

MARKET ANNOUNCEMENT

Exploration Advancing at the Solaroz Lithium Project - Geophysics Nearing Completion and Drill Rig Secured

KEY HIGHLIGHTS

- Lithium Energy's Solaroz Lithium Brine Project is located in the highly prospective 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)
- Exploration geophysics is now well advanced at Solaroz, with passive seismic surveys now largely complete across all of the concessions
- TEM surveys are also well advanced, with collected data currently being interpreted
- A drilling rig has been secured and drilling is planned to commence following the completion of the interpretation of the passive seismic and TEM surveys designed to identify the most highly prospective lithium brine targets
- Environmental Monitoring baseline studies have been undertaken, together with local community consultation
- The local Solaroz Team in Argentina has been expanded with an experienced Senior Geologist and further local hires are pending

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or **Company**) is pleased to provide an update on the progress of its exploration programme at its highly prospective flagship Solaroz Lithium Brine Project, located in Argentina in the heart of South America's 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 5).

Exploration Objective

The objective of the exploration programme is to define a maiden JORC Mineral Resource of lithium from its 12,000 hectare concession area on the Salar de Olaroz basin (**Olaroz Salar**), where Allkem Limited (formerly Orocobre 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).



The Company has previously defined an Exploration Target¹ 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

The planned exploration works will be conducted as part of a programme to validate and refine the size of any potential lithium bearing brines in the Solaroz concessions.

Exploration Programme

The first stage of the exploration programme comprises Passive Seismic surveys, which are currently nearing completion across the 12,000 hectare Solaroz concession area to determine the base of the underlying basement rock, with the basement defining the theoretical depth limit of potential lithium mineralisation.

Processing of the passive seismic data currently being collected on site is progressing and more detailed results relating to the measured basement depths will be announced in due course.

Transient Electromagnetic geophysics (**TEM**) surveys are also currently underway over the Solaroz concessions. The TEM surveys comprise sampling at approximately 500 metre spacing across the concession package. TEM measures electrical conductivity at depth and will be 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. 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.

Lithium Energy is expecting to then undertake a drilling programme of approximately 5,000 metres, with a combination of diamond and rotary holes.

The drilling will test the extent and grades of lithium mineralisation, porosity and flow rates across the layer(s) of conductive brines. This information will then be interpreted to develop a maiden JORC Mineral Resource for Solaroz.

A drilling rig has been secured from an experienced local contractor and will be mobilised to site once the interpretation of the passive seismic and TEM surveys are complete.

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



Figure 1: TEM Equipment



Figure 2: Placement of TEM Equipment

Environmental Monitoring

Lithium Energy is fully committed to maintaining the highest standards of environmental sustainability during its exploration programme at Solaroz.

As previously reported in April² this year, the Company received the last of the Environmental Impact Assessment (EIA) approvals from the local Jujuy Provincial Government Mining Authority required to undertake exploration works across all of its 8 concessions at its Solaroz Project.

Following receipt of these approvals, Lithium Energy has conducted a series of environmental monitoring surveys across the Solaroz concessions (including collecting water and air samples, flora and fauna surveys), to act as a baseline for environmental monitoring during the exploration works.

² Refer LEL ASX Announcement dated 27 April 2022: EIA Approvals Now Granted for All Solaroz Lithium Project Concessions - Exploration Underway



Figure 3: Taking water samples for environmental monitoring

Community Consultation and Support

Consultation with local community groups has been undertaken over the last several months, with a number of arrangements made with local community suppliers to provide services and assistance with the Company’s exploration programme.

Lithium Energy has also initiated a number of community and landholder support programmes as the Company demonstrates its commitment to supporting the local community groups during its exploration programme at Solaroz.



Figure 4: Lithium Energy Director Peter Smith, with members from local El Toro community

Expansion of Argentinian Owners Team

Lithium Energy is pleased to report that it has added a Senior Geologist to its local Solaroz team. The appointment of a highly experienced geologist who has previously worked for the Lithium Americas joint venture company MineraExar at the Olaroz Salar will support the rapidly expanding scope of exploration works being conducted by the Company. In particular, the considerable local experience with lithium brine exploration at the Olaroz Salar makes this recent appointment a very valuable addition to the local Solaroz team. Further local technical hires are also pending.

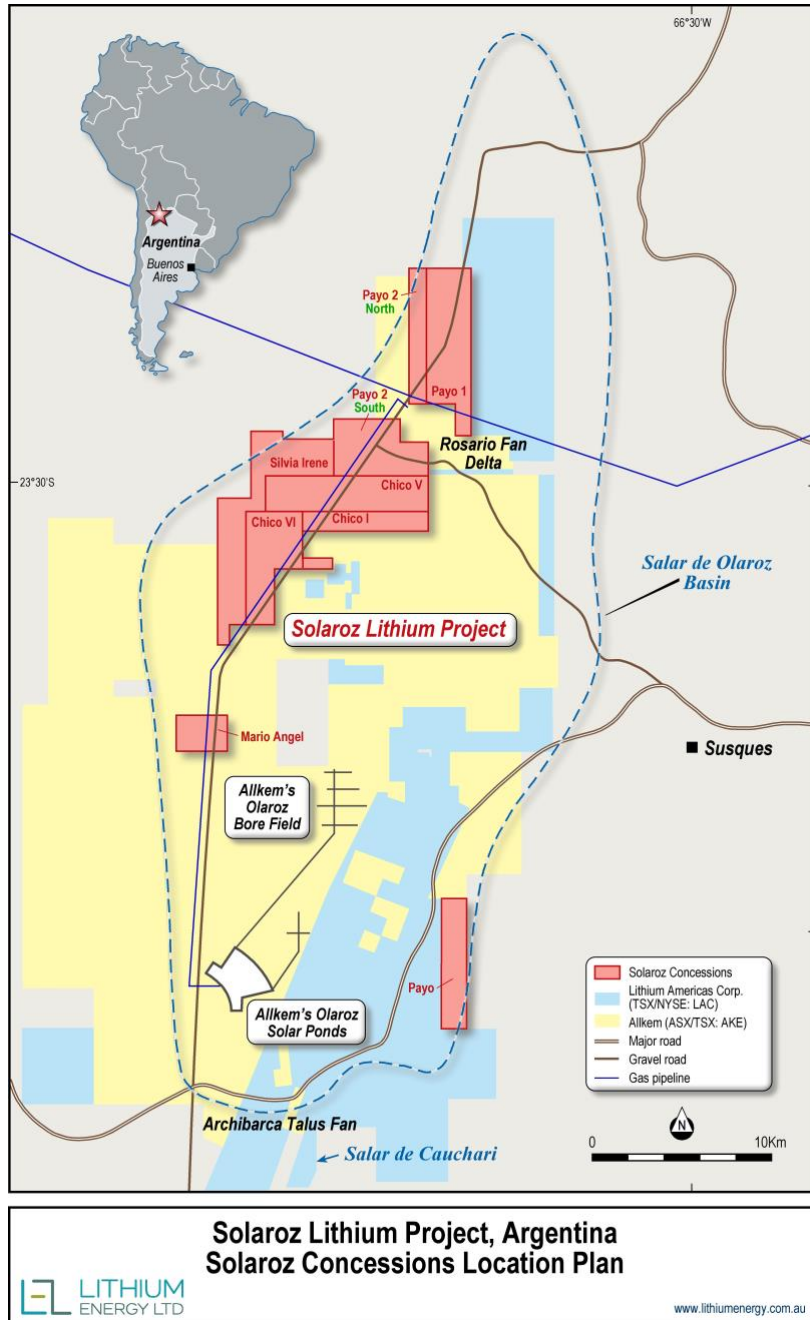


Figure 5: Solaroz Concession Locations Adjacent to Allkem and Lithium Americas Concessions in Olaroz Salar

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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 Orocobre Limited (ASX/TSX:ORE) 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. LEL was spun out of Strike Resources Limited (ASX:SRK) via a \$9 million IPO; Strike remains a major (43%) shareholder of the Company.

JORC CODE COMPETENT PERSON'S STATEMENTS

The information in this document that relates to Exploration Results (in relation to the passive seismic and TEM geophysics work) 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:

- 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.