

December 5, 2024

# NOVONIX Investor Day

**NOVONIX**  TM



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## Industry and Market Data

This Presentation contains estimates and information concerning our industry and our business, including estimated market size and projected growth rates of the markets for our products. Unless otherwise expressly stated, we obtained this industry, business, market, and other information from reports, research surveys, studies and similar data prepared by third parties, industry, and general publications, government data and similar sources. This Presentation also includes certain information and data that is derived from internal research. While we believe that our internal research is reliable, such research has not been verified by any third party.

Estimates and information concerning our industry and our business involve a number of assumptions and limitations. Although we are responsible for all of the disclosure contained in this Presentation and we believe the third-party market position, market opportunity and market size data included in this Presentation are reliable, we have not independently verified the accuracy or completeness of this third-party data. Information that is based on projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, which could cause results to differ materially from those expressed in these publications and reports.

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A photograph of a server room with rows of Novonix server racks. A person is standing in the background, working on a rack. The image is overlaid with a large, semi-transparent 'X' graphic.

# NOVONIX Team Introductions

# Dr. Chris Burns, Chief Executive Officer

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- Co-developed the breakthrough Ultra High Precision Coulometry (UHPC) technology with Professor Jeff Dahn
- Co-founded NOVONIX Battery Technology Solutions in Canada in 2013
- Former Senior Research Engineer with Tesla
- As Tesla's first technical hire in Canada in 2015, Dr. Burns led projects in materials and battery characterization with the goals of selecting EV and ESS battery chemistry and materials
- Dr. Burns holds multiple patents related to Li-ion batteries and is a co-author on peer reviewed journal articles that have been cited over 4,000 times
- Received his PhD and MS in Physics from Dalhousie University in Halifax, Nova Scotia, and his BS in Physics from St. Francis Xavier University in Nova Scotia



# Our Executive Team



## Robert Long, CFO

- Over 25 years of experience in the business and finance sectors.
- From 2020 to 2024 was Founder/Chief Executive Officer of Bridges Consumer Healthcare, Senior Vice President Strategy for Shaw Industries from 2019 to 2020, various roles of escalating responsibility leading to the final position (2015 – 2019) as Head of North America Region/CEO of Chattem, Inc. with Sanofi Consumer Healthcare
- Certified Public Accountant in the State of Tennessee and a graduate of the University of Tennessee at Chattanooga.



## Rashda Buttar, CLAO

- Over 25 years of corporate legal experience in senior roles for US publicly listed corporations
- Previously an SVP – General Counsel and Corporate Secretary of Foresight Energy LP from 2011 to 2017; VP, Associate General Counsel and Corporate Secretary of Patriot Coal Corporation from 2007 to 2011; and Assistant General Counsel and Assistant Corporate Secretary of TALX Corporation from 2003 to 2007
- Juris Doctor from St. Louis University School of Law, B.A. from St. Louis University in Russian and Eastern European Studies, Political Science



## Darcy MacDougald, COO

- Previously President of NOVONIX Battery Technology Solutions
- Over 15 years of senior leadership experience scaling high-growth operations in both listed and PE-backed electronics manufacturing, telecommunications, pharmaceutical marketing, and clinical research organizations
- From Prince Edward Island, Canada, MacDougald graduated from the University of New Brunswick, with a bachelor's degree in Electrical Engineering and holds a Master's in Business Administration from Saint Mary's University in Halifax, Nova Scotia

# Board of Directors & Advisors

## Board of Directors



**Admiral Robert J. Natter**  
Chairman &  
Non-Executive Director



**Tony Bellas**  
Deputy Chairman &  
Non-Executive Director



**Sharan Burrow AC**  
Non-Executive Director



**Ron Edmonds**  
Non-Executive Director



**Nick A. Liveris**  
Non-Executive Director



**Jean Oelwang**  
Non-Executive Director



**Suresh Vaidyanathan**  
Non-Executive Director

## Advisors



**Dr. Jeff Dahn**  
Chief Scientific Advisor



**Dr. Mark Obrovac**  
Sponsored Researcher



**Andrew N. Liveris AO**  
Special Advisor

### Professional Experience



# Company Overview



# Competitive Advantage Through Synergistic Operating Structure



**NOVONIX™**  
ANODE MATERIALS

- Leading domestic supplier of battery-grade synthetic graphite
- Large scale and sustainable production to advance North American battery supply chain
- Strategically positioned to accelerate clean energy transition through proprietary technology, advanced R&D and partnerships



**NOVONIX™**  
CATHODE MATERIALS

- Commercializing patented cathode synthesis technology
- Process technology minimizes environmental impact while producing high performance materials
- Pilot line producing cathode samples with total production capacity of up to 10 tpa



**NOVONIX™**  
BATTERY TECHNOLOGY SOLUTIONS

- Provides industry leading Ultra-High Precision Coulometry cell testing equipment
- Offers R&D Services with in-house pilot line, cell testing, and expertise to accelerate customer development programs



# Providing Revolutionary Solutions to the Battery Industry

## Investment Highlights



Leading U.S. based battery materials and technology company with lower carbon footprint



Binding Tier 1 offtake agreements with **Stellantis**, **PowerCo** and **Panasonic Energy** for all Riverside production volumes, to begin production of synthetic graphite in 2025



US\$100m grant from the Department of Energy Manufacturing and Energy Supply Chains Office and US\$103m Qualifying Advanced Energy Project Tax Credit to support Riverside buildout along with strategic investments from **LG Energy Solution** and **Phillips 66**



Patented all-dry, zero-waste NMC cathode synthesis process demonstrated at pilot scale – reducing cost and environmental footprint



NOVONIX Battery Technology Solutions provides competitive advantage to accelerate innovation

# NOVONIX™



*Riverside Facility in Chattanooga, Tennessee*

# Proprietary Process Technologies Lead the Clean Energy Transformation

## NOVONIX ESG Commitment



### Environmental

Our mission is to develop innovative, sustainable technologies and high-performance materials to service the electric vehicle and energy storage industries



### Social

The health, safety, and wellbeing of our employees and the communities we operate in are essential to NOVONIX's success and growth



### Governance

NOVONIX believes corporate governance is central to its business objectives and a critical element contributing to the preservation of shareholder value

## Environmental Benefits of NOVONIX Technology

	Anode Technology	Cathode Technology
Inputs	<ul style="list-style-type: none"><li>Clean power sources<sup>1</sup></li><li>High purity input materials</li></ul>	<ul style="list-style-type: none"><li>Reduced power requirements</li><li>No reagents</li></ul>
Process	<ul style="list-style-type: none"><li>Proprietary furnace and process technology</li><li>Increased energy efficiency</li><li>No chemical purification</li></ul>	<ul style="list-style-type: none"><li>Proprietary all-dry, zero-waste cathode synthesis technology</li><li>Simplified processing requirements and flowsheet</li></ul>
Outputs	<ul style="list-style-type: none"><li>Support higher-performance lithium-ion batteries resulting in longer life</li><li>Negligible facility emissions</li><li>LCA<sup>2</sup> demonstrated a ~60% decrease in global warming potential</li></ul>	<ul style="list-style-type: none"><li>No sodium sulfate waste</li><li>Eliminates process waste-water</li><li>Negligible facility emissions</li></ul>

1. Tennessee Valley Authority, 2022 Sustainability Report notes 52% of power is from carbon-free sources
2. The LCA conducted by Minviro Ltd. demonstrated a ~60% decrease in global warming potential relative to conventional anode grade synthetic graphite versus Chinese product



# Key Highlights Driving Future Growth

<b>Continuing</b> to Secure Tier 1 Customers	<ul style="list-style-type: none"><li>Signed binding offtake agreements with <b>Stellantis</b>, <b>PowerCo</b>, and <b>Panasonic Energy</b> with target volumes for all planned capacity at Riverside</li><li>Continuing to pursue additional supply agreements to allocate capacity from future Greenfield facility, with an initial production target of 30K tpa</li></ul>
<b>Scaling</b> Riverside Operations to Deliver Production Volumes	<ul style="list-style-type: none"><li>Installing, commissioning, and start-up of equipment for commercial production capacity of 3K tpa at Riverside to support final qualification and start of production for <b>Panasonic Energy</b> in late 2025, <b>Stellantis</b> in 2026, and <b>PowerCo</b> in 2027</li><li>Leverage Riverside engineering to progress Greenfield facility plans</li></ul>
<b>Securing</b> Financing to Further Scale Operations	<ul style="list-style-type: none"><li>Invest alongside US\$100m MESC grant funds to scale Riverside production</li><li>Attract additional strategic investment to continue the production build out of Riverside</li><li>Continue to progress DOE Loan Program Office application for Greenfield facility</li></ul>
<b>Upholding</b> Industry Leading Efforts for Battery Materials	<ul style="list-style-type: none"><li>Continue demonstration of high-nickel cathode materials from patented all-dry, zero-waste process in full-cell performance at pilot scale</li><li>Build upon <b>CBMM</b> and <b>ICoNiChem</b> partnerships to improve NOVONIX cathode technology and while pursuing partnerships to commercialize and deploy technology</li></ul>



# Battery Technology Solutions



# NOVONIX is at the Forefront of Battery Technology

## UHPC Hardware

*Enables Quick Reliable Predictions of Battery Lifetime*



UHPC

## R&D Services

*Materials Development and Characterization*



Analytical materials lab

*Cell Design and Prototyping*



Pouch and cylindrical cell manufacturing pilot line

*Cell Testing*



Diagnostic tools and performance testing

NOVONIX Battery Technology Solutions provides cutting edge technology that is highly sought after for R&D services to create the next generation battery — potentially accelerating R&D from years to weeks with proprietary technology

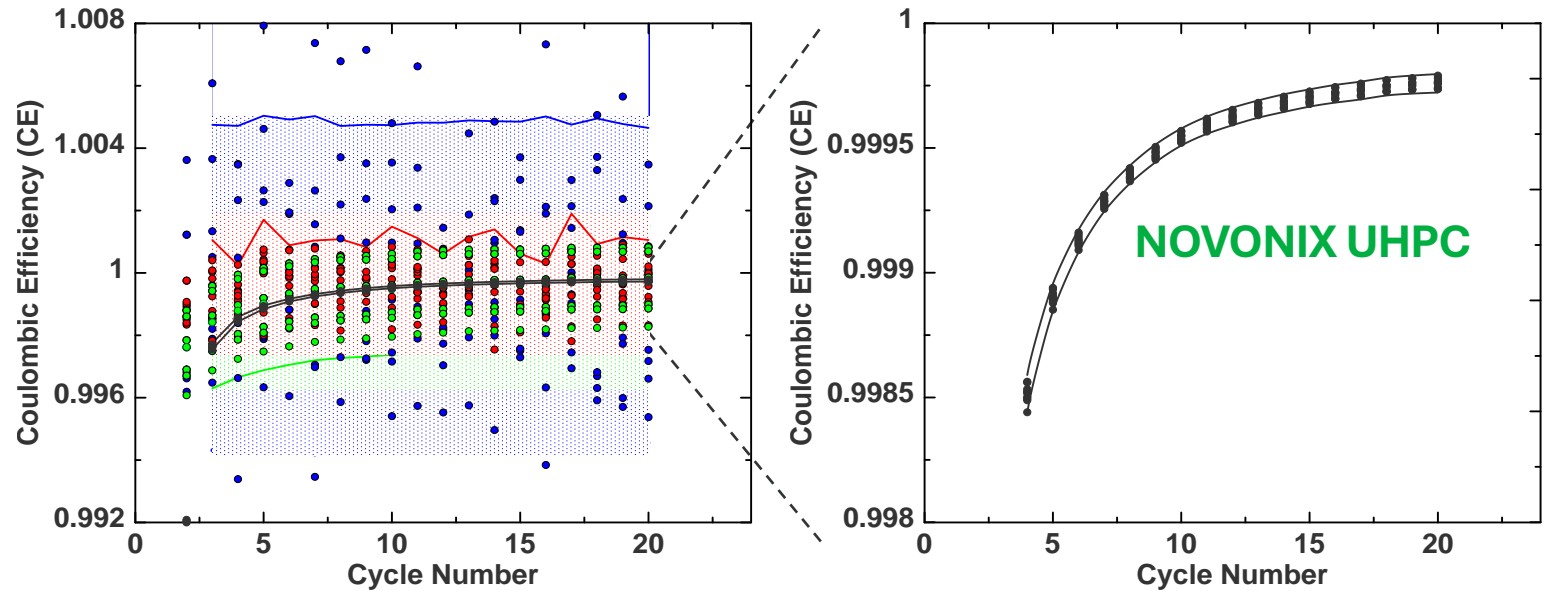
# NOVONIX Ultra-High Precision Coulometry (UHPC)





# NOVONIX UHPC Delivers More Precision and Accuracy

System	2x St. Dev	
NVX UHPC	+/- 0.00004	40 ppm
Cycler 1	+/- 0.00196	1960 ppm
Cycler 2	+/- 0.00146	1450 ppm
Cycler 3	+/- 0.00519	5190 ppm



- CE measurements taken on the same 8-9 cells on four common research-grade battery testing systems under identical conditions (40°C, 3.0V - 4.0V, 200mA (~C/15))
- Scatter points are individual cycle data for all 8-9 cells on each tester
- Range is shown as 2x standard deviation

# NOVONIX Research & Development Services

## R&D Services

We support customers with:



Industry Insight



Flexible Prototyping Facility



Extensive Testing Capabilities



Data Analysis & Reporting



Evaluation Services



The background of the slide is a grayscale photograph of an industrial facility, likely a water treatment plant. It shows large rectangular tanks, complex piping systems, and structural steel frameworks. A large, vibrant green 'X' is superimposed over the right half of the image, extending from the top right towards the center. The text 'Cathode Materials' is positioned on the left side, over the grayscale image.

# Cathode Materials

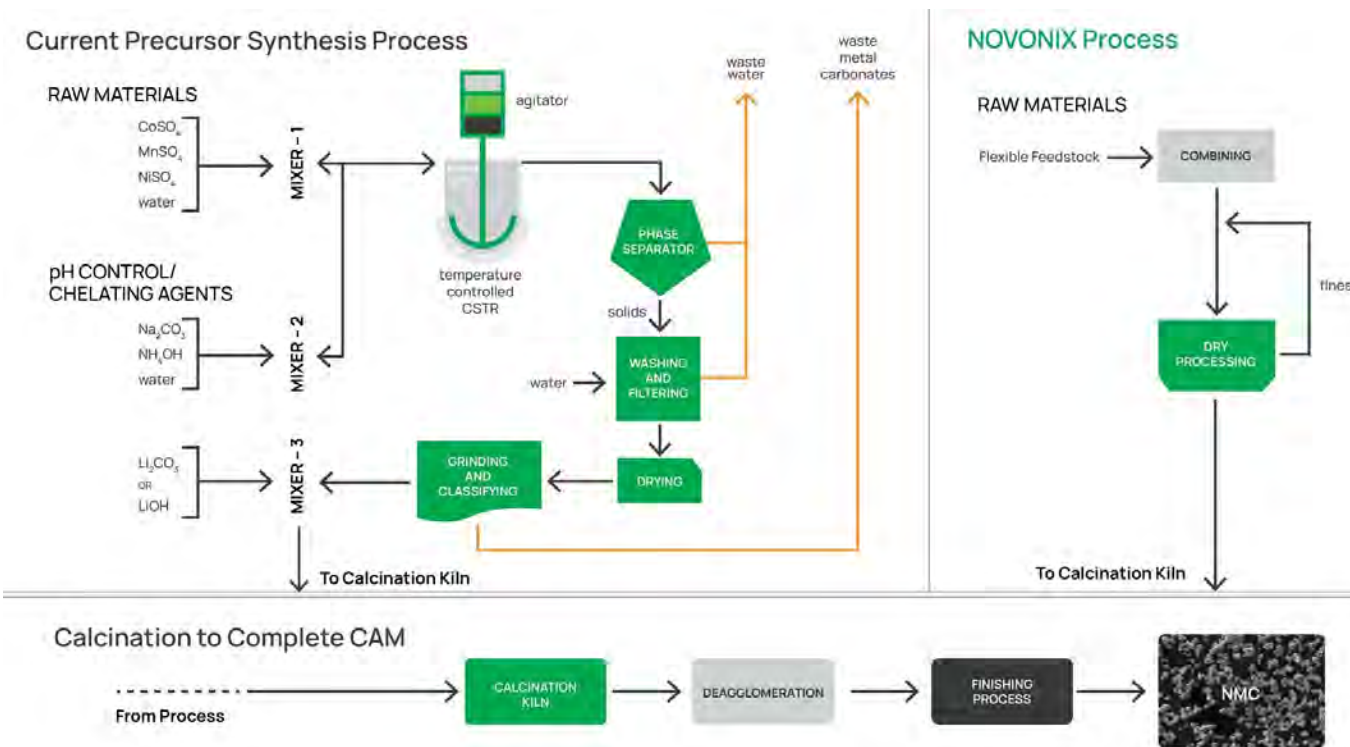


# Patented Cathode Synthesis Provides Clean and Simple Process

## Opportunity Overview

- In 2024 the global cathode active material ("CAM") market size value estimated at US\$27B, with a forecasted revenue of >US\$100B by 2030<sup>1</sup>
- Nickel-based cathode material represents about 30-50% of the cost of a battery cell
- Each tonne of cathode powder generates 3,500-15,000 liters of water waste and 1-2 tonnes of sodium sulphate waste<sup>2</sup>
- With multiple patent applications filed, cathode synthesis technology provides high nickel cathode materials with:
  - Higher yields at lower costs
  - No water waste
  - Flexible input materials

## A Closer Look at the NOVONIX All-Dry, Zero-Waste Synthesis Process



1. Mordor Intelligence, Benchmark Minerals, various Equity Research reports including Bernstein and JP Morgan and NOVONIX estimates

2. J.Power Sources: S. Ahmed, P.A. Nelson, K.G. Gallagher, N. Susarla, D.W. Dees. Cost and energy demand of producing nickel manganese cobalt cathode material for lithium-ion batteries

# Cathode Technology Demonstration at Pilot Scale



*Cathode Pilot Line with nameplate capacity of 10 tpa*

## Overview

- 2021: NOVONIX began development of its patented all-dry, zero-waste cathode synthesis technology
- July 2023: Commissioned pilot line with a nameplate capacity of 10 tpa to demonstrate scalability of NOVONIX's technology
- Currently sampling materials to Tier 1 materials producers, cell manufacturers, and OEMs

## Commercialization Plan

- NOVONIX is committed to a phased commercialization strategy that leverages our existing expertise, strategic partnerships, and ongoing R&D to position our CAM processing technology to have a transformative impact on the lithium-ion battery sector
- Build on successes to accelerate commercialization through:
  - Aligning Technology to Global Market Trends
  - Strategic Development Partnerships
  - Technology Licensing and Joint Ventures
  - Leverage Government Support and Potential Strategic Investment

# Cathode Synthesis: Engineering Scoping Study Results

NOVONIX engaged Hatch to provide a ‘Process Comparison Study’ by contrasting the **NOVONIX All-Dry, Zero-Waste Cathode Synthesis Process** against conventional cathode synthesis for comparative costs and environmental details



## Hatch Study Estimated Findings [FEL-1]

### Capital Intensity Lowered by ~30 %

- Fewer unit operations leads to simplified flowsheet
- Higher mass feed rate due to ‘hydroxide-free’ feedstock

### Operational Process Expenses Lowered by ~50%

- Fewer unit operations leads to lower labor costs
- Low-to-no processing reagents
- Lower power consumption
  - More efficient calcination
  - Fewer processing steps
- Lower maintenance costs
- Lower waste treatment costs

### More Environmentally Friendly process

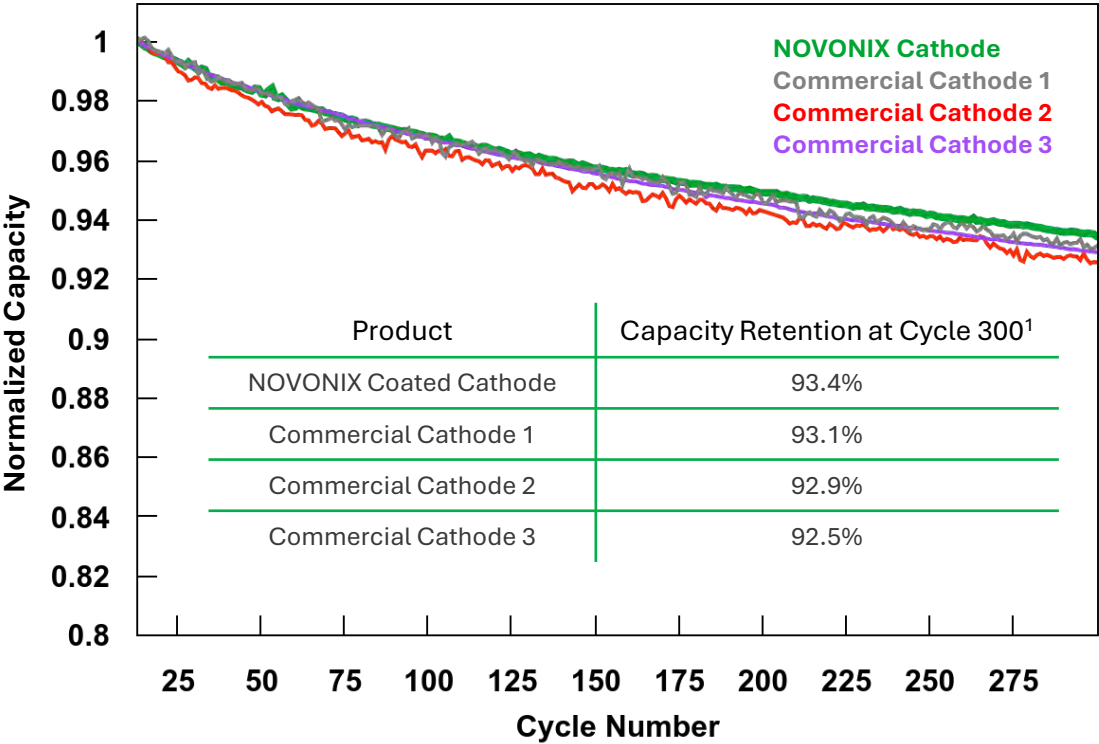
- ~27% lower power consumption & CO2 intensity
- ~65% less water usage
- Eliminates production of sodium sulphate byproduct
- No ammonia required removing a significant safety risk

**Note:** Please see Hatch disclaimer shown in Sept 12, 2023 press release on Study description and estimates.



# NMC622 Cathode Cycling Performance Competitive with Commercial Materials

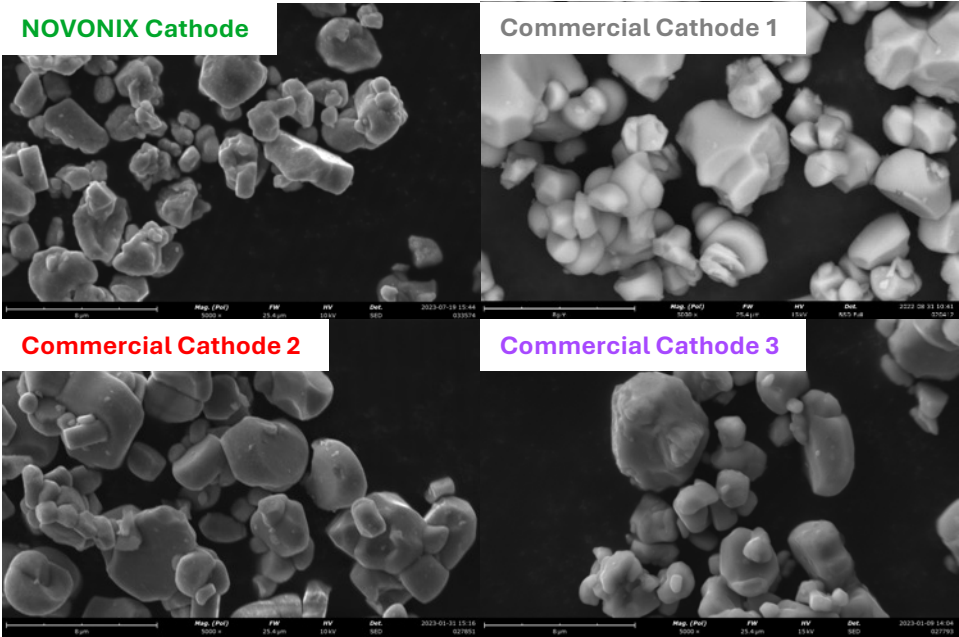
## Full-Cell Cycling Performance of NOVONIX Single-Crystal NMC622



1. 40°C; 2.8-4.3V; 1.2M LiPF<sub>6</sub> EC:EMC:DMC(25:5:70)+3VC; [Charge]: CC-0.33C; [Discharge]: CC-0.33C

## SEM Images of Single-Crystal NMC622

Normalized electrochemical results in 1Ah pouch cell show that surface-coated NOVONIX NMC622 has comparable electrochemical performance to commercial NMC materials



# Cathode Materials Technology Partnerships

## CBMM

- Joint Development Agreement focused on nickel-based cathode materials
- CBMM is a global leader in the production of niobium specialty chemicals for a variety of applications from steel making to energy storage
- NOVONIX will use its patented all-dry, zero-waste cathode synthesis process to synthesize, test, and analyze cathode active materials that incorporate CBMM's suite of niobium products
- This 1-year project aims to evaluate the performance-enhancing additives for NMC powders with the goal of developing a CAM with improved performance at a lower cost



## ICoNiChem Widnes Limited

- Joint Collaboration Agreement focused on sustainable cathode material feedstock
- ICoNiChem is a world leader in the production and commercialization of cobalt and nickel salts based in the UK
- Collaboration aims to enhance the recycling and reuse of critical materials used in lithium-ion batteries
- This 2-year project, supported by the National Research Council of Canada Industrial Research Assistance Program (NRC IRAP) and Innovate UK, focuses on closing the loop on an already sustainable process to incorporate recycled material feeds





# Anode Materials



# Graphite: The Forgotten Critical Mineral

## Current State

- The North American market for active materials is forecasted to grow by a factor 10 from 2023 to 2030. By weight, graphite is the primary active material of all critical materials<sup>1</sup>.
- China has over 95% market share for battery grade graphite<sup>2</sup>
- Graphite represents >90% of the supply of active anode material of lithium-ion batteries<sup>2</sup>
- December 2023: China enforces new export control measures for battery graphite
- June 2024: US reinstates 25% Section 301 import tariffs on battery-grade graphite materials from China
- US reliance on Chinese graphite and battery materials presents challenges for IRA compliance

1. Benchmark Mineral Intelligence GigaFactory Report October 2024; PWC Gigafactories & Raw Materials, August 2022

2. Benchmark Minerals Intelligence Anode Price Assessment September 2024

## Solution

- **If China were to cease exporting of synthetic graphite it would have a significant impact on global production of lithium-ion batteries**
- NOVONIX founded its Anode Materials Division in 2017 recognizing this impending problem, and is the only company currently positioned to start production of battery-grade synthetic graphite in the US in 2025



*NOVONIX Riverside Facility in Chattanooga, Tennessee  
Facility to scale to 20K tpa aligned with customer demand*

# NOVONIX is Localizing the Synthetic Graphite Supply Chain

## NOVONIX Anode Material Progress & Advantages



### Domestic Supply

Producing high-performance synthetic graphite materials sustainably for local supply of Tier 1 battery and OEM customers



### High Performance

Our products are developed to meet or exceed Tier 1 EV OEMs specifications



### Cleaner, More Efficient Technology

Produced with cleaner energy sources with virtually zero emissions and uses no chemicals harmful to the environment



### Strategic Relationships

Leveraging close collaboration with partners and customers to bring our anode materials to market

## Key Strategic Relationships

### Tier 1 Customer Agreements

Anchor Customers for Riverside Facility



### Technology Agreements

Progressing Qualification to Lead to Future Supply Agreements



### Strategic Investors

Invested US\$180 Million



### Strategic Suppliers

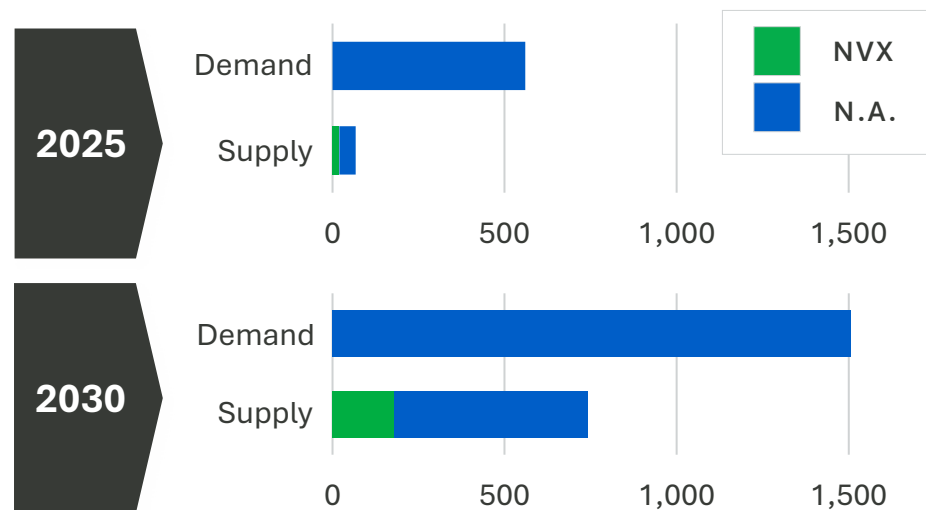
Raw Material Suppliers and Technology



# Production Capacity will Benefit From Expected Demand

## North America Graphite Shortfall (K tpa)<sup>1, 2</sup>

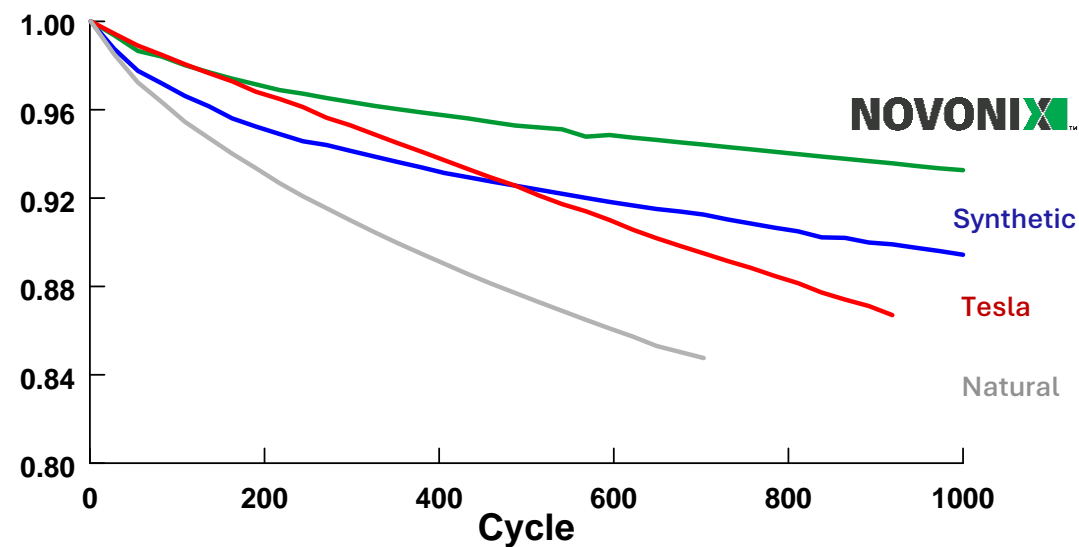
- NOVONIX has agreements with companies whose facility plans account for ~42% of North American forecasted customer demand in 2030<sup>1</sup>



- Benchmark Minerals Intelligence (October 2024), NOVONIX estimates and publicly available information.
- NOVONIX estimates shown under 2025 are illustrative of Riverside's total target production level of 20K tpa. NOVONIX estimates shown under 2030 are illustrative of the Company's eventual production target of 150K tpa. Illustrative targets are not associated with the Company's production targets for the respective 2025 and 2030 years.

## Anode Material Outperforms in Testing

- NOVONIX offers **improved capacity retention** compared to industry leading materials (including a Tesla Model S cell used as a reference benchmark)
- Better capacity retention means **less range loss over time** for an electric vehicle



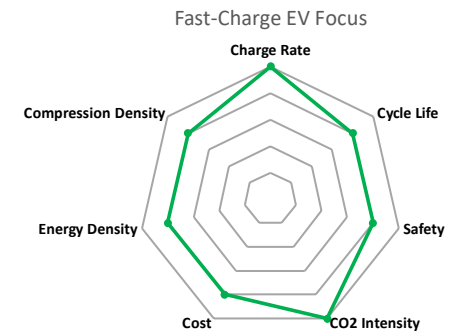
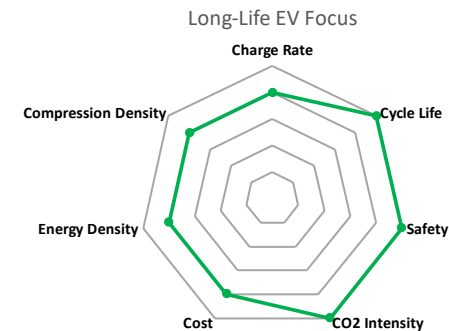
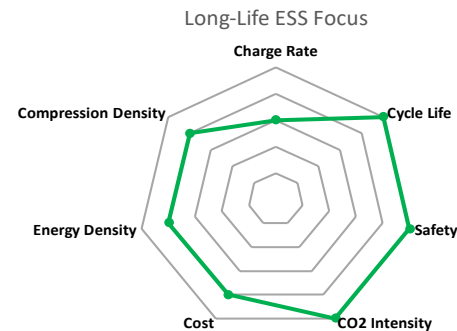
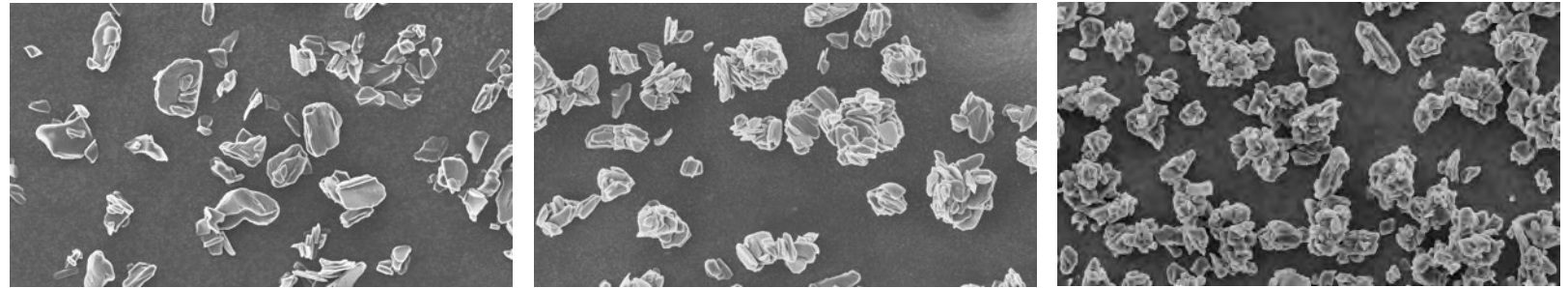


# NOVONIX's Product Technology Advantage

## NOVONIX Advantage

- Applications such as electric vehicles and energy storage systems require differing properties:
  - Fast Charge
  - High Energy Density
  - Long Cycle Life
- NOVONIX's proprietary process provides consistent, high performance synthetic graphite, utilizing low emissions processing
- The Life Cycle Assessment conducted by Minviro Ltd. demonstrated a ~60% decrease in global warming potential relative to conventional anode grade synthetic graphite versus Chinese product<sup>1</sup>

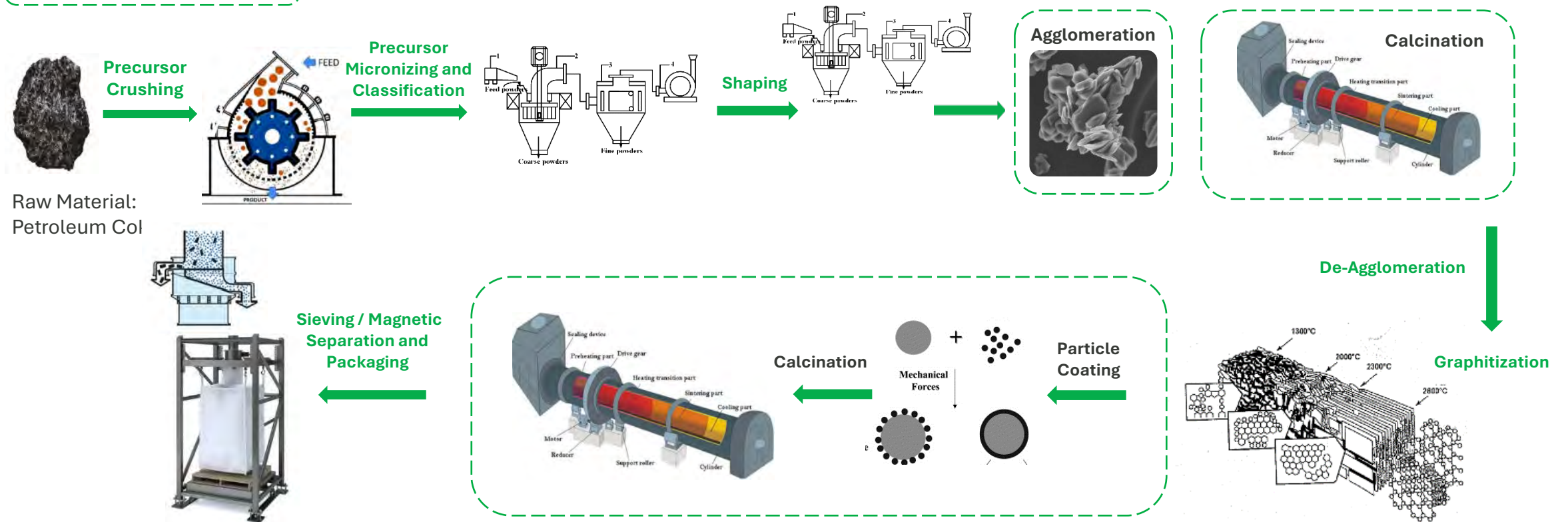
## Product Engineered Specifically for Customers' Needs



1. June 29, 2022: NOVONIX Synthetic Anode Material Leads the Industry in Environmentally Sustainable Manufacturing Practices

# NOVONIX Anode Materials Processing Steps

## Optional Steps



# Riverside at Capacity with Current Offtake Agreements

## Customers\* Supporting Growth



6-year commitment for up to a target volume of 115,000 tonnes starting in 2026 to cell manufacturers LGES & Samsung



5-year commitment for a minimum of 32,000 tonnes starting in 2027



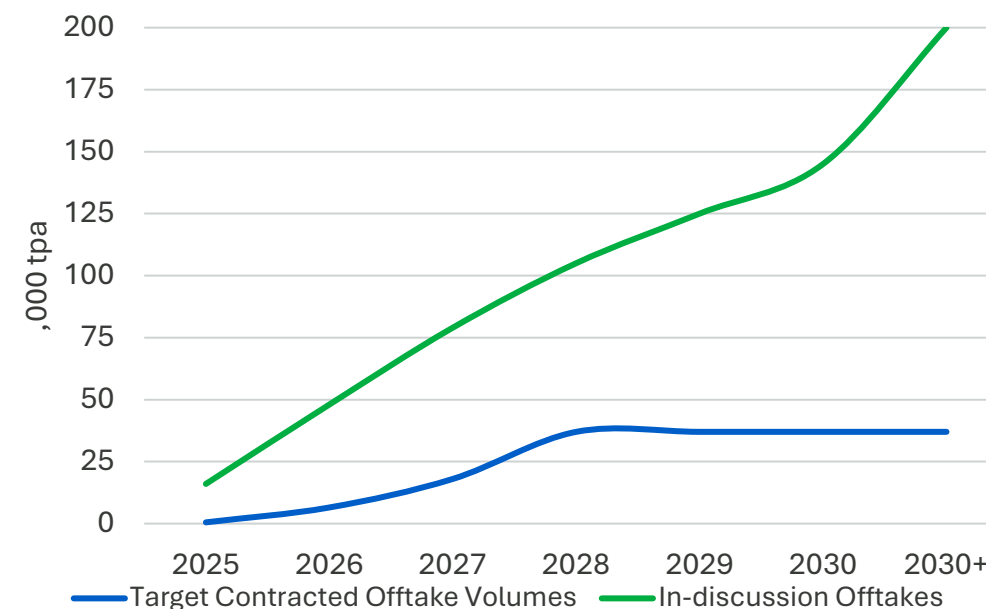
4-year commitment totaling 10,000 tonnes following successful qualification in 2025



Upon successful completion of JDA, LGES has the option to purchase up to 50,000 tonnes over a 10-year period

Continuing discussions with other Tier 1 cell manufacturers and OEMs expected to lead to additional contracted volumes of synthetic graphite with a target of 150K+ tpa

## Contracted Customer Volumes<sup>1,2</sup>



1. Contracted volumes shown require product qualification and growth dependent on customer plans and capital availability. NVX will add production lines at facilities to generally align with contracted volumes
2. The volumes shown are management's annual estimates of the offtakes for Stellantis, PowerCo and Panasonic, including the assumption that Panasonic contract is renewed past 2028

\* Agreements require final product qualification. The Company also has a supply agreement with KORE Power to support its proposed KOREplex facility in Arizona, but, because milestones regarding financing, construction and the timeline of the facility have not been met, the Company has not factored any potential purchase by KORE Power into its currently planned allocation of capacity. If and when the parties reach these milestones and KORE Power proceeds with the construction of the KOREplex facility, NOVONIX will work to supply the facility with its required anode material per the terms of the existing agreement



# Recently Announced: Binding Offtake Agreement with Stellantis N.V.



Stellantis is partnered with LGES and Samsung SDI for their battery cell needs in North America. Stellantis plans to double its BEV offerings from 30 models today to 60 in the next three years.



## Overview

- Stellantis is one of the world's leading automakers – brands including Dodge, Fiat, Jeep, and Ram
- Stellantis plans to invest more than €50 billion over the decade in electrification to deliver on its targets of reaching a 100% passenger car battery-electric vehicles ("BEV")
- Stellantis is securing approximately 400 GWh of battery capacity, including support from battery manufacturing plants in North America and Europe

## Highlights of Agreement

- NOVONIX and Stellantis offtake commitment is for a minimum of 86,250 tonnes up to a target volume of 115,000 tonnes over the six-year term of the agreement
- The price of synthetic graphite products sold by NOVONIX under the offtake agreement will be based on an agreed upon market-based price formula
- The start of commercial supply is targeted for January 1, 2026, and the supply of high-performance synthetic graphite material under the agreement is subject to NOVONIX achieving agreed upon milestones regarding final mass production qualification and satisfying certain compliance criteria. If these milestones or requirements have not been satisfied, then Stellantis may terminate the agreement

# Recently Announced: Binding Offtake Agreement with PowerCo



PowerCo schematic of the St. Thomas facility in Canada (above) that is under construction. Volkswagen's North American hub for electric vehicle assembly is in Chattanooga, Tennessee, and will assemble the all-electric ID.4 and house the high-tech Battery Engineering Lab.

**PowerCo**

## Overview

- Volkswagen Group is bundling its global battery activities in the European company PowerCo SE. PowerCo plans to build three gigafactories in Europe and North America with a total capacity of up to 200 GW
- PowerCo is currently ramping-up its first gigafactory in North America, located in St. Thomas in Canada.
- The 90 GWh cell factory has a projected start of production in 2027 and is part of a larger plan that Volkswagen and PowerCo have for North America

## Highlights of Agreement

- NOVONIX and PowerCo signed an offtake agreement for a minimum of 32,000 tonnes over a 5-year term starting in 2027
- Upon successful completion of product qualifications, PowerCo has agreed to purchase a minimum of 32,000 tonnes of high-performance synthetic graphite material
- Products will be priced under a mutually agreed upon pricing structure

# Binding Offtake Agreement with Panasonic Energy



*Panasonic Energy's Kansas Plant*

**Panasonic**  
**ENERGY**

## Overview

- Panasonic Energy is a leading developer of battery cell technology for EV and ESS batteries in the U.S.
- Panasonic Energy has developed relationships with Tesla, Honda, Toyota, Mazda, Subaru, Ford, and Lucid in North America to supply EV batteries
- Panasonic Energy plans to have ~71 GWh of gigafactories in North America<sup>1</sup>

## Highlights of Agreement

- NOVONIX and Panasonic offtake agreement signed in February 2024 for high-performance synthetic graphite material to be supplied from NOVONIX's Riverside facility in Tennessee to support Panasonic Energy's North American operations
- Commencing in 2025, the agreement supports the purchase of 10K tonnes of synthetic graphite over 4 years and is subject to agreed upon milestones regarding final mass production qualification and timelines
- The agreement includes a pricing structure that incorporates a mechanism for price adjustments in response to significant changes in NOVONIX's raw material costs

1. Benchmark Mineral Intelligence Gigafactory Assessment, August 2024.



# Our Strategic Relationship with LG Energy Solution



LGES has 6 plants in North America built or planned for completion in 2025



## Overview

- LGES is a leading U.S. based developer of battery cell technology for EV and ESS Batteries
- LGES has developed relationships with GM, Honda, Hyundai and Stellantis in North America to supply EV batteries
- LGES plans for 8 plants with ~347 GWh of gigafactories in North America

## Highlights JDA and Investment Agreements

- NOVONIX and LGES signed a Joint Research and Development Agreement (JDA) in June 2023
- Upon successful completion of JDA, LGES has the option to purchase up to 50,000 tons of artificial graphite anode material over a 10-year period from the start of mass production in a separate supply agreement
- LGES invested US\$30M in convertible notes issued by NOVONIX

# Path to Commercial Production at Riverside

## 1H2024

### February 2024

Announcement of the offtake agreement with Panasonic Energy

### Equipment Deposits

Initial deposits on additional furnaces and equipment to reach 3K tpa of capacity

### Facility Improvements

Production equipment installation and commissioning. Utility infrastructure to support equipment and automation

### Engineering Report

Riverside independent engineering report completed



Complete

## 2H2024

### Installing Capacity to 3K tpa

Riverside in process of receiving, installing and commissioning equipment to reach initial 3K tpa to be operational in late 2025 in support of the Tier 1 supply agreements with Stellantis, PowerCo, and Panasonic Energy



On track

## 2025

### 3K tpa Production Start-up

Production line start-up late 2025

### Investing Towards 5K tpa

Continue expansion of production through ordering, installation and commissioning of additional production equipment to support customer demand



On track

On-Site Equipment to be Commissioned



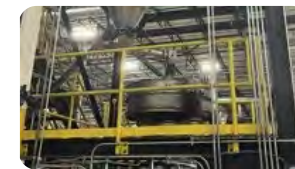
Grinding/Shaping



Gen 3 Furnace



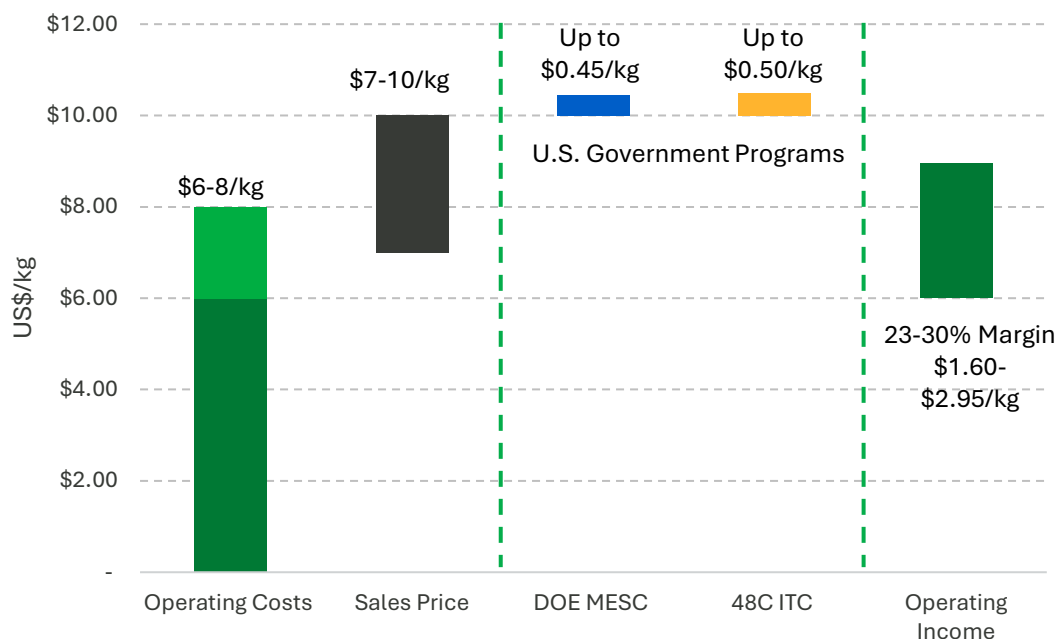
Calciner



Sieve/De-Mag

# Demonstrated Pathway to Profitable Production in the U.S.

## Overview of Riverside Facility Unit Economics<sup>1</sup>



1. Operating Costs include raw materials, Riverside SG&A, labor, energy, maintenance, and depreciation. Cost and sale ranges are indicative of potential product types with different specifications. Margin includes the potential impacts of the 48C tax credit (expected to be monetized to support financing) and DOE MESC grant shown through reduced depreciation impact and excludes any potential benefit from Section 301 tariffs. Lower margin bound unchanged from previous lower target with potential implied value of 45X tax credit

## Market & Government Influence on Economics

Pricing and margins range depend on:

- Product specification
  - Localization premium
  - U.S. Government initiatives:
    - Section 301 Tariffs – 25% tariff on graphite effective June 15, 2024
    - 48C Investment Tax Credit – 30% of investment, monetizable year placed in service
    - 45X Production Tax Credit – 10% of cost of production and is monetizable
    - Section 30D/IRA Compliance – 2027 requirement for not sourcing from FEOC
  - Continued production campaigns and independent engineering assessment support furnace throughput and demonstrate robust unit economics for Riverside
  - Unit economics expected to improve with increased scale achieved at future facilities



## Greenfield Plan Overview

- A new Greenfield facility is planned to support an initial 30,000 tonnes per annum (tpa) by 2028, with potential to expand up to 75,000 tonnes
- Facility will be located in the southeastern United States
- NOVONIX is advanced in the application process with the DOE Loan Programs Office for financing support for this new facility
- Applied for a 48C investment tax credit for the Greenfield facility in October
  - The application is for up to 30% of the approved capital plans.
  - Expect to hear results early in 2025 (January)

## Site Rendering



*Greenfield Site Rendering*

# Goals for the Future of NOVONIX



# Contact Information

## Corporate

Dr. Chris Burns, CEO

Robert Long, CFO

Suzanne Yeates, Secretary

Scott Espenshade, Investor Relations

Investor Relations: [IR@novonixgroup.com](mailto:IR@novonixgroup.com)

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**NOVONIX Limited (ASX:NVX)**

ACN 157 690 830

Level 38, 71 Eagle Street

Brisbane, QLD 4000 Australia

## Operations

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Canada, B4B 1H1

110 Simmonds Drive  
Dartmouth, Nova Scotia  
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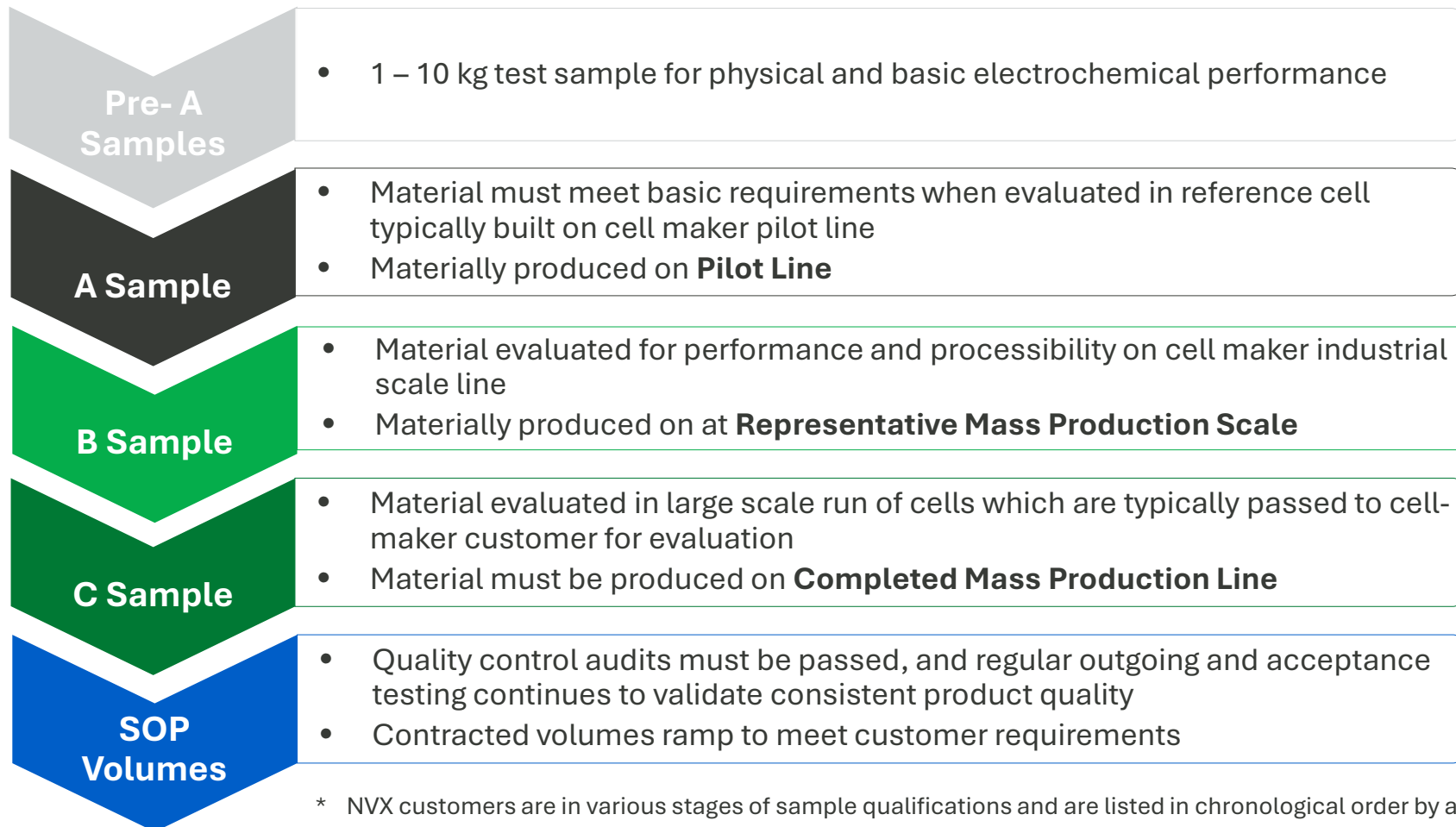
# Appendix

# U.S. Legislation Providing Direct Support

Section 301 Tariffs	<ul style="list-style-type: none"> <li>Section 301 includes a <b>25% tariff on artificial graphite imported from China</b> to help remove unfair market distortions imposed by China's anticompetitive behaviors and size advantage in the battery materials sector</li> </ul>
IRA Tax Credits & Consumer Credit	<ul style="list-style-type: none"> <li>Inflation Reduction Act of 2022 ("IRA") includes tax and other incentives to promote U.S. production of electric vehicles ("EVs"), renewable energy technologies, and critical minerals, representing the single biggest climate investment in U.S. history. IRA includes a \$7,500 federal consumer tax credit (Section 30D) for qualifying electric vehicles,               <ul style="list-style-type: none"> <li>\$3,750 of the credit must meet critical minerals requirement</li> <li>\$3,750 from battery components must meet be manufactured or assembled in North America or Countries with an FTA</li> <li>FEOC component for graphite has been suspended until January 1, 2027, and Manufacturers must progress local supplies to remain qualified</li> </ul> </li> <li>New production and "advanced manufacturing" tax credits               <ul style="list-style-type: none"> <li>Section 45X provides a 10% tax credit which is available to producers of electrode active materials (measured as a percentage of total cost of production).</li> <li>Expands section 48C to provide \$10 billion in tax credits. The tax credit is 30 percent of the amount invested in new or upgraded factories to build specified renewable energy components.</li> </ul> </li> </ul>
DOE MESC Grant, 48C ITC & DOE LPO Loan	<ul style="list-style-type: none"> <li>Finalized <b>US\$100 million of grant funding by the Department of Energy (DOE)</b> Office of Manufacturing and Energy Supply Chains (MESC) to expand NAM's domestic production of high-performance, synthetic graphite anode materials – one of 21 winners across 12 categories</li> <li>Selected for <b>\$103 million 48C investment tax credit for Riverside facility</b>, which may be monetized.</li> <li>Applied for a loan though DOE LPO. The loan, if received, would contribute toward funding the company's Greenfield facility</li> </ul>

# NVX Customer Progression Towards Supply Contract

## Sample Size and Reference



## Customers

PowerCo

STELLANTIS

Panasonic  
ENERGY

LG  
LG Energy Solution

KORE



# Chinese Oversupply Weighing on Pricing

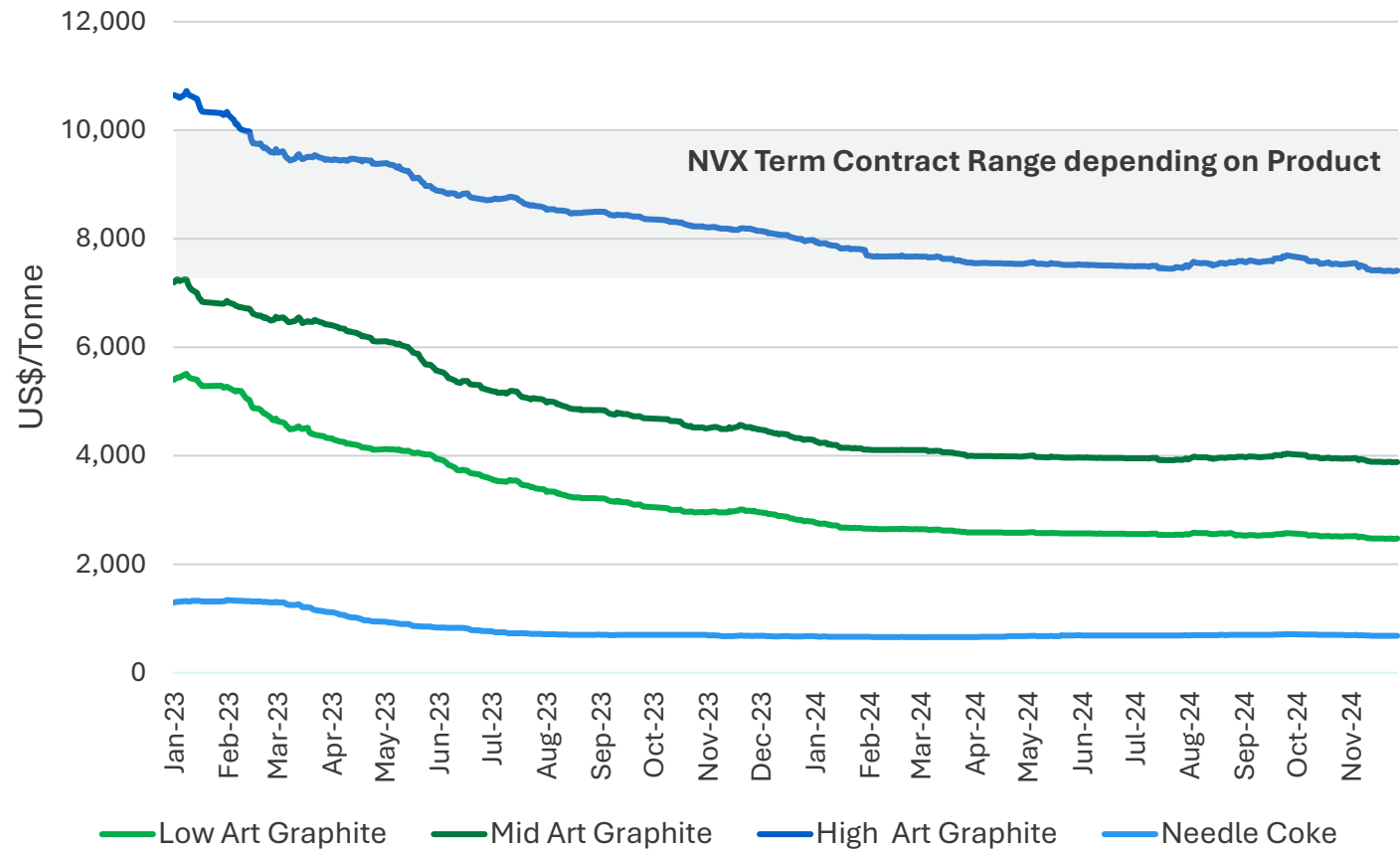
## Chinese Market Offers Wider Range of Products

- High-End Artificial Graphite – (>355mAh/g)  
– 53,800 CNY/mt
- Mid-End Artificial Graphite – (350-355 mAh/g)  
– 28,200 CNY/mt
- Low-End Artificial Graphite – (340-349 mAh/g)  
– 17,950 CNY/mt
- High-End Natural Graphite – (>360 mAh/g)  
– 50,500 CNY/mt
- Mid-End Natural Graphite – (355-360 mAh/g)  
– 32,400 CNY/mt
- Negative Pole (Acheson type)  
– 9,225 CNY/mt
- Spherical Graphite (National, 15-20 um)  
– 13,325 CNY/mt

### Raw Material Input Pricing

Flake Graphite – 3,110 CNY/mt  
Oil Needle Coke – 4,950 CNY/mt  
Calcined Needle Coke – 7,150 CNY/mt  
Coal Needle Coke – 5,225 CNY/mt

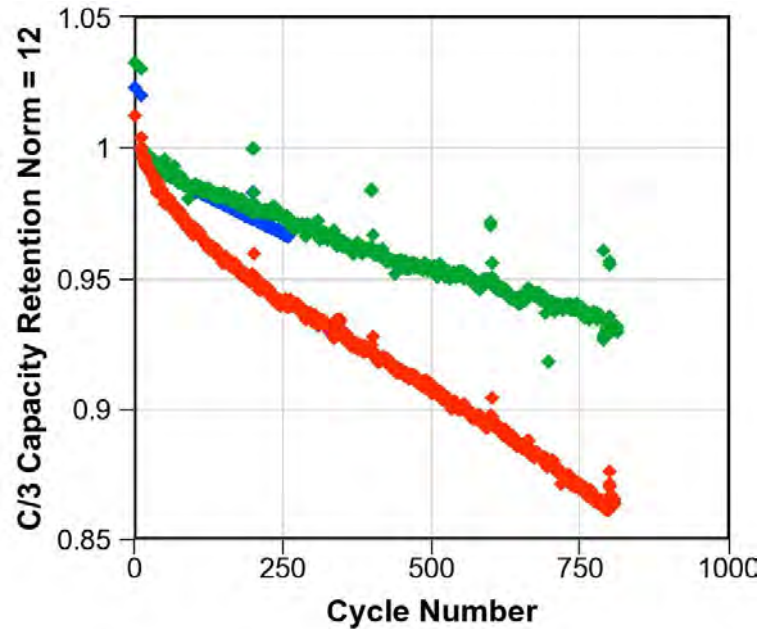
## Chinese Market Pricing for Anode and Needle Coke



Source: Shanghai Metals Market, prices on Nov 29, 2024

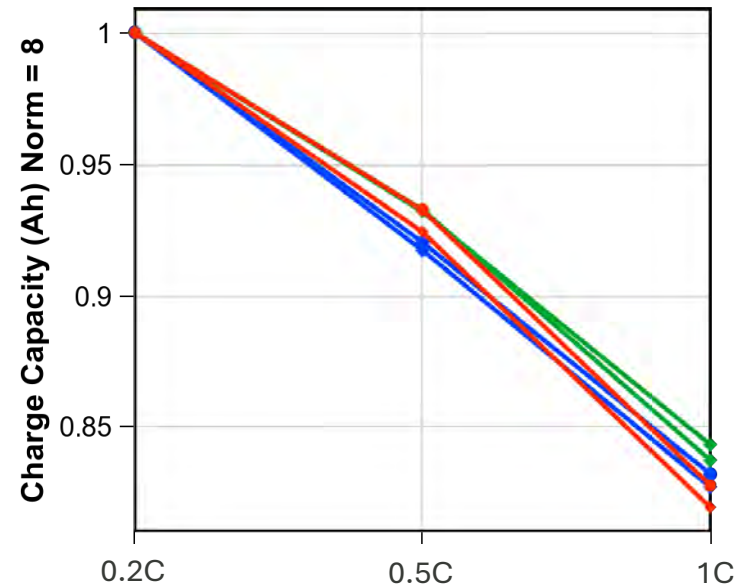
# Product Performance

C/3-C/3, NMC811, 2.8-4.2V, 40°C  
1.2M LiPF<sub>6</sub> EC:EMC:DMC (25:5:70) 2%VC



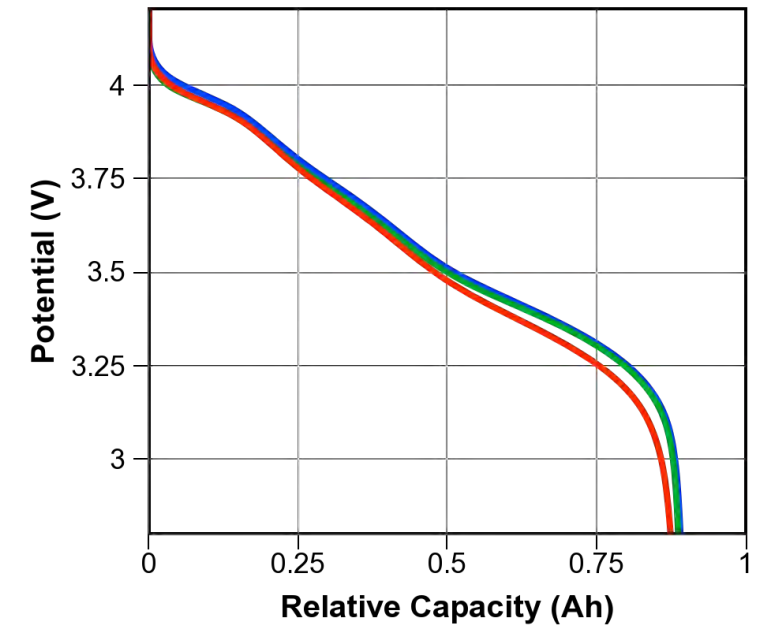
Commercial Anode 1

Charge Rate Map, NMC811, 2.8-4.2V, 40°C  
1.2M LiPF<sub>6</sub> EC:EMC:DMC (25:5:70) 2%VC



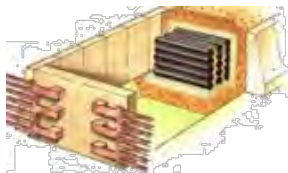
Commercial Anode 2

2C Discharge, NMC811, 2.8-4.2V, 40°C  
1.2M LiPF<sub>6</sub> EC:EMC:DMC (25:5:70) 2%VC

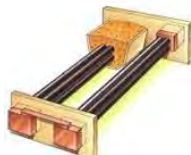


NVX Long-Life EV Anode

# NOVONIX has Validated a Differentiated Technology Ready to Scale



Acheson Furnace



Length-Wise  
Graphitization Furnace



Induction Furnace



NOVONIX Continuous  
Induction Furnace

Energy Efficiency	✗	○	✓	✓
Processing Time	✗	○	✓	✓
Emissions Control	✗	✗	✓	✓
Atmospheric Control	✗	✗	✓	✓
Product Quality	○	○	○	✓
Throughput/Scalability	✓	✓	○	✓



# Enabling Domestic US Supply Chain for EV Battery Grade Synthetic Graphite

## Chinese Synthetic Graphite Supply Chain

1. Needle coke ships to Qingdao from Humber, UK (12,500 miles)
2. Road transport of precursor to grinding site near Shanghai (450 miles)
3. Road transport of ground needle coke to Inner Mongolia (1,050 miles)
4. Graphitization in Inner Mongolia powered by brown coal with no environmental standards or emissions controls
5. Road transport of graphite to southern China (1,500 miles)
6. Processing of graphite into BAM
7. Land transport of BAM to China port (50 miles)
8. BAM ships to US port in CA (7,300 miles)
9. Land transport of BAM to end-user in TN (1,800 miles)

24,650 Total Miles



## NOVONIX Supply Chain



1. Needle coke transported from Lake Charles, LA to Chattanooga, TN (670 miles)
2. All processing of precursor to BAM in Chattanooga under strict environmental standards
3. Delivery of BAM to end-user in Chattanooga, TN (34 miles)  
*LGES, for illustrative purposes*

704 Total Miles

NOVONIX facilitates a cleaner, more secure, supply chain of high-quality synthetic anode material to the North American market vs. Chinese competitors

# Demonstration of Process Scalability is Essential

## Lab Scale

- Synthesis of revolutionary material in the lab is 'easy'
  - Lower barrier of entry
  - Material quality and performance can be readily tweaked using non-standard equipment
  - Sampling programs difficult to progress with grams of material

## Pilot Scale

- Demonstrates process credibility and claim verification
  - Leverages scaled down versions of production equipment
  - Production of meaningful cathode samples (10 tpa)
  - Enables full cell performance testing



2019

Priority date of first patent application

2020-2022

Lab demonstration of cathode performance

Mid-2023

Commission pilot R&D facility

Late-2023

Cathode sampling program begun

2024

Strategic partnership discussions

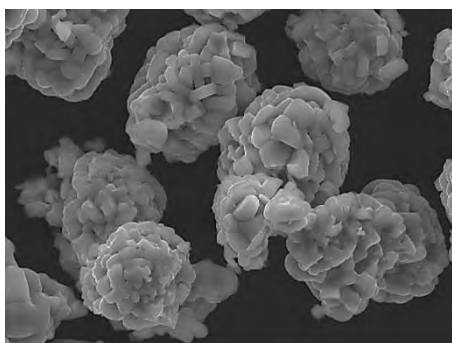


It is critical to utilize familiar equipment to produce familiar materials for the stringent requirements of the battery supply chain

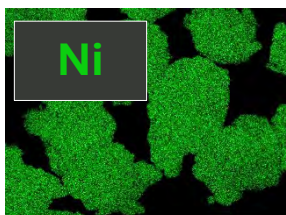
# Early 'All-Dry' Methods Were Cast Aside for Wet (Co-Precipitation) Processes

## Early all-dry ternary cathode synthesis methods resulted in poor intra-particle homogeneity

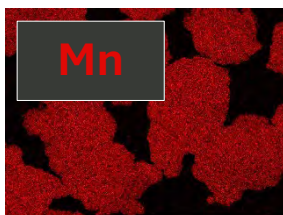
Commercial NMC622  
Conventional Process



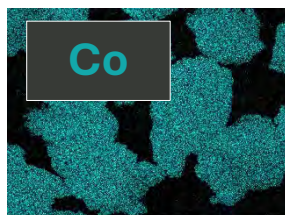
10µm



10µm

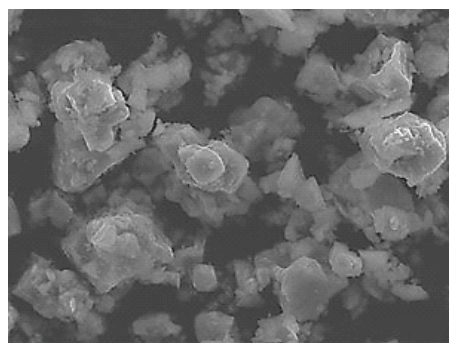


10µm

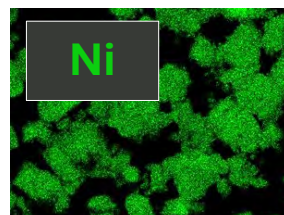


10µm

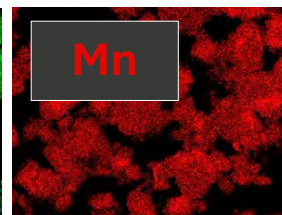
Solid-State NMC622  
All-Dry Process



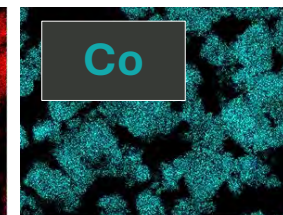
10µm



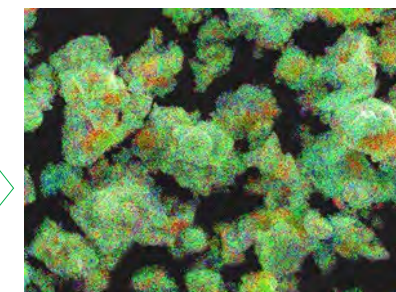
10µm



10µm



10µm



10µm

*Journal of The Electrochemical Society*, 2023 **170** 080519

### Quantitative Measurement of Compositional Inhomogeneity in NMC Cathodes by X-ray Diffraction

Mohammad H. Tahmasebi<sup>1</sup> and M. N. Obrovac<sup>1,2,3,\*</sup>

<sup>1</sup>Department of Chemistry, Dalhousie University, Halifax, Nova Scotia B3H 4R2, Canada

<sup>2</sup>Department of Physics and Atmospheric Science, Dalhousie University, Halifax, Nova Scotia B3H 4R2, Canada

<sup>3</sup>Clean Technologies Research Institute, Dalhousie University, Halifax, Nova Scotia B3H 4R2, Canada

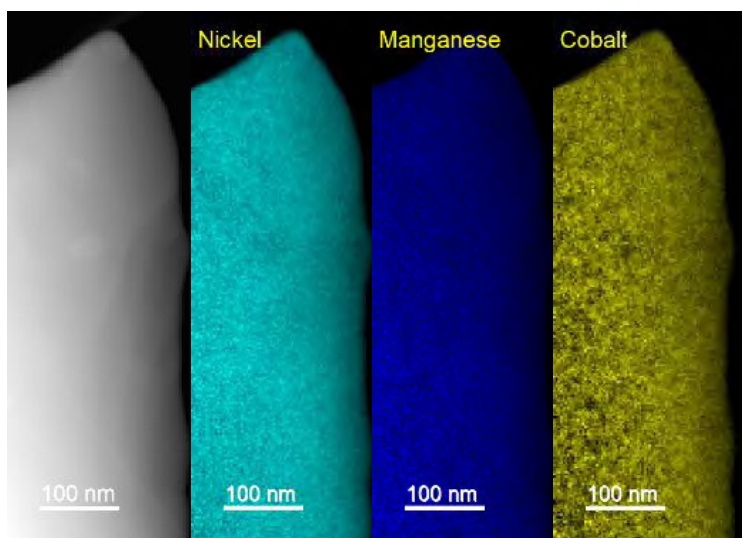
Poor intraparticle homogeneity leads to strain within the particle and poor mechanical and electrochemical performance



# Advanced Imaging Diagnostics for NOVONIX All-Dry, Zero-Waste Cathode

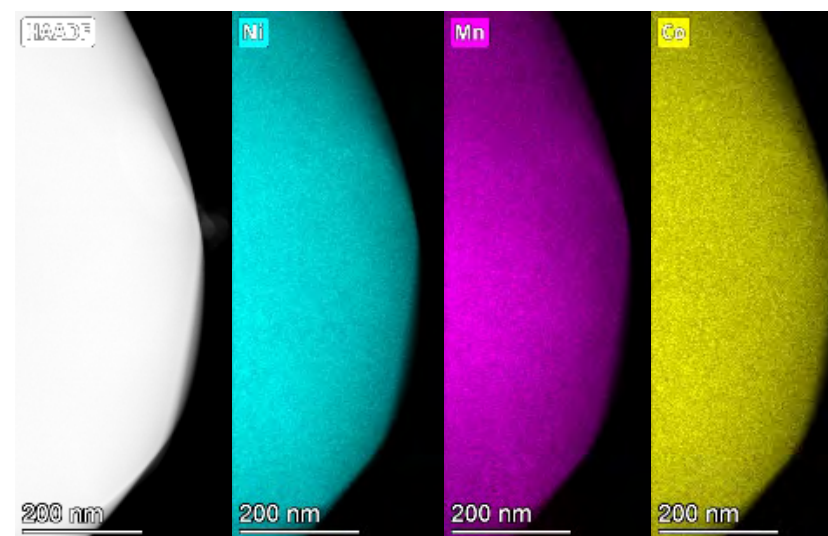
## Commercial Mid-Nickel Reference Powder

- Scanning Transmission Electron Microscopy (STEM) Imaging
  - Homogeneous metal distribution



## Commercial Mid-Nickel Reference Powder

- Scanning Transmission Electron Microscopy (STEM) Imaging
  - Homogeneous metal distribution



NOVONIX patented All-Dry, Zero-Waste Processing ensures homogeneous intraparticle metal distribution

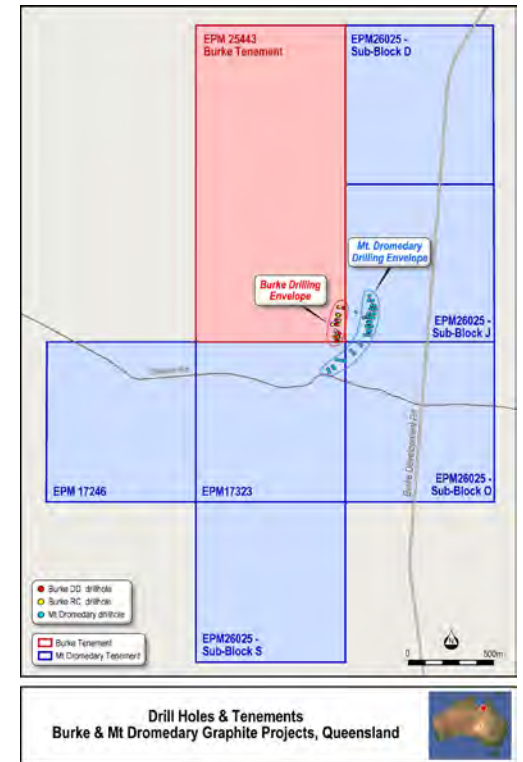
# Conditional Proposal - Mount Dromedary & Axon Graphite

## World class, large-scale natural high-grade flake graphite project

- Conditional 50/50 Joint Venture with NVX “merging” Mount Dromedary asset in exchange for shares in LEL subsidiary, Axon Graphite
- Axon Graphite holds the Burke and Corella Tenements in Queensland
- Intend to list Axon Graphite on the ASX to raise new capital targeting between A\$15 million – A\$25 million

### Axon’s principal activities will include:

- Advancing the development of the Burke/Mt. Dromedary graphite projects;
- Advancing the exploration, evaluation and development of the Corella graphite project;
- Progressing the development of a vertically integrated Spherical Purified Graphite Battery Anode Material manufacturing facility in Queensland; and
- Investigating and potentially pursuing other prospective projects in the battery minerals sector both in Australia and abroad.



# Equity Raising Overview

<b>Offer Size &amp; Structure</b>	<ul style="list-style-type: none"> <li>A\$52.1 million (~US\$34.0 million<sup>(1)</sup>) capital raising comprising of a placement in two tranches: <ul style="list-style-type: none"> <li>Underwritten<sup>(2)</sup> institutional placement to raise approximately A\$44.4 million (~US\$29.0 million<sup>(1)</sup>) (“Institutional Placement”)</li> <li>Committed investment from Phillips 66 for US\$5 million (~A\$7.7 million<sup>(1)</sup>), subject to shareholder approval that will be sought at an Extraordinary General Meeting expected to be held on or about 22 January 2025 (“Conditional Placement”)</li> </ul> </li> <li>The Company will also undertake a non-underwritten SPP to raise approximately A\$5.0 million (~US\$3.3 million<sup>(1)</sup>)(<sup>3</sup>) and will be offered to eligible shareholders who can apply for up to A\$30,000 of New Shares at the Offer Price (depending on final pricing per ASX Listing Rules)</li> <li>If demand exceeds this amount, the Company may scale back applications under the SPP at its absolute discretion</li> <li>Placement and SPP will issue up to approximately 95.2 million new fully paid ordinary shares (representing 19.3% of the total shares of the Company prior to the capital raising)</li> </ul>
<b>Offer Pricing</b>	<ul style="list-style-type: none"> <li>Offer price of A\$0.60 (“Offer Price”) per new share, representing a: <ul style="list-style-type: none"> <li>29.7% discount to the 5-day VWAP up to and including 25 November 2024 of A\$0.853</li> <li>37.8% discount to the last close of A\$0.965 on 25 November 2024</li> </ul> </li> </ul>
<b>Use of Proceeds</b>	<ul style="list-style-type: none"> <li>Proceeds used for installing and commissioning property, plant and equipment for 3K tpa at the Riverside facility by H1 2025 and continued build-out for commercial production to start late 2025</li> </ul>
<b>Underwriting</b>	<ul style="list-style-type: none"> <li>The Institutional Placement was fully underwritten by Citigroup Global Markets Australia Pty Ltd (“Citi”) and Jefferies (Australia) Pty Limited (“Jefferies”)</li> <li>The Conditional Placement and SPP are not underwritten</li> </ul>
<b>Ranking</b>	<ul style="list-style-type: none"> <li>New Shares issued under the offer will rank equally with existing shares on issue</li> </ul>

1. Converted from AUD to USD based on the spot exchange rate as at 25 November 2024. on the RBA website

2. For further details on the terms and conditions of the underwriting arrangements, see slides 40 to 42

3. The Company may (in its absolute discretion), where the total applications under the SPP exceed \$5 million, determine to increase the amount raised to reduce or eliminate the need to scale-back

4. Based on the placement capacity of ~74,064,647 shares