

FOR RELEASE: 07 FEBRUARY 2023

ASX:  
MNS

OTCQX:  
MNSEF

FSE:  
U1P

## Bell Potter Unearthed Conference

Magnis Energy Technologies Ltd (“Magnis”, or the “Company”) (ASX: MNS; OTCQX: MNSEF; FSE: U1P) is pleased to participate in the Bell Potter Unearthed Conference being held virtually today. A copy of the presentation is attached.

### About Magnis

Magnis Energy Technologies Ltd (ASX: MNS; OTCQX: MNSEF; FSE: U1P) is a vertically integrated lithium-ion battery technology and materials company in the Lithium-ion battery supply chain. The company's US based subsidiary Imperium3 New York, Inc (“iM3NY”) operates a Gigawatt scale Lithium-ion battery manufacturing plant in Endicott, New York. Magnis has also commenced development plans to set up an Active Anode Materials Project in the US. In conjunction with battery technology partner, C4V LLC, Magnis has produced high-performance active anode materials for lithium-ion batteries utilising high purity graphite concentrate feedstock from Magnis’ Nachu Graphite project in Tanzania. The company's vision is to enable, support and accelerate the mass adoption of Electric Mobility and Renewable Energy Storage critical for the green energy transition.

This announcement has been authorised for release by the Board of Magnis Energy Technologies Ltd (ACN 115 111 763).

### FOR FURTHER INFORMATION

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FEB 7  
2023

# Bell Potter Unearthed Conference





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01

## Company Overview



## Our Vision

A vertically integrated global player in the lithium-ion battery chain for EVs and clean energy storage



GRAPHITE MINING

Mining and processing of high-quality graphite products



ACTIVE ANODE MATERIAL

Production of sustainable and high-performance battery grade materials



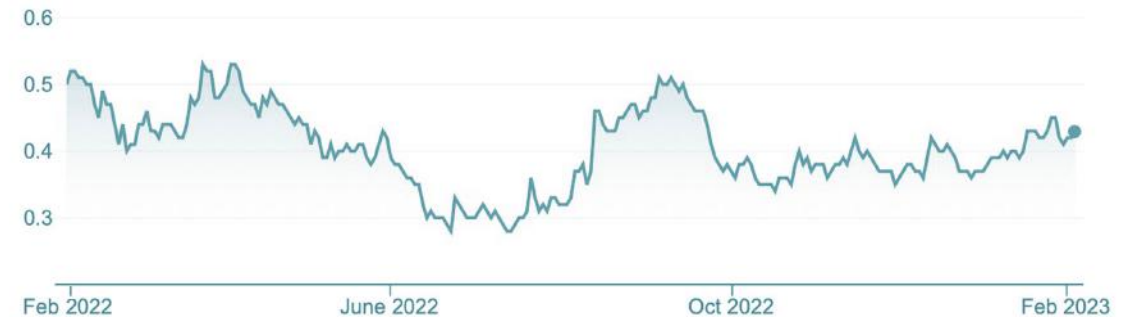
LI-ION BATTERY MANUFACTURING

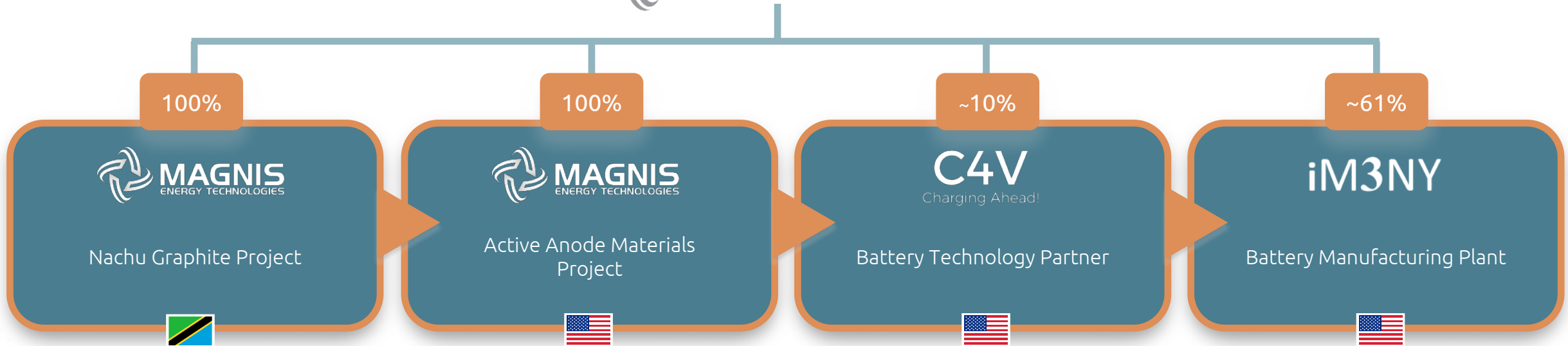
State-of-the-art gigawatt scale lithium-ion battery cell manufacturing JV's

### Corporate Snapshot

ASX code	MNS
Share price (3rd Feb 2023)	A\$0.435
Shares on issue	970.3m
Market capitalization	A\$422m

### Historical 12-Month Share Price (A\$)





Graphite Concentrate and value added products for battery anode feedstock/precursor material and other new energy and traditional industrial applications

Battery Anode Materials Project to produce AAM for North American and European battery manufacturers and OEM's

Battery Technology and IP Firm providing

- Technology exclusivity in the US for iM3NY
- Value chain solutions for Li-ion battery manufacturing
- Anode processing technology and know-how for Magnis' planned AAM facility

Joint Venture in a Gigawatt Scale battery manufacturing facility in New York

Magnis is considering options for an Australian Battery manufacturing facility





**Frank Poullas**  
EXECUTIVE CHAIRMAN

Frank has 25 years in investment markets, technology and engineering sectors. Involved in successful ventures within the lithium-ion battery materials and energy space. Frank is a board member of iM3NY, iM3TSV and C4V



**David Taylor**  
CHIEF EXECUTIVE OFFICER

David has 30 years of international experience leading the strategic development and growth of organisations across the property, construction, transport, renewables, energy, environmental and social infrastructure sectors. He has previously held senior leadership roles with ASX-listed firms including Worley Limited, Bingo Industries Limited, WDS Limited and Transurban Limited.



**Hoshi Daruwalla**  
INDEPENDENT NON-EXECUTIVE DIRECTOR

Hoshi brings 25+ years of proven global alliances, C-level industry ties, with a stellar global network of functional area expertise. Hoshi has held global senior management roles at corporations such as EcoPro Battery Materials, Daikin Industries, American Air Filter – McQuay, Hong Leong Group, PuraFil and at growing boot-strapped start-ups. Hoshi has operated, seeded, and scaled up businesses in 93+ countries



**Claire Bibby**  
INDEPENDENT NON-EXECUTIVE DIRECTOR

Claire has over 30 years professional experience as a senior lawyer and executive coach. Claire has founded and co-founded several businesses covering the legal, executive coaching, property-tech and legal-tech spaces and has held senior management appointments with some of world's largest companies and top-tier law firms.



**Mona Dajani**  
INDEPENDENT NON-EXECUTIVE DIRECTOR

20+ years of practice experience as a dual qualified lawyer in the US and UK. Leads Pillsbury Winthrop Shaw Pittman's Renewables practice and co-leads Energy and Infrastructure Project Teams. Lead lawyer in complex acquisitions, financing and project development transactions.



**Peter Tsegas**  
EXECUTIVE DIRECTOR

15+ years experience in Tanzania engaging both private and public sectors on projects; Tanzanian resident. Previous consulting roles to the Tanzanian government and to several mining companies including Rio Tinto.



**Mugunthan Siva**  
INDEPENDENT NON-EXECUTIVE DIRECTOR

Over 25 years experience in financial services both locally and overseas. Managing Director and co-founder of India Avenue Investment Management. Previously held senior roles in ANZ Private Wealth, ING Investment Management Australia and India, Macquarie Bank, Westpac and ING.



**Giles Gunsekera**  
INDEPENDENT NON-EXECUTIVE DIRECTOR

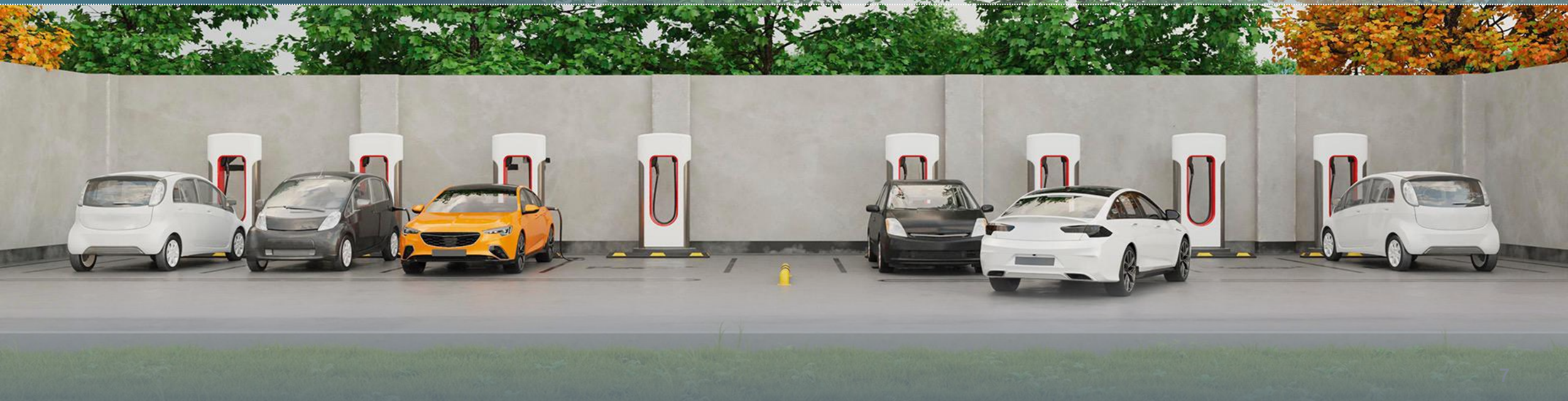
Giles has over 25 years' experience of building and developing teams and businesses for global enterprises. Giles is the Founder and CEO of Global Impact Initiative and has held senior roles in the financial services industry spanning recruiting, training, product, distribution and leadership.





02

## Market Dynamics





## New Tax Credits for Clean Energy Manufacturers

- Effective January 1, 2023, the enactment of section 45 is a tax credit that manufacturers earn for each unit of clean energy components manufactured
- A key focus of the tax credits is on US manufacturing of batteries and critical minerals processing
- Eligible components under section 45X include photovoltaic cells and wafers, solar grade polysilicon, polymeric backsheets, solar modules, wind energy components, torque tubes, structural fasteners, **electrode active materials, battery cells**, battery modules, and certain critical minerals



## BATTERIES & BATTERY COMPONENTS

Inflation Reduction Act of 2022

Eligible Component	Definition	Credit Amount
<b>Battery Cell</b>	Electrochemical cell comprised of one or more positive electrodes and one or more negative electrodes, with an energy density of not less than 100 watt-hours per liter, and capable of storing at least 20 watt-hours of energy.	\$35 multiplied by the capacity of such battery cell (expressed on a kWh basis)
<b>Electrode Active Materials</b>	Cathode materials, anode materials, anode foils, and electrochemically active materials, including solvents, additives, and electrolyte salts that contribute to the electrochemical processes necessary for energy storage.	10% of the costs incurred by the taxpayer with respect to production of such materials

1. Source: Inflation Reduction Act of 2022 – New Tax Credits for Manufacturers of Clean Energy Equipment | Norton Rose Fulbright - August, 2022 (projectfinance.law)

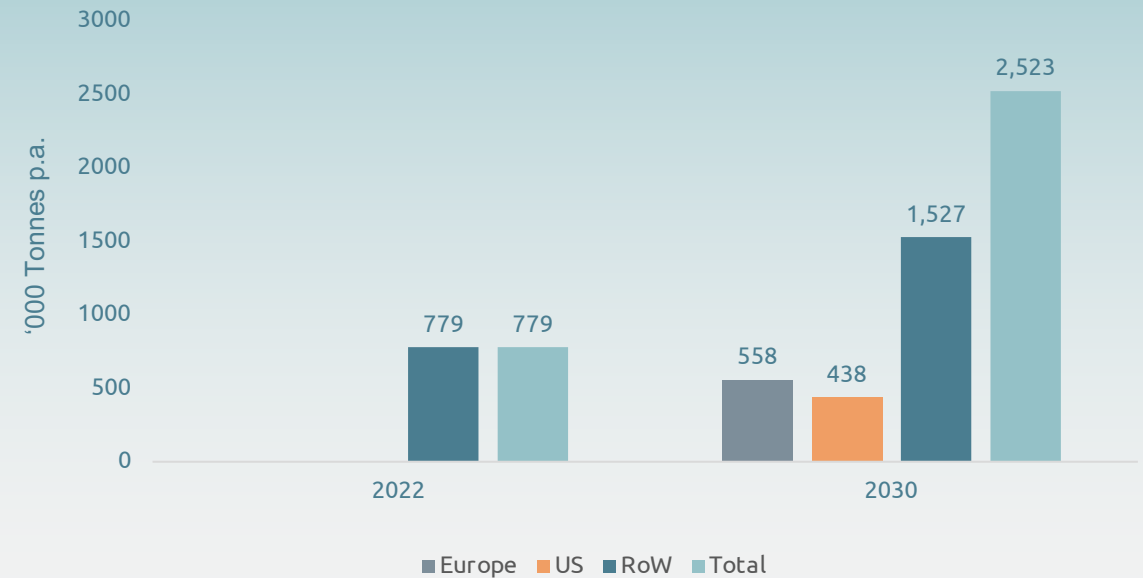


# US Demand for Anode Materials

**Significant locally sourced supply of AAM required**

- Currently North America has no domestic supply of active anode material
- Strong incentives to source battery materials produced locally driven by legislated local content and US Government stimulus as part of the Inflation Reduction Act
- North American battery market is growing rapidly with both tier 1 players and start up gigafactories all requiring significant quantities of active anode materials

Anode Materials Yearly Demand



Source: BNEF



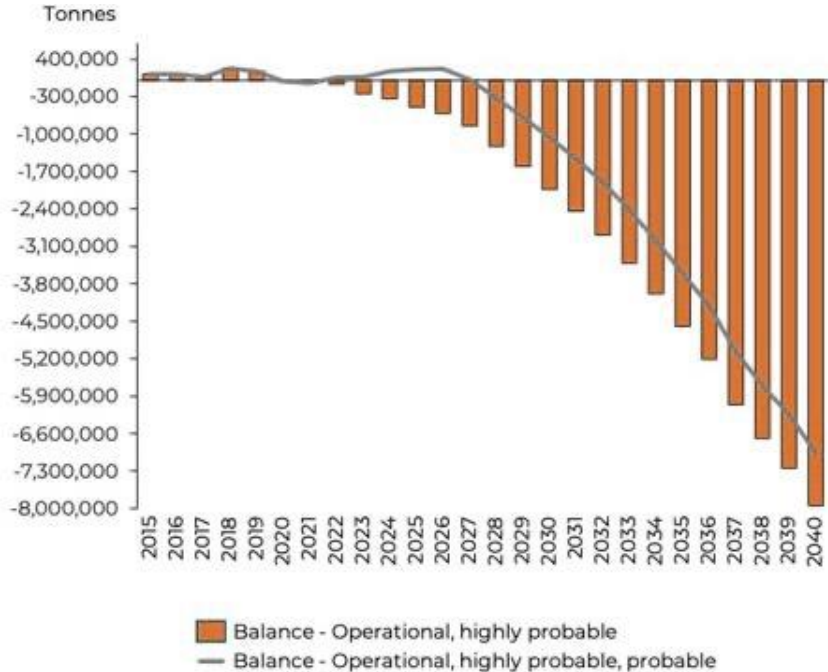
- BMI forecast a significant deficit in the supply of anode materials for the Li-ion battery industry from 2025 onwards based on:
  - Expected growth rates in Li-ion batteries; and
  - Lack of supply of raw materials including natural flake graphite
- To meet demand for anode materials, an estimated 97<sup>1</sup> natural flake graphite mines will need to be built by 2035.

**Graphite** is the dominant anode material in electric vehicle batteries<sup>2</sup>

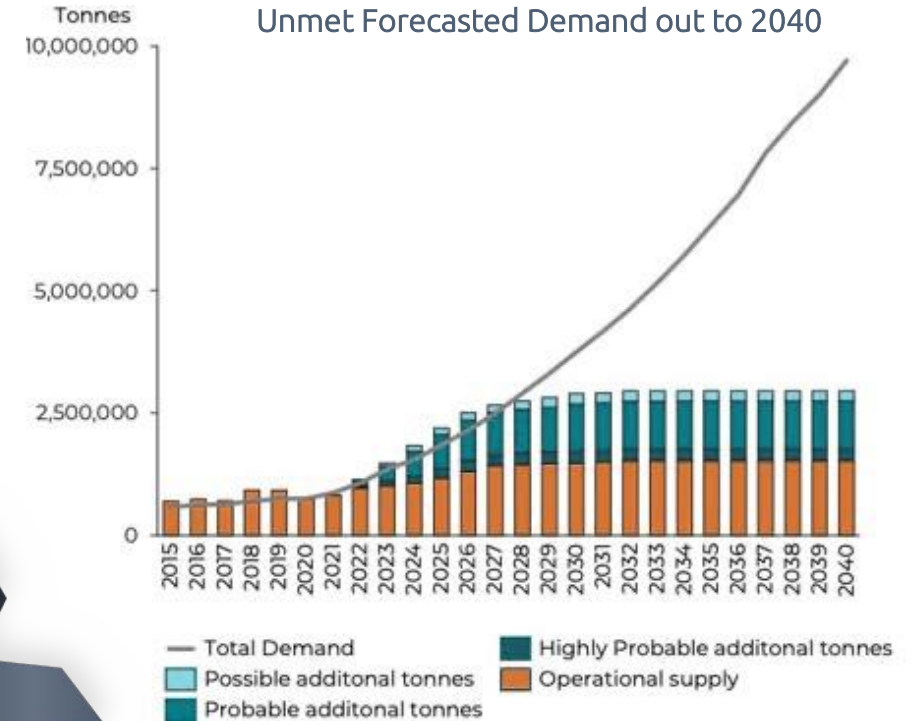
2. Pallinghurst-Traxys battery analysis.

- Graphite has been declared a critical mineral in the USA, EU, UK, Japan and Australia given its importance to the global transition to clean energy and high supply risk.
- A strong increase in demand for graphite sourced from Africa is expected, particularly East Africa, where several projects are currently under development and will need to come online to meet projected demand

Forecasted Natural Flake Supply Deficit



Unmet Forecasted Demand out to 2040



1. BMI calculations assuming an average plant size of 56,000 tonnes a year and no contribution from recycling.



03

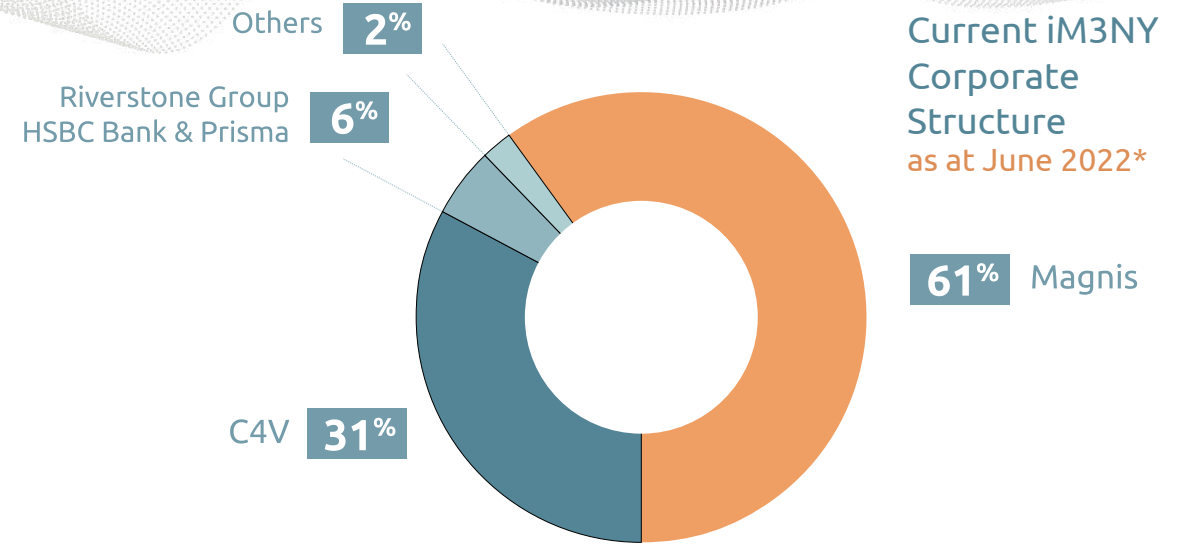
iM3NY Battery Plant

iM3NY





iM3NY's Gigafactory is located at the birthplace of IBM in Endicott, NY, USA



**iM3**

**Independent**  
LITHIUM-ION MANUFACTURER

iM3NY is an independent US lithium-ion cell manufacturer

**38<sup>GWh</sup>**

**PLANNED CAPACITY SCALE-UP**

Plant capacity to scale up to 38GWh over this decade

**EXCLUSIVE RIGHTS USA**

Exclusive rights in the US C4V's patented cathode chemistries

**95%**

**POWERED BY CLEAN ENERGY**

Factory will run on clean energy, producing greener and lower-carbon cells

**Non-China SUPPLY CHAIN**

iM3NY uses a non-China, primarily North American based supply chain

**EXPERIENCED TEAM**

Experienced Operational team

\*Indirect ownership in iM3NY inc. Please refer to FY22 Annual Report, Note 16 to the financial statements for more information.



- Expansion funding discussions in advanced stages
- iM3NY now employs 65 people across Engineering, Technical, Admin, Finance & Operations
- Independent certification is in progress
- Production ramp up phase underway. Continued optimisation and operational efficiency enhancements

< Battery anode production line

V Battery cells being transported to storage







04

# Nachu Graphite Project







Magnis has a long history in Tanzania (18 Years) and our Nachu Graphite Project is a significant asset, involving :

- Proposed Mine development
- Production of advanced graphite products



Uranex and Magnis Technologies Tanzania are owned by Magnis Energy Technologies Ltd



Our Nachu Project is located in Ruangwa District, Lindi region covering an area of 29.77 km<sup>2</sup> approximately 220 km by road from the port of Mtwara.



Our Nachu resource is one of the largest mineral resources of flake graphite in the World. Mineral resource of 174MT@5.4% with a potential 40-year mine life at ~240,000tpa.





### Mineral Resource

- 174mt at 5.4% Total Graphitic Carbon (TGC) for 9.3mt contained graphite
- Potential mine life of 40 years
- 71% Measured and Indicated
- Current resource covers only 2% of prospecting licence area

### Ore Reserves

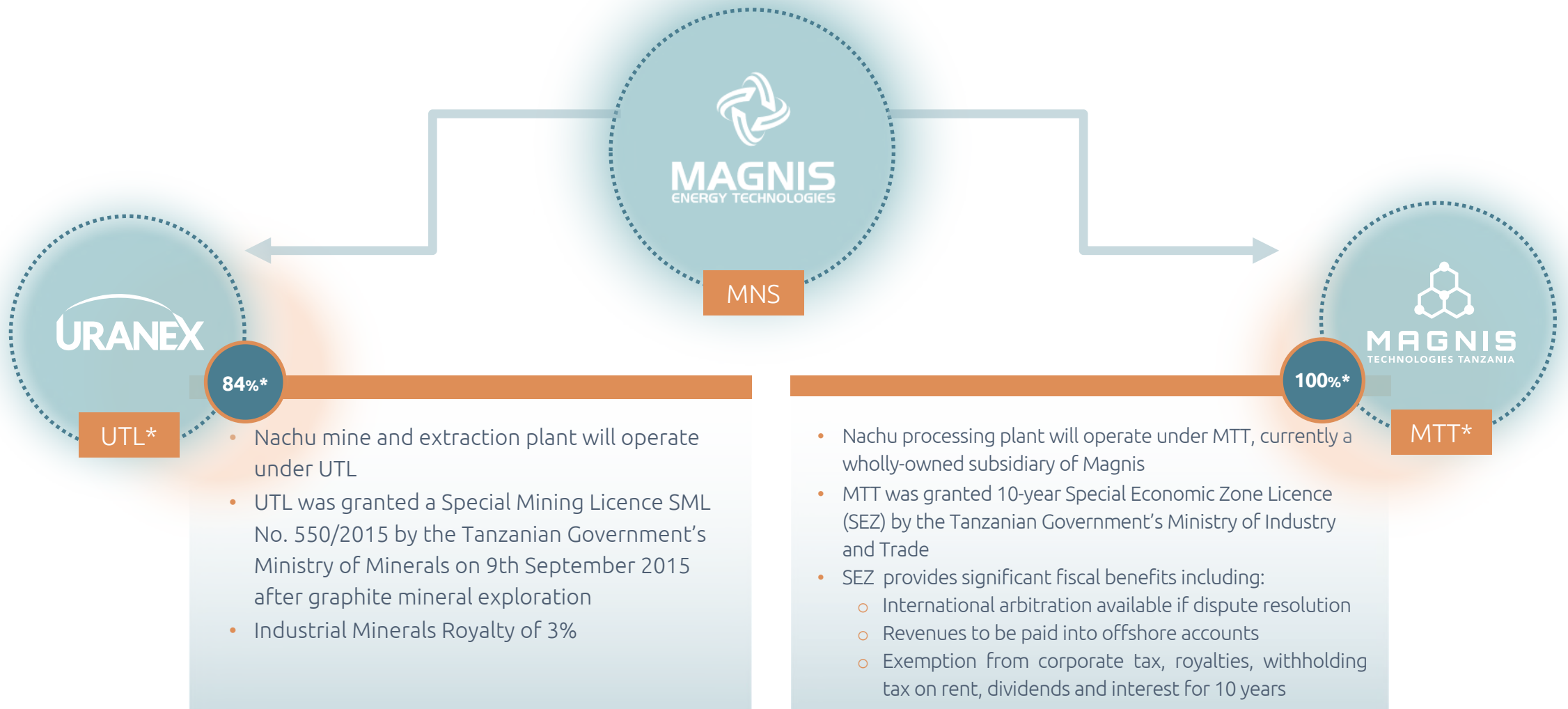
- F and FS block have 76mt 4.8% TGC LoM for 3.7mt contained graphite with steady state production from years 2 to 12 at 5.2% TGC
- Mine life of 15.5 years
- Significant further high-grade resource conversion potential
- Contains material amounts of high value super jumbo and jumbo flake graphite

#### Nachu mineral resource estimate

Classification	Tonnes (mt)	Grade (% TGC)	Graphite (mt)
Measured	63	4.7	3.0
Indicated	61	5.7	3.5
Inferred	50	5.8	2.9
<b>Total mineral resources</b>	<b>174</b>	<b>5.4</b>	<b>9.3</b>

#### Nachu ore reserve estimate

Classification	Tonnes (mt)	Grade (% TGC)	Graphite (mt)
Proved	50.5	4.6	2.3
Probable	25.7	5.1	1.3
<b>Total ore reserves</b>	<b>76.3</b>	<b>4.8</b>	<b>3.7</b>



\*16% stake in UTL expected to be granted to the Government of Tanzania (GoT) as Free Carried Interest. Currently 100% for MTT but this is undergoing negotiations as part of the framework agreement with the GoT



**NPV<sub>10</sub> US\$1.2bn & 51% IRR**

Strong Cash Flows driven by high operating margins



Attractive Project Economics

**~99% TGC**

Very high purity is a key differentiator to other Graphite Projects



Very High Purity Concentrate

**~41% in Jumbo & Super Jumbo**

Coarse flake for Specialised Industrial Markets



Higher Flake Pricing

**Special Economic Zone License**

Significant Fiscal Benefits for Production and Export of Value-added Graphite Products



Advanced Graphite Products



### Key Highlights of the Nachu Graphite Project<sup>1</sup>

Project Metrics	Units	Value
Project NPV <sub>10</sub> LOM (Post Tax)	US\$	\$1.2bn
Project IRR LOM (Post Tax)	%	51%
Payback Period	Months	19
Operating Expenditure	US\$/t	\$639
Concentrate Basket FOB Mtwara	US\$/t	\$1847
Operating Margin (incl. 3% Royalty)	US\$/t	\$1150
Average LOM Annual EBITDA	US\$	\$309mn
Initial Project Capital Cost	US\$	\$364mn
Special Economic Zone Period	Years	10
Concentrate Total Graphitic Carbon (TGC)	%	98.5% - 99%
Process Plant Capacity	t/year	5,000,000
Steady State Graphite Production	t/year	~236,000

- Magnis engaged global engineering firm Ausenco Services Pty Ltd and various other parties to update the previous BFS published in 2016
- BFS Update confirms Nachu as a world class graphite project driven by strong technical and financial viability combined with impactful sustainability outcomes
- Steady state 236ktpa high purity graphite concentrate produced over years 2 to 12
- Initial reserve-backed 15.5 year mine life with further high-grade resource conversion potential
- Post-tax NPV<sub>10%</sub> of US\$1.2b and project IRR of 51% driven by outstanding forecast operating margin of ~US\$1,150/t or 62%

**US\$1.2bn**



**51%**



**US\$309<sub>m</sub>**



**US\$1150<sup>~</sup>/t**



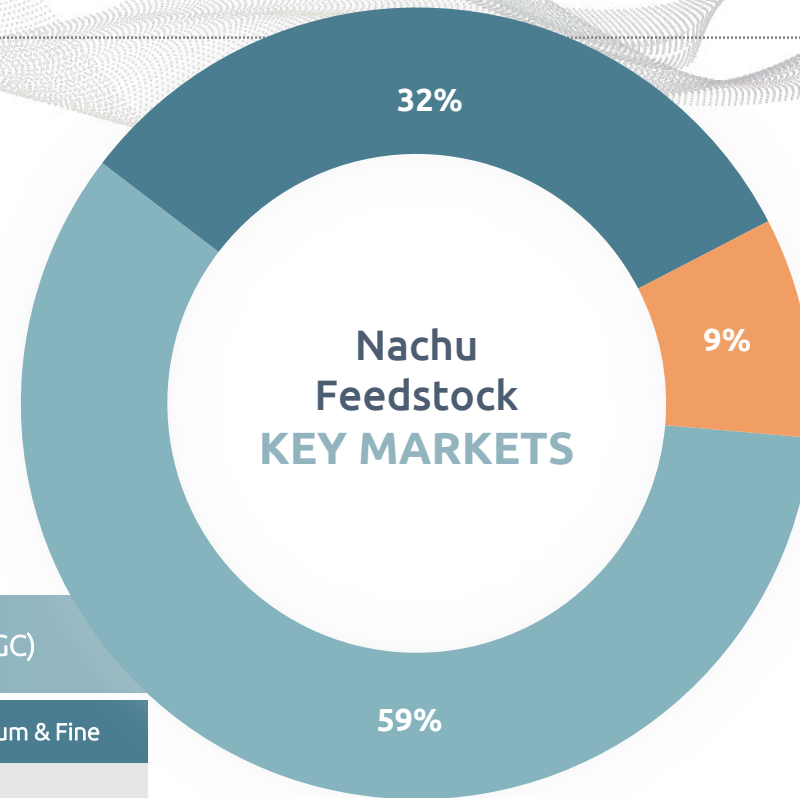




Magnis has secured a binding offtake for 600k tonnes of graphite concentrate over 6 years with Traxys Europe for all flake sizes. Further offtake discussions are underway.



Magnis' internal Li-ion anode material development program over the last 6 years with our US based technology partner, C4V LLC has produced CSPG >99.97% purity levels without chemical or thermal purification using Nachu feedstock (Sub 300 microns)



- Li-ion Anode Feedstock
- Expandable graphite, composites & electronics
- Aerospace, composites & niche markets

### Flake Graphite Concentrate with an average of ~99% Total Graphitic Carbon (TGC)

23ktpa - Super Jumbo Flake	75ktpa - Jumbo Flake	138ktpa – Large, Medium & Fine
Size: +500 microns, +35 mesh	Size: 300-500 microns, +50/-35 mesh	Size: Sub 300 microns, -50 mesh
Purity: ~98.5% TGC	Purity: ~ 98.5% TGC	Purity: >99% TGC
Key markets: Aerospace, composites & niche markets	Key markets: Expandable graphite, composites & electronics	Key markets: Spherical graphite for use in Li-ion battery anodes

The following markets for medium to super jumbo flake;

- a. Refractories
- b. Nuclear Reactors
- c. Manufactured fluids – gaskets / brake pads
- d. Cast electrodes – conductivity enhancement
- e. Foils / thermal controlled devices – e.g. 100 inch TVs



05

## Active Anode Materials Project











Strategic partnership with C4V:  
a US intellectual property company with  
Lithium-ion battery expertise



**C4V**  
Charging Ahead!

-  Exclusive active anode material development program over the last 6 years to optimise, enhance and commercialise proprietary graphite processing technology
-  High purity (>99.97%) Coated Spherical Graphite (CSPG) active anode material using **Magnis' pilot scale equipment in New York State**
-  Consistent intrinsic high-grade and high-quality of crystal with minimal imperfections in Nachu's natural flake graphite lends itself to efficient and simple downstream processing
-  High yields for Spherical Graphite (SPG) from purely mechanical processing and spheronizing steps
-  Low-energy and low-carbon footprint process that avoids chemical and extremely high thermal purification. Green product that reduces overall anode material costs
-  Excellent battery anode performance with longer cycle life compared to traditional sources of graphite that are typically thinner



Magnis' particle  
engineering equipment held  
at C4V Labs in New York



Magnis Flakes  
From Mine

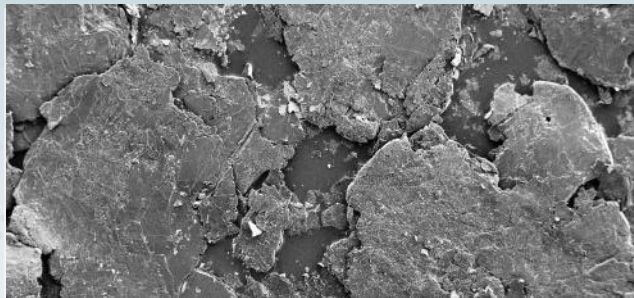
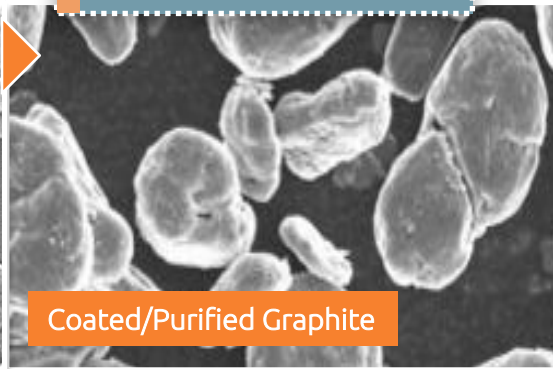
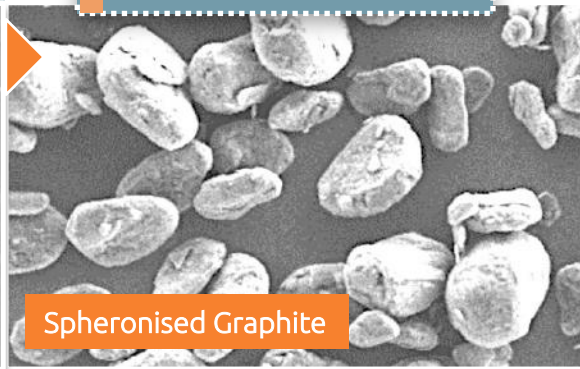
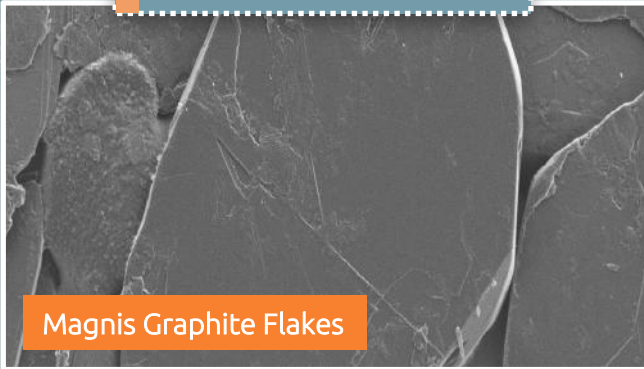
~ 180 Micron (d50)

Milling &  
Spheronisation

~70 % Yield

Coating/ Ultra  
Specification

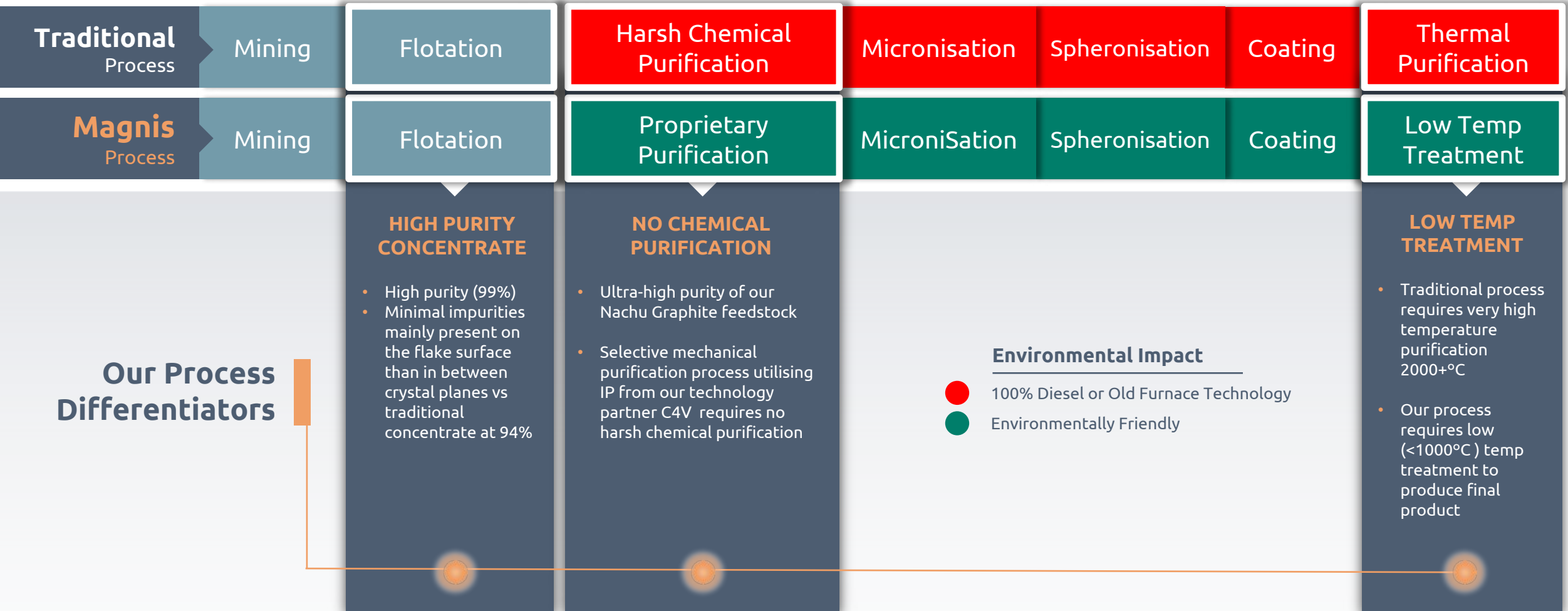
(Purity 99.97+%)



COIN CELL  
TESTING







- Plans to establish a downstream anode active material (AAM) processing plant with a number of locations in the US being investigated. Appointed Jones Lang Lasalle, Americas, Inc (“JLL”) as commercial real estate adviser
- Demonstration plant development underway with orders placed for key long lead time equipment with leading supplier Hosokawa Alpine Aktiengesellschaft
- Advanced discussions with OEM’s over the last 12 months
- Project Development underway with near term focus on the following:
  - Finalise Site Selection
  - Permitting
  - Front End Engineering and Design (FEED)
  - Funding for Commercial Scale Facility
  - Construction of Demonstration Plant





## Significant US Government Stimulus and Incentives

The US Department of Energy Advanced Technology Vehicles Manufacturing \$17.7bn Loan Program, the Bipartisan Infrastructure Law >\$7bn in grants and Inflation Reduction Act's Clean Energy Manufacturing \$10bn Tax Credit program



## Highly Scalable, Decarbonisation Mega-Trend

Large scale global Lithium-Ion Battery cell manufacturing and critical battery materials critical for adoption of Electric Mobility and Energy Storage



## Experienced Directors and Executives

Unrivalled capabilities and expertise in renewable energy, battery materials, business strategy and financial services industry



## World Class Intellectual Property

Strong partnership with US based Li-ion IP and R&D firm C4V LLC who have expertise in cathode chemistries, anode processing know-how and gigafactory manufacturing and supply chain solutions



## Strategically Critical Battery Material

Natural Flake Graphite is a critical material in the anode of Li-ion batteries. East Africa expected to be a key supplier of higher-quality and larger flake graphite to diversify global supply chains away from China



## Commercialised Technology with Binding Offtakes

The New York battery plant is production ready, with binding offtakes in place



# Thank You

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