Lithium Power International

Valuation update

Lithium price upgrade calls for higher valuation

Metals and mining

We have raised our near-term lithium price expectations to reflect the current supply/demand cycle and upgraded our long-run (post 2031) price forecasts (from US$17,000/t to US$22,500/t LCE) to reflect lithium's high demand growth and highly concentrated supply fundamentals. On the back of this, our valuation of Lithium Power International (LPI) has increased from A$1.24/share to A$1.42/share assuming the full project equity dilution. We have also updated our model to reflect 100% consolidation of the Maricunga project as well as LPI's (now somewhat more dilutive) lower share price.

Year end	Revenue (A$m)	PBT* (A$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
06/20	0.0	(12.7)	(4.9)	0.0	N/A	N/A
06/21	0.0	(6.0)	(2.2)	0.0	N/A	N/A
06/22	0.0	(12.6)	(3.8)	0.0	N/A	N/A
06/23e	0.0	(2.7)	(0.6)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

Strong long-term lithium demand fundamentals

Lithium is a solid long-term structural growth story, reflecting its use in electric vehicle (EV) batteries and other energy storage applications linked to grid decarbonisation. We see demand growing at a 20.3% CAGR from 2022 to 2030, which is exceptionally high in commodity and chemical markets. Our estimates point to lithium demand in 2030 of approximately 3Mt, broadly in line with industry and International Energy Agency projections and 4–5x current levels. At a typical capital intensity of US$25,000/t (according to our review of public project plans), we estimate that the 2.1Mtpa of additional industry capacity by 2030 will require US$52.5bn of investment. This is both a financing and a technical challenge in this timeframe. Supply chain security and the decarbonisation of critical minerals supply chains mean a wide variety of new entrants will be needed.

Maricunga update: Water rights acquisition

LPI has recently announced that it completed an acquisition of the water rights for the Maricunga project. This replaces a long-term lease that the company held for part of its water requirements and will secure water supply for both Stage 1 (15.2ktpa lithium carbonate) and any future expansions. LPI estimates the initial stage of the project will only require eight litres/second of water compared to the 62 litres/second rights acquired by the company.

Valuation: Up on higher lithium prices

Our valuation of LPI increases from A$1.24/share to A$1.42/share on the back of the higher lithium prices, which were partly offset by the lower share price (A$0.50 vs A$0.71) and the associated higher project equity dilution. Our underlying project assumptions remain largely unchanged and are based on Maricunga's 2022 DFS. We now assume 100% consolidation of the project ownership by LPI and have also updated our model for the latest financial results. Despite the current backdrop of slower global growth and somewhat weaker lithium prices, lithium supply/demand fundamentals remain favourable, and the sector retains its attractive long-term growth potential.

8 February 2023

Price	**A$0.4**
Market cap	**A$252m**
	US$:A$1.44
Net cash (A$m) at end December 2022	20.0
Shares in issue	629.1m
Free float	100%
Code	LPI
Primary exchange	ASX
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	(6.7)	(27.8)	(38.5)
Rel (local)	(11.6)	(33.3)	(40.9)
52-week high/low		A$0.98	A$0.36

Business description

Lithium Power International's main asset is its 100% interest in the Maricunga lithium brine project in Chile. Subject to securing a funding package, the first stage of the project is expected to produce 15.2ktpa of high-grade lithium carbonate, starting from 2026. It also owns two early-stage exploration lithium projects in Western Australia, which it plans to demerge in Q1 CY23.

Next events

Australian lithium assets spin-off	Q1 CY23

Analysts

Andrey Litvin +44 (0)20 3077 5700

Andrew Keen +44 (0)20 3077 5700

mining@edisongroup.com

Edison profile page

Lithium Power International is a research client of Edison Investment Research Limited

Lithium price upgrade: Structurally tight market

Edison has recently published a thematic report on the lithium sector that looks at the industry supply/demand fundamentals, brine/hard rock project economics as well as the short- and long-term lithium price dynamics. Key conclusions from our report are as follows:

- We raised our long-run prices from US$17,000/t to US$22,500/t lithium carbonate equivalent (LCE) to reflect the significant need for additional production capacity in the late 2020s. This is well below spot (c US$70,000/t), but we do not expect prices to move towards long-term pricing until post 2030 and also question if traditional long-term pricing methodology works well in high-growth industries. We argue that a significant premium to a traditional incentive price is required because of rapid demand growth (c 20% CAGR 2022–30, which is unusually high and probably unprecedented for a commodity industry). A multiple of traditional incentive prices is also not unprecedented in highly concentrated industries (iron ore has traded at approximately double incentive prices for large incumbent producers for the past decade and copper trades at 3–4x what were thought of as incentive prices as recently as the mid-2000s).
- Our demand analysis indicated lithium demand growing at a 20% CAGR through to 2030, boosting demand to 3Mt by 2030, up 4–5x from current levels.
- We raised our short-term price forecasts to reflect recent price moves, and acknowledge near-term uncertainty. We project a potential supply/demand surplus on an unrisked basis in 2023, but a more balanced market once potential risks are incorporated (including technical risks, commissioning risks and other general delays). Short-term price momentum may dominate sentiment, but the longer-term need for additional capital spending is the core theme underlying lithium for the 2020s.

Our updated lithium price deck is shown in Exhibit 1.

Exhibit 1: Edison contract lithium price expectations, US$/tonne

	2022	2023e	2024e	2025e	2026e	2027e	Long term
Lithium hydroxide	63,500	56,000	56,000	51,000	46,000	40,000	23,500
Lithium carbonate	62,000	55,000	55,000	50,000	45,000	39,000	22,500

Source: Edison Investment Research

LPI valuation update

We have updated our valuation of LPI on the back of our higher lithium price forecasts, which was partly offset by the assumed lower share price used in our project equity dilution. As a result, our valuation of LPI has increased from A$1.24/share to A$1.42/share on a fully equity diluted basis assuming a current share price of A$0.50/share and our standard mining sector discount rate of 10%. At our previous share price assumption of A$0.71/share, our valuation of LPI would be A$1.67/share. We maintain all our underlying project assumptions bar one: we now assume that the construction of the project will start in CY24 (versus CY23 before). We note that Maricunga is at final investment decision (FID) stage and await more news from the company on the potential development routes and timelines. We have also updated our model to reflect the project's full consolidation by LPI. Our valuation excludes the value of LPI's West Australian hard rock lithium assets, which are early stage and which we previously valued at A$0.19/share based on an EV/resources multiple. We understand that the company is still looking to spin off these assets in Q1 CY23, which we believe should crystallise additional value for LPI shareholders.

Exhibit 2: LPI valuation summary

	Units		Value
Maricunga sum of DFCF	**US$m**		**1,256**
US$/A$ exchange rate	x		1.44
Maricunga sum of DFCF	**A$m**		**1,808**
Less FV of corporate overheads	A$m		14.8
Add net cash (December 2022)	A$m		20.0
Estimated equity value	**A$m**		**1,813**
Current number of shares	m		629.1
Current share price	A$		0.5
Project equity to be raised	A$m		324.6
New shares to be issued	m		649.2
Total number of shares including project equity funding	m		1,278
Diluted value per share	**A$**		**1.42**

Source: Edison Investment Research

Exhibit 3: Lithium carbonate prices used in the LPI valuation, US$/tonne

	2024	2025	2026	2027	2028	2029	2030	2031	Long-term
Updated forecast	55,000	50,000	45,000	39,000	34,000	29,000	24,000	22,500	22,500
Previous forecast	24,000	24,000	24,000	21,000	19,000	17,000	17,000	17,000	17,000

Source: Edison Investment Research

To recap, our valuation of LPI is based on the assumption of 60/40% debt/equity split. We assume that equity (US$225m) is raised at the current share price. Our model uses underlying project assumptions from the definitive feasibility study (DFS) published in January 2022. In particular, we assume development capex of US$564m and a direct cash cost of US$3,772/tonne of LCE. We note that while the project's capital intensity came in at a relatively high level of c US$37,000/t LCE in early 2022, the recent opex and capex pressures and a number of capital cost overruns from LPI's peers demonstrate that the company was relatively conservative and prudent in its project cost assumptions.

Exhibit 4: Financial summary

A$'000s	2020	2021	2022	2023e
Year end June	IFRS	IFRS	IFRS	IFRS
INCOME STATEMENT				
Revenue	0.0	0.0	0.0	0.0
Operating costs	(2,942.3)	(2,448.0)	(3,014.9)	(2,700.0)
EBIT from continuing operations	(2,942.3)	(2,448.0)	(3,014.9)	(2,700.0)
Share of JV losses/profits	(3,786.9)	(1,967.3)	(2,731.9)	0.0
Net financing costs	183.6	8.2	(3.2)	0.0
Forex	(6,203.2)	(1,573.2)	(6,894.9)	0.0
Profit Before Tax (norm)	(12,748.8)	(5,980.3)	(12,644.9)	(2,700.0)
Tax	0.0	0.0	0.0	0.0
Profit After Tax	(12,748.8)	(5,980.3)	(12,644.9)	(2,700.0)
Minority interests	(95.7)	(57.3)	350.9	0.0
Discontinued operations	(319.2)	(191.1)	108.6	0.0
Net income	(12,972.2)	(6,114.1)	(12,887.1)	(2,700.0)
Average Number of Shares Outstanding (m)	263	283	342	489
EPS - normalised (c)	(4.94)	(2.16)	(3.77)	(0.55)
Dividend (c)	0.00	0.00	0.00	0.00
Revenue growth (%)	N/A	N/A	N/A	N/A
Gross Margin (%)	N/A	N/A	N/A	N/A
EBITDA Margin (%)	N/A	N/A	N/A	N/A
Normalised Operating Margin	N/A	N/A	N/A	N/A
BALANCE SHEET				
Fixed Assets	29,300.8	32,696.3	30,385.2	213,020.0
Equity investments	25,074.9	28,594.9	30,379.0	0.0
PP&E	26.4	24.2	6.2	212,770.0*
Exploration assets	4,199.4	4,077.2	0.0	250.0
Current Assets	7,391.8	6,802.0	12,279.0	19,791.2
Cash	7,141.6	6,280.7	6,428.9	13,941.0
Receivables	74.7	16.3	138.7	138.7
Other	175.5	188.4	1,125.7	1,125.7
Assets held for sale	0.0	316.7	4,585.7	4,585.7
Current Liabilities	(336.0)	(359.1)	(724.7)	(724.7)
Creditors	(293.8)	(322.2)	(666.4)	(666.4)
Short term borrowings and leases	(42.2)	(36.9)	(58.3)	(58.3)
Long Term Liabilities	0.0	0.0	0.0	0.0
Debt	0.0	0.0	0.0	0.0
Net Assets	36,356.5	39,139.3	41,939.5	232,086.4
Minority interests	(187.1)	(183.0)	0.0	0.0
Shareholders' equity	36,543.6	39,322.3	41,939.5	232,086.4
CASH FLOW				
Operating Cash Flow	(13,067.9)	(6,171.4)	(12,536.3)	(2,700.0)
JV contribution	3,786.9	1,967.3	2,731.9	0.0
Forex	6,503.3	1,479.6	7,606.2	0.0
Other	853.5	382.2	(1,388.3)	0.0
Net operating cash flow	(1,924.3)	(2,342.4)	(3,586.5)	(2,700.0)
Project capex	(5,173.5)	(6,524.7)	(8,361.0)	(13,000.0)
Exploration	(1,202.2)	(205.8)	(738.1)	(250.0)
Equity financing	100.0	7,789.6	11,989.5	23,462.0
Other	0.0	452.6	882.9	0.0
Net Cash Flow	(8,199.9)	(830.7)	186.7	7,512.0
Opening net debt/(cash)	(15,341.5)	(7,141.6)	(6,280.7)	(6,428.9)
FX and other	0.0	(30.2)	(38.5)	0.0
Closing net debt/(cash)	(7,141.6)	(6,280.7)	(6,428.9)	(13,940.9)

Source: Lithium Power International, Edison Investment Research. Note: *The increase in PP&E is mainly due to the expected consolidation of 100% ownership of the Maricunga project.

General disclaimer and copyright

This report has been commissioned by Lithium Power International and prepared and issued by Edison, in consideration of a fee payable by Lithium Power International. Edison Investment Research standard fees are £60,000 pa for the production and broad dissemination of a detailed note (Outlook) following by regular (typically quarterly) update notes. Fees are paid upfront in cash without recourse. Edison may seek additional fees for the provision of roadshows and related IR services for the client but does not get remunerated for any investment banking services. We never take payment in stock, options or warrants for any of our services.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently verified. Opinions contained in this report represent those of the research department of Edison at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

Exclusion of Liability: To the fullest extent allowed by law, Edison shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out or in connection with the access to, use of or reliance on any information contained on this note.

No personalised advice: The information that we provide should not be construed in any manner whatsoever as, personalised advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Edison's solicitation to effect, or attempt to effect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

Investment in securities mentioned: Edison has a restrictive policy relating to personal dealing and conflicts of interest. Edison Group does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Edison may have a position in any or related securities mentioned in this report, subject to Edison's policies on personal dealing and conflicts of interest.

Australia

Edison Investment Research Pty Ltd (Edison AU) is the Australian subsidiary of Edison. Edison AU is a Corporate Authorised Representative (1252501) of Crown Wealth Group Pty Ltd who holds an Australian Financial Services Licence (Number: 494274). This research is issued in Australia by Edison AU and any access to it, is intended only for 'wholesale clients' within the meaning of the Corporations Act 2001 of Australia. Any advice given by Edison AU is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a particular financial product you should read any relevant Product Disclosure Statement or like instrument.

New Zealand

The research in this document is intended for New Zealand resident professional financial advisers or brokers (for use in their roles as financial advisers or brokers) and habitual investors who are 'wholesale clients' for the purpose of the Financial Advisers Act 2008 (FAA) (as described in sections 5(c) (1)(a), (b) and (c) of the FAA). This is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a 'personalised service' and, to the extent that it contains any financial advice, is intended only as a 'class service' provided by Edison within the meaning of the FAA (i.e. without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision.

United Kingdom

This document is prepared and provided by Edison for information purposes only and should not be construed as an offer or solicitation for investment in any securities mentioned or in the topic of this document. A marketing communication under FCA Rules, this document has not been prepared in accordance with the legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research.

This Communication is being distributed in the United Kingdom and is directed only at (i) persons having professional experience in matters relating to investments, i.e. investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the 'FPO') (ii) high net-worth companies, unincorporated associations or other bodies within the meaning of Article 49 of the FPO and (iii) persons to whom it is otherwise lawful to distribute it. The investment or investment activity to which this document relates is available only to such persons. It is not intended that this document be distributed or passed on, directly or indirectly, to any other class of persons and in any event and under no circumstances should persons of any other description rely on or act upon the contents of this document.

This Communication is being supplied to you solely for your information and may not be reproduced by, further distributed to or published in whole or in part by, any other person.

United States

Edison relies upon the 'publishers' exclusion' from the definition of investment adviser under Section 202(a)(11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Edison does not offer or provide personal advice and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell or hold that or any security, or that any particular security, portfolio of securities, transaction or investment strategy is suitable for any specific person.

Frankfurt +49 (0)69 78 8076 960
Schumannstrasse 34b
60325 Frankfurt
Germany

London +44 (0)20 3077 5700
280 High Holborn
London, WC1V 7EE
United Kingdom

New York +1 646 653 7026
1185 Avenue of the Americas
3rd Floor, New York, NY 10036
United States of America

Sydney +61 (0)2 8249 8342
Level 4, Office 1205
95 Pitt Street, Sydney
NSW 2000, Australia