

MARKET ANNOUNCEMENT

Rig Mobilising for Landmark Maiden Drilling Programme at Solaroz Lithium Brine Project in Argentina

SUMMARY

- Lithium Energy's highly prospective Solaroz Lithium Brine Project is located in the world renowned Lithium Triangle in Argentina and is directly adjacent to or principally surrounded by lithium majors Allkem Limited (ASX/TSX:AKE) and Lithium Americas Corporation (TSX/NYSE:LAC)
- Drilling rig is mobilising to site for the maiden high impact drilling programme to commence, comprising an initial 10 holes for circa 5,000 metres of drilling
- The first hole is located at the Mario Angel concession which is directly adjacent to Allkem's producing Olaroz project, ~10km from its production bore field and ~3km to the Maria Victoria concession which was recently acquired by Allkem (see Figure 1)
- Recent geophysics confirmed the presence of significant volumes of potentially lithium hosting brines at Solaroz, indicating brine thicknesses up to 300 metres and to depths up to 500 metres below surface in sections
- The initial drilling programme will seek to validate the Exploration Target previously announced by the Company and define a maiden JORC Mineral Resource of lithium at Solaroz

Lithium Energy Limited (ASX:LEL) (**Lithium Energy or Company**) is pleased to announce the mobilisation of a drilling rig to site for the commencement of drilling at its highly prospective flagship Solaroz Lithium Brine Project, located in Argentina in the heart of South America's world renowned Lithium Triangle (**Solaroz**). Solaroz is located directly adjacent to or principally surrounded by lithium majors Allkem Limited (ASX/TSX:AKE) and Lithium Americas Corporation (TSX/NYSE:LAC) (refer Figure 1).

Commencement of Drilling at Mario Angel Concession

A drilling rig is mobilising to site and upon arrival will begin preparations to commence drilling borehole OZDH001 within the Mario Angel concession (refer Figure 1).

This first hole, of a planned 10 hole, 5,000 metre initial drilling programme, is located adjacent to Allkem's existing production assets (approximately 10kms from its production bore field) and less than ~3km from the Maria Victoria concession which was recently acquired by Allkem as a 'strategic lithium tenement' (see figure 1 for location).¹

¹ Refer Allkem ASX Announcement dated 15 August 2022: Allkem to acquire strategic tenement in exchange for Borax



The recent interpretation of geophysical surveys² undertaken at this drill location together with its close proximity to Allkem's production assets, leads Lithium Energy to believe this site to be highly prospective for lithium bearing brines³.

The initial 5,000 metre drilling programme comprises a combination of 10 diamond and rotary holes, undertaken by a drilling contractor with extensive experience in the Olaroz Salar. This drilling will test the extent and grades of lithium mineralisation, porosity and flow rates across the layer(s) of conductive brines which have been previously identified through a geophysics programme undertaken by Lithium Energy. This information will then be interpreted to develop a potential maiden JORC Mineral Resource for Solaroz.

Interpretation of the TEM geophysics recently undertaken by Lithium Energy indicates that brackish water is likely to be encountered within the first 50 – 60 metres of drill hole OZDH001, with more conductive material expected below this depth. A 50 metre pre-collar will therefore be drilled and cemented off first, in order to isolate any fresh or brackish water and to prevent dilution with any sampling and assaying of the deeper brines.

After the pre-collar has been "set" with concrete, Lithium Energy is proposing to drill test to a depth of 350 - 400 metres below surface with HQ Diamond Core. Drilling to target depth is expected to take approximately 4 weeks.

Previous exploration by other companies in the Olaroz Salar indicates that the upper portions of the salar sediments are typically intermixed clay rich sediments and thin sandstone units, which bulk up and can represent a broad upper brine target. Towards the base of the salar sediments is the main exploration target, the "Deep Sand Unit", followed by the base of the salar, and then the Tertiary Basement units.

On completion of the drill hole, geophysical logging will be undertaken to determine the width and physical parameters of individual aquifers identified, which will be sampled using single and/or double packers. The drill hole will then be cased with PVC in order to make it available as a monitoring bore in the eventuality of it being required for flow tests.

Whilst drill hole OZDH001 is progressing, Lithium Energy will continue interpreting the recent geophysics results to determine optimal location for subsequent drill holes in the 5,000 metre drilling programme.

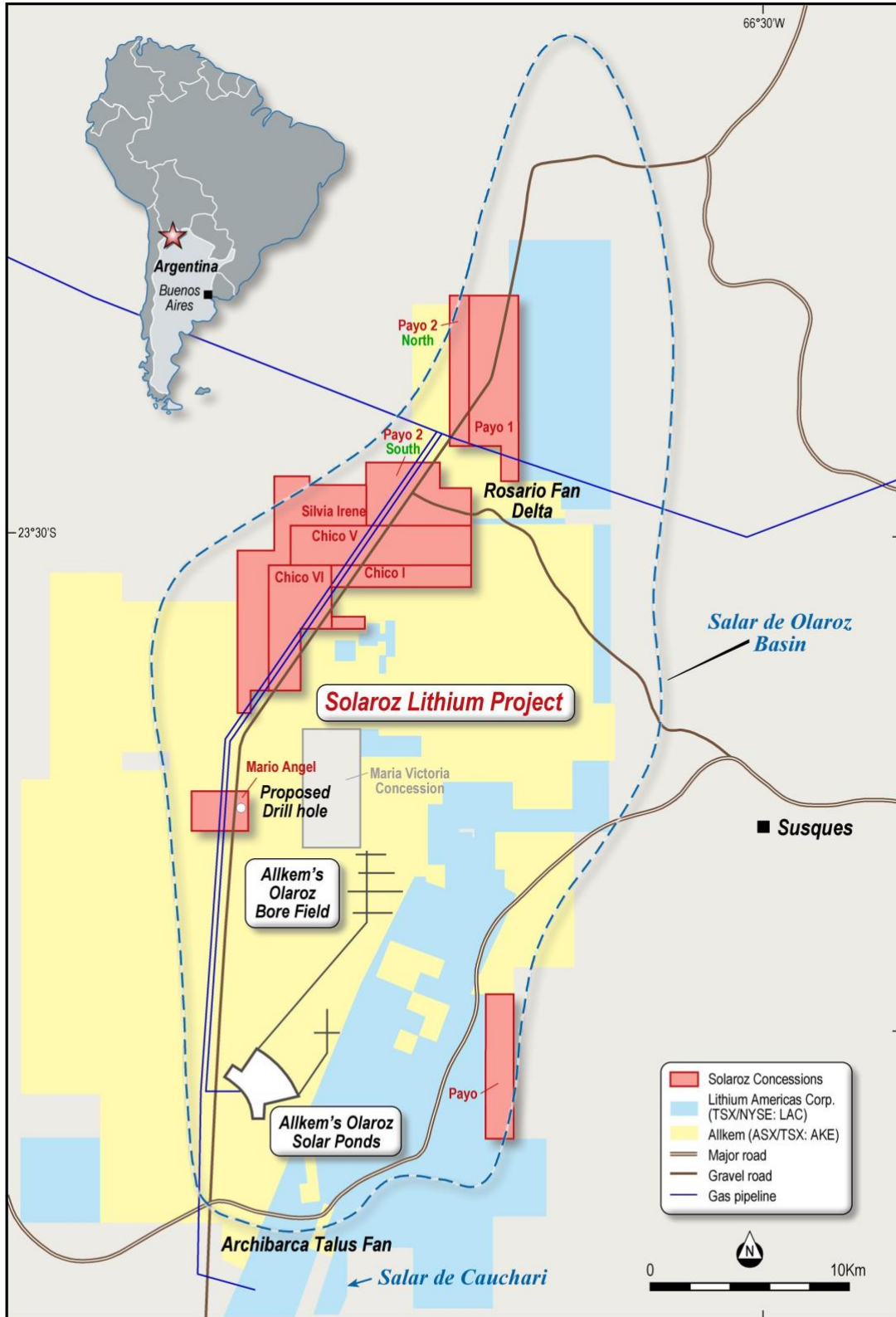
Geophysics Interpretation

As previously reported³, Lithium Energy has been undertaking a series of geophysical surveys² over the Solaroz concession area as part of an extensive exploration programme towards defining a maiden JORC Mineral Resource of lithium at Solaroz. Transient Electromagnetic geophysics (**TEM**) surveys undertaken across the Solaroz tenure have been successfully completed and the data collected is being interpreted in conjunction with collected Passive Seismic data, to build up a complete three-dimensional model of the potentially lithium rich conductive brines at Solaroz.

Lithium Energy notes that interpretation of previous results indicate the presence of significant quantities of conductive brines in the Solaroz concession area, with indicated brine thicknesses up to 300 metres and to depths up to 500 metres below surface in sections³. Conductive brines such as those currently being mined by Allkem in adjoining concessions are a key pathfinder for the occurrence of lithium in the Olaroz Salar that demonstrate similar geophysical signatures.⁴

2 Comprising (a) Passive Seismic surveys, which are being used to determine the base of the underlying basement rock, with the basement defining the theoretical depth limit of potential lithium mineralisation; and (b) Transient Electromagnetic geophysics (**TEM**), which measures electrical conductivity at depth and are being used to identify the depth of conductive brines (i.e. salty water with low electrical resistivity) above the basement rocks identified by the Passive Seismic programme.

3 Refer LEL ASX Announcement dated 18 August 2022: Highly Encouraging Geophysics Paves Way for Commencement of Drill Testing of Brines at Solaroz



LITHIUM ENERGY LTD **Solaroz Lithium Project, Argentina**
Solaroz Concessions Location Plan
www.lithiumenergy.com.au

Figure 1: Proposed Maiden Drill Hole Location on Mario Angel Concession at Solaroz (Solaroz Concession Locations Adjacent to Allkem and Lithium Americas Concessions in Olaroz Salar)

Exploration Objective

The objective of Lithium Energy's exploration programme is to define a maiden JORC Mineral Resource of lithium from its substantial 12,000 hectare concession area on the Salar de Olaroz basin (**Olaroz Salar**), where Allkem Limited has been producing lithium since 2015 (under a joint venture with Toyota Tsusho Corporation (TYO:8015)) and Lithium Americas Corporation is advancing its Cauchari-Olaroz development project (under a joint venture with Ganfeng Lithium).

Lithium Energy has previously defined an Exploration Target⁴ for Solaroz of:

1.5 to 8.7 million tonnes of contained Lithium Carbonate Equivalent (LCE) based on a range of lithium concentrations of between circa 500 mg/L Lithium (Li) and 700 mg/L Li,

based primarily on Lithium Energy's assessment of the results of previous exploration work undertaken by Allkem and Lithium Americas in the neighbouring area on the Olaroz Salar.

The Exploration Target's potential quantity and grade is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

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ABOUT LITHIUM ENERGY LIMITED (ASX:LEL)

Lithium Energy Limited is an ASX listed battery minerals company which is developing its flagship Solaroz Lithium Brine Project in Argentina and the Burke Graphite Project in Queensland. The Solaroz Lithium Project (LEL:90%) comprises 12,000 hectares of highly prospective lithium mineral concessions located strategically within the Salar de Olaroz Basin in South America's "Lithium Triangle" in north-west Argentina. The Solaroz Lithium Project is directly adjacent to or principally surrounded by mineral concessions being developed into production by Allkem Limited (ASX/TSX:AKE) and Lithium Americas Corporation (TSX/NYSE:LAC). The Burke Graphite Project (LEL:100%) contains a high grade graphite deposit and presents an opportunity to participate in the anticipated growth in demand for graphite and graphite related products.

4 Refer LEL ASX Announcement dated 8 June 2021: Substantial Lithium Exploration Target Identified at the Solaroz Project in Argentina

JORC CODE COMPETENT PERSON'S STATEMENTS

The information in this document that relates to Exploration Results are based on, and fairly represents, information and supporting documentation prepared by Mr Peter Smith, BSc (Geophysics) (Sydney) AIG ASEG. Mr Smith is a Member of the Australian Institute of Geoscientists (**AIG**) and an Executive Director of the Company. Mr Smith has the requisite experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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**). Mr Smith consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

The information in this document that relates to Exploration Targets and other Exploration Results in relation to the Solaroz Lithium Project is extracted from the following ASX market announcements made by Lithium Energy dated:

- 18 August 2022 entitled "Highly Encouraging Geophysics Paves Way for Commencement of Drill Testing of Brines at Solaroz"
- 9 May 2022 entitled "Geophysics Expanded Across all Concessions to Refine Drill Targets at Solaroz Lithium Project"
- 8 June 2021 entitled "Substantial Lithium Exploration Target Identified at the Solaroz Project in Argentina"
- 26 May 2021 entitled "Geophysical Data Supports Highly Encouraging Exploration Potential for Solaroz"

The information in the original announcements is based on, and fairly represents, information and supporting documentation prepared and compiled by Mr Peter Smith (BSc (Geophysics) (Sydney) AIG ASEG). Mr Smith is a Member of the Australian Institute of Geoscientists (**AIG**) and a Director of the Company. Mr Smith has the requisite experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 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).

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.