Sustainable Lithium A New Path for Lithium in Chile

Company Presentation – September 2022

CleanTech Lithium

Investment Highlights

Sustainable Lithium for the EV Revolution





Highly prospective assets, near-term production potential



Utilising direct lithium extraction to **vastly reduce the environmental impact** of lithium production in Chile



Utilising renewable energy to produce **low or zero emissions lithium, a critical advantage** in the fast growing EU market



Attractive entry point and valuation to listed peers Offtake partner opportunity



Proven management team in the Chilean mining & renewable energy sectors and strong financial markets experience



New Chilean government strongly supports new private sector lithium producers with green credentials

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Snapshot

- Lithium demand to increase 20x this decade, majority of supply is from hard rock mines - carbon intensive and not environmentally friendly
- CleanTech is creating a new path for lithium in Chile based on a low impact, sustainable method of extraction
- Three highly strategic lithium projects in Chile, total licence area of >500 km²

Project Name	Licence Area	Resource Estimate (JORC)
#1 Laguna Verde	67 km²	1.51 million tons at 206 mg/L Lithium 53% 803.000 tons Measured + Indicated
#2 Francisco Basin	110 km²	ТВС
#3 Llamara	344 km²	Greenfield exploration

- Resource estimates have large upside, Laguna Verde upgrade (12.09.22) meant 25% up in total resources from 1.2 to 1.5. Francisco Basin upgrade by 4Q 2022
- Dominant license position at Laguna Verde and Francisco Basin, no competing lithium projects in these basins. No indigenous communities.
- Experienced board and management, with experience that includes developing major new mines in Chile
- Jersey registered company with offices in the London, Santiago and Jersey
- Listed on AIM March 2022 raised total £9.6m in pre-IPO and IPO funds
- Well funded for continued growth





Laguna Verde

Legend Paved Highway Chile - Argentina Border



CleanTech Lithium Board & Management



STEVE KESLER Non-Executive Chairman

45 years of executive and board roles in the mining sector across all major capital markets including AIM. Direct lithium experience as CEO/Director of European Lithium and Chile experience with Escondida and as the first CEO of Collahuasi



ALDO BOITANO Chief Executive Officer

Co-founder of CleanTech Lithium, 25 years of management roles in the US & board member of the Chile, International Leadership Association. Pioneer in Chile's solar industry with >800MW of projects deployed



Jonathan Morley-Kirk Non-Executive Director

30 years of experience including 17 years in Non-Executive Director roles with expertise in financial controls, audit, remuneration, capital raisings, taxation/ structuring and risk management



SERGIO VIDELA Chief Operating Officer, Chile

32 years of experience in development and execution of projects in the mining industry. Former Projects Director at Codelco in design, procurement, construction and start up of process plants.

Senior Management



IASON BAVERSTOCK Executive Strategy & Development

Co-founder of CleanTech Lithium, 20 years finance and mining sector experience in China, HK & Australia. Founder of Salt Lake Potash, which grew from A\$10m to >A\$200m during directorship period to 2017



MARCELO BRAVO Ad-Infintum

One of the worlds leading lithium Provides engineering services for processing experts. Former head of applying DLE technology for processing at SQM's Atacama lithium producers. emerging project, the worlds largest lithium Formerly Senior Operations production base Engineer with SQM in Chile



Gordon Stein Chief Financial Officer

Commercial CFO with over 30 years expertise in the energy, natural resources and other sectors in both executive and non-executive director roles. A chartered accountant, has worked with start-ups to major companies, including board roles of six LSE companies

Technical Advisory Board



PEDRO TORRES Beyond Lithium

Low Emissions Lithium For The EU Market

- Europe is the key growth market for lithium with demand forecast to increase 20X this decade
 - The EU recently announced strict CO2 footprint limits on the Li-ion battery supply chain
- Lithium production from hard rock mines and evaporation pond operations generate high emissions: estimated 5 15 tonnes CO2 per tonne of lithium
 - <u>Cleantech Lithium's strategy to integrate renewable energy with DLE unlocks a path to zero emissions, a critical advantage for the EU market</u>



European LI-ion Battery Cell Forecast

Source: Benchmark Minerals



Source (for Hard Rock and Brine): Minviro Study



Lithium Production CO2 Tonne/Lithium



Chile: Highly Supportive of Sustainable Extraction

- Chile has the highest investment grade rating in Latin America (S&P A, Moody's A1)
- Similar mining law to other prominent mining jurisdictions (Australia & Canada)
- Centre-left government strong emphasis on lowering the environmental impact and cutting the CO2 emissions of mining
- Positive feedback from authorities for our plans for direct lithium extraction and renewable energy based processing
- Government has stated support for a national lithium mining company, this would compete with the private sector similar to state owned Codelco in Copper
- CleanTech Lithium's DLE and renewable energy based processing plan fits perfectly with the Government's agenda for the lithium industry



#1 Current Lithium Production in Chile: Large Evaporation Ponds (~50km²)





Source: United States Geological Survey, McKinsey & Company article, 25 May 2022



Direct Lithium Extraction



Direct Lithium Extraction

Low Impact and Sustainable

Deploying direct lithium extraction (DLE) technology, a revolution in sustainability for lithium extraction

- Brine is pumped to processing unit, resin used to extract only lithium, spent brine re-injected
- No evaporation ponds, no aquifer depletion





DLE from Pilot to Commercial Scale

- June 2022: Completed trial on 2000L sample of Laguna Verde brine to produce 1kg of battery grade (>99.5% Li₂CO₃) lithium
- Independent lab Dorfner Anzaplan (Germany) confirmed the sample achieved 99.9% Li₂CO₃ with very low impurities
- August 2022: Signed MOU with SunResin, the world leader in commercial scale DLE plants (9 plants, total capacity 73,000 tpa lithium)
- Pilot scale test-work and negotiation of commercial terms
- SunResin currently deploying the DLE plant to Salar Diablilos project in Argentina, 250km north-east of Laguna Verde:
 - first phase 25,000 tpa production, production to start 1H 2023
 - contract signed February 2022, plant to be delivered by the end of 2022
 - total planned capacity 50,000 tpa, total project Capex of US\$700m •
- CleanTech aims to achieve commercial scale construction and production in 2024/2025









DLE Proven Technology

_		Producers													
Company	CleanTech Lithium	Livent	Lanke Lithium	Zangge Lithium	Jintai Lithium	Eramet/ Qingshan	Standard Lithium	Vulcan Energy	Rio Tinto	CTR	Energy Source Minerals	Berkshire Hathaway	Lake Resources/ Lilac	Compass Minerals	E3 Metals
Asset name	L. Verde / Francisco Basin	Hombre	Qinghai	Qinghai	Qinghai	Centenario- Ratones	Smackover	Zero Carbon Lithium™	Rincon	Hell's Kitchen	ATLiS	Salton Sea	Kachi	Great Salt Lake	Clearwater Lithium
Country	×	۲	*0	*)	*)	0			۲				0		*
DLE provider	SunResin/ Proprietary	Proprietary	SunResin	SunResin	SunResin	Proprietary	Proprietary	N/A	Axion	Lilac	Proprietary	Proprietary	Lilac	N/A	Proprietary
Stage	Pilot	Production	Production	Production	Production	Construction	Demo	Pilot	Pilot	Offsite pilot	Pilot	Pilot	Offsite pilot	Pilot	Pilot
Resource (Mt LCE)	1.2	N/A	N/A	N/A	N/A	10	3	16	12	3	N/A	N/A	4	2	7
Lithium Grade (mg/L)	246-305	N/A	N/A	50 - 60	N/A	436	168	181	397	181	N/A	N/A	211	60	75
Geothermal	\checkmark	\times	\times	\times	\times	X	\times	\checkmark	\times	\checkmark	\checkmark	\checkmark	\times	\times	\times
Start date	2025	1998	2017	2018	2019	2024	tbc	2024	2025	2024	2024	tbc	2024	tbc	2025
Capacity (ktpa LCE)	40	20	20	20	7	24	21	40	50	20	20	90	25	20-25	20
Valuation (US\$'m) \$57	\$5,489	N/A	N/A	N/A	N/A	\$1,047	\$805	N/A	N/A	N/A	N/A	\$1,155	\$1,496	\$109



Projects



(#1) Laguna Verde

- Laguna Verde is a steep valley shaped basin, rimmed by volcanos
- Mining Licences (orange outline in map) are held via an Option Agreement, other licenses directly held. Gaps in licence area have been applied for
- Current JORC compliant resource estimate of 1.51 million tons lithium. 53% of the resource now in the Measured and Indicated category (0.803 million tonnes LCE).
 Further resource upgrade in Q4 2022
- A resource drill programme comprising four holes undertaken in Q1 & Q2 2022 to updgrade to Measured + Indicated
- Drill holes encountered thicker aquifer than modelled for Inferred resource, with higher grades at depth (up to 409mg/L in deepest samples)
- Strong geothermal influence on brines, average 20–30°C, matches the ideal temperature range for DLE process (significant potential opex saving)
- Scoping study underway, PFS planned to commence in 2H 2022The PFS is expected to evaluate a base case production rate of 20,000 tonnes per annum of battery grade lithium, with the resource of 1.51 million tonnes LCE providing the basis for a >30-year operation.

Holes Drilled	Drilling Depth	Brine Aquifer Thickness
LV01	474m	348m (+98%) *
LV02	339m	282m (+38%) *
LV03	547m	380m (+37%) *









- New lithium discovery August 2022, no previous lithium exploration drill hole completed in basin
- Hole FB01 completed encountering an aquifer from 99m to 303m, total of 34 brine samples collected from aquifer zone, average lithium grade of 305mg/L
- JORC compliant Inferred resource estimate based on FB01 results is imminent, expected to add significantly to our resource base
- Further three drill holes planned post the Chilean winter break from October, FB02 already drilled to 105m
- Planning to upgrade resource estimate to Measured + Indicated by end 2022
- Drilling is wide diameter cased bores, convertible to production bores in a commercial operation
- Scoping study to commence Q4 2022, pre-feasibility study planned for H1 2023
- Environmental Impact Statement baseline studies underway

Holes Drilled	Drilling Depth	Brine Aquifer Thickness
FB01	338m	204m
FB02	150m **	Well suspended until Q4











• Greenfields lithium project in the Pampa del Tamarugal basin, one of the largest basins in the lithium triangle and not previously drilled for lithium

Lithium Triangle Basin	Company	Basin Area (km²)
Atacama	SQM / Abarmale	18,100
Hombre Muerto	Livent	4,000
Pampa del Tamarugal	CleanTech	17,150

- Historical surface sampling within basin: salt crusts up to 3,100ppm Li, hectorite deposits up to 2,400ppm Li. These evaporite deposits indicate lithium prospectivity of basin brines
- Historial geophysics lines intersecting license area indicate very large hypersaline aquifer



• Exploration drill hole planned in Q4 2022





LINE 45 ElectroMagnetic Profile



Powered by Clean Energy from existing grid

- The Central Chile Power Grid has one of the highest renewable energy contents of any national power grid in the world
- Numerous renewable energy providers supply the grid up and down the length of Chile:
 - Solar plants in the Atacama region
 - Hydropower in southern Chile
 - Solar (PV and thermal), wind and geothermal power in northern Chile
- Sub-stations which connect to the grid are located in close proximity: 52km and 5km from Laguna Verde and Francisco Basin respectively
- <u>CleanTech Lithim plans to lock in a 100% renewable energy PPA</u>
- The grid operator and PPA supplier would ensure 24/7 year round renewable energy supply

Chile's world leading renewable energy grid and the projects infrastructure advantage provide a ready made solution for CleanTech's clean energy processing plan





Laguna Verde: **Process Water Supply**

Existing water bores drilled within basin provide sufficient process water supply for DLE operation



Francisco Basin: **Process Water Supply**

Existing water bores drilled within basin also provide sufficient process water supply for DLE operation





Next 12 Months: **Catalyst Events**

- Maiden resource estimate at Francisco Basin September/October 2022
- Revision to resource estimate at Laguna Verde based on additional sampling and granting of licences – Q4 2022
- Commencement of DLE pilot plant construction Q3 2022
- Laguna Verde Scoping Study Q3 2022
- Francisco Basin Scoping Study Q4 2022
- Further resource upgrades from 2nd drilling campaigns at Laguna Verde and Francisco Basin – Q1 2023
- Commencement of DLE pilot plant production to produce 1-2 tonnes of battery grade lithium per month - Q1/Q2 2023
- Potential strategic partner announcement offtake and other late 2022 / 1H 2023?



Laguna Verde project looking east 12 10 10 DLE test-work on Laguna Verde brine



CleanTech Lithium Investor Deck 2022



CleanTech Lithium -Key Data

Market listing: AIM	Ticker: CTL	Market cap: £48.68M	Share
Funds raised IPO: £5.6M	Shares in issue: 79,033,242	Research: Fox Davies	Price

Gaius King, Research Analyst at Fox Davies' view:

"We strongly believe CTL is the most attractive non-traditional lithium play globally."

Directors and Significant Shareholders:

Percentage not in public hands 33.91%

Investor	Holding
Jason Baverstock	12.65%
Aldo Boitano	11.89%
*Regal Emerging Companies Opportunities Fund and Regal Emerging Companies Funds 111	9.32%
Timothy Grahame Leslie (Tim Leslie)	8.44%
Luke Jarvis	5.06%
Argonaut Investments Pty Ltd and Argonaut Partners Pty Limited	4.43%
Gordon Stein	0.77%
Steve Kesler	0.44%
Jonathan Morley-Kirk	0.43%

*The Regal Funds are two separate funds, each of which are managed by the same investment manager, being Regal Funds Management Pty Limited (ACN 107 576 821).



e price: 61.60p (09.09.22)

Target: 6mth £1.05

- Jason Baverstock 12.65%
- Aldo Boitano 11.89%
- *Regal Funds 9.32%
- Timothy Grahame Leslie 8.44%
- Luke Jarvis 5.06%
- Argonaut 4.43%
- Gordon Bowman Stein 0.77%
- Steve Bodgan Kesler 0.44%
- Jonathan Morley-Kirk 0.43%



Summary: **De-risked Path to Production**

Sustainable Lithium for the EV Revolution



"DLE can massively increase supply, you don't need two years of drying lithium out from the brine. And instead of getting about 40% of lithium out of the brine, you can get more than double the amount". (McKinsey, May 2022)



Short lead time to production – targeting production 2024/25



Lowest environmental impact - reinjection of spent brine into the aquifer and DLE clean extraction & production process



Proven DLE methodology and test work results for battery grade lithium supply



- Excellent infrastructure - road network & highways

- Ready access to 100% renewable power
- Water security water readily available on site for DLE



No indigenous communities or unique flora/fauna to disturb



Supportive government of mining



Key Take-Aways



• **Green lithium production** using Direct Lithium Extraction in leading mining jurisdiction of Chile



• **Board and management experience** in delivering mining projects in Chile **from exploration into production**



• Unrivalled opportunity to invest in highly undervalued lithium opportunity



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