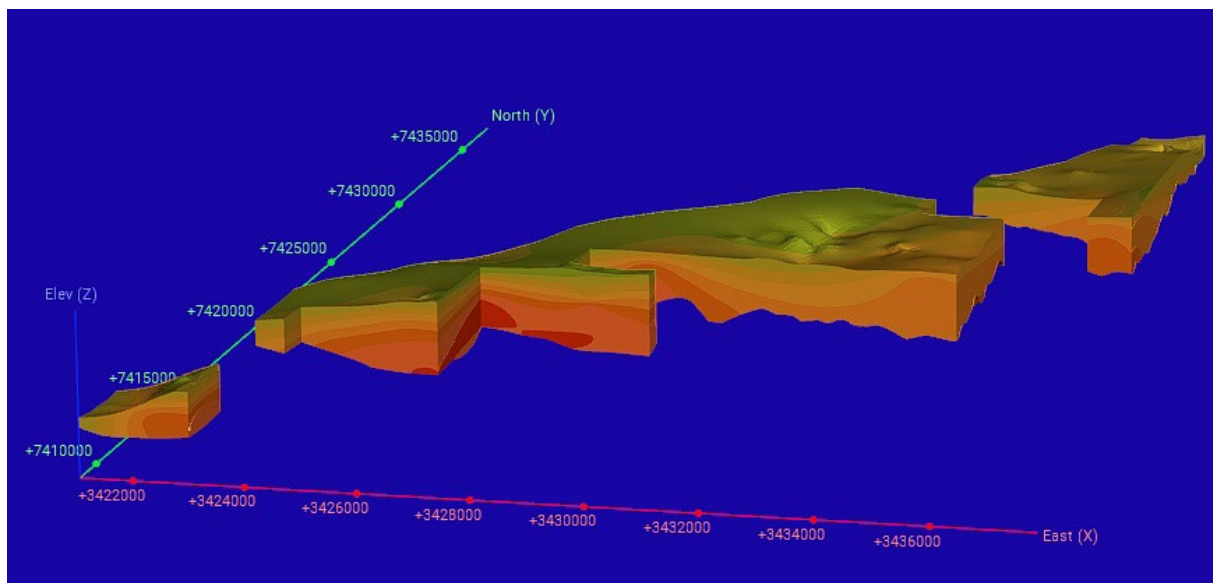
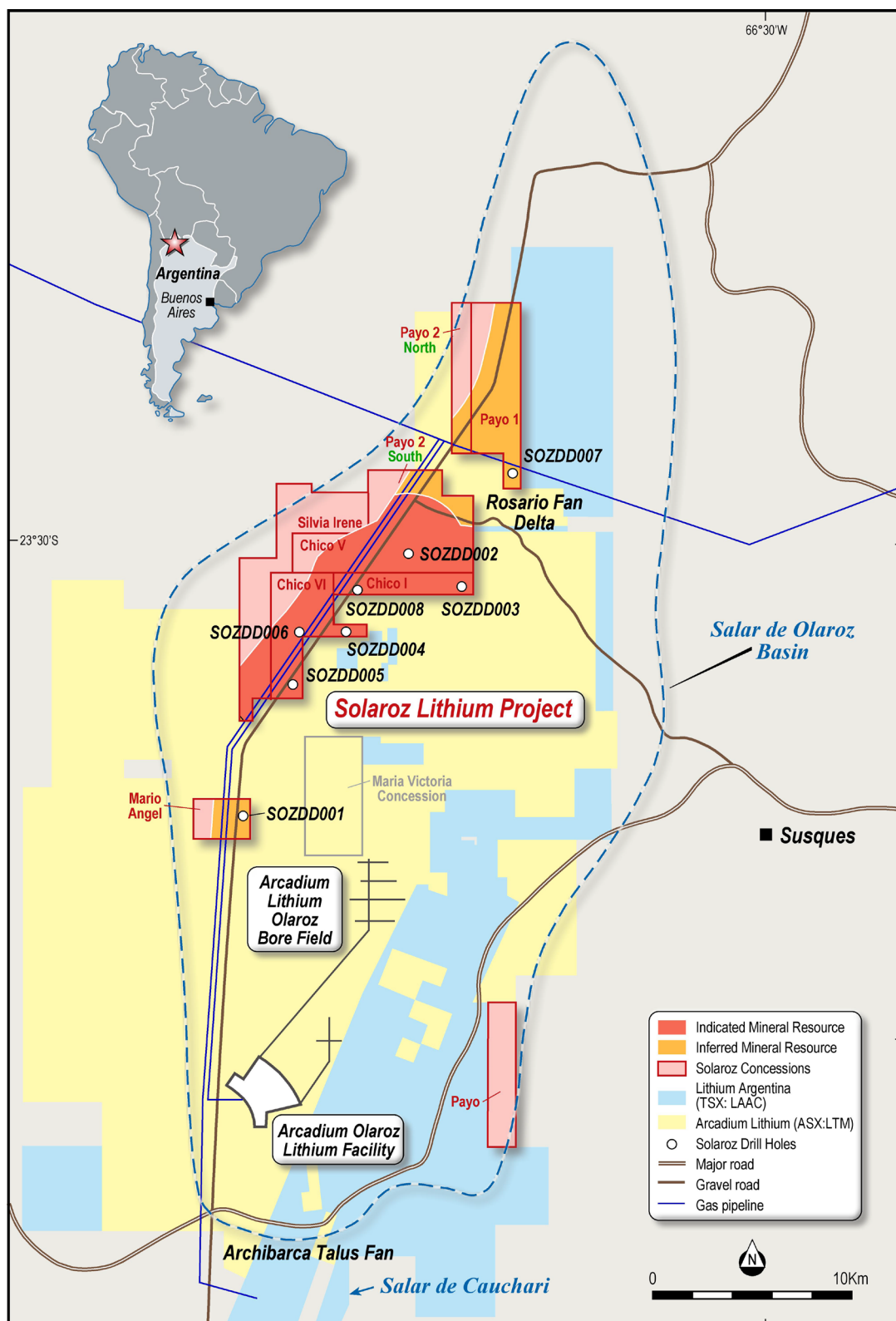


Figure 1: Solaroz Resource Model (with x2 vertical exaggeration) showing the distribution of lithium concentrations through the Central and Northern Blocks and the southern Mario Angel concession; Concentrations decrease towards the west and north; Warmer colours are higher lithium concentrations;

# DIRECTORS' REPORT



## Solaroz Lithium Project, Argentina Solaroz Concessions Location Plan


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Figure 2: Mineral Resource areas within Solaroz concessions (and drillhole locations) in Olaroz Salar (adjacent to Arcadium and Lithium Argentina concessions)

# DIRECTORS' REPORT

## Scoping Study

In October 2023, Lithium Energy released the results of the Scoping Study for Solaroz (**Study**).<sup>15</sup> The Study is supported by the upgraded Solaroz Mineral Resource Estimate of 3.3Mt LCE, within which there is a high-grade core of 1.3Mt of LCE with an average concentration of 400 mg/l Lithium (at a 320 mg/l Li cut-off grade). This high-grade core underpins the Study outcomes, being ~36 years of LCE production at 20ktpa or ~19 years production at 40ktpa.

Solaroz is located on the Salar de Olaroz basin (the **Olaroz Salar**) adjacent to the Arcadium Lithium plc's (ASX:LTM)<sup>16</sup> (**Arcadium**), with targeted ramp-up in production capacity to 42.5ktpa LCE<sup>17</sup>. Also neighbouring Solaroz is the recently commissioned Lithium Argentina Corporation<sup>18</sup> (TSX:LAAC) (**Lithium Argentina**) Cauchari-Olaroz Facility, targeting an annual production capacity of 40ktpa LCE<sup>19</sup> (refer Figure 2).

Lithium Energy engaged global multidisciplinary project management, engineering and professional services consultancy group, Hatch, to undertake the design and engineering components of the Study. Hatch has substantial experience in lithium engineering processing of brines, including projects located on salars in Argentina.

Economic modelling was undertaken by Lithium Energy using the Study outputs together with the Company's own forecast of long-term LCE pricing and other economic assumptions.

## Key Study Outcomes



Figure 3: Solaroz Scoping Study highlights outstanding project economics for 20,000 – 40,000 tpa production of LCE

The Study shows that Solaroz brine grades are suitable for producing a battery grade LCE product by conventional evaporation pond technology, which gives an immediate low risk go-forward case to produce from the same salar next door to Arcadium.

In addition, the Study highlights the potential for the application of new technologies such as Direct Lithium Extraction (**DLE**) to reduce both capital and operating costs, and Lithium Energy will continue to evaluate their economic and environmental implications.

<sup>15</sup> Refer LEL ASX Announcement dated 31 October 2023: Scoping Study Highlights Solaroz Potential as a Large Scale, Long Life, High Margin Lithium Project - the Company confirms that all material assumptions underpinning the production targets and forecast financial information derived from the production targets in this announcement continue to apply and have not materially change

<sup>16</sup> Arcadium Lithium plc (ASX/NYSE:LTM/ALTM) is the merged entity of Allkem Limited (former ASX:AKE) and Livent Corporation (NYSE:LTHM)

<sup>17</sup> Source: Arcadium ASX announcements

<sup>18</sup> Lithium Argentina was separated, under a reorganisation, from Lithium Americas Corporation (TSX:LAC), in October 2023

<sup>19</sup> Source: Lithium Argentina public releases

# DIRECTORS' REPORT

## Key Study Highlights

**Table 1: Summary Project Financials for Conventional Evaporation Pond Processing Plant**

Study Parameters <sup>(1)</sup>	Units	LCE Production Scenarios	
		20ktpa	40ktpa
Lithium Carbonate (Li <sub>2</sub> CO <sub>3</sub> ) Production	Tonnes/year	20,000	40,000
Project Life Estimate <sup>(2)</sup>	Years	36	19
Total Capital Cost (CAPEX) <sup>(3)</sup>	US\$M	542	987
Direct Capital Cost <sup>(4)</sup>	US\$M	372	714
Average Annual Operating Cost (OPEX)	US\$/tonne	4,985	4,611
Average Li <sub>2</sub> CO <sub>3</sub> Selling Price <sup>(5)</sup>	US\$/tonne	25,000	25,000
Average Annual EBITDA	US\$M	378	730
Pre-Tax Net Present Value (NPV <sub>10</sub> ) <sup>(6)</sup> <sup>(7)</sup>	US\$M	2,290	3,879
Pre-Tax Internal Rate of Return (IRR)	%	41	44
After-Tax Net Present Value (NPV <sub>10</sub> ) <sup>(8)</sup>	US\$M	1,319	2,200
After-Tax and Royalties IRR	%	29	32
Payback Period (After-Tax)	Years	2.5	2.0

**Notes:**

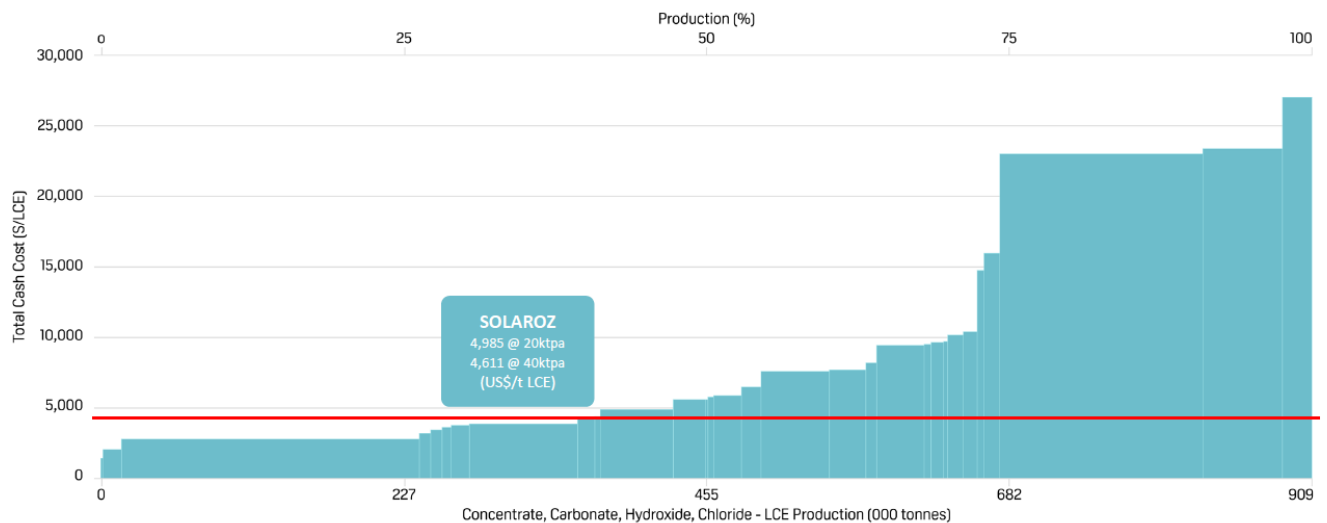
- (1) Presented in 100% terms (Lithium Energy own 90% of Solaroz)
- (2) Including ramp-up
- (3) Excludes 30% contingencies
- (4) Excludes contingencies, indirect costs and Owner's costs
- (5) Assumed to be constant over life of mine (LOM), based upon an internal Company assessment, taking into account current and historical LCE prices together with various forecasts of future demand and supply from third-party sources; this compares with the current Lithium Carbonate (FOB, South America) price of US\$13,750/t (as at 21 February 2024<sup>20</sup>)
- (6) NPV is calculated using a 10% discount rate
- (7) Includes royalties
- (8) Includes working capital and depreciation

Lithium Energy notes that the Annual Average Operating Costs (OPEX) forecast in the Study are in the lowest quartile of the Industry Total Cash Cost for LCE production 2023, highlighting the highly attractive economics of Solaroz compared to lithium projects globally (refer Figure 4).

# DIRECTORS' REPORT

## 2023 Lithium Production Ranked on Total Cash Cost

Scenario: Market Intelligence 2022 Constant USD



Source: S&P Global Market Intelligence, 27 October 2023

Figure 4: Industry Total Cash Cost curve for LCE production 2023

### Overview of Study

The Study conducted modelling, engineering and estimating to assess the suitability of the Solaroz brine grades and chemistry for processing by either evaporation processing or DLE technologies to produce a battery-grade lithium carbonate. In the Study, two process configurations were conceptually reviewed for the initial concentration and recovery of lithium as part of the overall flowsheets to nominally produce 20ktpa of LCE:

- (1) A conventional brine solar evaporation pond process design - as implemented by Solaroz neighbours in the Olaroz Salar, Arcadium's Olaroz Lithium Facility and Lithium Argentina's Cauchari-Olaroz Facility, and others; and
- (2) Direct Lithium Extraction (DLE) options, which replaces the use of evaporation ponds - DLE consists of several chemical processes that can bypass the need for large evaporation ponds for the production of lithium from brines.

The Study assumed brine feed with an average grade of 400 mg/L Lithium, consistent with the high-grade core of 1.3Mt LCE Indicated and Inferred Mineral Resource at Solaroz.

The simulation and modelling results based on the Solaroz lithium brine chemistry and grade support the production of lithium carbonate using conventional evaporation pond technology. Lithium Energy considers that this conventional evaporation scenario currently presents the lowest risk pathway to production when considering permits and approvals in Argentina, as well as being a proven processing methodology for processing brine from the same salar as Solaroz, currently being used by the neighbouring operations of Arcadium and Lithium Argentina.

DLE processing technology that was assessed in the Study shows the potential to offer a range of potential benefits when compared to evaporation pond processing. These potential benefits include lower capital and operating costs, increased lithium recovery, faster pathway to production, improved sustainability and reduced physical footprint.

Given the relatively low technical risk and likely easier pathway for permitting and approvals, conventional evaporation pond technology is currently considered by Lithium Energy as the 'base case' go-forward development option for Solaroz. However, given the potential benefits presented by DLE, Lithium Energy will continue to evaluate DLE in parallel as an alternative or complimentary production methodology, before making a final determination of the technical development pathway for Solaroz.



# DIRECTORS' REPORT

## Conventional Evaporation Pond Processing

The results of the brine chemistry and pond modelling conducted in the Study indicate that the Solaroz concessions have the capacity to host pond areas to support up to 40ktpa LCE production. Two separate evaporation pond locations were identified each with sufficient areas to support up to 20ktpa LCE production (refer Figure 5).

This proposed pond configuration supports dual 20ktpa processing trains, providing the opportunity to assess a staged approach to production development and the opportunity to generate early cashflow from 20ktpa LCE production before potentially expanding to 40ktpa LCE production.

The Solaroz flowsheet for the conventional evaporation ponds is based on the standard configurations for a typical LCE production process which are similar to the commercially proven Olaroz (Arcadium) and Cauchari-Olaroz (Lithium Argentina) operations on the neighbouring Olaroz Salar/Salar de Cauchari brines (refer Figure 6).



# DIRECTORS' REPORT

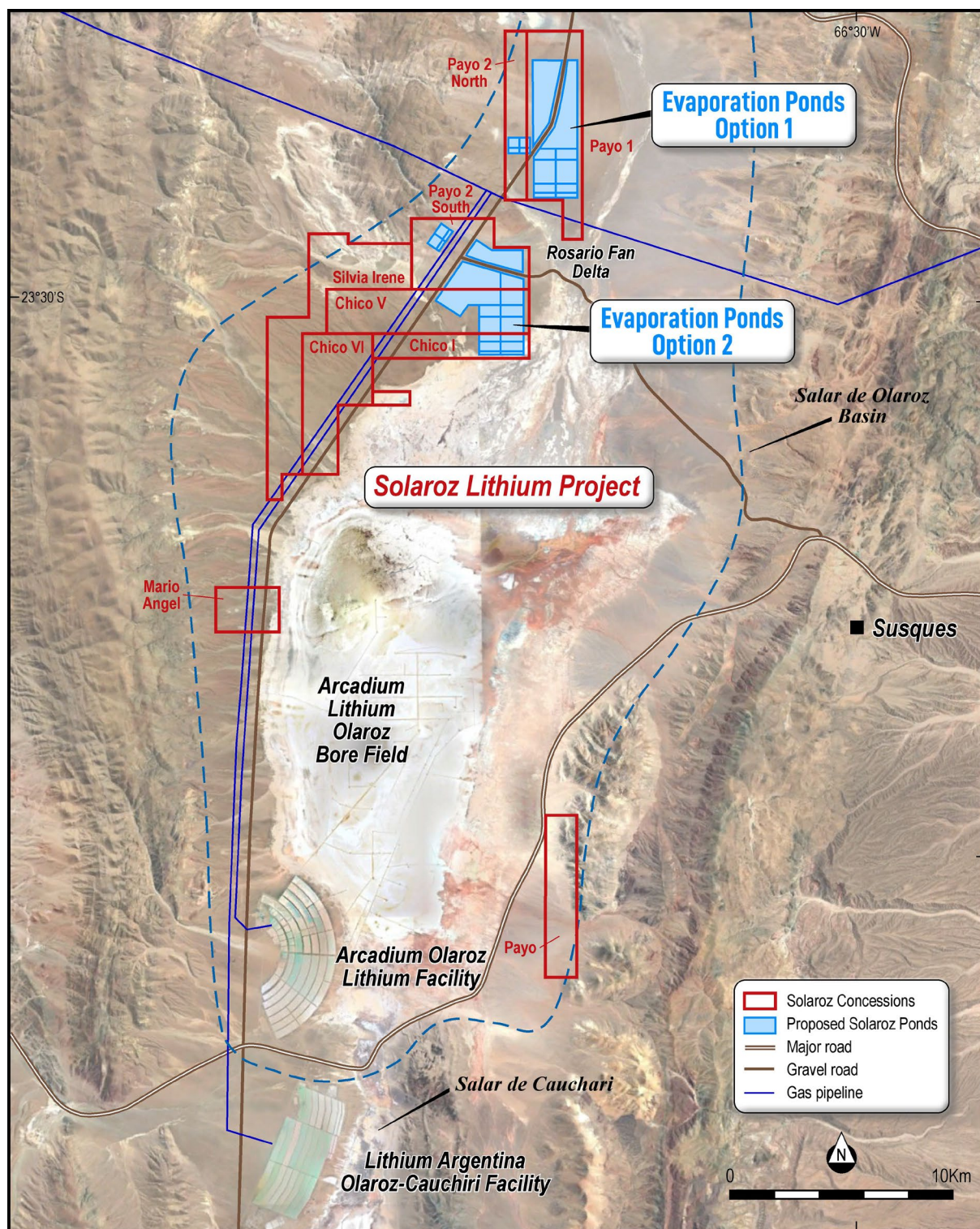


Figure 5: Potential Solar Evaporation Pond Locations (two options shown) within the Solaroz Concessions; and proximity to Arcadium and Lithium Argentina Lithium Evaporation Ponds and LCE Processing Facilities

# DIRECTORS' REPORT

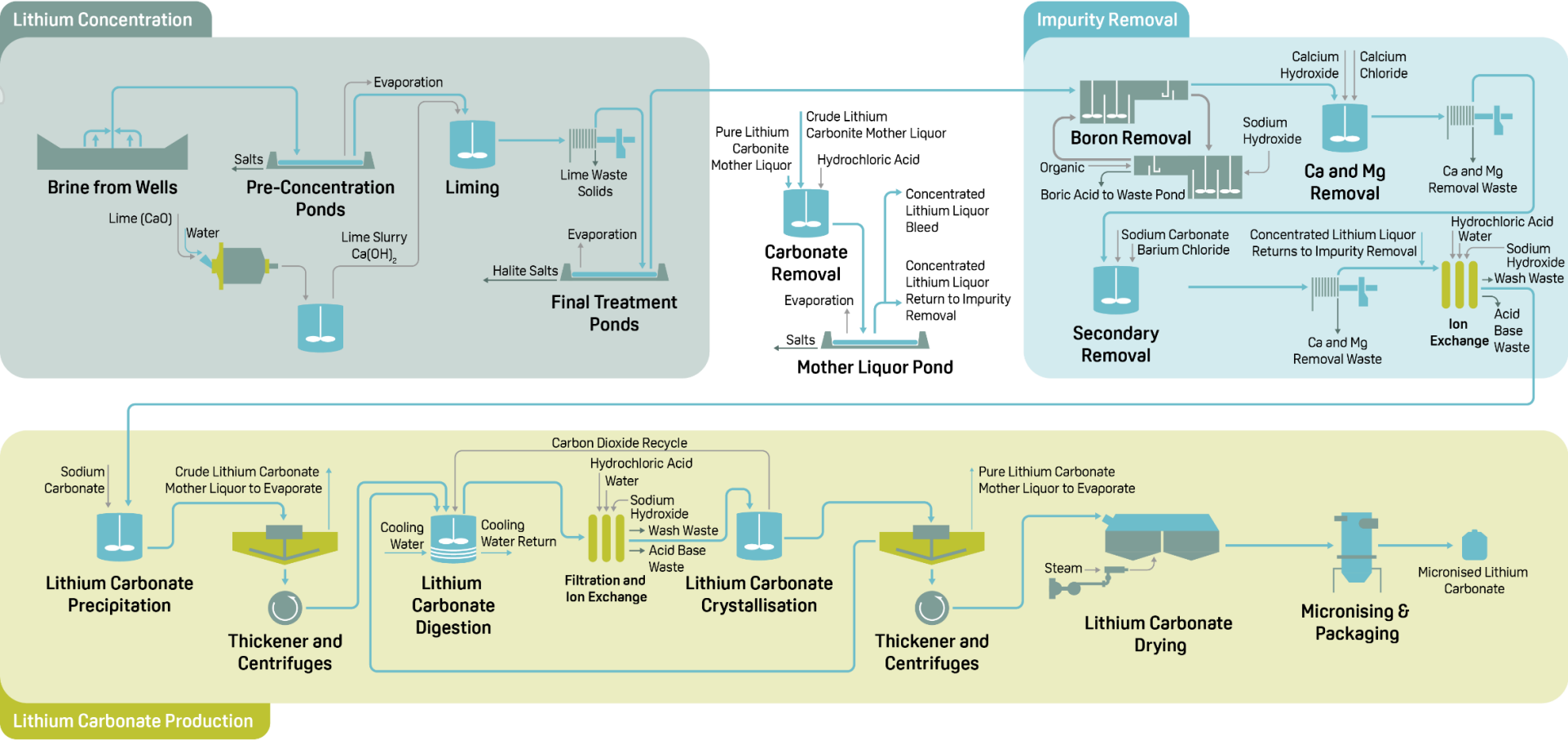


Figure 6: Schematic of the conventional process configuration to produce battery-grade lithium carbonate

# DIRECTORS' REPORT

## Forward Work Plan

The key focus of the next phase forward work plan is to define appropriate, representative and suitable data and design information which will underpin the next stage feasibility studies. This work will include:

### Metallurgical Testwork

- Evaporation Pond and Processing metallurgical testwork to define evaporation rates, brine chemistry and salt precipitation conditions and lithium recovery, which will be used in designing the evaporation ponds.
- DLE metallurgical testwork undertaken by Lanshen in their Santiago (Chile) based laboratory pilot plant, where key design criteria such as resin performance, lithium recovery and spent brine chemistry will be determined.

### Feasibility Studies

- On completion of the metallurgical testwork programmes, feasibility studies will be undertaken to further define the Project designs, capital costs and operating costs to an appropriate level to support an investment decision and funding. A key outcome will be a final decision on capacity strategy and processing technology.
- Part of the feasibility study process will include key ground works including geotechnical investigations, production well drilling and pumping simulations and defining water resources to support the Project.
- Utility supplies, including gas and electricity, will be defined and designed into the Project scope.

### Statutory Approvals

- Environmental data collection and monitoring are required, supported by design and further study work, to develop an Environmental Impact Assessment (EIA), to secure all necessary environmental and other permits and approvals for Project development.
- Community engagement and agreements will also be ongoing, building on the positive community relationships developed to date by the Company.
- Permits and approvals to mine, produce and export product will be supported by the EIA and community agreements.

### Testwork

In October 2023, the Company contracted Norlab S.R.L in Argentina to conduct evaporation testwork on representative samples of lithium rich brines from Solaroz<sup>21</sup>. Norlab is recognised as one of South America's leading experts in lithium brine evaporation and testwork.

Norlab was assisted with chemical assay and analysis by Alex Stewart Laboratory, based in San Salvador Jujuy.

The objective of the testwork programme was to determine the optimal process conditions required to extract lithium and produce battery grade lithium carbonate. The results of the testwork were extremely positive, resulting in the production of the first sample of battery grade (99.5%) lithium carbonate (LC) from Solaroz brines. The Norlab programme was conducted on a 300-litre sample of Solaroz brine taken from Drillhole 3 – SOZDD003 (located on the Chico I concession) at a depth of between 514 and 552 metres with a feed grade of 397mg/l Li, which was determined by the Company to be generally representative of the lithium rich brines contained at Solaroz.<sup>22</sup>

21 Refer LEL ASX Announcement dated 9 October 2023: Evaporation and Direct Lithium Extraction (DLE) Metallurgical Testwork Programmes Advancing at Solaroz Lithium Project

22 Refer LEL ASX Announcement dated 15 January 2024: Battery Grade Lithium Carbonate Successfully Produced from Solaroz Brine



## DIRECTORS' REPORT

The production of battery grade lithium carbonate (refer Figure 7) is a highly important step in the advancement of Solaroz to production with work conducted to date providing the key design criteria inputs for the advancement of the project.

The low Magnesium (**Mg**)/Lithium (**Li**) ratio of the Solaroz brines has numerous benefits, including reduced reagent consumption and enables precipitation of boron during the liming stage, which potentially mitigates the requirement of a boron removal processing step in the processing plant. This will bring benefits to both CAPEX and OPEX in future plant designs.

Figures 8, 9 and 10 below outline the basic steps undertaken in the programme to produce the Solaroz Battery Grade Lithium Carbonate.



Figure 7: Solaroz Battery Grade Lithium



Figure 8: Primary Evaporation Stage of Solaroz Brines



Figure 10: Final Battery Grade 99.5% Lithium Carbonate produced from Solaroz Brine



Figure 9: Salt Precipitation Stage, with concentrated brine separate from Salts

# DIRECTORS' REPORT

## Site Based Evaporation Pond Testwork

In parallel to the work undertaken by Norlab, the first batch of on-site evaporation tests have been completed with two ponds installed to conduct these tests. The evaporation tests were conducted on Solaroz brine sourced from Drillhole 3 – SOZDD003 (located on the Chico I concession) and collected at a depth of between 514 and 552 metres.<sup>21</sup>



Figure 11: Site Evaporation Pond  
(23 September 2023)



Figure 12: Site Evaporation Ponds  
(9 November 2023)



Figure 13: Site Evaporation Ponds  
(27 December 2023)

The results from these tests have allowed Lithium Energy to receive on-site field data on daily evaporation rates and brine chemistry providing site based environmental information for the further work required to advance to production. Post completion of the on-site works, the ponds have been emptied and cleaned and will be refilled to continue further evaporation test work to assess the seasonal differences that can be expected on the Olaroz Salar.

## DLE Metallurgical Laboratory Pilot Scale Testwork

In parallel with assessing conventional evaporation pond technology for the development of Solaroz, Lithium Energy is assessing the applicability of Direct Lithium Extraction (DLE) technology. This evaluation is progressing principally through an agreement with Xi'an Lanshen New Material Technology Co. Ltd (**Lanshen**)<sup>23</sup>, in which Lanshen has agreed to construct a demonstration DLE plant at Solaroz capable of producing 3,000 tonnes of battery grade lithium carbonate per annum (**Plant**).

As part of the process towards progressing to construction of the Plant, a 10,000 litre lithium brine sample from Solaroz (from Drillhole 1 – SOZDD001 located on the Mario Angel concession (refer Figure 2); collected at a depth of between 127 and 305 metres, with an assayed head grade of 463 mg/l lithium<sup>24</sup>) was delivered to Lanshen's Laboratory Facility in Santiago, Chile to undergo detailed testwork, building upon previous bench-scale testing by Lanshen<sup>25</sup>.

The key objectives of this testwork are to optimise the Lanshen DLE module process flowsheet, determine optimal resin performance, minimise water consumption and provide preliminary engineering data for the development of the proposed Plant.

<sup>23</sup> Refer LEL ASX Announcement dated 20 June 2023: Agreement with Lanshen to Build and Fund a 3,000tpa Battery Grade Lithium Plant at Solaroz

<sup>24</sup> Refer LEL ASX Announcement dated 21 February 2024: Lanshen Resin (DLE) Testwork Recovers 92% of Lithium from Solaroz Brine

<sup>25</sup> Refer LEL ASX Announcement dated 4 December 2023: 10,000 Lithium Brine Sample from Solaroz Sent to Lanshen for DLE Plant Design and Specification and Test Works



## DIRECTORS' REPORT

Lanshen's laboratory testwork programme has been completed with a key outcome being the ability of the Lanshen propriety DLE adsorbent resin to **recover 92%** of the lithium contained in samples of Solaroz brine, which significantly exceeds the 50 to 60% lithium recovery typically experienced with conventional pond evaporation.<sup>24</sup>

The laboratory continuous DLE carousel (Figure 14) testwork simulated the "operational function" of the Lanshen production carousel (Figure 15).



Figure 14: Lanshen Laboratory Scale Continuous Operation Carousel with Lithium Adsorbent

The next phase of the Lanshen laboratory testwork programme will test the Lanshen DLE technology based on iron-exchange (IX) resins for the removal of low quantities of impurity ions in the product stream. These include low levels of magnesium (Mg), calcium (Ca) and boron (B). The end product of this step will be a high purity lithium chloride solution which will be used to produce the battery grade lithium carbonate final product. This will be followed by a Pilot Plant testwork programme using a Lanshen containerised Pilot Plant recently delivered to Argentina. Lithium Energy is currently finalising plans to install the Pilot Plant in Jujuy, where it will operate with Solaroz brines over a 12 week period to finalise the design parameters for the proposed 3,000tpa LCE Plant.

Lanshen's DLE 'one-step molecular recognition technology' for lithium extraction selectively extracts lithium directly from lithium-rich brines by using proprietary lithium adsorbent material. Lanshen currently has multiple operating industrial plants in China.

## DIRECTORS' REPORT



Figure 15: Lithium Adsorption Module of Lanshen Demonstration Plant, China

Lithium Energy's Scoping Study<sup>15</sup> confirmed conventional pond evaporation remains the go-forward base development case for Solaroz, with pond evaporation laboratory testwork recently undertaken by Norlab in Argentina successfully producing 99.5% battery grade lithium carbonate from Solaroz brine<sup>22</sup>. However, the potential to achieve significantly higher recoveries of lithium using Lanshen's proprietary DLE process (a lithium recovery of 56% from conventional pond evaporation was calculated in the Scoping Study) highlights the potential attractiveness of the Lanshen funded DLE Plant project as presenting alternative or complimentary potential production pathways for Solaroz.

# DIRECTORS' REPORT

## Completion of Maiden Drilling Programme

Lithium Energy has completed 8 diamond drill holes (SOZDD001 to SOZDD008) and one rotary hole (SOZDD04R, which was a twin of diamond hole SOZDD004) to date, for a total of ~5,087 metres including the twin hole (522 metres). There are 6 diamond holes in the Central Block (Chico I, IV and V concessions) and one hole each in the southern Mario Angel concession the Payo 1 concession (in the Northern Block). This initial resource definition drilling programme was designed to target areas identified as having thick sequences of brine in the TEM (electromagnetic) geophysics, which has been confirmed by the drilling. Down-hole geophysics have also been conducted on relevant holes, providing detailed characterisation of the lithologies encountered in the holes.

Drilling has encountered an upper sand and gravel sequence (**Unit A or Upper Aquifer**). This overlies a halite (common salt) unit (**Unit B**) identified in four of the drill holes, which is correlated with the extensive salt unit identified by Arcadium and Lithium Argentina extending through the Olaroz Salar and Salar de Cauchari salt lakes. Beneath the halite there is another extensive sequence of gravel and sand (**Unit C or Lower Aquifer / Deep Sand Unit**), extending to what is interpreted as Tertiary bedrock at depths exceeding 500 metres.

An overview of the drilling highlights at Solaroz to date are shown in Figure 16 - massive **intersections of lithium-rich brines** in the upper and lower (Deep Sand Unit) aquifers **of up to 473.5 metres thick** (in Hole 4 - SOZDD004<sup>26</sup>) and **lithium concentrations of up to 594 mg/l** (in Hole 6 - SOZDD006<sup>27</sup>) have been encountered along a ~15 kilometre zone between SOZDD001 and SOZDD003.

### Drillhole 8 – SOZDD008 (Chico I concession)

Hole 8 (SOZDD008, on the Chico I concession; refer Figures 2 and 16) is located along a ~15 kilometre zone where previous drilling revealed massive **intersections of lithium-rich brines** in the upper and lower (Deep Sand Unit) aquifers **of up to 489 metres thick** (in Hole 5 - SOZDD005<sup>28</sup>) and **lithium concentrations of up to 594 mg/l** (in Hole 6 - SOZDD006<sup>29</sup>) (refer Figure 16):<sup>30</sup>

- Assay results have confirmed a continuous **120 metre intersection of lithium-rich brines** from 170.5 to 290.5 metres depth, with up to **451 mg/l Lithium** in medium grained sandstone.
- Drilling was terminated at 360.6 metres in the interpreted tertiary bedrock.
- Geophysical hole logging was completed (to a depth of 350 metres) where measurements were undertaken for total porosity, specific yield, conductivity, resistivity and spectral gamma.

26 Refer LEL ASX Announcement dated 15 May 2023: Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz

27 Refer LEL ASX Announcements dated 27 July 2023: Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6 and 29 August 2023: Lithium Mineralisation Encountered in Northern Solaroz Concession

28 Refer LEL ASX Announcement dated 15 May 2023: Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz

29 Refer LEL ASX Announcement dated 27 July 2023: Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6

30 Refer also LEL ASX Announcement dated 31 October 2023: Quarterly Activities and Cash Flow Reports - 30 September 2023



# DIRECTORS' REPORT

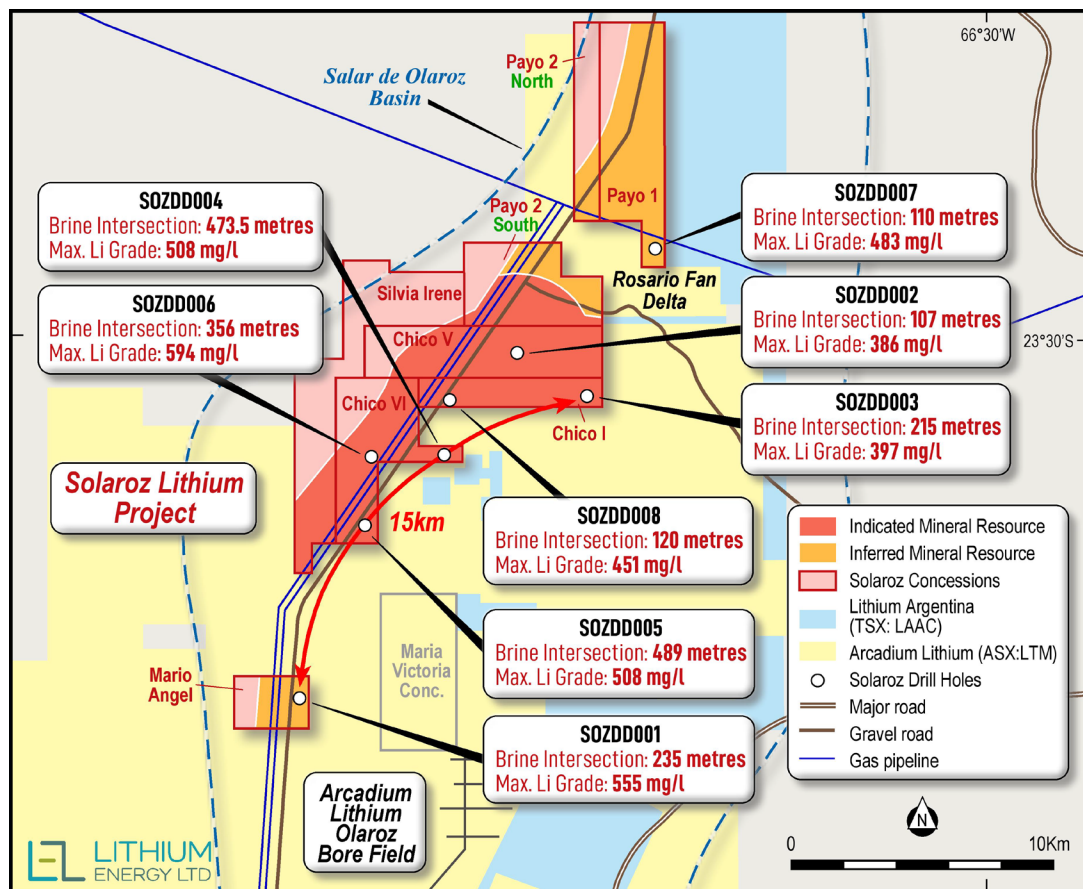


Figure 16: Mineral Resource Areas and Location of Drillholes Across 15km Zone Between Solaroz Drillholes Where Massive Intersections of Conductive Brines Where High Lithium Concentrations Encountered

## Drillhole 7 – SOZDD007 (Payo 1 concession)

Drillhole 7 (SOZDD007, on the Payo 1 concession; refer Figures 2 and 16) is a step-out drillhole from the resource area encompassing the initial maiden JORC Inferred Mineral Resource of 3.3Mt<sup>13</sup> at Solaroz, to test conductive brines identified by geophysics in this relatively large, previously undrilled Northern Block area (Payo 1 and Payo 2 North):<sup>30</sup>

- Assay results have confirmed a continuous **110 metre intersection of lithium-rich brines** from 185 to 295 metres depth, with up to **483 mg/l Lithium** (from a depth of 233 to 257 metres) in sandstone in the upper aquifer, being the **highest lithium grade to date from the upper aquifer** at Solaroz.
- A massive 337 metre lateral halite layer was encountered from a depth of 295 to 632 metres, before transitioning into the Deep Sand Unit.
- Drilling was terminated at a depth of 695 metres in the lower aquifer (Unit C) due to drill rig issues.
- Geophysical hole logging was completed (to a depth of 212 metres) where measurements were undertaken for total porosity, specific yield, conductivity, resistivity and spectral gamma - due to drill hole conditions, geophysical hole logging was not able to be completed in the lower aquifer to the hole depth at 695 metres.

# DIRECTORS' REPORT



Figure 17: Diamond Drill Rig at SOZDD007, Payo 1 Concession on Olaroz Salar

## Drillhole 6 – SOZDD006 (Chico VI concession)

Drilling at Drillhole 6 (SOZDD006, on the Chico VI concession, refer Figures 2 and 16) has been completed with final assay results confirming a total **356 metre intersection of lithium-rich brines** (across the upper and lower aquifers) with concentrations of up to **594 mg/l Lithium**, including as follows:<sup>30</sup>

- Significant **131 metre intersection** of lithium-rich brines encountered across the upper aquifer, from a depth of 134 to 265 metres, in brine hosting unconsolidated sandstone units and fine gravels - assays have returned Lithium concentrations of up to **354 mg/l**.
- The transition from the upper to lower aquifers is evidenced by a clay (lateral halite equivalent) layer of 22 metres encountered from a depth of ~265 to 287 metres.
- The lower aquifer (Deep Sand Unit) commences at a depth of ~287 metres, in brine hosting sandstone units and some unconsolidated conglomerates, **intersecting 225 metres** of lithium-rich brines from ~287 to 512 metres (to the depth of the last packer sample taken) - assays have returned Lithium concentrations of up to **594mg/l**.
- Drilling has been completed to a depth of ~623 metres (in consolidated clays/siltstones).
- Geophysical hole logging was completed (to a depth of 526 metres) where measurements were undertaken for total porosity, specific yield, conductivity, resistivity and spectral gamma - due to drill hole conditions, geophysical hole logging was not able to be completed to the hole depth at 623 metres.

# DIRECTORS' REPORT

## Future Drilling Programmes

Environmental approvals are being sought in relation to the next phases of the drilling programme at Solaroz, including:

- Additional (including in-fill) holes in the Central Block (Chico I, V and VI, Payo 2 South and Silvia Irene concessions), to improve the confidence in correlation of lithology, porosity and brine concentration between holes and to further upgrade resource confidence;
- Drilling to further evaluate the Northern Block (Payo 1 and Payo 2 North concessions);
- Drilling of large diameter production test wells for evaluation of both brine and industrial water flow rates and determination of aquifer characteristics; and
- Drilling and installation of monitoring wells to collect baseline data to support the preparation of an Environmental Impact Assessment for Solaroz.

## Appointment of General Manager

Mr Raúl Di Lena has been appointed General Manager of Solaroz S.A. in Argentina.<sup>31</sup> Mr Di Lena is a chemical engineer with a 25-year career including senior positions with ICI Argentina and Akzo Nobel. Most recently, between 2019 to 2023, Mr Di Lena was Operations Manager for Minera Exar S.A (Exar), the local joint venture between Lithium Argentina (TSX:LAAC) and Ganfeng Lithium which developed and is now operating the recently commissioned 40,000 tonne per annum lithium carbonate facility located on the Salar de Cauchari adjacent and to the south of the Olaroz Salar (where Solaroz is located). As Operations Manager for Exar, Mr Di Lena played a significant role in the successful development and commissioning of the 40,000 tpa lithium carbonate facility, including the optimisation of key parts of the lithium carbonate production process.

As well as this key technical role, he gained extensive experience in managing alliances with local government with responsibility for compliance with all local regulations and procedures as well as managing commercial partnerships with key stakeholders and preserving relationships with local communities.

As General Manager for Solaroz S.A. (based in San Salvador de Jujuy, in north-west Argentina), Mr Di Lena will be responsible for leading the Company's local operations in the development of Solaroz.

## ASX Announcements

The following ASX market announcements on Solaroz were released during the financial half year and to the date of this report:

- 15 January 2024 entitled "Battery Grade Lithium Carbonate Successfully Produced from Solaroz Brine"
- 4 December 2023: 10,000L Lithium Brine Sample from Solaroz sent to Lanshen for DLE Plant Design Specification and Test Works
- 31 October 2023: Scoping Study Highlights Solaroz Potential as a Large Scale, Long Life, High Margin Lithium Project
- 26 October 2023: Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource
- 9 October 2023: Evaporation and Direct Lithium Extraction (DLE) Metallurgical Testwork Programmes Advancing at Solaroz Lithium Project
- 20 September 2023: Drillhole 7 Yields Highest Grade Lithium to Date in Upper Aquifer

31 Refer LEL ASX Announcement dated 1 August 2023: Experienced Lithium Operations Executive Appointed General Manager Solaroz in Argentina

# DIRECTORS' REPORT

- 5 September 2023: Conventional Solar Evaporation Option for Solaroz Lithium Project as Multiple EV Battery Parties Seek Partnership
- 29 August 2023: Lithium Mineralisation Encountered in Northern Solaroz Concession
- 1 August 2023: Experienced Lithium Operations Executive Appointed General Manager Solaroz in Argentina
- 27 July 2023: Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6
- 13 July 2023: Drilling Commences at Hold 7 and Hole 6 Intersects Lithium-Rich Brines at Solaroz Lithium Project

## Solaroz Project Background

Lithium Energy's flagship Solaroz Lithium Brine Project comprises 8 mineral concessions totalling approximately 12,000 hectares, located approximately 230 kilometres north-west of the provincial capital city of Jujuy within South America's 'Lithium Triangle' in North-West Argentina (refer Figure 18) in the Salar de Olaroz basin (the **Olaroz Salar**).

The Solaroz Project is directly adjacent to two world class Lithium brine assets held by Arcadium Lithium plc's (ASX:LTM)<sup>16</sup> (**Arcadium**) and Lithium Argentina Corporation (TSX:LAAC)<sup>17</sup> (**Lithium Argentina**) in the Olaroz Salar (refer Figure 2).

Arcadium's Olaroz Lithium Facility (under a joint venture with Tokyo Stock Exchange listed Toyota Tsusho Corporation (TYO:8015)) has been extracting lithium brine and producing lithium carbonate since ~2015.<sup>17</sup>

Lithium Argentina's recently commissioned Cauchari-Olaroz lithium carbonate production facility is located in the Olaroz Salar and neighbouring Salar de Cauchari.<sup>19</sup>

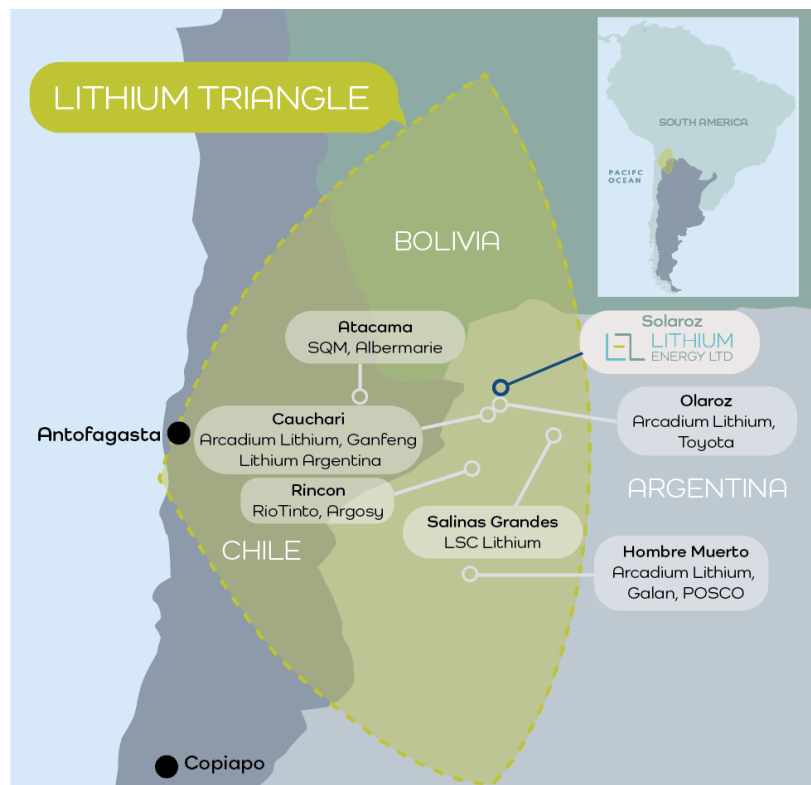


Figure 18: Lithium Projects Located in 'Lithium Triangle'

# DIRECTORS' REPORT

## Burke Graphite Project (Queensland, Australia)

(100%)

Lithium Energy is developing a vertically integrated Battery Anode Material (**BAM**) business in Australia. The Company plans to utilise the high grade graphite from the Company's Burke and Corella Graphite Deposits as feed sources to a BAM manufacturing facility located in Queensland.

The Burke Graphite Project comprises EPM 25443 (the **Burke Tenement**) and the Corella Graphite Project comprises EPM 25696 (the **Corella Tenement**) totalling ~26km<sup>2</sup> located in the Cloncurry region in North Central Queensland, where there is access to well-developed transport infrastructure to an airport at Mt Isa (~122km) and a port in Townsville (~783km). The Burke Tenement is located 125km north of Cloncurry adjacent to the Mt Dromedary Graphite Project held by Novonix Limited (ASX: NVX). The Corella Tenement is located 40km west of Cloncurry near the Flinders Highway that links Mt Isa to Townsville.

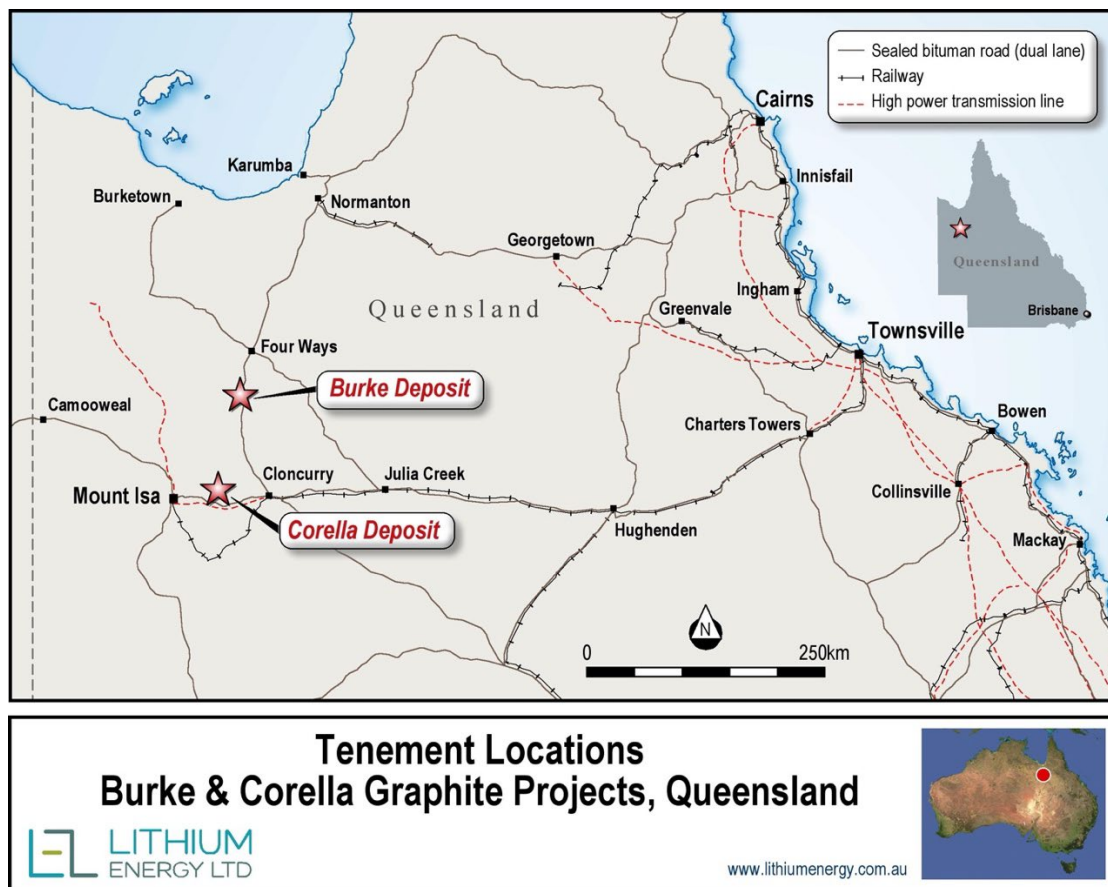


Figure 19: Burke & Corella Graphite Projects Location Map

Townsville in North Queensland is emerging as an important location for the production of critical materials for battery technologies in Australia.

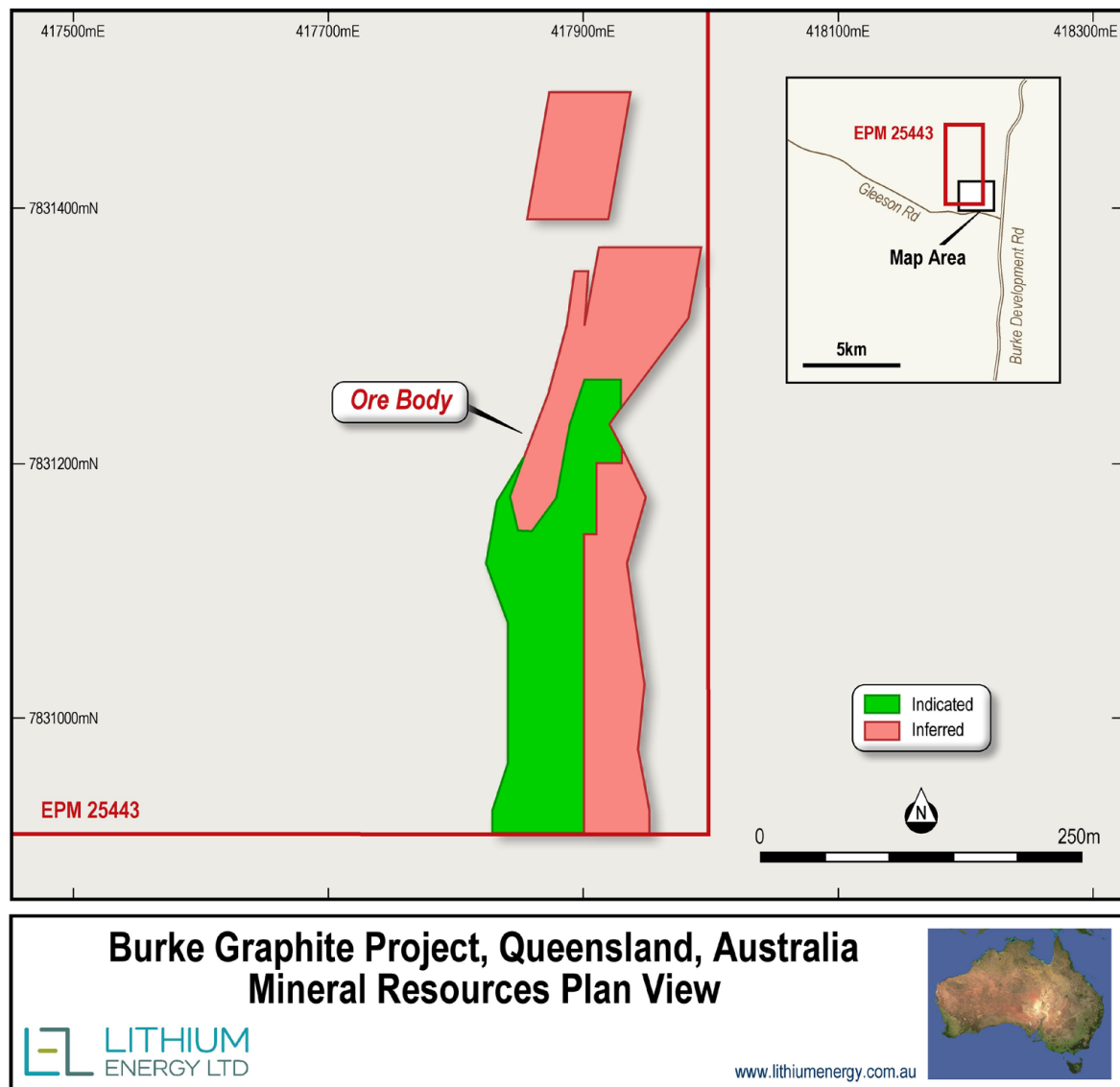
Lithium Energy succeeded in doubling its Total Graphite Inventory to **2.6Mt of contained graphite**, with the delineation of a maiden JORC Inferred Mineral Resource Estimate of **13.5Mt at 9.5% total graphitic carbon (TGC)** for 1.3Mt contained graphite at Corella Tenement<sup>32</sup> and an upgrade of the Burke Deposit to a total JORC Indicated and Inferred Mineral Resource of **9.1Mt at 14.4% TGC** for a total of 1.3Mt contained graphite<sup>33</sup>.

32 Refer LEL ASX Announcement 16 June 2023: Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory

33 Refer LEL ASX Announcement 5 April 2023: Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence



# DIRECTORS' REPORT



# DIRECTORS' REPORT

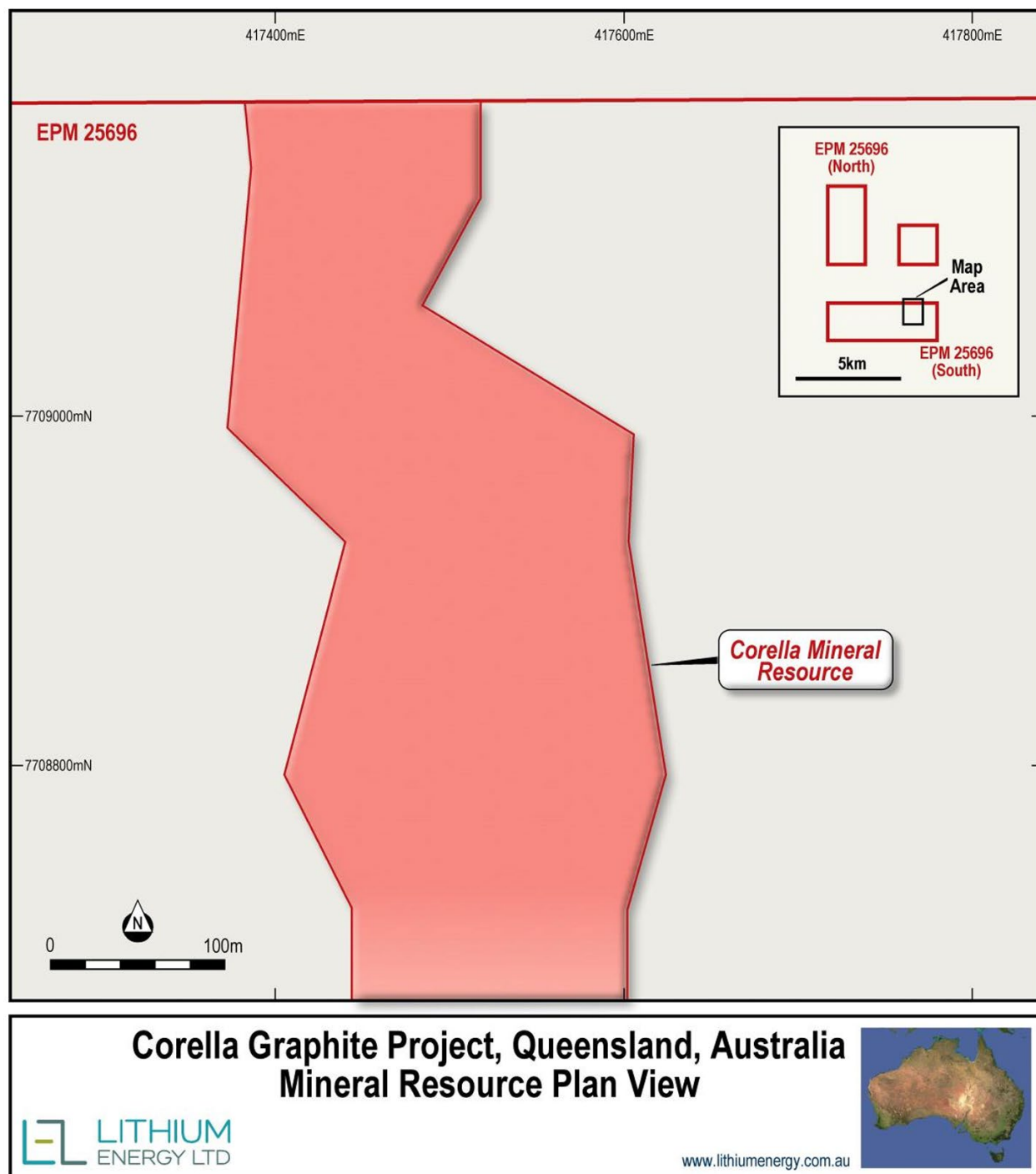


Figure 21: Corella Tenement JORC Inferred Mineral Resources Plan View

Significant upside exists at Corella, as the resource remains open to the east and west and at depth.

# DIRECTORS' REPORT

## Metallurgical Testwork Programme

The Beijing General Research Institute for Mining and Metallurgy Technology Group (**BGRIMM**) in China has completed a comprehensive flowsheet development metallurgical testwork programme on a ~one tonne representative sample of the Burke Graphite deposit, to assess and develop an optimised flake concentrator flowsheet.<sup>34</sup> BGRIMM has successfully achieved key objectives of grade (>95% total graphitic carbon (**TGC**)) and recovery (>85%) using standard flotation and regrind milling technology utilising Burke Graphite. BGRIMM has also completed the concentrator process flowsheet optimisation testwork that will be required to produce a >95% TGC graphite flake concentrate, which will be suitable as feedstock for a proposed BAM Plant. The key concentrator design input metrics of reagent dosing rates and types, flotation and regrind and flotation cell residence times were also defined for the Burke Graphite, which will form part of the Prefeasibility Study (**PFS**) for the development of a vertically integrated BAM manufacturing facility in Queensland.

Approximately 65kg of +95% TGC Burke Graphite flake concentrate was produced by BGRIMM's in-house Pilot Plant<sup>35</sup> - this was used as test feedstock material for a testwork programme (referred to below) to define and optimise the metallurgical and process conditions to produce BAM suitable for use in Lithium ion battery anodes.

## Battery Anode Material Testwork

Lithium Energy has confirmed excellent spheronisation and purification test work results with graphite concentrate produced from Burke.<sup>36</sup>

The completed BAM testwork has defined the process flowsheet requirements to produce high purity 99.97% TGC spheronised graphite material, which will be suitable as feedstock for the battery anode making process. The key metrics including reagent consumption, product size, product recovery and purification conditions have been determined and will now be used as inputs to the BAM Facility process design in the PFS.

ProGraphite GmbH, a leading natural graphite consultancy and laboratory based in Germany, conducted the spheronising and purification testwork. The testwork programme defined the metallurgical and process design criteria for a proposed BAM Facility utilising ~15kg of 95.6% TGC graphite concentrate from the Burke Deposit (produced by BGRIMM, as referred to above).

## Spheronisation

Three primary and one secondary spheronised products were produced to assess the effectiveness and impact of the mechanical shaping process on the Burke Graphite concentrate. The primary materials comprise three alternate product sizes, designated SPG15, SPG16 and SPG20.

The secondary material, designated SPG10, was produced from the by-product from the primary spheronisation processes that produced the SPG16 spheronised product.

Table 2 shows the analytical results obtained during the spheronisation process.

This is highly positive as the ability to generate two product streams provides for an improved recovery and a diversity in product size and value, which could have a positive impact on eventual product sales.

34 Refer LEL ASX Announcement dated 23 May 2023: Excellent Metallurgical Testwork Results at Burke Graphite Project Pave Way for Commencement of PFS

35 Refer LEL ASX Announcement dated 28 July 2023: Burke and Corella Graphite Projects Testwork Update

36 Refer LEL ASX Announcement dated 27 November 2023: Testwork Results Highlight Exceptional Potential of Burke Graphite as Battery Anode Material



# DIRECTORS' REPORT

**Table 2: Burke Graphite Spheronisation Results**

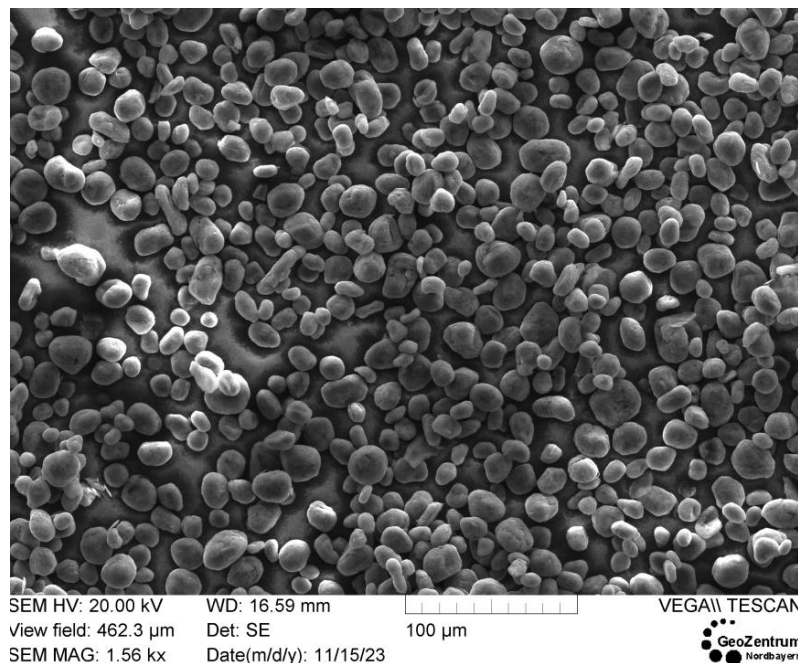
Metric	Units	SPG15	SPG16	SPG20	SPG10
<b>d<sub>10</sub><sup>(1)</sup> SPG</b>	µm	9.1	10.2	12.5	6.8
<b>d<sub>50</sub><sup>(2)</sup> SPG</b>	µm	14.7	16.3	20.1	10.5
<b>d<sub>90</sub><sup>(3)</sup> SPG</b>	µm	24.2	25.3	31.7	16
<b>Ratio d<sub>90</sub> : d<sub>10</sub></b>		2.66	2.49	2.55	2.4
<b>Tap Density</b>	kg/l	0.92	0.91	0.94	0.85
<b>BET<sup>(4)</sup></b>	m <sup>2</sup> /g	8.1	7.3	6.6	8.7
<b>Yield SPG</b>	%	51	52	52	11 <sup>(5)</sup>

**Notes:**

- (1) d<sub>10</sub> means the portion of particles with diameters smaller than this value is 10%
- (2) d<sub>50</sub> means the portion of particles with diameters smaller and larger than this value are 50%; also known as the median diameter
- (3) d<sub>90</sub> means the portion of particles with diameters below this value is 90%
- (4) BET means Specific Surface Area
- (5) Yield reported for SPG10 is in terms of overall yield = 22.5% yield of the balance of the material not recovered in the primary spheronisation step, which is equivalent to 11% of the total feed material

The two-product spheronising flowsheet achieved an overall recovery of 63% (SPG15 or SPG16 or SPG20 plus SPG10) which is considered to be extremely positive by reference to general industry standards of between 45% to 55% recovery. The Tap densities and BET values achieved fall within the medium range of typically accepted SPG products - which will be a focus of further testwork and pilot plant testwork to optimise by varying the spheronising equipment speeds, durations and loading.

Figures 22 and 23 below show the excellent spherical shape and homogenous size distribution of the spheronised materials from the testwork from scanning electron microscope (SEM) images.



*Figure 22: SPG20 Spherical Graphite SEM image at magnification of 1.56kx*

# DIRECTORS' REPORT

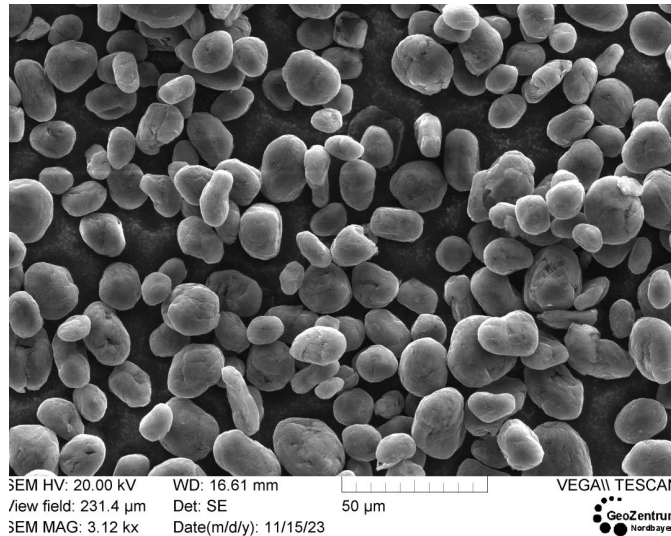


Figure 23: SPG20 Spherical Graphite SEM image at magnification of 3.12kx

## Purification

Two non-hydrofluoric purification processes were conducted on the spheronised Burke Graphite with each process conducted at different temperatures, durations and reagents. The low temperature process produced outstanding results as shown in Table 3.

Table 3: Burke Graphite purification results

Mineral Elements	Unit	Feed Material	Low Temp Process	Industry Std*
Total Graphitic Carbon (TGC)	%	95.5	99.97	≥99.95%
Fe (Iron)	ppm	2,056	6.8	≤30
Si (Silicon)	ppm	10,549	29.8	≤30
Al (Aluminium)	ppm	6,203	4.7	≤10
Ni (Nickel)	ppm	<15	0.7	≤10
Pb (Lead)	ppm	199	<0.1	≤5
Cr (Chrome)	ppm	<16	<0.1	≤10

Note:

- Based on the Chinese Spherical Graphite Standard Specification GB/T 38887-2020

## Testwork - Next Steps

With the purification process and criteria identified, sufficient product will be generated at the ProGraphite laboratory to allow electrochemical testing to be undertaken on the Burke BAM. The electrochemical testing will provide:

- the first cycle efficiency (discharge capacity/charge capacity), which defines the charge efficiency by which electrons are transferred in batteries; and
- the discharge specific capacity of the anode in a Li-ion battery, which is the maximum amount of energy the battery can deliver under certain specific conditions.

These are the key characteristics that define the ultimate performance of the battery anode material.

The highly encouraging results from the laboratory testing will also provide design and target data to develop and install a BAM Pilot Plant, which will allow for further product optimisation and scale up metrics for production plant design to be determined. A key outcome from the Pilot Plant will be to produce high quality spherical purified graphite which will be used in the BAM material pre-qualification process which is required to secure offtake agreements.

# DIRECTORS' REPORT

## Prefeasibility Study

Lithium Energy is undertaking a Pre-Feasibility Study (PFS) for the development of a vertically integrated BAM manufacturing facility in Queensland.<sup>37</sup> The PFS envisages mining graphite from the Burke Graphite Deposit and producing a +95% TGC graphite flake concentrate at the mine site. The flake concentrate will then be transported to a proposed BAM manufacturing facility in Queensland for processing by firstly mechanically shaping and spheronising the flakes and then chemically purifying the spheronised graphite to form a high quality BAM product. It is proposed that this BAM product will be sold as a battery anode material for use in lithium-ion battery manufacturing or for battery energy storage solutions.

Figure 24 illustrates the basic steps required to create a BAM product.

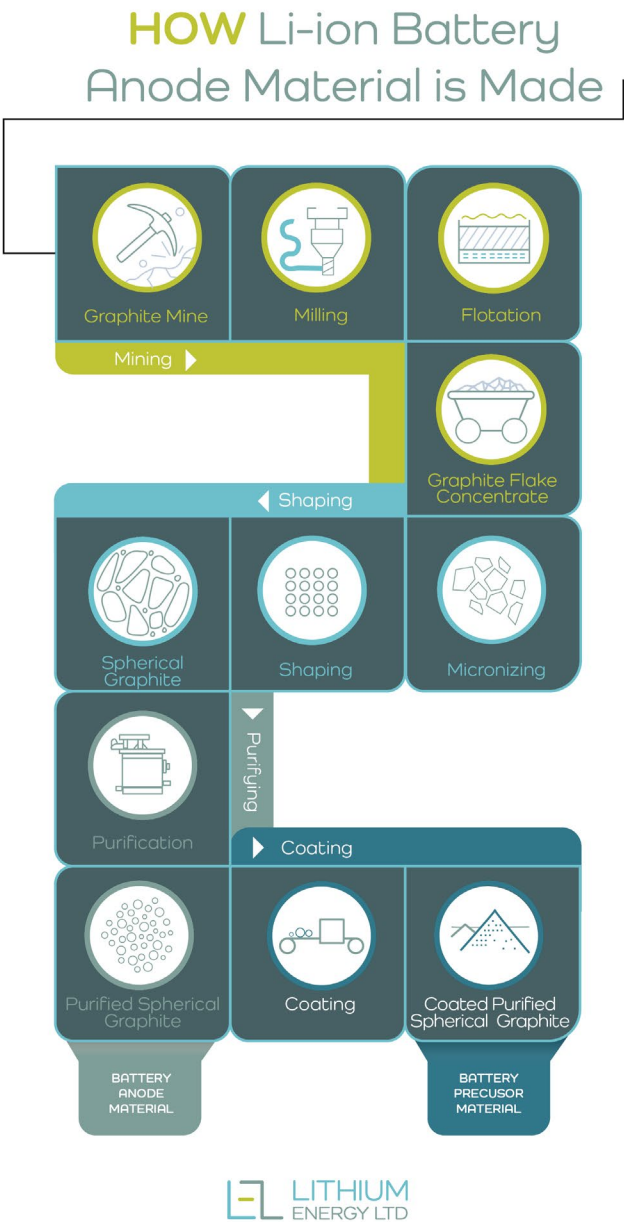


Figure 24: Illustrative Vertically Integrated Operations from Graphite Mine to Production of BAM

37 Refer LEL ASX Announcement dated 23 May 2023: Excellent Metallurgical Testwork Results at Burke Graphite Project Pave Way for Commencement of PFS

# DIRECTORS' REPORT

## ASX Announcements

The following ASX market announcements on Burke and Corella were released during the financial half year and to the date of this report:

- 27 November 2023: Testwork Results Highlight Exceptional Potential of Burke Graphite as Battery Anode Material
- 28 July 2023: Burke and Corella Graphite Project Testwork Update

## Quarterly Reports

Further information on the Consolidated Entity's activities and operations during the financial half year are also contained in Lithium Energy's Quarterly Activities and Cash Flow Reports lodged on ASX dated:

- 31 January 2024: Quarterly Activities and Cash Flow Reports - 31 December 2023;
- 31 October 2023: Quarterly Activities and Cash Flow Reports - 30 September 2023; and
- 31 July 2023: Quarterly Activities and Cash Flow Reports - 30 June 2023

# DIRECTORS' REPORT

## Material Business Risks

Lithium Energy's exploration and development operations will be subject to the normal risks of mineral exploration and development, and any revenues will be subject to factors beyond Lithium Energy's control. The material business risks that may affect Lithium Energy are summarised below:

**Exploration Risk:** Lithium Energy's resource projects are at various stages of exploration. There is no assurance that future exploration will result in the discovery of an economic resource or reserve or that it can be economically exploited. Future exploration activities may be affected by a range of factors including geological conditions, limitations on activities due to seasonal weather patterns or adverse weather conditions, unanticipated operational and technical difficulties, difficulties in commissioning and operating plant and equipment, mechanical failure or plant breakdown, unanticipated metallurgical problems which may affect extraction costs/recovery rates, industrial and environmental accidents, industrial disputes, unexpected shortages and increases in the costs of consumables, spare parts, plant, equipment and personnel, local communities/indigenous and existing land/lease holder stakeholder engagements, changing government regulations and many other factors beyond the control of Lithium Energy. Exploration and evaluation costs are based on certain assumptions in relation to the nature, method and timing of these activities, which are subject to significant uncertainties and, accordingly, the actual costs may materially differ. Cost estimates and the underlying assumptions may not be realised in practice, which may materially and adversely affect Lithium Energy's financial performance and or position.

**Resource Estimation Risk:** Resource estimates are expressions of judgement based on knowledge, experience and industry practice. These estimates were appropriate when made but may change significantly when new information becomes available. Resource estimates which depend on interpretations may require adjustment. Adjustments to resource estimates could affect Lithium Energy's future plans and ultimately its financial performance. Mineral and commodity price fluctuations, as well as increased production costs or reduced throughput and/or recovery rates, may render resources containing relatively lower grades uneconomic and may materially affect resource estimations.

**Feasibility and Development Risks:** There is risk associated with the successful commercial exploitation of resource discoveries. Such exploitation would involve securing necessary approvals from relevant authorities that may require conditions to be satisfied and/or the exercise of discretions by such authorities. It may or may not be possible for such conditions to be satisfied or in a timely manner. Advancing exploitation may involve the participation of other parties/stakeholders whose interests and objectives may differ from Lithium Energy's. There is a complex, multidisciplinary process involved to evaluate and assess development pathways and undertake feasibility-related studies to support a development proposal. Evaluations/assessments and studies and

associated technical works may not achieve the results expected. Even if supported by a positive feasibility study, a project may not be successfully developed for a range of technical, commercial and or financial reasons.

**Commodity Pricing and Technology Risk:** The commercial prospects of Lithium Energy (if exploration success is achieved) is dependent principally upon the demand for lithium (in particular, lithium carbonate) and natural graphite (in particular, graphite related battery anode materials). This demand is mainly a function of the demand for lithium and graphite materials as a component of electrical batteries. Battery technology is a rapidly advancing field and there is a risk that the demand for these minerals/commodities may change as a result of technological changes in this sector. Such changes may reduce the demand and therefore the price of lithium/graphite materials as a component of batteries which in turn will have significant impact upon the commercial prospects of Lithium Energy.

**Key Personnel:** In formulating its exploration and evaluation programmes, feasibility-related studies and development strategies, Lithium Energy relies on the experience and expertise of its directors, senior executives and other senior management. There is a risk that key personnel may leave their employment, which may adversely affect the business, at least in the short term. Recruiting and retaining qualified, skilled and experienced key personnel in the minerals/commodities sectors and geography in which Lithium Energy operates may also be challenging in a strong and competitive resources sector.

**Future Funding:** Lithium Energy's ongoing exploration, evaluation and development activities will require substantial further funding in the future. Any additional equity capital may be dilutive to shareholders and may be undertaken at lower issue prices than the current market price. Debt financing, if available, may involve restrictive covenants which limit Lithium Energy's operations and business strategy. There is no assurance that appropriate funding, if and when needed, will be available on terms satisfactory to Lithium Energy or at all. The inability to obtain funding will adversely affect Lithium Energy and may result in some or all of its projects not proceeding or their scale and/or scope being altered or defaults in licences or permits or agreements occurring, which, if not remedied, could result in forfeiture of its tenements.

**Foreign Jurisdiction:** Lithium Energy holds its interest in the Solaroz Lithium Project in Argentina through its 90% shareholding in an Argentine registered company. This overseas company is subject to risks normally associated with the conduct of business in foreign countries. Risks pertaining to Argentina may include, among other things, political risk, uncertain economic environments (such as hyper-inflation, increasing interest rates and significant



# DIRECTORS' REPORT

fluctuations in foreign exchange), disruptions to logistics, access to infrastructure and services (water, power and gas), labour disputes, corruption, civil disturbances and crime, arbitrary changes in law or policies, opposition to mining from environmental or other non-governmental organisations or changes in political attitudes towards mining activities and earthquakes and severe weather conditions.

**Foreign Exchange Risk:** The expenditure of Lithium Energy is and will be in Australian, United States and Argentine currencies, exposing the Company to fluctuations and volatility of the rates of exchange between the Australian dollar, United States dollar and Argentine peso as determined in international markets. Lithium Energy does not currently undertake any hedging of foreign currency items, however as operations develop and expand, more sophisticated foreign exchange risk management strategies may be adopted.

**Access Risk:** There may be areas of Lithium Energy's projects over which indigenous rights exist or are claimed by indigenous owners. Similarly, Lithium Energy's tenements may encroach on existing land or lease holders. As such, Lithium Energy's ability to gain access to the tenements or to progress from the exploration phase to the development and mining phases of operations, may require reaching agreement with these stakeholders to facilitate access and development, which is not assured, on terms satisfactory to Lithium Energy, or at all. Negotiations with stakeholders may also result in a delay with the development of Lithium Energy's projects.

**Regulatory Risk:** Lithium Energy's operations are subject to various Federal, State/Provincial and local laws and regulations, including those relating to exploration, development and mining permit and licence requirements, industrial relations, environment, land use, royalties, water, native title/indigenous and Aboriginal cultural heritage, mine safety and occupational work, health and safety. Approvals, licences and permits required to comply with such rules may be subject to the discretion of the applicable government officials/authorities. No assurance can be given that Lithium Energy will be successful in maintaining such authorisations in full force and effect without modification or revocation. To the extent such approvals are required and not retained or obtained in a timely manner or at all, Lithium Energy may be curtailed or prohibited from continuing or proceeding with exploration and production. Lithium Energy's business and results of operations could be adversely affected if applications lodged for relevant licences are not granted. Mineral tenements are also subject to periodic renewal, which may be subject to the discretion of the relevant government official/authority or renewal conditions (such as increased expenditure and work commitments and/or compulsory relinquishment of tenement areas). The imposition of new conditions or the inability to meet those conditions may adversely affect the operations, financial position and/or performance of Lithium Energy.

**Environmental Risk:** The operations and activities of Lithium Energy are subject to environmental laws and regulations. Lithium Energy is unable to predict the effect of additional environmental laws and regulations which may be adopted in the future, including whether any such laws or regulations would materially increase Lithium Energy's cost of doing business or affect its operations in any area. However, there can be no assurances that new environmental laws, regulations or stricter enforcement policies, once implemented, will not oblige Lithium Energy to incur significant expenses and undertake significant investments which could have a material adverse effect on Lithium Energy's business, financial condition and performance.

**Climate Change Risk:** The operations and activities of Lithium Energy may be subject to local or international compliance regulations related to climate change mitigation efforts, specific taxation or penalties for carbon emissions or environmental damage, and other possible restraints on industry that may further impact Lithium Energy and its profitability. Climate change may also cause certain physical and environmental risks that cannot be predicted by Lithium Energy, including events such as increased severity of weather patterns, incidence of extreme weather events and longer-term physical risks such as shifting climate pattern.

**Pandemic and other Public Health Risks:** Future health pandemics (such as COVID-19) and other possible outbreaks of viruses/disease may have a significant adverse effect on Lithium Energy's business. The spread of such diseases amongst management, employees, contractors, suppliers and logistic networks, as well as any health related government imposed quarantine and isolation requirements, may reduce the ability to operate and have detrimental financial implications. More broadly, Lithium Energy may also be affected by the macroeconomic effects and likely ensuing financial volatility in the economies where the Company operates.

# DIRECTORS' REPORT

## FUTURE DEVELOPMENTS

Lithium Energy will continue to:

- advance the exploration, evaluation and development of its Solaroz Lithium-Brine Project in Argentina;
- advance the exploration, evaluation and development of its Burke and Corella Graphite Projects and the development of a vertically integrated Battery Anode Material (BAM) manufacturing facility in Queensland, Australia; and
- investigate and pursue other prospective projects in the battery minerals sector.

The likely outcomes of these activities depend on a range of technical and economic factors and also industry, geographic and other strategy specific issues (including the impacts of health pandemics). In the opinion of the Directors, it is not possible or appropriate to make a prediction on the results of these activities, the future course of markets or the forecast of the likely results of Lithium Energy's activities.

## ENVIRONMENTAL REGULATION

Lithium Energy holds mineral tenement/concession licences issued by the relevant mining and environmental protection authorities of the various countries in which it operates (from time to time). In the course of its mineral exploration, evaluation and development activities, Lithium Energy adheres to licence conditions and environmental regulations imposed upon it by various authorities (as applicable). Lithium Energy has complied with all licence conditions and environmental requirements (as applicable) during the financial half year and up to the date of this report. There have been no known material breaches of Lithium Energy's licence conditions and environmental regulations during the financial half year and up to the date of this report.

## BOARD OF DIRECTORS

### William M. Johnson

### Executive Chairman

<i>Appointed</i>	14 January 2021
<i>Qualifications</i>	MA (Oxon), MBA, MAICD
<i>Experience</i>	William Johnson holds a Masters Degree in Engineering Science from Oxford University, England and an MBA from Victoria University, New Zealand. His 40+ year business career spans multiple industries and countries, with executive/CEO experience in mineral exploration and investment (Australia, Peru, Chile, Saudi Arabia, Oman, North Africa and Indonesia), telecommunications infrastructure investment (New Zealand, India, Thailand and Malaysia) and information technology and Internet ventures (New Zealand, Philippines and Australia). Mr Johnson is a highly experienced public company director and has considerable depth of experience in corporate governance, business strategy and operations, investment analysis, finance and execution.
<i>Special responsibilities</i>	None (other than as Chairman of the Board of Directors)
<i>Relevant interest in securities</i>	110,000 shares 2,850,000 Executive Options (\$0.30, 18 March 2024) 1,000,000 Executive Options (\$1.39, 29 November 2024) 5,000,000 Executive Options (\$1.06, 4 October 2025)
<i>Current directorships in listed entities</i>	Managing Director of Strike Resources Limited (ASX:SRK) (since 25 March 2013; Director since 14 July 2006) Executive Director of Bentley Capital Limited (ASX:BEL) (since 1 January 2016; Director since March 2009)
<i>Former directorships in other listed entities in past 3 years</i>	Molopo Energy Limited (delisted 1 April 2021; former ASX:MPO) (31 May 2018 to 26 May 2021)

# DIRECTORS' REPORT

## Peter C. Smith

## Executive Director

<i>Appointed</i>	18 March 2021
<i>Qualifications</i>	BSc (Geophysics) (Sydney), AIG, ASEG
<i>Experience</i>	Peter Smith has 36+ years' experience in mineral exploration having worked for Normandy, Pasminco, BHP-Billiton and Cliffs Natural Resources. Mr Smith has held exploration management positions in ASX-listed NGM Resources Limited (ASX:NGM) and NYSE-listed Cliffs Natural Resources (as Regional Exploration Manager for Australia and Oceania) and has been a Director of Volta Mining Limited (ASX:VTM) and Castillo Copper Limited (ASX:CCZ). Mr Smith brings a broad range of skills and experience in mineral exploration.
<i>Special responsibilities</i>	None
<i>Relevant interest in securities</i>	450,000 shares (subject to escrow until 19 May 2023) 1,450,000 Executive Options (\$0.30, 18 March 2024) 500,000 Executive Options (\$1.39, 29 November 2024) 2,500,000 Executive Options (\$1.06, 4 October 2025)
<i>Other current directorships in listed entities</i>	None
<i>Former directorships in other listed entities in past 3 years</i>	-

## Farooq Khan

## Executive Director

<i>Appointed</i>	14 January 2021
<i>Qualifications</i>	BJuris, LLB (Western Australia)
<i>Experience</i>	Farooq Khan is a qualified lawyer having previously practised principally in the field of corporate law. Mr Khan has extensive experience in the securities industry, capital markets and the executive management of ASX-listed companies. In particular, Mr Khan has guided the establishment and growth of a number of public listed companies in the investment, mining and financial services sector. He has considerable experience in the fields of capital raisings, mergers and acquisitions and investments.
<i>Special responsibilities</i>	None
<i>Relevant interest in securities</i>	25,000 shares 2,850,000 Executive Options (\$0.30, 18 March 2024) 1,000,000 Executive Options (\$1.39, 29 November 2024) 5,000,000 Executive Options (\$1.06, 4 October 2025)
<i>Other current directorships in listed entities</i>	Executive Chairman of: <ul style="list-style-type: none"> <li>Strike Resources Limited (ASX:SRK) (since 18 December 2015; Director since 1 October 2015)</li> <li>Orion Equities Limited (ASX:OEQ) (since 23 October 2006)</li> <li>Bentley Capital Limited (ASX:BEL) (since 2 December 2003)</li> </ul> Executive Chairman and Managing Director of: <ul style="list-style-type: none"> <li>Queste Communications Ltd (ASX:QUE) (since 10 March 1998)</li> </ul>
<i>Former directorships in other listed entities in past 3 years</i>	-



# DIRECTORS' REPORT

## COMPANY SECRETARY

### Victor P.H. Ho

### Company Secretary

<i>Appointed</i>	14 January 2021
<i>Qualifications</i>	BCom, LLB (Western Australia), CTA
<i>Experience</i>	Victor Ho has been in Executive roles with a number of ASX-listed companies across the investments, resources and technology sectors over the past 24+ years. Mr Ho is a Chartered Tax Adviser (CTA) and previously had 9 years' experience in the taxation profession with the Australian Tax Office (ATO) and in a specialist tax law firm. Mr Ho has been actively involved in the investment management of listed investment companies (as an Executive Director and/or a member of the Investment Committee), the structuring and execution of a number of corporate, M&A and international joint venture (in South America (Peru, Chile and Argentina), Indonesia and the Middle East (Saudi Arabia and Oman)) transactions, capital raisings, resources project (debt) financing, spin-outs/demergers and IPO's/re-listings on ASX and capital management initiatives and has extensive experience in public company administration, corporations' law, ASIC/ASX compliance and investor/shareholder relations.
<i>Special responsibilities</i>	None
<i>Relevant interest in securities</i>	96,154 shares 2,850,000 Executive Options (\$0.30, 18 March 2024) 1,000,000 Executive Options (\$1.39, 29 November 2024) 5,000,000 Executive Options (\$1.06, 4 October 2025)
<i>Other positions held in listed entities</i>	Executive Director and Company Secretary of: <ul style="list-style-type: none"> <li>Strike Resources Limited (ASX:SRK) (Director since 17 January 2014; Secretary since 30 September 2015)</li> <li>Orion Equities Limited (ASX:OEQ) (Secretary since 2 August 2000; Director since 4 July 2003)</li> <li>Queste Communications Ltd (ASX:QUE) (Secretary since 30 August 2000; Director since 3 April 2013)</li> <li>Company Secretary of Bentley Capital Limited (ASX:BEL) (since 5 February 2004)</li> </ul>

## AUDITOR'S INDEPENDENCE DECLARATION

A copy of the Auditor's Independence Declaration as required under section 307C of the *Corporations Act 2001 (Cth)* forms part of this Directors Report and is set out on page 37. This relates to the Auditor's Independent Review Report, where the Auditors state that they have issued an independence declaration.

Signed for and on behalf of the Directors in accordance with a resolution of the Board,



William Johnson  
Executive Chairman

1 March 2024

**AUDITOR'S INDEPENDENCE DECLARATION UNDER SECTION 307C OF THE CORPORATIONS ACT 2001**

As lead auditor of the review of Lithium Energy Limited for the half-year ended 31 December 2023, I declare that, to the best of my knowledge and belief, there have been:

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

This declaration is in respect of Lithium Energy Limited and the entities it controlled during the year.

**In.Corp Audit & Assurance Pty Ltd**



**Daniel Dalla**  
Partner

1 March 2024

**In.Corp Audit & Assurance Pty Ltd**  
**ABN 14 129 769 151**

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# CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

for the half year ended 31 December 2023

	Note	31 Dec 23	31 Dec 22
<b>REVENUE</b>	<b>2</b>	<b>\$</b>	<b>\$</b>
Interest revenue		128,885	238,406
<b>Other</b>			
Foreign exchange gain		792,071	739,867
<b>TOTAL REVENUE AND INCOME</b>		<b>920,956</b>	<b>978,273</b>
<b>EXPENSES</b>	<b>3</b>		
Personnel expenses		(1,157,266)	(488,554)
Share-based payments		(101,801)	(9,943,615)
Corporate expenses		(265,698)	(163,077)
Occupancy expenses		(32,968)	(14,977)
Exploration and evaluation expenses		(6,945)	(738)
Finance expenses		(14,437)	(2,195)
Administration expenses		(325,815)	(244,604)
<b>LOSS BEFORE INCOME TAX</b>		<b>(983,974)</b>	<b>(9,879,487)</b>
Income tax expense		-	-
<b>LOSS FOR THE HALF YEAR</b>		<b>(983,974)</b>	<b>(9,879,487)</b>
<b>OTHER COMPREHENSIVE INCOME</b>			
Other Comprehensive Income, Net of Tax			
Exchange differences on translation of foreign operations		1,193,907	(1,174,214)
<b>TOTAL COMPREHENSIVE INCOME FOR THE HALF YEAR</b>		<b>209,933</b>	<b>(11,053,701)</b>
<b>LOSS ATTRIBUTABLE TO:</b>			
Owners of Lithium Energy Limited		(1,023,271)	(9,833,802)
Non-controlling interest		39,297	(45,685)
		<b>(983,974)</b>	<b>(9,879,487)</b>
<b>TOTAL COMPREHENSIVE INCOME FOR THE HALF YEAR IS ATTRIBUTABLE TO:</b>			
Owners of Lithium Energy Limited		170,636	(9,833,802)
Non-controlling interest		39,297	(45,685)
		<b>209,933</b>	<b>(9,879,487)</b>
<b>LOSS PER SHARE FOR LOSS ATTRIBUTABLE TO THE ORDINARY EQUITY HOLDERS OF THE COMPANY:</b>			
Basic and diluted loss per share (cents)	<b>5</b>	(0.99)	(10.73)

The accompanying notes form part of these consolidated financial statements

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

as at 31 December 2023

	Note	31 Dec 23 \$	30 Jun 23 \$
<b>CURRENT ASSETS</b>			
Cash and cash equivalents	6	2,362,698	9,436,225
Receivables	7	160,566	484,628
Other current assets		10,000	143,705
<b>TOTAL CURRENT ASSETS</b>		<b>2,533,264</b>	<b>10,064,558</b>
<b>NON-CURRENT ASSETS</b>			
Receivables	7	1,307,476	1,789,202
Exploration and evaluation expenditure	8	28,787,978	21,251,803
Property, plant and equipment		228,379	214,625
<b>TOTAL NON-CURRENT ASSETS</b>		<b>30,323,833</b>	<b>23,255,630</b>
<b>TOTAL ASSETS</b>		<b>32,857,097</b>	<b>33,320,188</b>
<b>CURRENT LIABILITIES</b>			
Payables		345,940	1,143,819
Provisions		75,730	52,676
<b>TOTAL CURRENT LIABILITIES</b>		<b>421,670</b>	<b>1,196,495</b>
<b>TOTAL LIABILITIES</b>		<b>421,670</b>	<b>1,196,495</b>
<b>NET ASSETS</b>		<b>32,435,427</b>	<b>32,123,693</b>
<b>EQUITY</b>			
Issued capital		34,574,590	34,574,590
Reserves	9	14,345,389	13,049,681
Accumulated losses		(16,074,110)	(15,050,839)
<b>Parent Interest</b>		<b>32,845,869</b>	<b>32,573,432</b>
Non-controlling interest		(410,442)	(449,739)
<b>TOTAL EQUITY</b>		<b>32,435,427</b>	<b>32,123,693</b>

The accompanying notes form part of these consolidated financial statements

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

for the half year ended 31 December 2023

		Issued capital	Foreign Currency Translation reserve	Share- based payments reserve	Non- controlling interest	Accumulated losses	Total
Note		\$	\$	\$	\$	\$	\$
<b>BALANCE AT 1 JULY 2022</b>		<b>15,006,458</b>	<b>79,618</b>	<b>2,434,104</b>	<b>(2,098)</b>	<b>(3,431,629)</b>	<b>14,086,453</b>
Loss for the half year		-	-	-	(45,685)	(9,833,802)	<b>(9,879,487)</b>
Other comprehensive income		-	(1,174,214)	-	-	-	<b>(1,174,214)</b>
<b>Total comprehensive income for the half year</b>		<b>-</b>	<b>(1,174,214)</b>	<b>-</b>	<b>(45,685)</b>	<b>(9,833,802)</b>	<b>(11,053,701)</b>
<b>Transactions with owners in their capacity as owners:</b>							
Issue of shares		13,628,707	-	-	-	-	<b>13,628,707</b>
Issue of options	10	-	-	10,293,119	-	-	<b>10,293,119</b>
<b>BALANCE AT 31 DECEMBER 2022</b>		<b>28,635,165</b>	<b>(1,094,596)</b>	<b>12,727,223</b>	<b>(47,783)</b>	<b>(13,265,431)</b>	<b>26,954,578</b>
<b>BALANCE AT 1 JULY 2023</b>		<b>34,574,590</b>	<b>214,102</b>	<b>12,835,579</b>	<b>(449,739)</b>	<b>(15,050,839)</b>	<b>32,123,693</b>
Loss for the half year		-	-	-	39,297	(1,023,271)	<b>(983,974)</b>
Other comprehensive income		-	1,193,907	-	-	-	<b>1,193,907</b>
<b>Total comprehensive income for the half year</b>		<b>-</b>	<b>1,193,907</b>	<b>-</b>	<b>39,297</b>	<b>(1,023,271)</b>	<b>209,933</b>
<b>Transactions with owners in their capacity as owners:</b>							
Issue of options	10	-	-	101,801	-	-	<b>101,801</b>
<b>BALANCE AT 31 DECEMBER 2023</b>		<b>34,574,590</b>	<b>1,408,009</b>	<b>12,937,380</b>	<b>(410,442)</b>	<b>(16,074,110)</b>	<b>32,435,427</b>

The accompanying notes form part of these consolidated financial statements

# CONSOLIDATED STATEMENT OF CASH FLOWS

for the half year ended 31 December 2023

	Note	31 Dec 23 \$	31 Dec 22 \$
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Payments to suppliers and employees		(1,640,746)	(890,006)
Payments for exploration and evaluation		(6,945)	(738)
<b>NET CASH USED IN OPERATING ACTIVITIES</b>		<b>(1,647,691)</b>	<b>(890,744)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Payment for acquisition of tenements		-	(5,993,622)
Payments for exploration and evaluation		(7,536,175)	(1,625,485)
Payment for purchases of plant and equipment		(26,307)	(31,708)
Interest received		150,667	203,148
<b>NET CASH USED IN INVESTING ACTIVITIES</b>		<b>(7,411,815)</b>	<b>(7,447,667)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Issue of shares		-	15,000,000
Cost of issuing shares		-	(1,021,789)
<b>NET CASH PROVIDED BY FINANCING ACTIVITIES</b>		<b>-</b>	<b>13,978,211</b>
<b>NET DECREASE IN CASH HELD</b>		<b>(9,059,506)</b>	<b>5,639,800</b>
Cash and cash equivalents at beginning of the year		9,436,225	6,672,551
Effect of exchange rate changes on cash held		1,985,979	(434,347)
<b>CASH AND CASH EQUIVALENTS AT END OF THE HALF YEAR</b>	<b>6</b>	<b>2,362,698</b>	<b>11,878,004</b>

The accompanying notes form part of these consolidated financial statements



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## for the half year ended 31 December 2023

### 1. SIGNIFICANT ACCOUNTING POLICIES

#### Statement of Compliance

The half year financial report is a general purpose financial report prepared in accordance with the Corporations Act 2001 and AASB 134 'Interim Financial Reporting'. Compliance with AASB 134 ensures compliance with International Financial Reporting Standard IAS 34 'Interim Financial Reporting'. These half year financial statements do not include notes of the type normally included in the annual financial statements and should be read in conjunction with the most recent annual financial statements and the Company's ASX announcements released from 1 July 2023 to the date of this report.

#### Basis of Preparation

The financial statements have been prepared on the basis of historical cost, except for the revaluation of certain non-current assets and financial instruments. Cost is based on the fair values of the consideration given in exchange for assets. All amounts are presented in Australian dollars, unless otherwise noted.

The accounting policies and methods of computation adopted in the preparation of the half year financial statements are consistent with those adopted and disclosed in the Consolidated Entity's financial statements for the financial year ended 30 June 2023.

#### New, revised or amending Accounting Standards and Interpretations adopted

The Consolidated Entity has adopted all of the new, revised or amending Accounting Standards and Interpretations issued by the AASB that are mandatory for the current reporting period.

Any new, revised or amending Accounting Standards or Interpretations that are not mandatory have not been early adopted. These are not expected to have a material impact on the Consolidated Entity's financial statements.

### 2. REVENUE

The Consolidated Entity's operating loss before income tax includes the following items of revenue:

	31 Dec 23	31 Dec 22
<b>Revenue</b>	\$	\$
Interest revenue	128,885	238,406
<b>Other</b>		
Foreign exchange gain	792,071	739,867
	<b>920,956</b>	<b>978,273</b>

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## for the half year ended 31 December 2023

### 3. EXPENSES

The Consolidated Entity's operating loss before income tax includes the following items of expenses:

	31 Dec 23	31 Dec 22
Personnel expenses	\$	\$
Salaries, fees and employee benefits	1,157,266	488,554
Share-based payments - Executive and SIP Options	101,801	9,943,615
Corporate expenses		
Professional fees	43,688	30,082
Auditor fees	7,500	7,000
ASX and CHESS fees	54,028	51,786
Share registry	11,862	13,617
ASIC fees	457	1,599
Accounting, taxation and related administration	46,162	38,731
Investor relations	95,585	-
Other corporate expenses	6,416	20,262
Occupancy expenses	32,968	14,977
Exploration and evaluation expenses	6,945	738
Finance expenses	14,437	2,195
Administration expenses		
Travel, accommodation and incidentals	82,357	53,276
Insurance	28,632	13,217
Depreciation	12,553	3,678
Other administration expenses	202,273	174,433
	<b>1,904,930</b>	<b>10,857,760</b>

### 4. SEGMENT INFORMATION

	Argentina	Australia	Total
31 Dec 23	\$	\$	\$
Revenue	21,526	107,359	128,885
Other	806,381	(14,310)	792,071
<b>Total segment revenues</b>	<b>827,907</b>	<b>93,049</b>	<b>920,956</b>
Personnel expenses	320,648	938,419	1,259,067
Corporate expenses	202	265,496	265,698
Occupancy expenses	-	32,968	32,968
Exploration and evaluation expenses	-	6,945	6,945
Finance expenses	1,271	13,166	14,437
Depreciation expense	-	12,553	12,553
Other expenses	112,811	200,451	313,262
<b>Total segment profit/(loss)</b>	<b>392,975</b>	<b>(1,376,949)</b>	<b>(983,974)</b>
<b>Adjusted EBITDA</b>	<b>392,975</b>	<b>(1,389,502)</b>	<b>(996,527)</b>

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

for the half year ended 31 December 2023

## 4. SEGMENT INFORMATION (continued)

	Argentina	Australia	Total
	\$	\$	\$
<b>31 Dec 23</b>			
Total segment assets	26,894,169	5,962,928	32,857,097
Total segment liabilities	99,266	322,404	421,670
<b>31 Dec 22</b>			
Revenue	123,774	114,632	238,406
Other	903,762	(163,895)	739,867
<b>Total segment revenues</b>	<b>1,027,536</b>	<b>(49,263)</b>	<b>978,273</b>
Personnel expenses	158,081	10,274,088	10,432,169
Corporate expenses	15,442	147,635	163,077
Occupancy expenses	-	14,977	14,977
Exploration and evaluation expenses	-	738	738
Finance expenses	1,149	1,046	2,195
Depreciation expense	-	3,678	3,678
Other expenses	74,656	166,270	240,926
<b>Total segment loss</b>	<b>778,208</b>	<b>(10,657,695)</b>	<b>(9,879,487)</b>
<b>Adjusted EBITDA</b>	<b>778,208</b>	<b>(10,661,373)</b>	<b>(9,883,165)</b>
<b>30 Jun 23</b>			
Total segment assets	20,784,988	12,535,200	33,320,188
Total segment liabilities	54,257	1,142,238	1,196,495

## 5. LOSS PER SHARE

	31 Dec 23	31 Dec 22
	cents	cents
Basic and diluted loss per share	(0.99)	(10.73)
The following represents the loss and weighted average number of shares used in the loss per share calculations:		
Net loss after income tax (\$)	(1,023,271)	(9,833,802)
	Shares	Shares
Weighted average number of ordinary shares	103,010,000	91,640,137

## 6. CASH AND CASH EQUIVALENTS

	31 Dec 23	30 Jun 23
	\$	\$
Cash at bank	2,362,698	8,436,225
Term deposits	-	1,000,000
	<b>2,362,698</b>	<b>9,436,225</b>

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## for the half year ended 31 December 2023

### 7. RECEIVABLES

	31 Dec 23	30 Jun 23
<b>Current</b>	\$	\$
Deposits and bonds	68,000	68,000
Receivables	50,160	55,888
Other receivables	42,406	360,740
	<u>160,566</u>	<u>484,628</u>
<b>Non-current</b>		
Receivables	<u>1,307,476</u>	<u>1,789,202</u>

### 8. EXPLORATION AND EVALUATION EXPENDITURE

<b>Opening balance</b>	21,251,803	7,306,914
Exploration and evaluation costs	7,536,175	7,951,267
Acquisition of tenements	-	5,993,622
<b>Closing balance</b>	<u>28,787,978</u>	<u>21,251,803</u>

### 9. RESERVES

Share-based payments reserve (refer also to Note 10)	12,937,380	12,835,579
Foreign currency translation reserve	1,408,009	214,102
	<u>14,345,389</u>	<u>13,049,681</u>

### 10. SHARE BASED PAYMENTS

The Company had share based payments, as follows:

		Fair value		During the period					Vested and
Grant	Expiry	at grant	Exercise	Opening	Granted/			Closing	exercisable
date	date	date (\$)	price (\$)	balance	Issued	Exercised	Cancelled	balance	at period end
For the half year ended 31 December 2023									
19-Mar-21	18-Mar-24	0.076	0.300	10,000,000	-	-	-	10,000,000	10,000,000
05-May-21	04-May-24	0.076	0.300	4,000,000	-	-	-	4,000,000	4,000,000
30-Nov-21	29-Nov-24	0.384	1.390	3,500,000	-	-	-	3,500,000	3,500,000
16-Feb-22	15-Feb-25	0.460	1.595	100,000	-	-	-	100,000	66,667
21-Sep-22	20-Sep-25	0.466	1.500	750,000	-	-	-	750,000	750,000
05-Oct-22	04-Oct-25	0.568	1.060	17,500,000	-	-	-	17,500,000	17,500,000
01-Dec-22	30-Nov-25	0.440	1.320	400,000	-	-	-	400,000	400,000
11-Aug-23	10-Aug-26	0.338	0.940	-	250,000	-	-	250,000	-
				36,250,000	250,000	-	-	36,500,000	36,216,667
Weighted average exercise price (\$)				0.810	-	-	-	0.805	0.811

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## for the half year ended 31 December 2023

### 10. SHARE BASED PAYMENTS (continued)

Grant date	Expiry date	Fair value		Opening balance	During the period			Closing balance	Vested and exercisable at period end
		at grant date (\$)	Exercise price (\$)		Granted/ Issued	Exercised	Cancelled		
For the year ended 30 June 2023									
19-Mar-21	18-Mar-24	0.076	0.300	10,000,000	-	-	-	10,000,000	10,000,000
05-May-21	04-May-24	0.076	0.300	4,000,000	-	-	-	4,000,000	4,000,000
30-Nov-21	29-Nov-24	0.384	1.390	3,500,000	-	-	-	3,500,000	3,500,000
16-Feb-22	15-Feb-25	0.460	1.595	100,000	-	-	-	100,000	66,667
21-Sep-22	20-Sep-25	0.466	1.500	-	750,000	-	-	750,000	750,000
05-Oct-22	04-Oct-25	0.568	1.060	-	17,500,000	-	-	17,500,000	17,500,000
01-Dec-22	30-Nov-25	0.440	1.320	-	400,000	-	-	400,000	-
				17,600,000	18,650,000	-	-	36,250,000	35,816,667
Weighted average exercise price (\$)				0.521	1.055	-	-	0.796	0.805

The following options were issued during the financial half year:

- (a) 250,000 Securities Incentive Plan (SIP) Options were granted on 11 August 2023, each with an exercise price of \$0.94 and an exercise term expiring on 10 August 2026. 50% of these options will vest on 10 August 2024 and the 50% on 10 August 2025 which will be expensed over the vesting period.

The fair value of options issued were calculated using an options valuation model which assumes (as at the date of grant) an underlying Company share price of \$0.68, a risk-free rate of 3.9% per annum (based on the 3 year Australian bond yield rate) and a volatility rate of 86% for the underlying shares in the Company.

### 11. COMMITMENTS

#### (a) Mining Tenements/Concessions – Annual Fees and Expenditure Commitments

##### (i) Australian Tenements

The Consolidated Entity is required to pay rates, rent and other annual fees to relevant Regulatory Authorities of the State (and Local) Government and meet expenditure commitments (where applicable and subject to successful applications for exemption in relation thereto) in order to maintain rights of tenure over its granted Australian mining tenements. The total amount of these commitments will depend upon the number and area of granted mining tenements held/retained, the length of time of each tenement held, the work programmes submitted in respect of the tenement (where applicable) and whether and to what extent the Consolidated Entity has been successful in obtaining exemption(s) from meeting expenditure commitments (where applicable).

In relation to the Consolidated Entity's tenements in Queensland, Australia, the Consolidated Entity is liable to pay the native title holder an administrative fee in respect of each tenement, pursuant to the Mineral Resources Act 1989 (Qld) and Mineral Resources Regulation 2013 (Qld).



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## for the half year ended 31 December 2023

### 11. COMMITMENTS (continued)

#### (ii) Argentinean Concessions

The Consolidated Entity is required to pay a licence and other annual fees to relevant Regulatory Authorities of the Argentine (and or regional/provincial) Government in respect of mineral concessions held in Argentina. The total amount of this commitment will depend upon, inter alia, the number and area of concessions held/retained and the length of time of each concession held.

### 12. CONTINGENCIES

#### (a) Directors' Deeds

The Consolidated Entity has entered into deeds of indemnity with the Directors and Company Secretary of the Company, indemnifying them against liability incurred in discharging their duties as officers. As at the reporting date, no claims have been made under any such indemnities and, accordingly, it is not possible to quantify the potential financial obligation of the Consolidated Entity under these indemnities.

#### (b) Australian Native Title

The Consolidated Entity's tenements in Australia are (or may in the future be) subject to native title rights of the traditional owners under the Native Title Act 1993 (Cth). As at the reporting date, the Consolidated Entity has not entered into any native title related access and compensation agreements with any traditional owners and it is not possible to quantify the impact that native title may have on the operations of the Consolidated Entity in relation to these tenements.

#### (c) Government Royalties

The Consolidated Entity may be liable to pay royalties to Government on production obtained from its mineral tenements/concessions.

### 13. EVENTS OCCURRING AFTER THE REPORTING PERIOD

No matter or circumstance has arisen since the end of the financial half year that significantly affected, or may significantly affect, the operations of the Consolidated Entity, the results of those operations, or the state of affairs of the Consolidated Entity in future financial years.

## DIRECTORS' DECLARATION

In accordance with a resolution of the Directors of Lithium Energy Limited made pursuant to sub-section 303(5) of the *Corporations Act 2001 (Cth)*, we state that:

In the opinion of the Directors:

- (1) The financial statements and notes of the Consolidated Entity are in accordance with the *Corporations Act 2001 (Cth)*, including:
  - (a) giving a true and fair view of the Consolidated Entity's financial position as at 31 December 2023 and of its performance for the financial half year ended on that date; and
  - (b) complying with Accounting Standard AASB 134 "Interim Financial Reporting", *Corporations Regulations 2001* and other mandatory professional reporting requirements; and
- (2) There are reasonable grounds to believe that the Consolidated Entity will be able to pay its debts as and when they become due and payable.

On behalf of the Board,



William Johnson  
Executive Chairman

1 March 2024

**LITHIUM ENERGY LIMITED  
INDEPENDENT AUDITOR'S REVIEW REPORT**

To the members of Lithium Energy Limited

**Conclusion**

We have reviewed the half-year financial report of Lithium Energy Limited ("the Company"), and its controlled entities ("the Group"), which comprises the consolidated statement of financial position as at 31 December 2023, the consolidated statement of profit and 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 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 2023 and of its 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 Group 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.

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

**In.Corp Audit & Assurance Pty Ltd  
ABN 14 129 769 151**

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**LITHIUM ENERGY LIMITED**  
**INDEPENDENT AUDITOR'S REVIEW REPORT (continued)**

**Directors' Responsibility 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 the 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 for the Review of the Half-Year 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 2023 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.

**In.Corp Audit & Assurance Pty Ltd**



**Daniel Dalla**  
**Director**

Dated 1 March 2024

# LIST OF MINERAL CONCESSIONS

Lithium Energy has interests in the following mineral concessions/tenements as at 31 December 2023 and currently:

## Solaroz Lithium Brine Project (Argentina)

(90%)

Concession Group	Tenement Name	Area (Ha)	Province	File No
Northern Block	Payo 1	1,973	Jujuy	1516-M-2010
	Payo 2 (North)	758	Jujuy	1515-M-2010
	Payo 2 (South)	1,435		
Central Block	Chico I	835	Jujuy	1229-M-2009
	Chico V	1,800	Jujuy	1312-M-2009
	Chico VI	1,400	Jujuy	1313-M-2009
	Silvia Irene	2,465	Jujuy	1706-S-2011
Southern Block	Mario Ángel	543	Jujuy	1707-S-2011
	Payo	990	Jujuy	1514-M-2010

## Burke and Corella Graphite Projects (Queensland, Australia)

(100%)

Tenement Name	Tenement Type and No.	Grant Date	Expiry Date	Area (blocks)	Area (km <sup>2</sup> )
Burke	EPM 25443	4/9/2014	3/9/2024	2 sub-blocks	~6.58
Corella	EPM 25696	2/4/2015	1/4/2025	6 sub-blocks	~19.74
Leichhardt Crossing	EPM 28715	12/4/2023	11/4/2028	30-sub-blocks	~97

- EPM means Exploration Permit for Minerals



# JORC MINERAL RESOURCES

## Solaroz Lithium Brine Project (Argentina)

(90%)

The Solaroz Project has an initial maiden JORC Mineral Resource, as follows:

- A JORC Inferred Mineral Resource Estimate (MRE) of **3.3Mt of Lithium Carbonate Equivalent (LCE)** (as outlined in Table 1 below).
- Within the 3.3Mt LCE MRE, there is a **high-grade core of 1.34Mt of LCE** with an average concentration of **405 mg/l Lithium** (at a 350 mg/l Lithium cut-off grade) (as outlined in Table 2 below).

**Table 1: Solaroz JORC Inferred Mineral Resource Estimate**

Lithology Units	Sediment Volume m <sup>3</sup>	Specific Yield %	Brine volume		Lithium (Li)			LCE Tonnes
			m <sup>3</sup>	Litres	mg/l	grams	Tonnes	
A (Upper Aquifer)	8,290,800,000	13.0	1,077,804,000	1,077,804,000,000	255	274,840,020,000	274,840	1,460,000
B (Halite Salt Unit)	1,968,600,000	4.0	78,744,000	78,744,000,000	345	27,166,680,000	27,167	140,000
C (Lower Aquifer)	7,584,000,000	11.5	872,160,000	872,160,000,000	374	326,187,840,000	326,188	1,730,000
<b>TOTAL</b>	<b>17,843,400,000</b>	<b>11.4</b>	<b>2,028,708,000</b>	<b>2,028,708,000,000</b>	<b>310</b>	<b>628,194,540,000</b>	<b>628,195</b>	<b>3,330,000</b>

Notes:

- (a) This Mineral Resource Estimate encompasses the Mario Angel, Chico I, Chico V, Chico VI, Payo 2 South and Silvia Irene concessions
- (b) Lithium (Li) is converted to lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>) equivalent (LCE) using a conversion factor of 5.323
- (c) Totals may differ due to rounding
- (d) Reported at a zero Lithium mg/l cut-off grade

**Table 2: High-Grade Core within Solaroz JORC Inferred Mineral Resource Estimate**

Lithology Units	Sediment Volume m <sup>3</sup>	Specific Yield %	Brine volume		Lithium (Li)			LCE Tonnes
			m <sup>3</sup>	Litres	mg/l	grams	Tonnes	
A	325,000,000	13.0	42,250,000	42,250,000,000	376	15,886,000,000	16,000	85,000
B	690,400,000	4.0	27,616,000	27,616,000,000	379	10,466,464,000	10,000	56,000
C	4,787,600,000	11.5	550,574,000	550,574,000,000	408	224,634,192,000	225,000	1,195,000
<b>TOTAL</b>	<b>5,803,000,000</b>	<b>10.7</b>	<b>620,440,000</b>	<b>620,440,000,000</b>	<b>405</b>	<b>250,986,656,000</b>	<b>251,000</b>	<b>1,340,000</b>

Notes:

- (a) The high-grade core is a JORC Inferred Mineral Resource estimated within the mineralisation envelope of (not in addition to) the Mineral Resource Estimate outlined in Table 1 (above)
- (b) Reported at a 350 mg/l Lithium cut-off grade
- (c) Refer Notes (b) and (c) of Table 1 (above)

**Table 3: Mario Angel Concession - JORC Inferred Mineral Resource Estimate**

Lithology Units	Sediment Volume m <sup>3</sup>	Specific Yield %	Brine volume		Lithium (Li)			LCE Tonnes
			m <sup>3</sup>	Litres	mg/l	grams	Tonnes	
A	285,680,000	13.0	37,138,400	37,138,400,000	337	12,515,640,800	12,500	67,000
B	170,230,000	4.0	6,809,200	6,809,200,000	364	2,478,548,800	2,500	13,000
C	641,550,000	11.5	73,778,250	73,778,250,000	358	26,412,613,500	26,500	140,000
<b>TOTAL</b>	<b>1,097,460,000</b>	<b>10.7</b>	<b>117,725,850</b>	<b>117,725,850,000</b>	<b>352</b>	<b>41,406,803,100</b>	<b>41,500</b>	<b>220,000</b>

Notes:

- (a) This Mineral Resource Estimate encompasses the Mario Angel concession only and is within (not in addition to) the Mineral Resource Estimate outlined in Table 1 (above)
- (b) Refer Notes (b) to (d) of Table 1 (above)

For further details, refer to the Company's ASX Announcement dated 29 June 2023 entitled "Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina".

# JORC MINERAL RESOURCES

## Burke Graphite Project (Queensland, Australia)

(100%)

The Burke Deposit (on Burke EPM 25443 tenement) has an upgraded JORC Mineral Resource as follows:

- **Total Mineral Resource of 9.1Mt at 14.4% Total Graphitic Carbon (TGC)** for a total of **1.3Mt contained graphite** (at a 5% TGC cut-off grade), comprising:
  - **Indicated Mineral Resource of 4.5Mt at 14.7% TGC** for **670kt of contained graphite**; and
  - **Inferred Mineral Resource of 4.5Mt at 14.2% TGC** for **640kt of contained graphite**.
- Within the mineralisation envelope there is included a higher grade **Total Mineral Resource of 7.1Mt at 16.2% TGC** for **1.1Mt of contained graphite** (at a 10% TGC cut-off grade).<sup>38</sup>

**Table 4: Burke Tenement - JORC Indicated and Inferred Mineral Resource Estimate**

Mineral Resource Category	Weathering State	Resource (Mt)	Total Graphitic Carbon (TGC) (%)	Contained Graphite (kt)
Indicated Mineral Resource	Weathered	0.2	12.5	30
	Primary	4.3	14.8	640
	<b>Sub-total</b>	<b>4.5</b>	<b>14.7</b>	<b>670</b>
Inferred Mineral Resource	Weathered	0.1	8.1	10
	Primary	4.4	14.4	630
	<b>Sub-total</b>	<b>4.5</b>	<b>14.2</b>	<b>640</b>
Total Indicated and Inferred Mineral Resource	Weathered	0.3	11.1	40
	Primary	8.7	14.6	1,270
	<b>TOTAL</b>	<b>9.1</b>	<b>14.4</b>	<b>1,310</b>

Notes:

- Mineral Resource estimates are reported above a cut-off grade of 5% TGC; Mineral Resources reported on a dry in-situ basis; Totals may differ due to rounding.
- For further details, refer to the Company's ASX Announcement dated 5 April 2023 entitled "Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence"

## Corella Graphite Project (Queensland, Australia)

(100%)

The Corella Deposit (on Corella EPM 25696 tenement) has an initial maiden JORC Mineral Resource as follows:

- Inferred Mineral Resource of **13.5Mt at 9.5% TGC** for **1.3Mt contained graphite** (at a 5% TGC cut-off grade).
- Within the mineralisation envelope, there is included a higher grade Inferred Mineral Resource of **4.5Mt at 12.7% TGC** for 0.57Mt of contained graphite (at a 10% TGC cut-off grade).<sup>39</sup>

**Table 5: Corella Tenement - JORC Inferred Mineral Resource Estimate**

Mineral Resource Category	Weathering State	Resource (Mt)	TGC (%)	Contained Graphite (kt)
Inferred Mineral Resource	Weathered	4.5	9.7	440
	Primary	9.0	9.3	840
	<b>TOTAL</b>	<b>13.5</b>	<b>9.5</b>	<b>1,280</b>

Notes:

- Mineral Resource estimates are reported above a cut-off grade of 5% TGC; Mineral Resources reported on a dry in-situ basis; Totals may differ due to rounding.
- For further details, refer to the Company's ASX Announcement dated 16 June 2023 entitled "Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory"

<sup>38</sup> Refer Mineral Resource estimates at different %TGC cut-off grades reported in Table 2 of LEL ASX Announcement dated 5 April 2023: Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence

<sup>39</sup> Refer Mineral Resource estimates at different %TGC cut-off grades reported in Table 3 of LEL ASX Announcement dated 16 June 2023: Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory

# JORC CODE COMPETENT PERSONS' STATEMENTS

## Solaroz Lithium Brine Project (Argentina)

- (a) The information in this document that relates to Mineral Resources (and the interpretation and reporting of Exploration Results related thereto) in relation to the Solaroz Lithium Brine Project is extracted from the following ASX market announcements made by Lithium Energy Limited dated:

- 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource"
- 29 June 2023 entitled "Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina"

The information in the original announcements is based on information compiled by Mr Murray Brooker (MAIG, MIAH), a Competent Person who is a Member of Member of the Australian Institute of Geoscientists (AIG). Mr Brooker is an employee of Hydrominex Geoscience Pty Ltd, an independent consultant to Lithium Energy Limited. Mr Brooker has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the **JORC Code**). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements (referred to above).

- (b) The information in this document that relates to other Exploration Results in relation to the Solaroz Lithium Brine Project is extracted from the following ASX market announcements made by Lithium Energy Limited dated:

- 15 January 2024 entitled "Battery Grade Lithium Carbonate Successfully Produced from Solaroz Brine"
- 31 October 2023 entitled "Quarterly Activities and Cash Flow Reports - 30 September 2023"
- 26 October 2023 entitled "Significant Solaroz Milestone Achieved with Upgrade to 2.4Mt LCE JORC Indicated Resource"
- 29 August 2023 entitled "Lithium Mineralisation Encountered in Northern Solaroz Concession"
- 31 July 2023 entitled "Quarterly Activities and Cash Flow Reports – 30 June 2023"
- 27 July 2023 entitled "Highest Lithium Concentrations Encountered at Solaroz Lithium Project in Hole 6"
- 29 June 2023 entitled "Significant Maiden JORC Lithium Resource of 3.3Mt LCE at Solaroz Project in Argentina"
- 15 May 2023 entitled "Further Assays Confirm Significant Lithium Brine Concentrations Across Massive Intersections at Solaroz"

The information in the original announcements is based on information compiled by Mr Peter Smith (BSc (Geophysics) (Sydney) AIG ASEG), a Competent Person who is a Member of AIG. Mr Smith is an Executive Director of Lithium Energy Limited. Mr Smith has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements (referred to above).

# JORC CODE COMPETENT PERSONS' STATEMENTS

## Burke and Corella Graphite Projects

(a) The information in this document that relates to Mineral Resources in relation to the Burke and Corella Graphite Projects is extracted from the following ASX market announcements made by Lithium Energy Limited dated:

- 16 June 2023 entitled "Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory"
- 5 April 2023 entitled "Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence"

The information in the original announcements is based on information compiled by Mr Shaun Searle, a Competent Person who is a Member of the AIG. Mr Searle is an employee of Ashmore Advisory Pty Ltd, an independent consultant to Lithium Energy Limited. Mr Searle has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements (referred to above).

(b) The information in this document that relates to test work results in relation to the Burke Graphite Project is extracted from the following ASX market announcement made by Lithium Energy Limited dated:

- 27 November 2023 entitled "Testwork Results Highlight Exceptional Potential of Burke Graphite as Battery Anode Material"
- 23 May 2023 entitled "Excellent Metallurgical Testwork Results at Burke Graphite Project Pave Way for Commencement of PFS"

The information in the original announcement is based on information compiled by Mr Graham Fyfe, who is a Member of the Australian Institute of Mining and Metallurgy (**AusIMM**). Mr Fyfe is an employee (General Manager, Projects) of Lithium Energy Limited. Mr Fyfe has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement (referred to above).

Lithium Energy's ASX Announcements may be viewed and downloaded from the Company's website: [www.lithiumenergy.com.au](http://www.lithiumenergy.com.au) or the ASX website: [www.asx.com.au](http://www.asx.com.au) under ASX code "LEL".

# JORC CODE COMPETENT PERSONS' STATEMENTS

## FORWARD LOOKING STATEMENTS

This document contains “forward-looking statements” and “forward-looking information”, including statements and forecasts which include without limitation, expectations regarding future performance, costs, production levels or rates, mineral reserves and resources, the financial position of Lithium Energy, industry growth and other trend projections. Often, but not always, forward-looking information can be identified by the use of words such as “plans”, “expects”, “is expected”, “is expecting”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or “believes”, or variations (including negative variations) of such words and phrases, or state that certain actions, events or results “may”, “could”, “would”, “might”, or “will” be taken, occur or be achieved. Such information is based on assumptions and judgements of management regarding future events and results. The purpose of forward-looking information is to provide the audience with information about management’s expectations and plans. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Lithium Energy and/or its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include, among others, changes in market conditions, future prices of minerals/commodities, the actual results of current production, development and/or exploration activities, changes in project parameters as plans continue to be refined, variations in grade or recovery rates, plant and/or equipment failure and the possibility of cost overruns. Forward-looking information and statements are based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. Lithium Energy believes that the assumptions and expectations reflected in such forward-looking statements and information are reasonable. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Lithium Energy does not undertake to update any forward-looking information or statements, except in accordance with applicable securities laws.



# SECURITIES INFORMATION

## as at 31 December 2023

### SECURITIES ON ISSUE

Class of Security	Quoted on ASX	Unlisted	Total
Fully paid ordinary shares	103,010,000	-	103,010,000
Executive Options (\$0.30, 18 March 2024) <sup>1</sup>	-	10,000,000	10,000,000
Broker Options (\$0.30, 4 May 2024) <sup>2</sup>	-	4,000,000	4,000,000
Executive Options (\$1.39, 29 November 2024) <sup>3</sup>	-	3,500,000	3,500,000
Securities Incentive Plan (SIP) Options (\$1.595, 15 February 2025) <sup>4</sup>	-	100,000	100,000
Broker Options (\$1.50, 20 September 2025) <sup>5</sup>	-	750,000	750,000
Executive Options (\$1.06, 4 October 2025) <sup>6</sup>	-	17,500,000	17,500,000
SIP Options (\$1.32, 30 November 2025) <sup>7</sup>	-	400,000	400,000
SIP Options (\$0.935, 10 August 2026) <sup>8</sup>	-	250,000	250,000
<b>TOTAL</b>	<b>103,010,000</b>	<b>36,500,000</b>	<b>139,510,000</b>

### DISTRIBUTION OF FULLY PAID ORDINARY SHARES

Spread	of	Holdings	Number of Holders	Number of Shares	% of Total Issued Capital
1	-	1,000	703	470,866	0.46%
1,001	-	5,000	1,244	3,330,293	3.23%
5,001	-	10,000	579	4,774,789	4.64%
10,001	-	100,000	823	25,643,144	24.89%
100,001	-	and over	104	68,790,908	66.78%
<b>TOTAL</b>			<b>3,453</b>	<b>103,010,000</b>	<b>100%</b>

### UNMARKETABLE PARCELS

Spread	of	Holdings	Number of Holders	Number of Shares	% of Total Issued Capital
1	-	869	481	255,245	0.25%
870	-	over	2,972	102,754,755	99.75%
<b>TOTAL</b>			<b>3,453</b>	<b>103,010,000</b>	<b>100%</b>

An unmarketable parcel is considered, for the purposes of the above table, to be a shareholding of 869 shares or less (being a value of \$500 or less in total), based upon the Company's closing share price of \$0.58 on 31 December 2023.

- 1 Refer Section 16.3 (Rights Attaching to Executive Options) of the Company's Prospectus (dated 30 March 2021) for terms and conditions of the Executive Options
- 2 Refer Section 16.2 (Rights Attaching to Broker's Options) of the Company's Prospectus (dated 30 March 2021) for terms and conditions of the Broker Options
- 3 Refer LEL Announcement dated 2 December 2021: Notification regarding unquoted securities – LEL and Annexure B (Terms and Conditions of New Executive Options) of LEL's Notice of Annual General Meeting and Explanatory Statement dated 18 October 2021 and released on ASX on 28 October 2021
- 4 Refer LEL Announcement dated 18 February 2022: Notification regarding unquoted securities – LEL
- 5 Refer LEL Announcement dated 21 September 2022: Notification regarding unquoted securities – LEL
- 6 Refer LEL Announcement dated 5 October 2022: Notification regarding unquoted securities – LEL and Annexure B (Terms and Conditions of Executive Options) of LEL's Notice of Annual General Meeting and Explanatory Statement dated 22 August 2022 and released on ASX on 2 September 2022
- 7 Refer LEL Announcement dated 5 December 2022: Notification regarding unquoted securities – LEL
- 8 Refer LEL Announcement dated 16 August 2023: Notification regarding unquoted securities – LEL

# SECURITIES INFORMATION

## as at 31 December 2023

### TOP TWENTY, ORDINARY FULLY PAID SHAREHOLDERS

Rank	Holder name	Shares Held	% Issued Capital
1	STRIKE RESOURCES LIMITED	31,010,000	30.10
2	CITICORP NOMINEES PTY LIMITED	3,872,287	3.76
3	BNP PARIBAS NOMINEES PTY LTD	2,471,977	2.40
4	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	2,134,417	2.07
5	CIRCUMFERENCE CAPITAL CT PTY LTD	1,625,000	1.58
6	RUBI HOLDINGS PTY LTD	1,548,750	1.50
7	FERGUSON CORPORATION PTY LTD	1,195,479	1.16
8	DR GARY OWEN ROOKE	1,150,000	1.12
9	NATIONAL NOMINEES LIMITED	1,100,000	1.07
10	RECO HOLDINGS PTY LTD	930,000	0.90
11	PALM BEACH NOMINEES PTY LIMITED	888,934	0.86
12	MR GANG DU	820,000	0.80
13	HOOKS ENTERPRISES PTY LTD	800,000	0.78
14	MR MICHAEL OWEN SHERRY	685,508	0.67
15	HONGZE GROUP LTD	641,500	0.62
16	MR DAVID KENLEY	500,000	0.49
17	CLUNE PTY LTD	473,709	0.46
18	MR ROBERT VELLETRI + MRS FRANCINE LEE VELLETRI	464,625	0.45
19	SNAZZYBOY VENTURES PTY LTD	458,688	0.45
20	JJ SURBECK HOLDINGS PTY LTD	452,357	0.44
TOTAL		53,223,231	51.68%

### SUBSTANTIAL SHAREHOLDER

Substantial Shareholder	Registered Shareholder	Shares Held	% Voting Power
Strike Resources Limited (ASX:SRK)	Strike Resources Limited	31,410,000	30.10%