Stop Press

Three licence agreements to develop plants
as of September 2024
American Salars Lithium two 10k LCE projects
Patagonia Lithium 10k plant in Jama, Jujuy Argentina
Geoframe-Energy 3,000 tonne plant at 600ppm Li -45,000T
Li_2CO_3 plant to follow on

US$15MILLION CAPITAL RAISING
15.8% equity with 2 yr earnings bonus
Revenue* Est $33m (3,000T)
CAPITALISATION US$95M
Share price $1.00
95m shares on issue post raise

EkoSolve™

A DIRECT LITHIUM EXTRACTION METHOD USING SOLVENT EXTRACTION FOR LITHIUM BRINES

DLE SOLVENT EXCHANGE FOR THE FUTURE

Phil Thomas
Dr Carlos Sorentino

www.ekosolve.com.au

EkoSolve Ltd
An Australian unlisted Public Company • ACN 657 738 120

Disclaimer - Australia, Canada, USA

Forward Looking Statements: This investor release (Release) has been prepared by Ekosolve Limited (ACN 112 589 910) (the Company or Ekosolve). It contains general information about the Company as at the date of this Release. The information in this Release should not be considered to be comprehensive or to comprise all of the material which a shareholder or potential investor in the Company may require in order to determine whether to deal in Shares. The information in this Release is of a general nature only and does not purport to be complete. It should be read in conjunction with the Company's periodic and continuous disclosure announcements which are available at ekosolve.com and with the Australian Securities Exchange (ASX) announcements, which are available at www.asx.com.au.This Release does not take into account the financial situation, investment objectives, tax situation or particular needs of any person and nothing contained in this Release constitutes investment, legal, tax, accounting or other advice, nor does it contain all the information which would be required in a disclosure document or prospectus prepared in accordance with the requirements of the Corporations Act 2001 (Cth) (Corporations Act). Readers or recipients of this Release should, before making any decisions in relation to their investment or potential investment in the Company, consider the appropriateness of the information having regard to their own individual investment objectives and financial situation and seek their own professional investment, legal, taxation and accounting advice appropriate to their particular circumstances. This Release does not constitute or form part of any offer, invitation, solicitation or recommendation to acquire, purchase, subscribe for, sell or otherwise dispose of, or issue, any Shares or any other financial product. Further, this Release does not constitute financial product, investment advice (nor tax, accounting or legal advice) or recommendation, nor shall it or any part of it or the fact of its distribution form the basis of, or be relied on in connection with, any contract or investment decision. The distribution of this Release in other jurisdictions outside Australia may also be restricted by law and any restrictions should be observed. Any failure to comply with such restrictions may constitute a violation of applicable securities laws. Past performance information given in this Release is given for illustrative purposes only and should not be relied upon as (and is not) an indication of future performance. Not for release or distribution in the United States: This announcement has been prepared for publication in Australia and may not be released to U.S. wire services or distributed in the United States. This announcement does not constitute an offer to sell, or a solicitation of an offer to buy, securities in the United States or any other jurisdiction, and neither this announcement or anything attached to this announcement shall form the basis of any contract or commitment. Any securities described in this announcement have not been, and will not be, registered under the U.S. Securities Act of 1933 and may not be offered or sold in the United States except in transactions registered under the U.S. Securities Act of 1933 or exempt from, or not subject to, the registration of the U.S. Securities Act of 1933 and applicable U.S. state securities laws.

Ekosolve Business Model

- 5% Royalty based on FOB lithium carbonate 99.5% grade production sales
- Texas USA Demonstration plant JV allows early revenue share (70%)
- Construction pipeline has 70,000 tonnes LC production in USA, Argentina
- Additional Revenue earned from construction approximately 10% for turnkey projects
- IP consists of fast processing time (minutes), 99.7% "Green" solvent collection and regeneration, modular system, able to process high magnesium, high acidity brines, only single pass DLE system on market.
- University of Melbourne Chemical Engineering Faculty provides technical support, pilot plant facilities – Professor Dr Kathryn Mumford is lead
- On completion of series A, US$15m team in USA/Melbourne to be implemented

EKOSOLVE TRANSACTION SUMMARY

HIGHLIGHTS

- Joint venture Ekosolve 70%/30% to build 3,000 tonne Li2CO3 plant in Texas with Geoframe 2025
  - 600ppm Li, 15,000 barrels (2.4m litres) per day
  - 2P Resource is 3.5 million tonnes LCE
  - US$8m capital raise with new issue and sale $7m Founder Shares – Total US$15m
  - Projected revenue at $10,500 LCE for 2,400 tonnes is US$25 million ($17.5m Ekosolve)
- Call option to Geoframe to buy plant at $9m
- On funding Geoframe will build 45,000 tonne Li_2CO_3 plant and a 25Mw geothermal power station
- Ekosolve Income streams – 10% construction, 4% royalty, 1% royalty paid to Uni of Melbourne
- Ekosolve to list in 2025/26

PLANT CONSTRUCTION SCHEDULE 2025-2027

- GEOFRAME-ENERGY 2.4K then 45k Li2CO3
- PATAGONIA LITHIUM 10K TONNE
- AMERICAN SALARS POCITOS 20K TONNE

LICENCE AGREEMENTS AND NDA'S SIGNED

- AMERICAN SALARS LITHIUM INC (LIC)
- PATAGONIA LITHIUM (LIC)
- EUROPE BRINE OIL PRODUCER
- GEOFRAME-ENERGY (LOI)
- CHILE BASED LITHIUM CARBONATE PRODUCER

	Financial Analysis Geoframe Ekosolve Demonstration Plant				
	2024	**2025**	**2026**	**2027**	**2028**
Year	1	2	3	4	5
Investment 15.8% equity	-15,000,000				
Plant production LC tonnes		1,000	3,000	3,000	45,000
Price - Battery grade Lithium Carbonate		12,500	13,500	14,500	15,500
Revenue		12,500,000	40,500,000	43,500,000	
Revenue - 45,000 tonne plant					697,500,000
Sale of demonstration plant			9,000,000		
Ekosolve royalty				2,175,000	34,875,000
Total Income	-15,000,000	12,500,000	49,500,000	2,175,000	34,875,000
Costs					
2900 per tonne	0	2,900,000	8,700,000	500,000	500,000
Operating Profit	-15,000,000	9,600,000	40,800,000	1,675,000	34,375,000
Ekosolve share 70%	0	6,720,000	28,560,000		
Investor 15.8% share of 70% income	-15,000,000	3,185,280	13,537,440		
Note: investor share of income in first two years is 47.4% (3 x 15.8% equity interest)					
Geoframe-Ekosolve Project		IRR			
NPV - 9% - 5 years	$49,351,750	116%			
NPV - 9% - 3 years	$25,823,746	100%			

ORGANISATIONAL STRUCTURE

Board of Directors

Dr Carlos Sorentino
Executive Chairman
Chief Technology Officer

Phillip Thomas
Chief Executive Officer
Pre-IPO Support Associate/Research

Shaun Thomas
Non-Executive Director

Jarek Kopias – Company Secretary/share register

Chief Advisor – Licensor
Professor Dr Kathryn Mumford
Dept Chemical Engineering
University of Melbourne

Support
Dr A Li

Executive Team – To be hired post funding
General Manager – Ekosolve Technology
Manager – Texas Construction/Implementation
Manager – 2,400 Tonne plant/Uni of Melb liaison/Chem Engineer
Manager – Finance, Accounting and Tax, Royalties, Grants
Manager – Sub-contractors EPCM, purchasing

Key Personnel

Phillip Thomas - CEO – BSc Geol MBM FAusIMM, more than 20 years experience in lithium exploration and production, executive and non-executive Chairman roles, senior executive/CEO in listed companies on ASX and TSX, developed Rincon Lithium project in 2006, and deeply involved in lithium projects in Argentina and Brazil, copper using SX in Australia.

Dr Carlos Sorentino – Executive Chairman, CTO, - PhD, MEnvSt, BE(Chemical), DipRadTech. Carlos is a highly skilled chemical engineer and economist having completed his PhD in economic geology. He has worked in the lithium industry for more than 40 years and has a deep understanding of chemical extraction methodologies, having built the Rincon lithium carbonate plant in Argentina. He is the co-founder of the Ekosolve process and has guided its development to its current stage of efficient lithium extraction exceeding 95% and commercial development.

Professor Dr Kathryn Mumford – University of Melbourne – Technical Advisor - (PhD, B Chem Eng (Hons), B Comm) is a Professor in the Department of Chemical Engineering at The University of Melbourne, and currently leads the Advanced Separations Technologies Group and is Head of the School of Chemical Engineering. Kathryn's research interests are in the areas of separations processes specifically ion exchange, solvent absorption and solvent extraction technologies such as Ekosolve.

THE EKOSOLVE™ DLE ADVANTAGES

- High recovery of Li from brines as Lithium Chloride
- Produces Battery Grade Lithium Carbonate
- Circumvents problems of brine contaminants such as Mg, Ca and B that can interfere with the recovery and quality of Battery Grade Lithium Carbonate
- Eliminates the need for solar evaporation
- No requirement for large water volumes
- Single continuous process
- Operates with brines as low as 37ppm Li
- Can handle acid brines with pH as low as 1
- Low operating costs – 98% of solvent and reagents recovered
- Low capital costs
- Environmentally friendly process

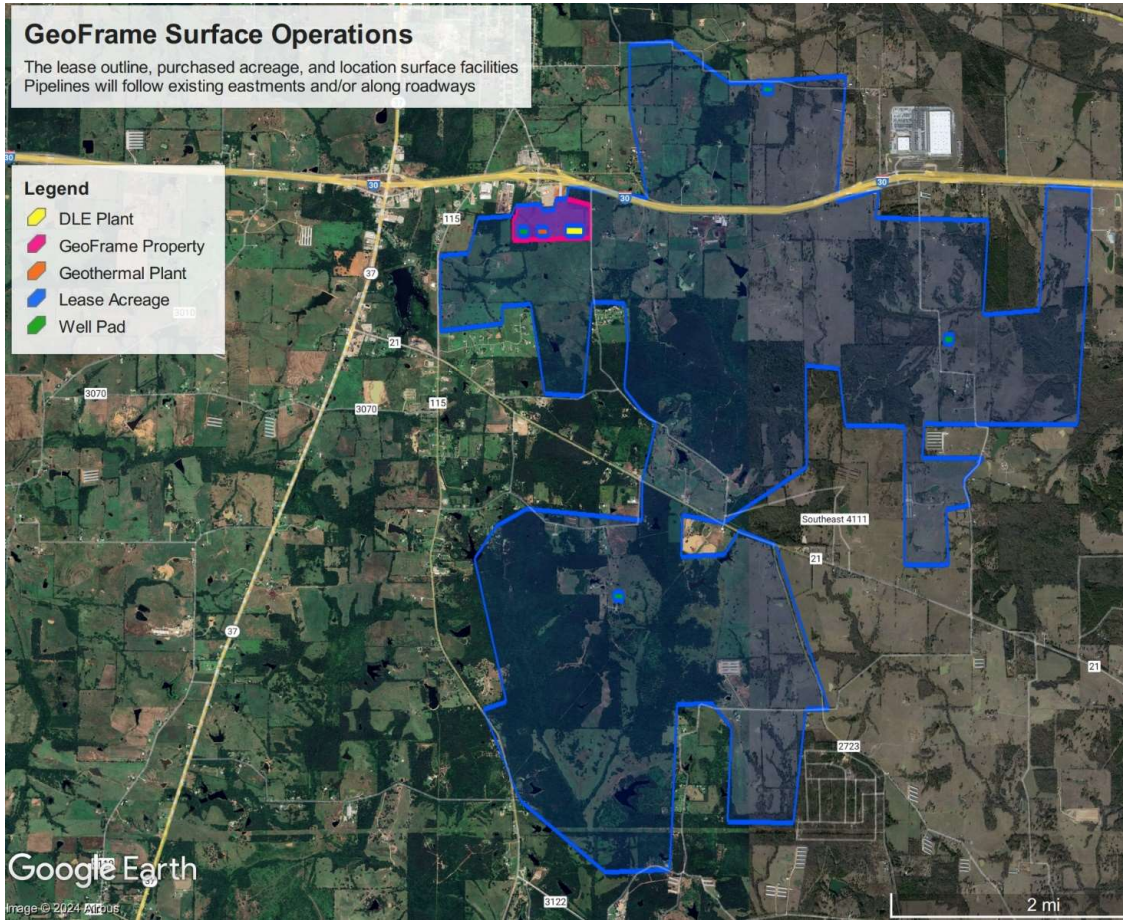
OTHER DLE SYSTEMS ISSUES

absorbents, electrochemical, nano/membrane and ion exchange technologies

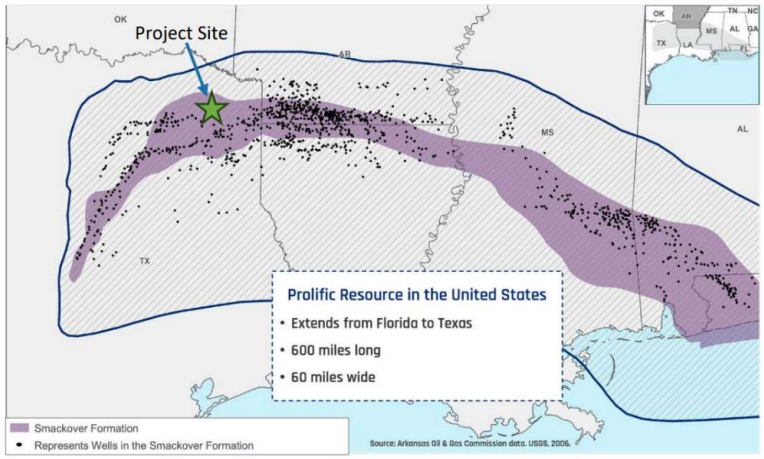
- Multiple phases of treatment – not continuous
- Large amounts of water consumption
- Nano-membranes clog-up with waste ions
- Absorption plates denigrating quickly
- Ion exchange is not selective to remove one ion type
- Electro-membrane still at the concept stage and will probably need additional systems
- Most other DLE need high concentrations of Lithium in brines
- Problems managing high Mg brines or oil contaminated brine or highly acidic
- Extraction system can't be regenerated

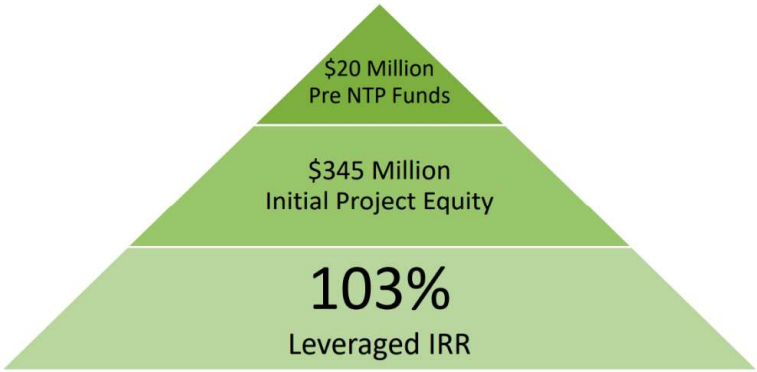
Geoframe Energy – Ekosolve Project – Smackover Formation - Mt Vernon, Texas

- A 3,000 tonne per year Lithium Carbonate demonstration plant will be built on the selected site to access the 7,000 acres of leases.
- 7,000 acre leases signed 6 August 2024
- At current LC prices (75,000 Yuan) revenueon 3,000 tonnes Li2CO3 would be $31m per year.
- Ekosolve plant will process about 150,000L of brine per day at 500ppm Lithium.
- Higher concentrations will produce more product.
- Lithium Carbonate purity will exceed 99.5% priced at battery grade
- The facility will have sufficient space to expand the demonstration plant to house a phase three build 45,000-tonne lithium carbonate plant.
- Electricity from the geothermal plant will power the pumping motors in the plant.
- Potassium of sulphate (SOP) fertilizer product potential by product



GREEN DIRECT LITHIUM EXTRACTION OPPORTUNITY





The Opportunity:

GeoFrame Energy ("GeoFrame" or the "Company") is developing over 7,000 acres of the Smackover Formation in East Texas that contain some of the highest measured concentrations of Lithium from deep oil-field brines in the world. The Company has de-risked this project in terms of reservoir, construction, and technology risks. GeoFrame will drill wells into a brine reservoir with lithium concentrations in excess of 600 ppm and will build a direct lithium extraction ("DLE") facility as well as a geothermal power plant. The DLE plant is powered 100% by the energy produced by the Geothermal plant and excess power will be exported to the grid, thus qualifying the geothermal plant and well fields for ~$150 million of investment tax credits. Upon completion, GeoFrame will ultimately produce over 83,000 metric tons ("mt") of battery-grade lithium carbonate annually

The Company has de-risked this project with proprietary knowledge of the reservoir as well as performance and construction guarantees from industry-leading institutions. Importantly, the technology provider, Ekosolve, will finance and build a ~$21 million DLE demonstration plant on GeoFrame's site which will produce, for sale and testing, up to 3,000 MT annually of battery-grade lithium carbonate.

GeoFrame, funded to date by a combination of family offices and principal funding, is seeking:

- Phase 1: $20 million of capital to fund a production and injection well and geothermal plant to support the demonstration DLE plant, final production plant design and engineering, and lease acquisition expenses and costs
- Phase 2: $250 million of equity, $300 million of debt, and $73 million of investment tax credits which, combined with the demonstration plant, will yield the production of 46,700 mt of battery-grade lithium carbonate
- Phase 3: $440 million of debt (back-leveraged) and $58 million of investment tax credits which will yield the production of an additional 36,800 mt of battery-grade lithium carbonate

GEOFRAME ENERGY GREE LITHI

THE GEOFRAME OPPORTUNITY: PHASES 1 & 2 PROJECTIONS

Demonstration & Production Plant #1 Combined

Projection Model Inputs:	
Combined Flow (bbl/day)	285,000
Lithium Concentration (ppm)	600
Lithium Recovery (Yield)	93%
Metric Tonnes (annual)	46,698
Assumed Li_2CO_3 Price ($/mt)	$15,000

Capital Sources (at Commissioning):	
Term Debt	$300,000,000
Tax Equity	$78,956,047
Project Equity (long-term)	$283,908,556
Total Capital	$662,864,604

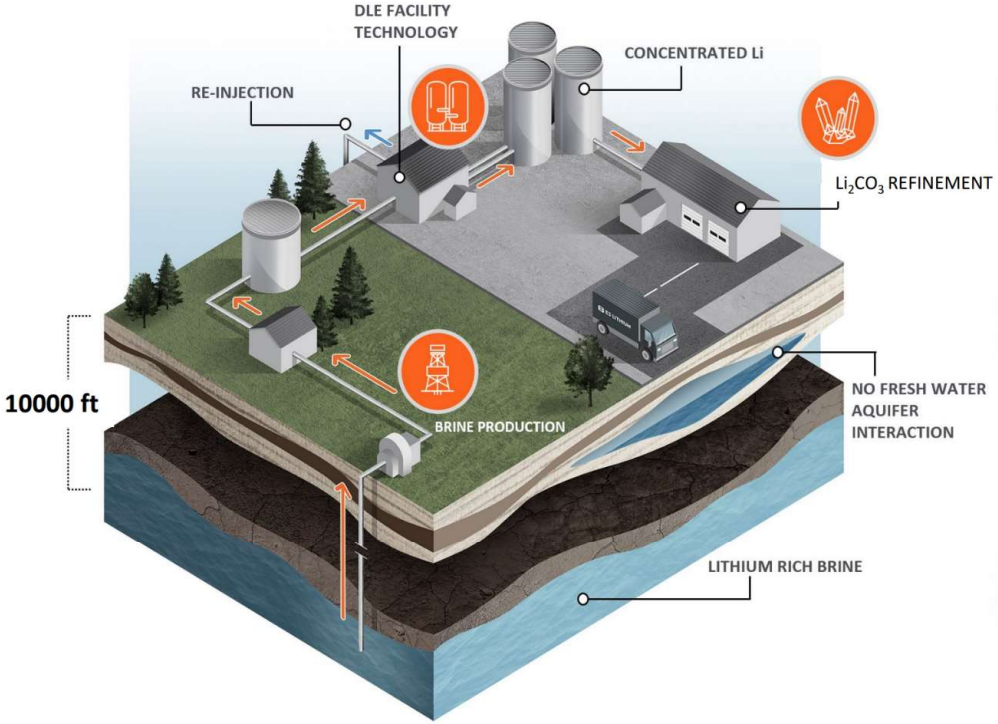
Capital Uses:	
Pre-NTP Development Expenses	$11,600,000
Well Program	$87,264,992
Gas Separation Facilities (at well pads)	$1,305,000
Geothermal Plant	$70,396,395
DLE Plant Budget	$434,836,500
Other Costs (Includes Construction Loan Interest)	$57,461,717
Total Capital Required	**$662,864,604**

Demonstration Plant on-line May 2025

Production Plant on-line January 2027

Stabilized combined EBITDA = $488,905,309

DIRECT LITHIUM EXTRACTION BY EKOSOLVE



3-Dimensional depiction of a typical Solvent Extraction plant

Lithium-rich brine production

- Production of brine from the Smackover Formation
- Lithium concentration of > 600 ppm
- Producing 510,000 bbl of brine per day
- Closed loop system: 100 % re-injection of brine injected into an isolated shallower formation – no emissions

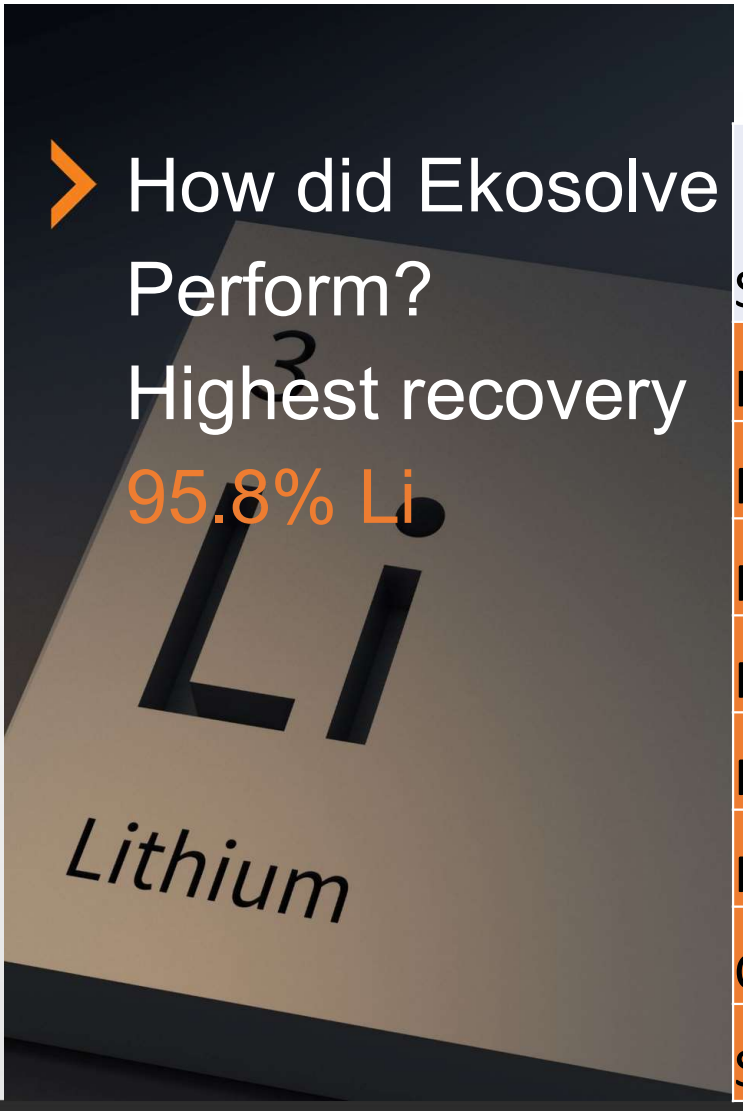
DLE Solvent Exchange Technology

- Greater than 93 % recovery of Lithium
- One plant to produce over 83,000 mt of 99.5 % pure battery-grade Lithium Carbonate (Li_2Co_3)
- Environmentally friendly and low operation costs with 98.8 % of solvents and reagents recovered and reused
- Well-established underlying technology to DLE 1953 (REE, 1953)

Li_2CO_3 Production

- Refinement of the Lithium-rich brine into the most stable Lithium carbonate for direct sale to battery manufacturers
- Small plant footprint of less than 10 acres (400,000 sq ft)
- Brine temperatures of 275° F, and produced volumes will support geothermal power generation of 30MW

GEOFRAME ENERGY | GREEN LITHIUM



How did Ekosolve Perform?

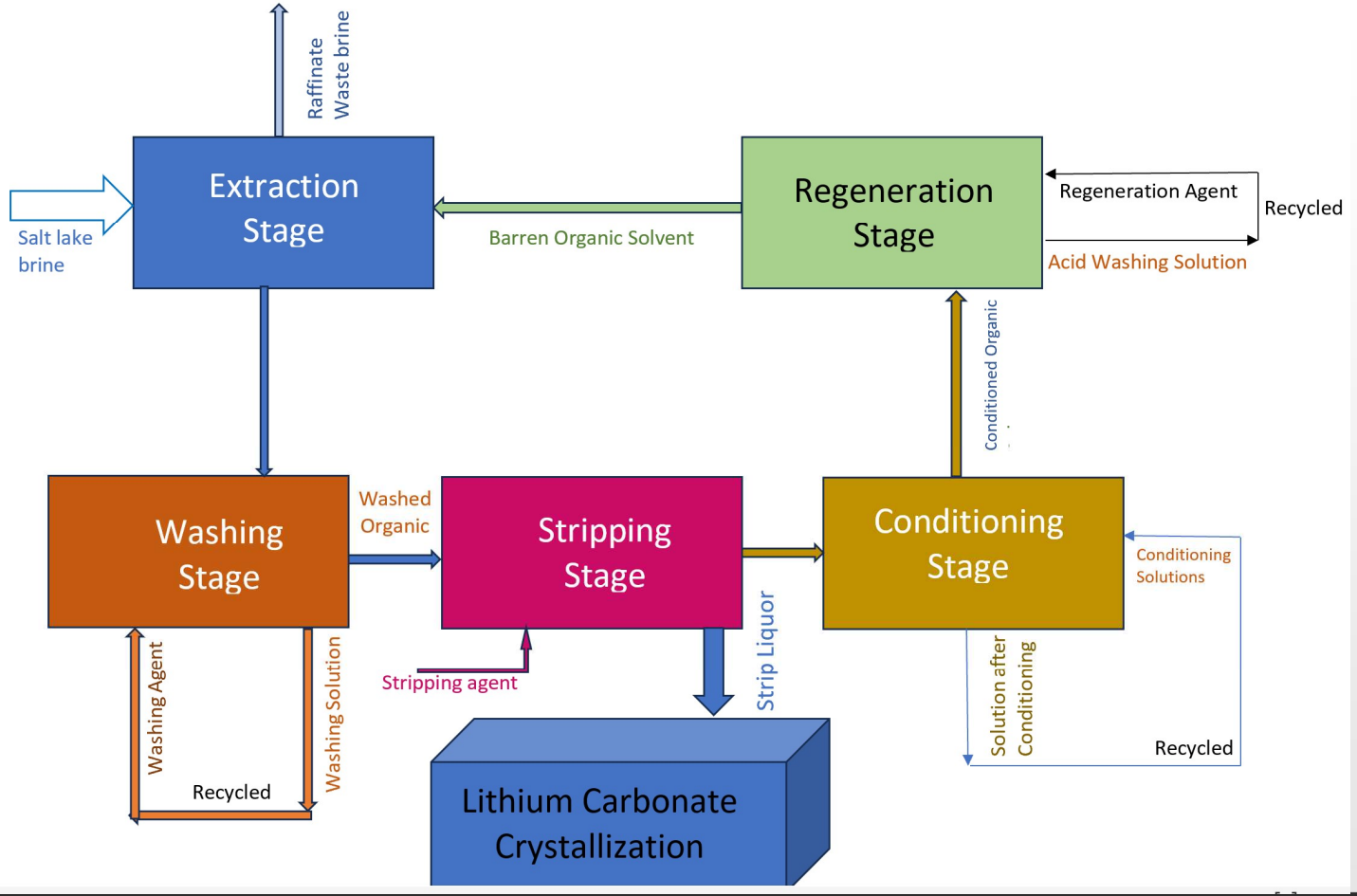
Highest recovery

95.8% Li

Ekosolve Pilot Plant Results To-date

Salar/Location	Lithium content test concentration ppm	% extraction efficiency
Incahuasi	140.2	93.1
Pocitos A	86.0	94.9
Pocitos B	95.3	95.8
Rincon	195.0	92.0
Pozuelos	401.0	93.1
Formentera	266.8	92.1
Calgary Petrobrine	57.0	91.0
Stress test	37.0	91.8

FLOW CHART EKOSOLVE PROCESS



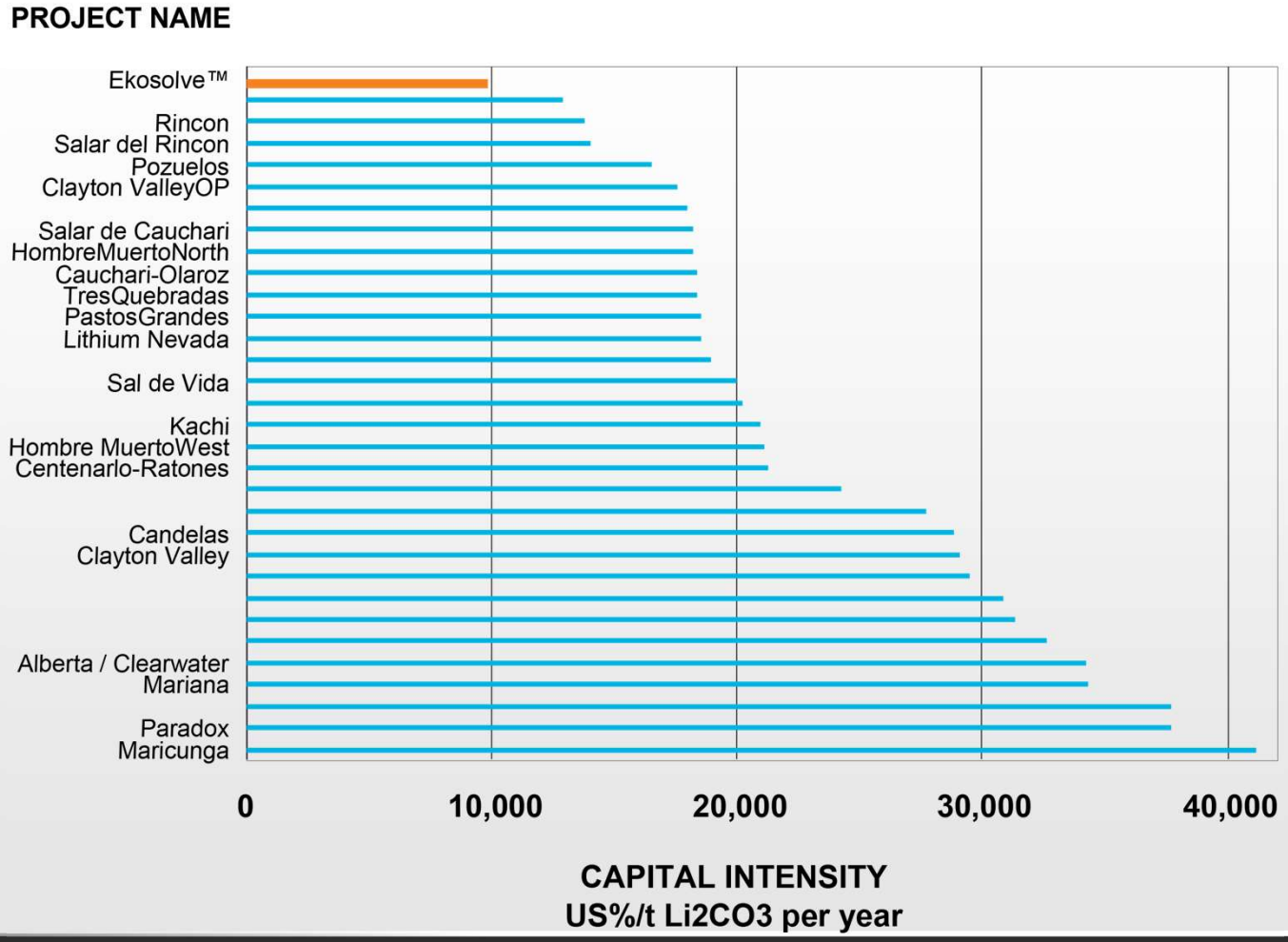
EkoSolve™

EKOSOLVE CAPITAL INTENSITY

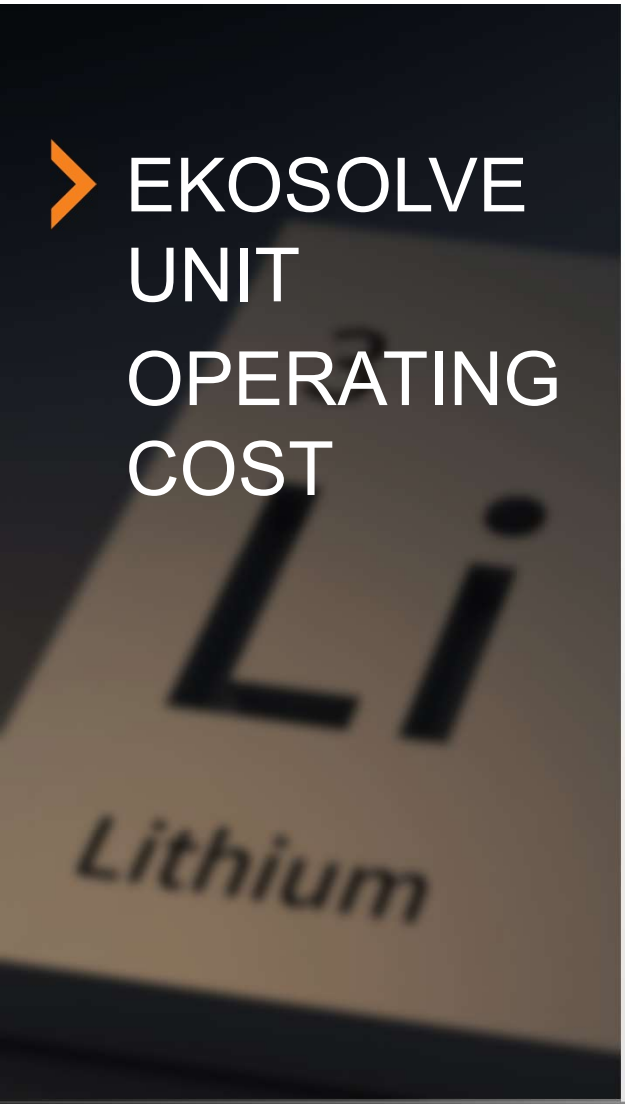
With a Capital Intensity of US$ 9,855 per metric tone of Li_2CO_3 produced annually, EKOSOLVE compares well with the capital intensity of other proposed brine projects.

Even at its maximum estimated Capital Intensity of US$13,500, EKOSOLVE is still positioned as one of the lowest investments required to develop a Li-rich brine project.

Capital Intensity of Proposed Li-rich brines projects



EkoSolve™



EKOSOLVE UNIT OPERATING COST

The **EkoSolve** operating costs can be estimated at US$2,710 per ton of battery-grade of Lithium Carbonate produced.

The opex has been averaged over ten years; that is to say, it includes commissioning expenses.

This opex does not include the amortization of the plant capital costs or its maintenance.

Operating costs amortized over 10 years of production, US$/t

	Low	Estimated	High
Reagents	1750	2060	2820
Fuels and Energy	460	540	740
Labour	90	110	150
Operating Costs total	**2300**	**2710**	**3710**

Lithium Carbonate Price

Lithium is expected to trade higher than 70,881CNY/T (USD$9,955) by the end of this quarter, according to Trading Economics global macro models and analysts expectations.

Source:Trading Economics 23 October 2024 www.tradingeconomics.com


EkoSolve™
For an application form, and a sophisticated investor declaration
Please go to the website www.Ekosolve.com.au and the share sale tab and download the relevant forms for your location.
Otherwise please contact
Phil Thomas – phil@ekosolve.com.au
+61 433 747 380
3
Li
Lithium
www.Ekosolve.com.au