

Agreement with Lanshen to Build and Fund a 3,000tpa Battery Grade Lithium Plant at Solaroz

SUMMARY

- Binding agreement executed with Lanshen to construct a battery grade lithium Plant at Solaroz capable of producing 3,000 tonnes of lithium carbonate per annum.
- Lanshen are a leading provider of DLE technology and plant manufacturing, with industrial scale commercial DLE plants currently in operation, with major shareholders including China Minmetals and Softbank Capital
- Lanshen to fund at their sole cost the engineering and design, construction, transportation, assembly, commissioning and initial operation of the Plant.
- Commissioning targeted for second half of CY 2024, subject to receipt of all local approvals and permits.
- Lanshen have also stated their interest in the investment and operation of a larger plant of 20,000 tonnes per annum or above
- Plant to be built at the Mario Angel concession (543 hectares), as it is a discrete stand-alone concession ideally suited for DLE test purposes.
- Plant will not impact on the broader Solaroz concessions for which engineering studies evaluating both pond evaporation and DLE are still ongoing.
- Lithium Energy has the right to purchase the Plant once constructed, if it meets pre-agreed acceptance criteria

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or **Company**) is pleased to announce that it has executed a Binding Framework Agreement (**Agreement**) with Xi'an Lanshen New Material Technology Co. Ltd (**Lanshen**), for Lanshen to construct a demonstration plant capable of producing up to 3,000 tonnes per annum of battery grade lithium carbonate (**Plant**) at its Solaroz Lithium Brine Project (LEL:90%) in Argentina, located next to Allkem's Lithium Production Facility in the Salar de Olaroz basin (the **Olaroz Salar**) in the heart of South America's world renowned Lithium Triangle (**Solaroz**).

The Plant will include Lanshen's proprietary sorbent-based direct lithium extraction (**DLE**) technology, which has already been proven on industrial and commercial scale.

Subject to receipt of all environmental and other permits, the Plant is planned to be built at the discrete stand-alone Mario Angel concession (comprising ~543 hectares out of a total Solaroz concession area of ~12,000 hectares), located to the south-west of the main block of Solaroz concessions (see Figure 8), with commissioning targeted for second half CY 2024.



Drilling at Mario Angel (Hole SOZDD001) has to date encountered cumulative intersections of up ~235 metres of lithium brine mineralisation across the upper and lower aquifers, with an average grade of 446mg/l Li in the upper aquifer and 501 mg/l Li in the lower aquifer.¹

Mario Angel was selected as it is a relatively small (543 hectares), discrete stand-alone concession ideally suited for DLE test purposes. The testing and plant operation at Mario Angel will also not impact on the development of the broader concession holdings at Solaroz. In this regard, Lithium Energy is currently undertaking a Scoping Study with Hatch to evaluate the use of both traditional pond evaporation and DLE technology for the broader Solaroz concession areas (~12,000 hectares in total).²

Under the terms of the Agreement:

- Lanshen will supply, build and initially operate the Plant at its own cost, with Lithium Energy being responsible for securing all necessary approvals and permits and establishing the necessary supporting site infrastructure.
- Once the Plant is completed, if it passes pre-agreed acceptance criteria then Lithium Energy will buy the Plant for either cash consideration, or a percentage interest in the lithium rights associated with the Mario Angel concession.
- The value of the Plant (with respect to the potential cash consideration or Mario Angel lithium rights to be contributed), together with detailed plant specifications, technical, engineering and operating parameters (including the final acceptance criteria) will be outlined in a more detailed agreement which is envisaged to be executed before September 2023.
- Should the commissioned Plant not meet the agreed acceptance criteria, then Lanshen may be required to remove the Plant at its own cost.
- Lanshen and Lithium Energy will now immediately commence works together to complete the Plant by November 2024, with initial activities focussing on the plant design and engineering and necessary approvals and permits.

The structure of the Agreement for the construction and commissioning of the Plant is regarded as very positive for Lithium Energy as it significantly reduces the upfront capital costs in evaluating this DLE production option.

Executive Chairman, William Johnson:

This partnership with one of the world's leading providers of DLE technology is a tremendously exciting initiative undertaken by the Company. Whilst the location and size of the Solaroz Project as a whole is considered highly favourable for traditional pond evaporation (as used by neighbours Allkem and Lithium Americas), sorbent-based DLE technology offers a number of potential significant commercial and environmental benefits.

During a recent trip to China, the Company was highly impressed by the capabilities of Lanshen and their relatively mature sorbent-based technology, that has been proven on industrial and commercial scales.

The 'try before we buy' commercial arrangements agreed under the Framework Agreement, through which Lanshen has committed to fully fund the construction and initial operation of the Plant, are highly favourable for Lithium Energy. The development of this Plant will enable the Company to fully test the capabilities of the plant before making a purchase decision and will provide valuable information towards the development of the broader Solaroz Project as a whole.

1 Refer LEL ASX Announcement dated 10 March 2023: Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project

2 Refer LEL ASX Announcement dated 20 March 2023: Commencement of Lithium Brine Scoping Study at Solaroz

The Mario Angel concession is ideally suited as a ‘test-bed’ for this DLE technology, being a stand-alone concession located next to an existing road and less than 15km from Allkem’s existing production facility.

Lanshen Chairman, Zhijun Feng:

We treat this project as a high priority amongst our projects in Argentina and others in Chile. We already have a plant of 3,000 tpa under construction in Salar Arizaro, Argentina, as our first sale and construction of our modular DLE plant in Argentina. On the basis of our accumulated experiences there, we have this project as a demonstration of our investment and operation in Argentina together with our strategic partner Lithium Energy.

From the success of the Plant at the Solaroz Project, we are interested in the investment and operation of a bigger plant of 20,000 tpa or above, applying our modular plants and our integral capacity together with Lithium Energy.

We really want to participate in the local development of the industry of lithium in Jujuy Argentina through our strategic cooperation with Lithium Energy.



Figure 1: Lanshen Chairman Zhijun Feng (centre), with Lithium Energy Executive Chairman William Johnson (right) and Graham Fyfe (Lithium Energy General Manager, Projects)



Figure 2: Lanshen sorbent material produced at Lanshen factory in Xi'an, China



Figure 3: Lanshen DLE test facility in Xian, China

About Lanshen

Xi'an Lanshen New Material Technology Co., Ltd (**Lanshen**) is a private company based in Xi'an, China with major shareholders including China Minmetals and Softbank Capital.

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. Lithium ions are then eluted (extracted) with fresh water and lithium is subsequently separated from magnesium, potassium, sodium, calcium, iron, silicon, boron and other deleterious elements. No chemicals are added in the lithium extraction process, which is considered relatively environmentally friendly compared to other DLE technologies.

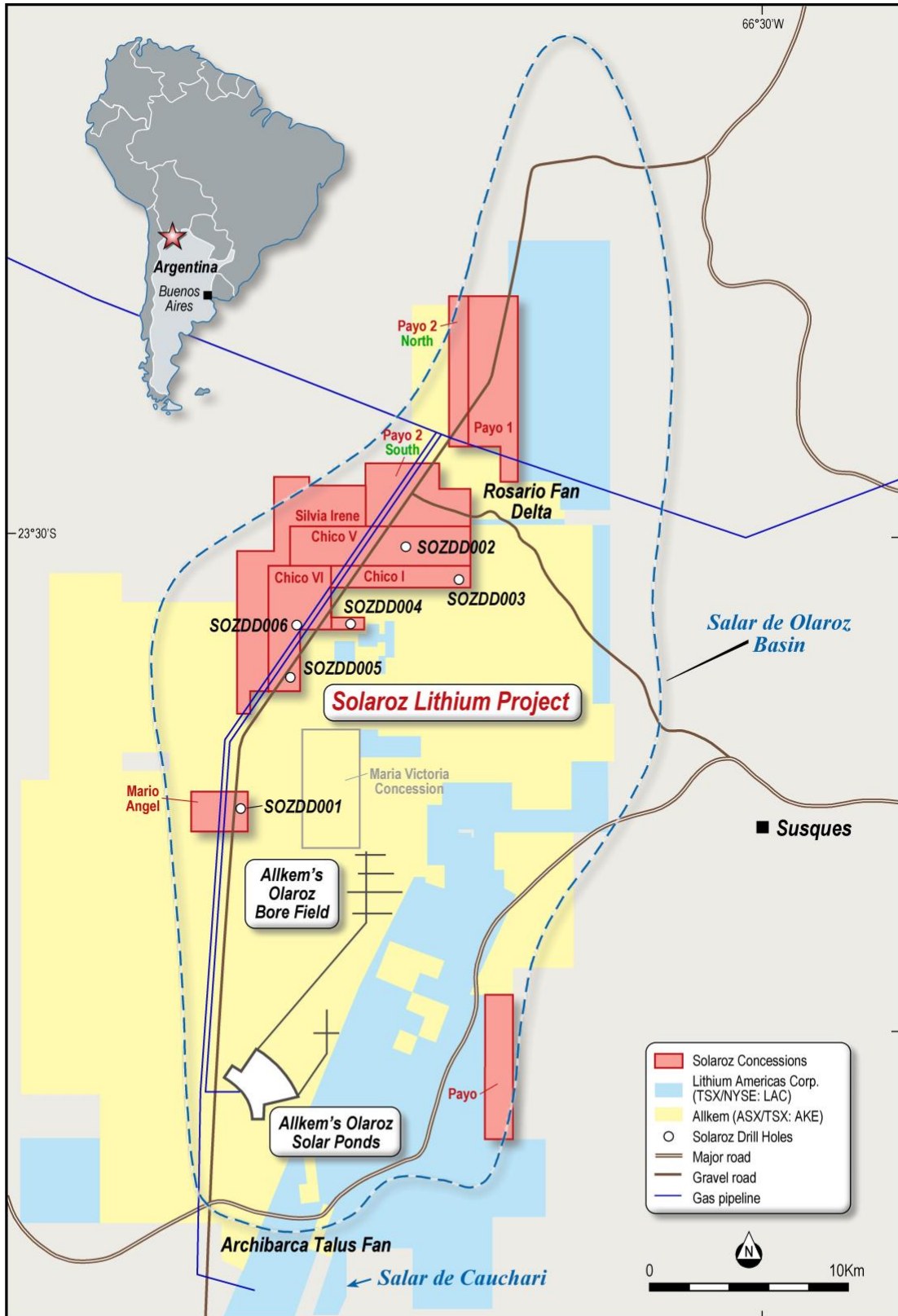
Lanshen currently has multiple operating industrial plants in China, with a 3,000 tpa plant contracted to be built for an Argentinian company in the Salta Province in Argentina.



Figure 4: Lanshen Factory, Shaanxi Province, China



Figures 5, 6 and 7 : Lanshen Operating Industrial DLE Plants



**Solaroz Lithium Project, Argentina
 Solaroz Concessions Location Plan**

Figure 8: Location of Mario Angel Concession within Solaroz Concessions at Olaroz Salar (Adjacent to Allkem and Lithium Americas Concessions)

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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 and Corella Graphite Projects 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. Lithium Energy shares the lithium rights on the Olaroz Salar with lithium carbonate producers Alkem Limited (ASX/TSX:AKE) and Lithium Americas Corporation (TSX/NYSE:LAC). The Burke and Corella Graphite Projects (LEL:100%) in Queensland, Australia, contains high grade graphite deposits – Lithium Energy is undertaking a Prefeasibility Study on a proposed vertically integrated battery anode material manufacturing facility in Queensland.

JORC Code (2012) Competent Person's Statement

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

- 10 March 2023 entitled "Positive Specific Yields and Significant Averaged Lithium Concentrations in SOZDD001 at Solaroz Lithium Brine Project"

The information in the original announcement 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 (2012)**). 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).

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.