



# Recharged and ready to go

Investor Presentation February 2021

**ASX:MNS** 

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Amount Raised **A\$34m** 

# Offer Price **A\$0.28**

#### Including

1:1 unlisted option exercisable at \$0.50 expiring 24 months from date of issue

**Use of funds** Commence Production at the NY Battery Plant







# THE MAGNIS VISION

To become a leading global producer of next-generation, green credentialed Lithium-ion batteries though:

- Developing Gigafactories globally with key alliances and JV partners
- Maintaining a competitive advantage through unique IP
- Mitigating key material supply risk
- Delivering a commercial advantage to all Global Gigafactories



Magnis has **three core areas** of focus which provide the Company with a strategic advantage; battery technologies, gigafactories and graphite.



**Battery Technologies** 

The Company has rapidly moved into battery technology with their high performing, chemical free anode technology and through the partnership formed with US Based Charge CCCV.





**Gigafactories** New York Lithium-ion Battery Plant & Australia Lithium-ion Battery Plant

Graphite Magnis holds a world class graphite deposit, the Nachu **Graphite Project** 







52 week Low - High

#### **Capital Structure – Post Placement**

MNS ASX Code	<b>A\$0.33</b> ASX Share Price (5/2/2021)		
A\$36M Cash	<b>A\$280</b> Market Cap		
851M Shares on Issue	<b>129M</b> Unlisted Options		
<b>6.44M</b> Average Daily Volume (100 days)			
4.7¢ – 42.5¢			



Source: ASX, Chi-X, Terra Studio





Source: Benchmark Mineral Intelligence



# **GLOBAL GIGAFACTORIES & OPPORTUNITIES**



#### **New York Battery Plant**

- Equipment and assets acquired. (Valued at US\$71M)
- 15GWh plant
- 1GWh production planned ASAP
- Magnis holds 58% of project (iM3NY)

#### **Nachu Graphite Project**

Tanzania

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• Shovel ready and BFS completed

#### **Australia Battery Plant**

- Feasibility Study submitted 2019
- 18GWh plant
- Magnis holds 33.3% of iM3TSV
- Potential revenues of over US\$3.5 Billion pa







#### Frank Poullas

Executive Chairman

- Over 20 years in investment markets, technology and engineering sectors
- Partner in a successful technology firm
- Involved in successful ventures within the technology and mining industries



James Dack

Executive Director

- One of Australia's most successful and influential people in the Real Estate industry
- Over four decades of experience in the Public, Private and Government sectors
- Founder and director of a successful fund



Prof M. Stanley Whittingham

Non-Executive Director

- Key figure in the invention of the Lithium-ion battery technology and awarded the 2019 Nobel Chemistry Prize
- Has headed large projects for the US Department of Energy, Exxon and Schlumberger
- Distinguished Professor of Chemistry at Binghamton University, part of State University of New York



## Peter Tsegas

Non-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 a number of mining companies including Rio Tinto



#### The Hon. Troy Grant

Non-Executive Director

- Former Deputy Premier of New South Wales and leader of The National Party
- Distinguished career over three decades in public, private and government sectors
- Former Police, Emergency Services, Justice, Hospitality, Gaming and Racing and Arts Minister
- Runs successful consulting practice







Dr. Shailesh Upreti

## Charge CCCV LLC (C4V)

Dr. Shailesh Upreti has been awarded numerous patents for composition of matter inventions with over 20 years of Li-ion battery experience



World class **\$300m+ development facilities** with capabilities for Materials engineering, Cell fabrication & Cell testing





Professor Stanley Whittingham

Prof Stanley Whittingham, **inventor of Lithium Ion Batteries**, is part of a leading center of excellence for LIB development located within Binghamton University

> BINGHAMTON UNIVERSITY OF NEW YORK





# **GLOBAL INDUSTRY PARTNERS**

# **Key Ingredient to Lithium-ion Battery Success**

#### Siemens

*Agreement signed March 5, 2018 covering global LIB plant opportunities* 

World leader in LIB factory digitization, automation and in-line manufacturing technology

# Celgard

Joint Development Agreement signed 13th Feb 2018

Global market leader of separators for Lithium-ion batteries with 40+ years experience

Subsidiary of global chemicals manufacturer Asahi Kasei

## **Durr MEGTEC**

Strategic Partnership Agreement signed 20th Mar 2018

Manufacturer of world leading double sided coating equipment driving low footprint, increased efficiency, and significant capital and operating cost advantages



SIEMENS

Additional Global Industry Partners (Commercial in Confidence) for:

- Electrolyte
- Battery electrode materials
- Cell forming
- Cell assembly





# NEW YORK LITHIUM-ION BATTERY PLANT iM3NY (Imperium3)

Magnis has a ~58% interest in iM3NY

Manufacturing facility and plant located in Huron Campus with **first production expected 2021 - 2022** 

**Offtake agreements signed** with various parties

**Equipment valued at over US\$71.34m** purchased from Alevo (valuation completed late 2019 by independent engineering group Ramboll)

NY State Government announced US\$13.25m funding package

Campus at Huron could support 4-5 GWh



Huron Campus site, New York



Cathode Welding machine, example of assets purchased in February 2018



# NEW YORK LITHIUM-ION BATTERY PLANT

# iM3NY (Imperium3)

Cutting-edge technology, including **technology exclusively licensed** from C4V

Abt Associates report highlights batteries produced by iM3NY will be the **greenest in the world** 

AI analysis makes iM3NY batteries superior + cheaper with time

State-of-the-art manufacturing & global partnerships to scale from **1 GWh to 15 GWh** 

Manufactures batteries in a **highly scalable fashion** with factory continuously upgrading, ensuring seamless upgrades at Customer Site with no required changes to next-gen factory







Magnis has a ~33.3% interest in iM3TSV

Queensland Government funded **feasibility study completed and approved** (August 2020)

Townsville Project template for **18 GWh manufacturing plant** being established

**Major global partners** and all forms of government supporting the project

At full production, potential revenues of over **US\$3.5 Billion annually** 





# GAME CHANGING BATTERY TECHNOLOGIES

# **Fast Charging**

Over **85% charge** achieved in **6 mins** 

Demonstration program for New York State Transit Buses with BAE Systems, Consolidated Edison and funded by NYSERDA

Potential game changer for the transportation industry

Discussion have begun with **major** overseas OEM's







# Anode

Patent protection in over **35** countries

Lowest cost producer of spherical graphite above **99.95% TGC purity** 

**Strong green credentials** - no downstream chemical or thermal purification required

Graphite and silicon anode blend the **next** generation of high-performance anode material

Potential to deliver significant increase in mileage and power Test work and commercial validation for 10% silicon additive blended with **Nachu coated spherical graphite** 



Internal view of silicon composite particle

# GAME CHANGING BATTERY TECHNOLOGIES

# Cathode - BMLMP

- **Patent protection** for our Cathode composition in 35+ countries
- High performance and long-life technology
- Low cost due to no nickel and cobalt
- **Greater reliability** made with commercial processes, fully transferable to Gigafacilities
- Raw materials used in plentiful supply
- Wide range of applications due to no compromise between life, energy density and power

Cathode Material	Voltage (V)	Capacity (Ah/kg)	Cell Energy (Wh/kg)
LFP	3.3	150	130
NMC	3.7	155	215
NCA	3.6	200	250
BMLMP	3.9	160	230*



\*BMLMP is a phosphate-based composite cathode that utilizes lowcost materials, molecular doping of lithium-rich bio-mineral in the super-cell of crystal structure and contains no cobalt or nickel.









## **Political Landscape / Permits / Shovel Ready**

#### **SEZ Recap**

- SEZ license permits 100% ownership by Magnis Resources Limited
- Legislative amendments allow for International Arbitration if disputes arise
- Revenues from product sales to be paid into overseas bank accounts – defraying major sovereign risk
- Fiscal stability ensured with a range of incentives including a favorable 10-year corporate tax-free period

**EPC Agreement** signed with China Metallurgical Corporation

## **RAP Payments / Relocations Complete**

#### Project Funding – active options ongoing

- JV partners and debt equity financing options being explored
- Site visits have taken place with more planned





# MILESTONES

# Technology





#### 2020

Optimize different cell manufacturing processes to further enhance performance

#### H1 2021

Finalise Funding

# **Battery Plants**





# WHY MAGNIS?

# Highlights



**Global Opportunity** to make a direct investment into the rapidly growing Lithium-Ion Battery (LIB) sector via Magnis



**Unique IP** with our next generation anode & cathode battery materials, which have patent protection in over 35 countries. Leading particle engineering IP for our raw material processing



**The People to Execute** with highly experienced & credible Board of Directors. Unrivalled capabilities and expertise in LIB, Automotive Innovation & Mining sectors



**Substantially lower power cost** due to IBM's existing infrastructure at New York plant



**End to end Supply Chain Management** and control. Global procurement strategy which includes raw material acquisition and processing



# **Business & Technology Advantages**

**Lower Cost** 

, Increased Life



**Better Performance** 



**High Manufacturing Yield** 



**Higher Energy Density** 



**Higher Safety** 



Scalability





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