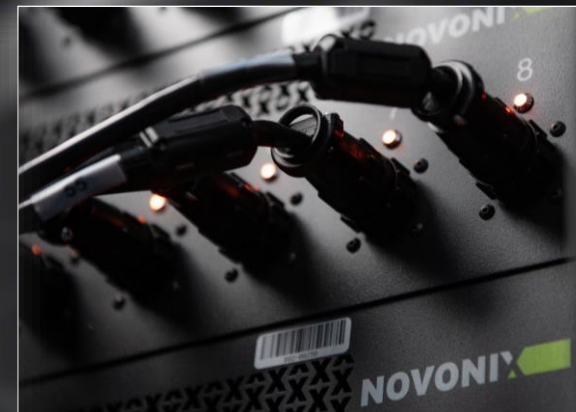
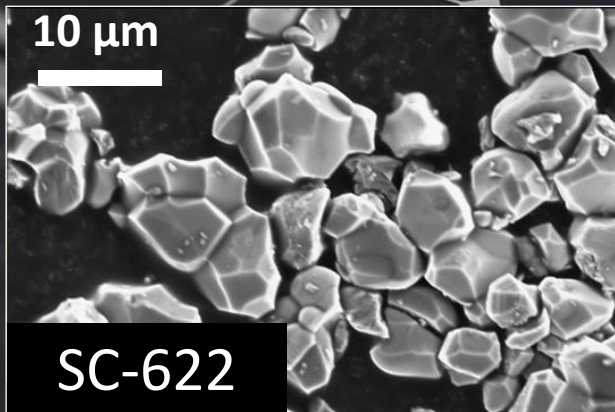
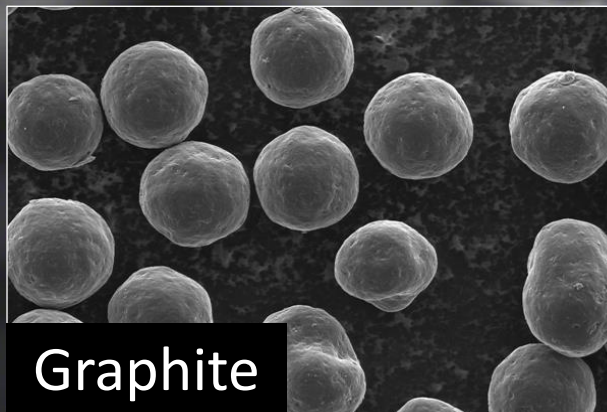




NOVONIX LIMITED



Benchmark Week 2020 Presentation
Synthetic & Natural Graphite

8 DECEMBER 2020



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- This announcement has been authorised for release to the ASX by the Group CEO, Chris Burns.

Discussion Topics for Today

- Company overview / business units / team
- Anode materials market opportunity
- NOVONIX synthetic technology and product performance
- Commercialization of NOVONIX Anode Materials

Company Overview



NOVONIX Limited

ASX: NVX

OTCQX: NVNXF



Battery Technology Solutions

- Technology accelerates R&D from years to weeks
- Partnership with Dalhousie University
- Battery testing, design, and prototyping services
- Sales to battery & OEM multinationals in 15 countries
- Owner of DPMG manufacturing technology



Anode Materials

- First contracted supplier of US-made high-capacity long-life synthetic anode
- Conditional sales agreement w Samsung SDI Dec19
- Non-binding MOU agreement with SANYO Jan20



Management and Board of Directors

Management



Dr Chris Burns
Group CEO



Nick Liveris
Group CFO



Suzanne Yeates
Group Financial Controller and
Company Secretary



Admiral Robert J. Natter
Executive Director

Board of Directors



Greg Baynton
Non-Executive Director



Tony Bellas
Chairman and Non-Executive
Director



Robert Cooper
Non-Executive Director



Andrew N. Liveris AO
Non-Executive Director



Admiral Robert J. Natter
Executive Director



Trevor St Baker AO
Non-Executive Director

Global Tier 1 Customer Base

Customer Overview

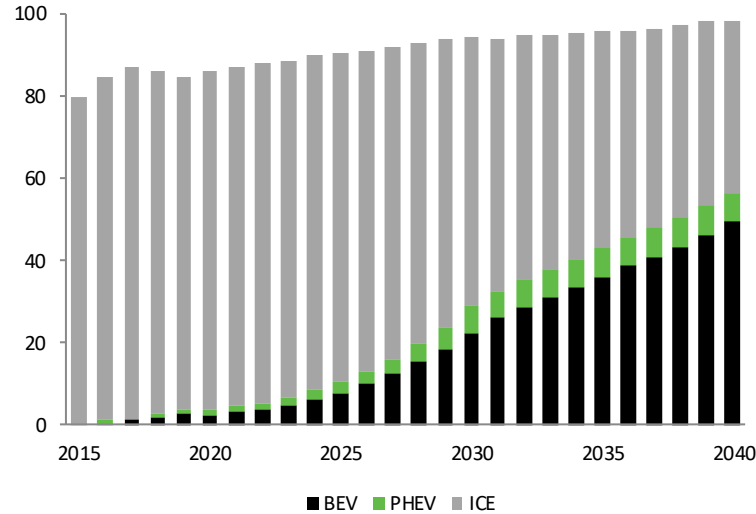
- Customers represented globally across key battery industries, including
 - Auto OEMs
 - Battery manufacturers
 - Consumer electronics
 - Medical device
 - Battery laboratories
- Several major auto OEMs and consumer electronic customers not disclosed for confidentiality reasons



Renewables and Green Energy Demand Driving Battery Materials Growth 10x by 2030

More Electric Vehicles

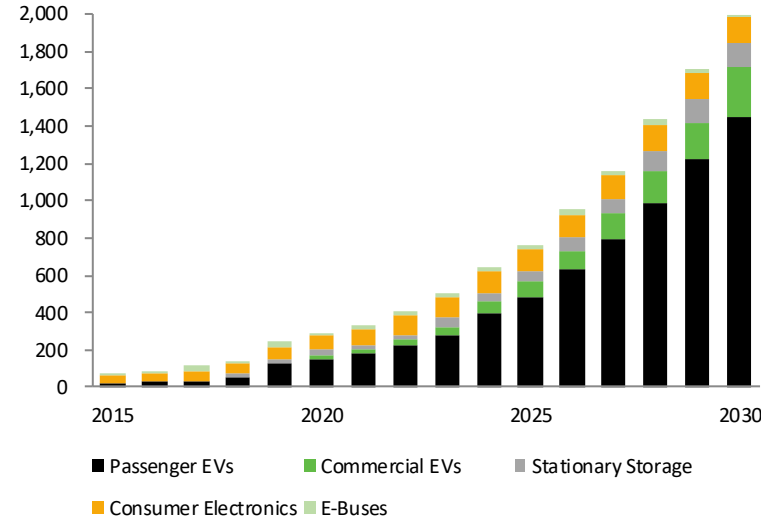
EV Sales, Millions



- Annual passenger EV sales to rise to 10 million per year in 2025, 28 million in 2028 and 56 million by 2040

More Batteries

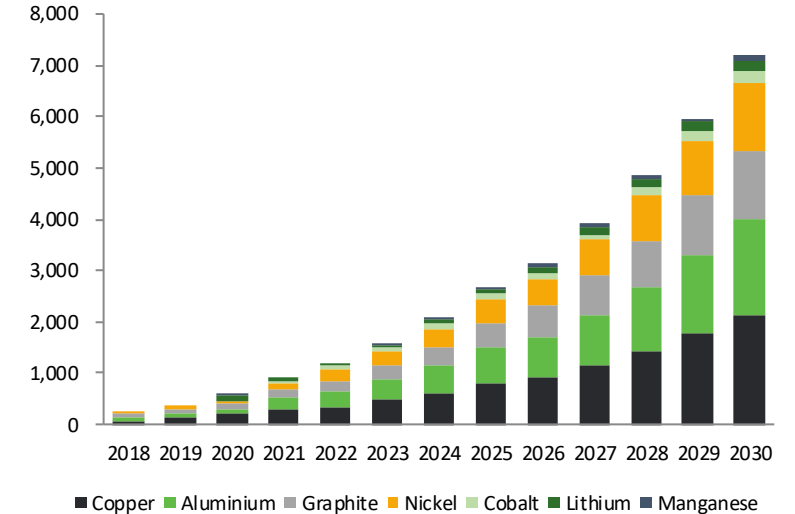
Annual Lithium-Ion Battery Demand, GWh



- To fill this demand for EV growth, there are 99 LIB megafactories in the pipeline with over 2,000 gigawatt hours (GWh) of capacity for 2028

More Battery Materials

Materials Demand, Thousand Metric Tons














- As a result, demand for high performance battery materials is expected to grow >7x

Total addressable market of anode materials is going from ~US\$3B today to ~US\$30B in the next 10 years

Source: Avicenne Energy 2020

Battery Growth is Happening in the US Now

Current US Gigafactory Pipeline

Battery Co.	Auto Co.	Investment	Capacity	Status	State
 LG Chem	 	\$300M	3 GWh	Operating	MI
		NA	35 GWh	Operating	NV
		\$1.7B	9.8 GWh	Operating 2022	GA
 LG Chem		\$2.3B	30 GWh	Announced Dec 2019	OH
		\$2.5B	21.5 GWh	Announced April 2020	GA

- The U.S. expects to have 130 GWh online by 2023
- Europe expects to have 198 GWh by 2023, and has signaled more than 400 GWh in the pipeline
- Does not include new Tesla factory announced for Austin, TX

Source: Company press releases and Avicenne Energy.

US Government is Addressing Graphite Sourcing

EXECUTIVE ORDERS

Executive Order on Addressing the Threat to the Domestic Supply Chain from Reliance on Critical Minerals from Foreign Adversaries

ECONOMY & JOBS

Issued on: September 30, 2020



“the United States is 100 percent reliant on imports for graphite, which is used to make advanced batteries for cellphones, laptops, and hybrid and electric cars. China produces over 60 percent of the world’s graphite and almost all of the world’s production of high-purity graphite needed for rechargeable batteries.”

Department of Energy

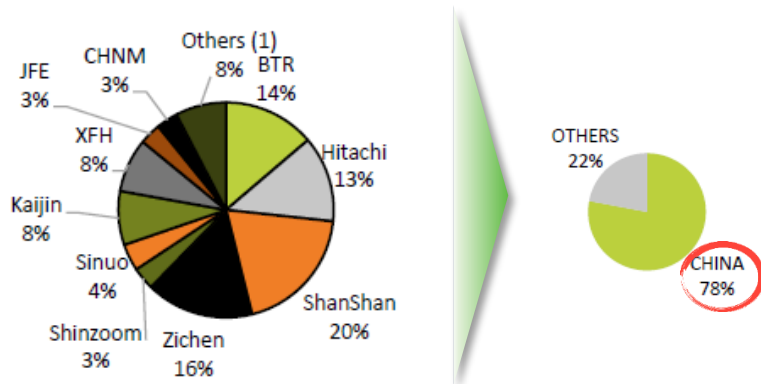
DOE Issues Notice of Guidance for Potential Loan Applicants Involving Critical Minerals

DECEMBER 1, 2020

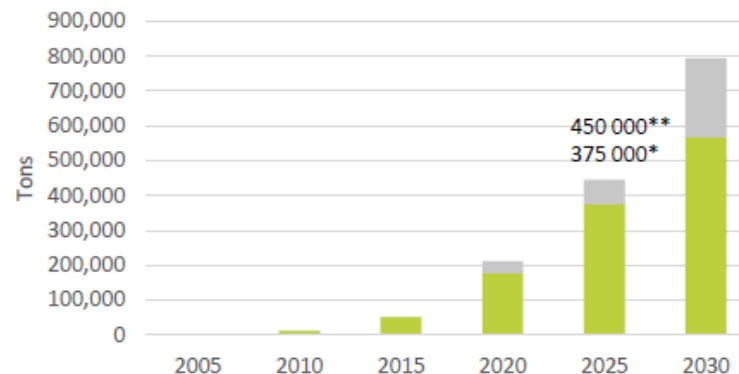
“it is the policy of LPO to interpret the Title XVII Program and the ATVM Program broadly to encourage applications from potential projects involving the production, manufacture, recycling, processing, recovery, or reuse of Critical Minerals and other minerals.”

All Anode is Coming From Asia, Mostly China

Synthetic Anode Market Share by Producer 2019

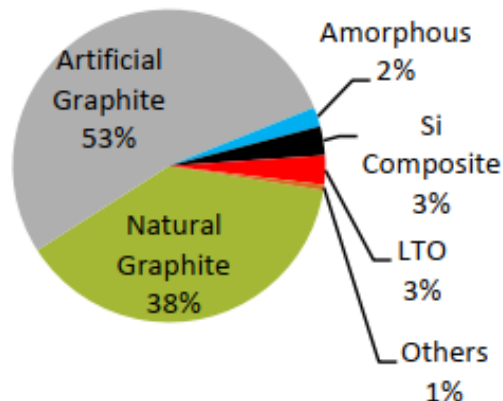


Synthetic Anode Market Demand

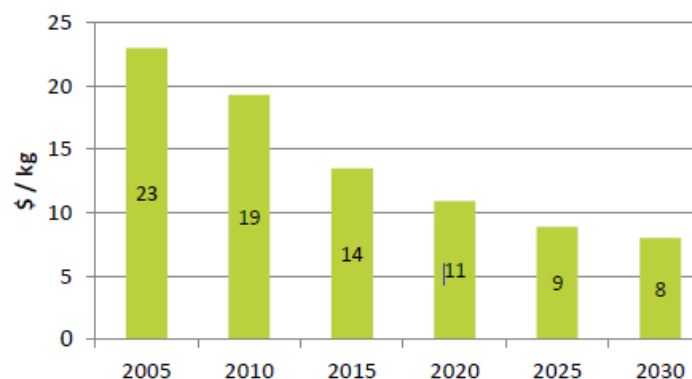


* Base scenario - ** Realistic scenario

Anode Sales by Type 2019



Synthetic Anode Price Forecast



- Market is currently dominated by China
- No established suppliers of Li-ion battery artificial (synthetic) graphite anode material in North America or Europe
- Demand for synthetic graphite anode material is increasing due to EV / ESS demand for long life batteries which is difficult to achieve with natural graphite
- Prices continue to decrease as manufacturers improve product designs and manufacturing methods

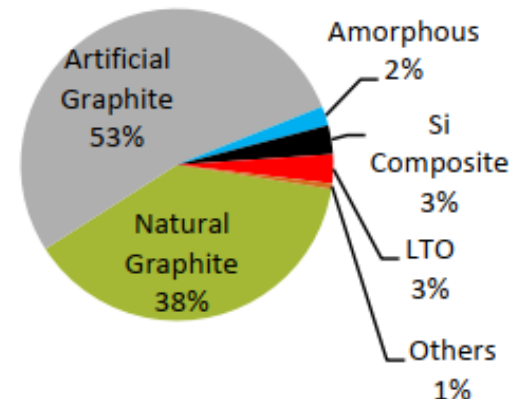
Source: Avicenne Energy July 2020.

NG vs AG, per Avicenne...

‘Demand for artificial graphite will increase fast thanks to the xEV market and the long life-time requirements involving a high level of purity and high consistency, difficult to achieve with Natural Graphite’

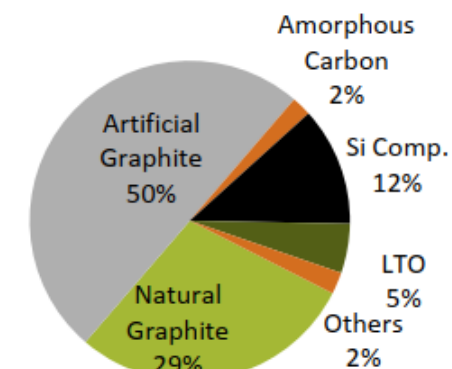
- Avicenne, July 2020

2019



Anode materials: 230,000 t
Artificial graphite: 122,000 t
Natural graphite: 88,000 t

2030



1,400,000 t
700,000 t
400,000 t

Source: Avicenne Energy July 2020.

NG vs AG, per Yano...

(Unit: t)

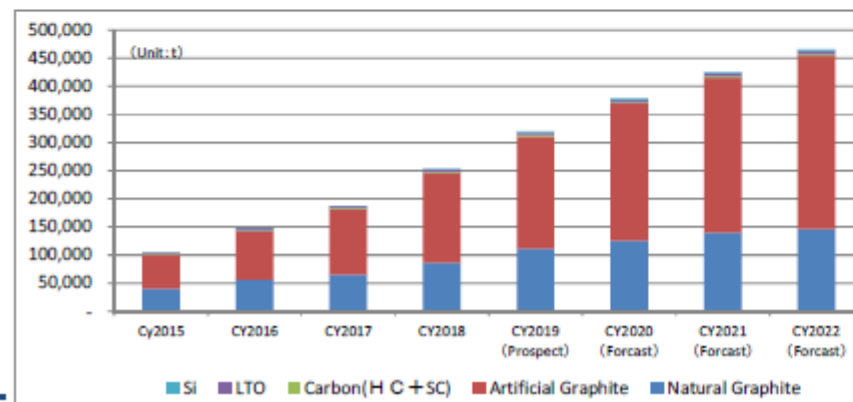
	CY2015		CY2016		CY2017		CY2018		CY2019(prospect)		CY2020(Forecast)		CY2021(Forecast)		CY2022(Forecast)	
	Share		Share		Share		Share		Share		Share		Share		Share	
Natural Graphite	40,680	39.1%	56,303	38.2%	64,852	34.6%	86,650	34.2%	110,769	34.7%	125,644	33.2%	140,452	33.1%	146,241	31.4%
YoY	-		138.4%		115.2%		133.6%		127.8%		113.4%		111.8%		104.1%	
Artificial Graphite	60,270	57.9%	85,585	58.0%	116,705	62.3%	159,400	62.9%	200,486	62.7%	243,091	64.3%	274,030	64.5%	307,401	66.1%
YoY	-		142.0%		136.4%		136.6%		125.8%		121.3%		112.7%		112.2%	
Carbon(HC+SC)	1,400	1.3%	1,800	1.2%	2,247	1.2%	2,280	0.9%	2,317	0.7%	2,496	0.7%	2,738	0.6%	3,084	0.7%
YoY	-		128.6%		124.8%		101.5%		101.6%		107.7%		109.7%		112.6%	
LTO	1,621	1.6%	3,567	2.4%	3,079	1.6%	3,728	1.5%	4,232	1.3%	4,710	1.2%	5,480	1.3%	6,270	1.3%
YoY	-		220.0%		86.3%		121.1%		113.5%		111.3%		116.4%		114.4%	
Silicon/Metal alloy	161	0.2%	290	0.2%	550	0.3%	1,314	0.5%	1,779	0.6%	1,983	0.5%	2,140	0.5%	2,250	0.5%
YoY	-		180.1%		189.5%		239.1%		135.4%		111.5%		107.9%		105.1%	
Total	104,132	100.0%	147,545	100.0%	187,432	100.0%	253,373	100.0%	319,584	100.0%	377,924	100.0%	424,840	100.0%	465,246	100.0%
YoY	-		141.7%		127.0%		135.2%		126.1%		118.3%		112.4%		109.5%	

[Estimated by Yano Research Institute]

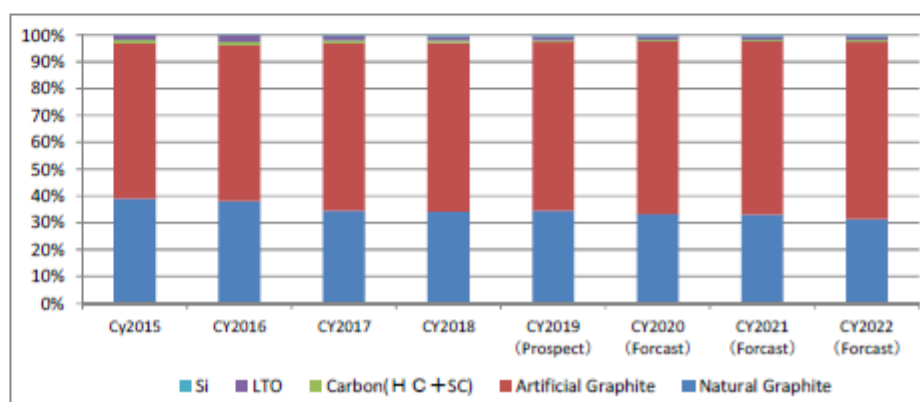
AG growing to 66% share by 2022

- Yano, 2020

Changes in Global LiB Anode Market (Unit Sales: 2015-2022 Forecast)



Changes in Global LiB Anode Market (ratio: 2015-2022 Forecast)



Source: Yano Research 2020.

NG vs AG, per Benchmark...

	2019		2030
Artificial graphite:	57%		42%
Natural graphite:	40%		48%

**'NG vs AG the debate
rages on'**
**- Benchmark, November
2019**

Source: Benchmark Minerals 2019.

So, What Really Matters?

What EV & ESS Cell Makers Need

1. High performance products
2. Low cost structure
3. Low environmental impact

NOVONIX Anode Material Advantage

Key Customer Decision Drivers for Synthetic Graphite Anode Material

We Deliver the Performance Required

- Improved coulombic efficiency and cycle life compared to industry leading materials

We are Globally Competitive on Cost

- Re-engineered product and process
- Globally competitive energy input

We Guarantee Safety

We are the Green Alternative

- Low emission energy sources
- No chemical purification

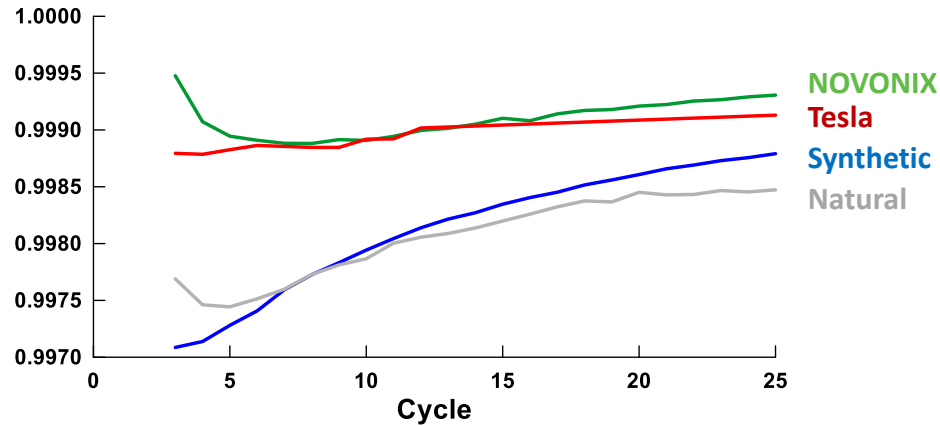
We Manufacture in the USA

- Supply diversification

Performance Measures	Why Important	NOVONIX PUREgraphite	Chinese Synthetic	Japanese Synthetic	Natural
Capacity (mAh/g)	Increases Battery Energy Density	350-360	340-350	350-360	360-365
1st Cycle Efficiency (%)	Increases Battery Energy Density	94-96	91-93	93-94	90-91
Cycle Life	Electric Vehicles and Energy Storage Systems require very long cycle life	V. High	Medium	High	Low
Cost	Need to lower \$/kWh of energy storage for EV and energy storage system markets	\$\$\$	\$\$	\$\$\$\$	\$\$
Safety / Purity / Quality	High safety and reliability are critical aspects for electric vehicle and energy storage system batteries	V. High	Medium	High	Low
Emissions and Chemicals	Batteries support sustainability, but the input materials must also be made in an environmentally friendly manner	V. Low	High	High	High

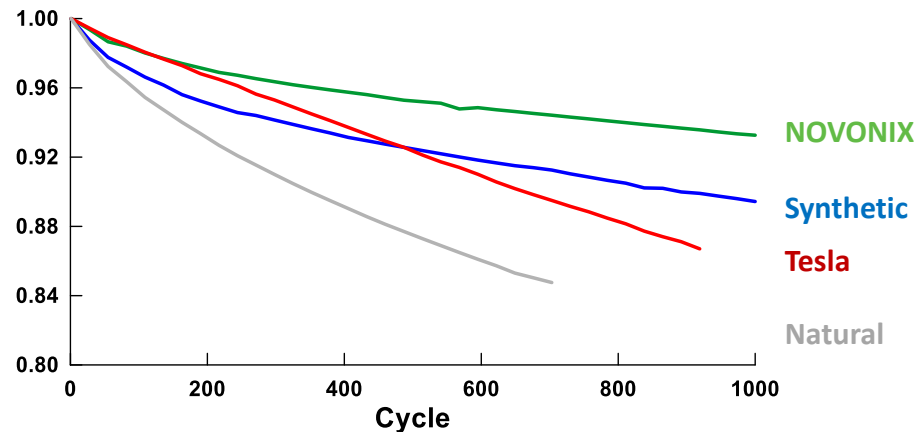
NOVONIX Anode Material Outperforms in Head-to-Head Testing

Improved Coulombic Efficiency (CE)



- NOVONIX offers improved Coulombic Efficiency (CE) compared to industry leading materials (including a Tesla Model S cell)
- CE measures the electrochemical stability of the materials in the battery
- The higher the CE, the longer the battery life

Improved Capacity Retention



- NOVONIX offers improved capacity retention compared to industry leading materials (including a Tesla Model S cell) as expected from higher coulombic efficiency
- Better capacity retention means less range loss over time for an electric vehicle

NOVONIX's Technology Delivers Lower Cost

Re-engineered Process

- Innovating on furnace technology
- Less energy consumption
- Smaller footprint
- Labor efficient

Strategically Located

- Globally competitive energy input price
- Strategic precursor material relationships

**Globally
Competitive
Prices**

NOVONIX's Technology is the Green Choice

Inputs

- Clean sources
 - Carbon free resources represent 50% energy input
 - Renewables represent 15% energy input
- Circular use of oil-gas by-products and carbon offsetting

Process

- Proprietary technology means fewer processing steps and less energy consumption
- No chemical purification

Outputs

- Negligible emissions, less than alternatives
- Longer lasting batteries

NOVONIX Company Mission:

“Better and better battery technology. Faster, cleaner and cheaper; because the world needs it”

NOVONIX Has Agreements with the Two Largest Battery Makers, These Manufacturers Represent 40% of the Global Li-ion Battery Market in 2018⁽¹⁾

SAMSUNG Supply Agreement and R&D Collaboration

- Initial supply of 500 tons of synthetic graphite anode material commencing 2020 (subject to SAMSUNG's required quality assurance processes)
- Working toward longer term supply agreement
- R&D collaboration agreement on new materials
- Conditional on supplier audit and QA



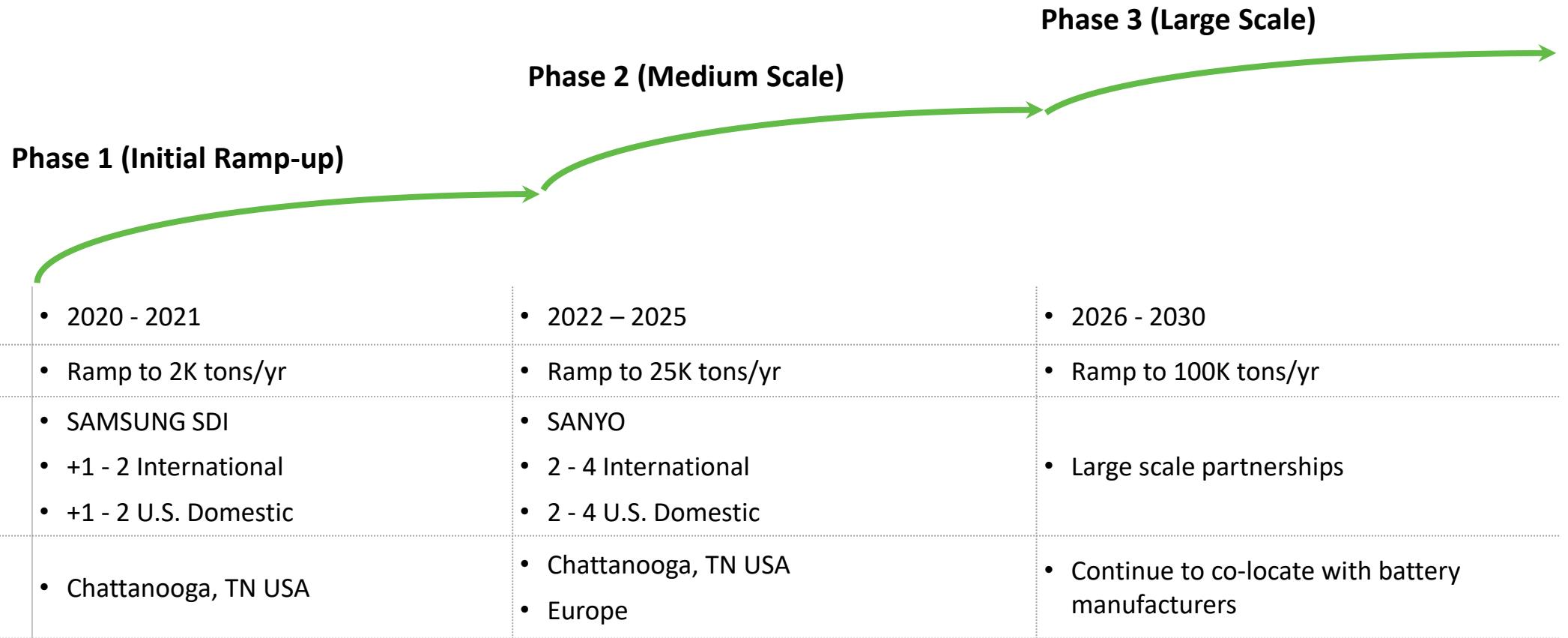
SANYO Commercial Collaboration

- Non-binding MOU to assess anode materials and supply for EV and ESS following positive test results in Japan



Source: (1) Avicenne Energy 2019.

Phased Growth Plan For NOVONIX



(1) These are indicative targets for the business, are subject to significant risks and do not constitute a form of forecast or a form of guidance for the business.

In Summary, NOVONIX...

- Is delivering the battery materials the EV and renewables future needs
- Is redefining the manufacturing processes to deliver lower costs, waste and emissions
- Has strong connections with leading companies in the battery, auto, renewables and electronics
- Has first commercial technology in PUREgraphite anode material with a contract with Samsung SDI
- Is the only company to break into this market outside of Asia with a tier-1 cell maker
- Is serving an anode market that is growing from ~US\$3B today to ~US\$30B in next 10 years

Contact Information

CORPORATE

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- **Group CEO:**
Dr Chris Burns
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- **Company Secretary and Financial Controller:**
Suzanne Yeates
Email: suzie@novonixgroup.com
- **Group CFO:**
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