



NOVONIX

► **Set for Growth**

September 2023

Raymond James Briefing Presentation

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Providing Revolutionary Solutions to the Battery Industry

Investment Highlights



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



Large and growing market for battery materials supported by localization efforts



Intellectual property portfolio for synthetic graphite manufacturing and all-dry, zero-waste NMC cathode synthesis



Battery Technology Solutions provides competitive advantage to accelerate innovation



Customer and government financing support paving a path to profitability as a sector leader

NOVONIX



Riverside Facility in Tennessee

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

BATTERY TECHNOLOGY SOLUTIONS

- Develops industry leading lithium-ion battery testing equipment while providing R&D services
- Competitive intelligence from unparalleled visibility across the entire industry drive value-add opportunities
- In-house testing technology & data solutions accelerates rapid advancements compared to industry standard



NOVONIX

CATHODE MATERIALS

- Commercializing proprietary All-Dry Zero-Waste Cathode Synthesis technology
- Process technology minimizes environmental impact while producing high performance materials
- Pilot will demonstrate large-scale production of up to 10 tpa

BTS provides competitive advantage to remain industry leader and unlocks value-add opportunities

NOVONIX 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 harmful chemicals



Strategic Relationships

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

Key Strategic Relationships & Highlights



LG Energy Solution



Panasonic
ENERGY



- Signed a Joint Research and Development Agreement (JDA) with LGES in June 2023
 - Upon completion of JDA, LGES has the option to purchase up to 50,000 tonnes of artificial graphite anode material over a 10-year period
 - LGES invested \$30M in convertible notes
- Supply Agreement with KORE Power scaling to ~12,000 tpa of anode material
- MOU agreements with both Panasonic Energy and Samsung SDI for evaluation of NOVONIX materials
- In August 2021, Phillips 66 made a \$150 million strategic investment to become NOVONIX's largest shareholder and engaged PSX in technology development agreement
- Partnership with Harper International, a domestic specialized furnace technology leader, developing and supplying NOVONIX with proprietary systems for thermal processing

NOVONIX Proprietary Process Technologies Leads 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's Technology

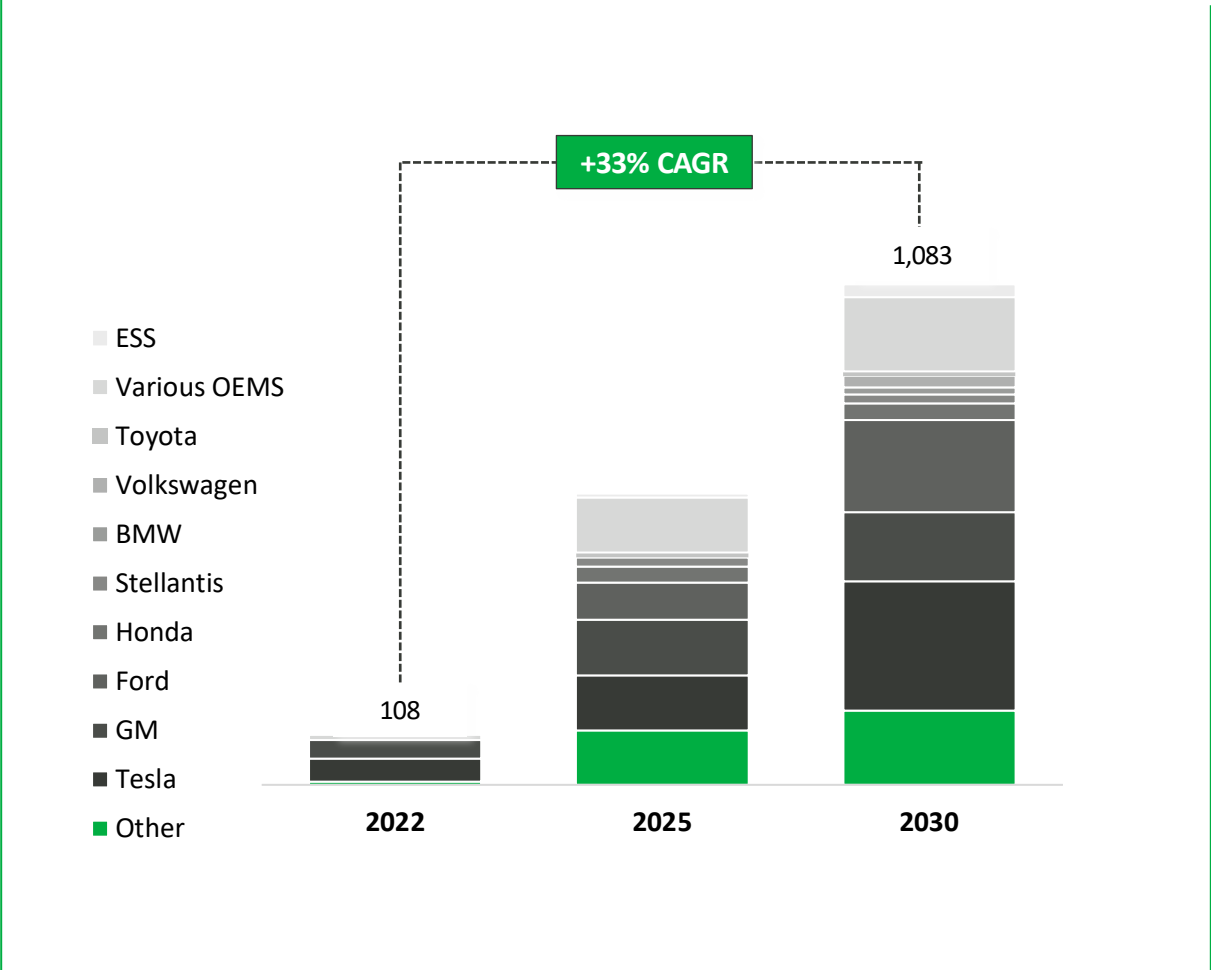
	Anode Technology	Cathode Technology
Inputs	<ul style="list-style-type: none"> Clean power sources¹ High purity input materials 	<ul style="list-style-type: none"> Reduced power requirements No reagents
Process	<ul style="list-style-type: none"> Proprietary furnace & process technology Increased energy efficiency No chemical purification 	<ul style="list-style-type: none"> Proprietary all-dry zero-waste cathode synthesis technology Decreased capital cost Lower processing costs
Outputs	<ul style="list-style-type: none"> NOVONIX's anode materials support higher-performance lithium-ion batteries resulting in longer life Negligible facility emissions LCA² demonstrated a ~60% decrease in global warming potential 	<ul style="list-style-type: none"> No sodium sulfate waste Eliminates process wastewater Negligible facility emissions

1 - Tennessee Valley Authority, 2022 Sustainability Report notes 52% of power is from carbon-free sources.

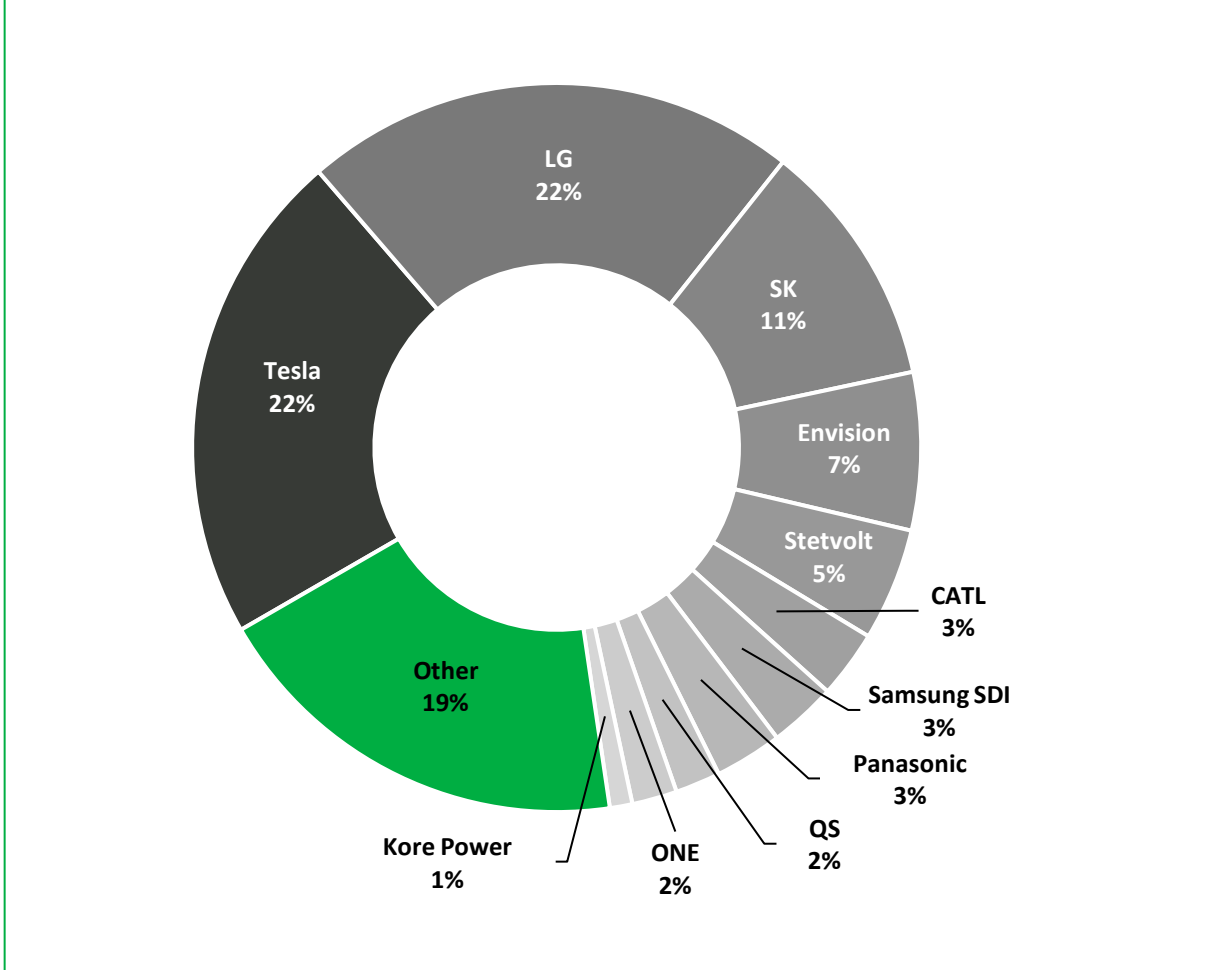
2 - The Life Cycle Assessment (LCA) conducted by Minviro Ltd. demonstrated a ~60% decrease in global warming potential (GWP) relative to conventional anode grade synthetic graphite versus Chinese product.

Auto and Cell Manufacturing Driving Market Demand

U.S. Auto OEMs Battery Mfg. Capacity (GWh)



2030 U.S. Cell Mfg. Capacities



Source: Credit Suisse, Benchmark Minerals Intelligence, Company Reports



Battery Technology Solutions

NOVONIX Stays 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

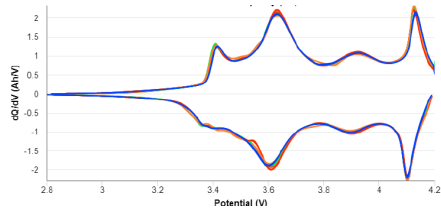
Cell Testing



Diagnostic tools and performance testing

Data Solutions

Customer Research & Development Services



Battery technology insights driven by AI & advanced data analytics with SandBoxAQ

NOVONIX Battery Technology Solutions (BTS) 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 and SandboxAQ Collaborate on Breakthrough AI Solutions for Battery Technology



- Develops industry leading lithium-ion battery testing equipment while providing R&D services
- Competitive intelligence from unparalleled visibility across the entire industry drive value-add opportunities
- In-house testing technology & data solutions accelerates rapid advancements compared to industry standard



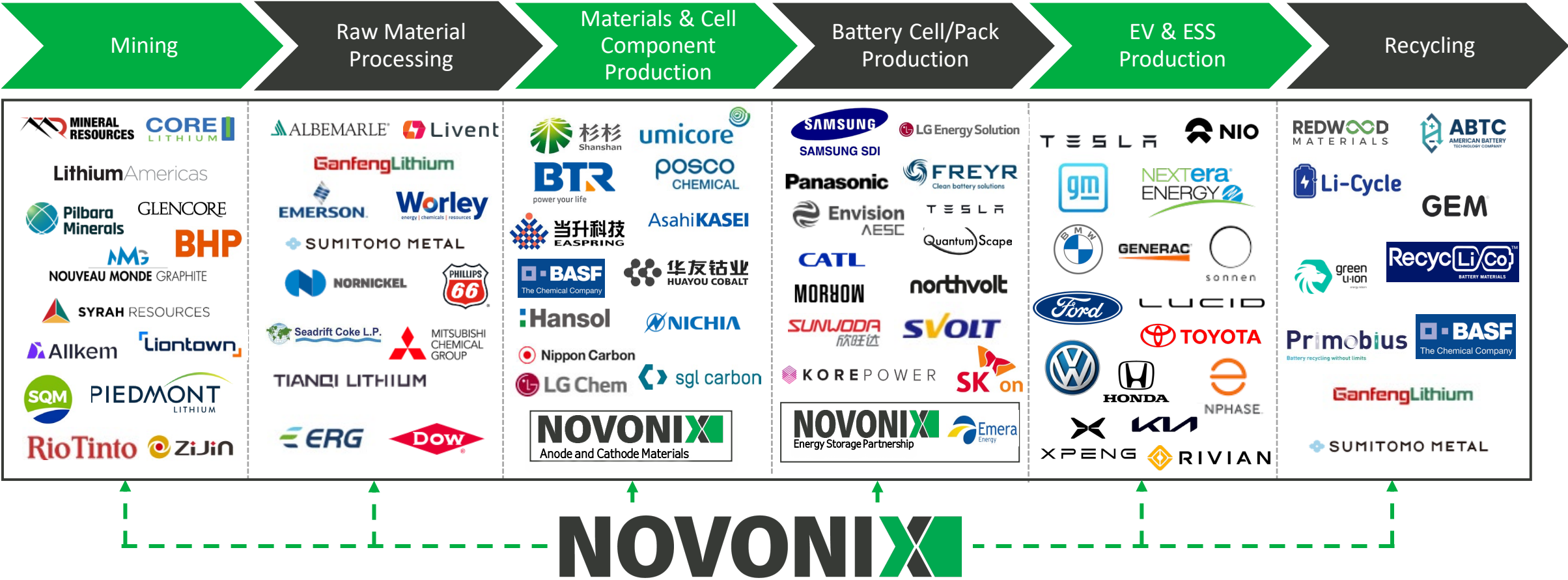
- Enterprise SaaS company that combines artificial intelligence (AI) with quantum analysis (AQ) to address some of the world's most challenging problems
- Launched in 2022, with prominent investors including T. Rowe Price, Eric Schmidt, Breyer Capital, Guggenheim Partners and Thomas Tull, and customers including Vodafone Business, Mt. Sinai Health System and Wix
- Current Chairman is Eric Schmidt, former CEO and Chairman of Google



- Machine learning algorithms and quantum simulations for battery R&D
- Models will be used for data products and services in the first half of 2024, building on NOVONIX's purpose-built, proprietary, battery data platform
- Key features will include:
 - Data Processing/Visualization
 - Analysis and Report Automation
 - AI and ML tools
 - Materials discovery
 - Cell performance prediction

NOVONIX and Sandbox will collaborate to predict the lifespan of lithium-ion batteries, by leveraging SandboxAQ's AI-driven chemical simulation software and NOVONIX's UHPC technology and extensive battery cell prototyping and testing capabilities

NOVONIX Plays a Critical Role in the Lithium-Ion Battery Value Chain



Visibility across the entire battery value chain provides competitive intelligence and attractive opportunities for NOVONIX

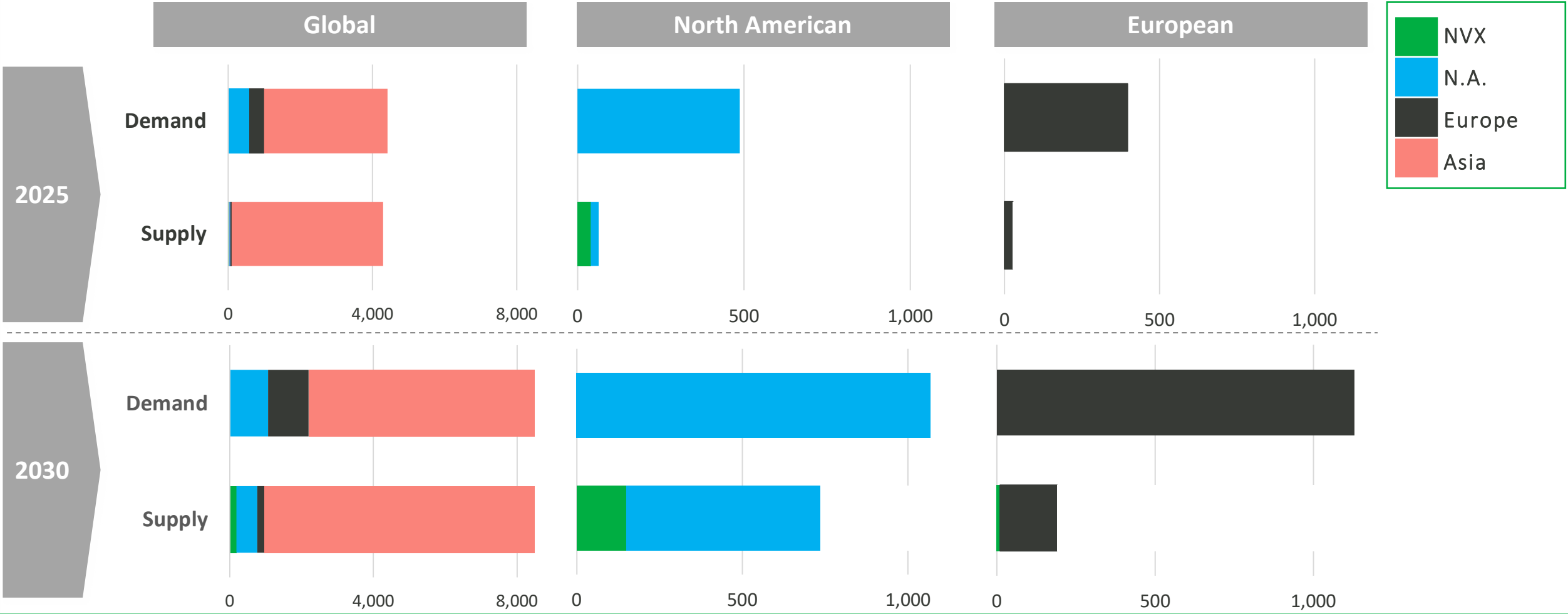
Note: Companies presented above are for indicative purposes only and not a representation of customer relationships.



Anode Materials

Local Anode Material Supply Shortfalls Foreseen Globally

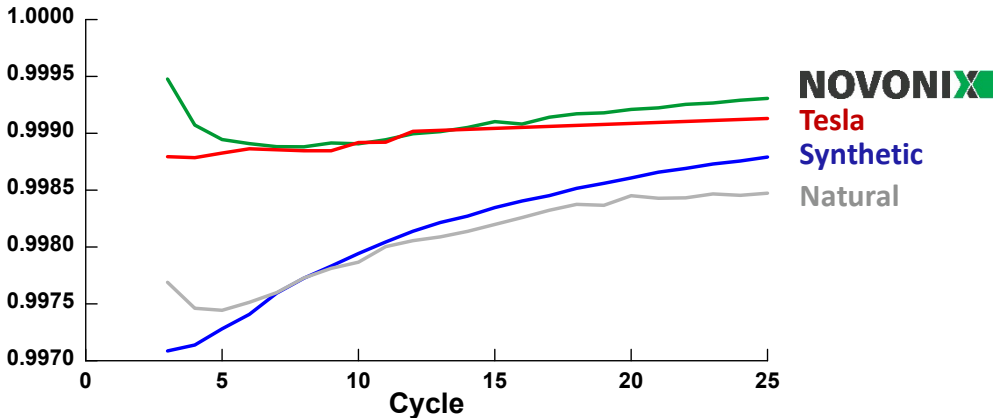
Graphite Supply and Demand, thousand tpa



Source: Benchmark Mineral Intelligence, Company Reports, NVX estimates.

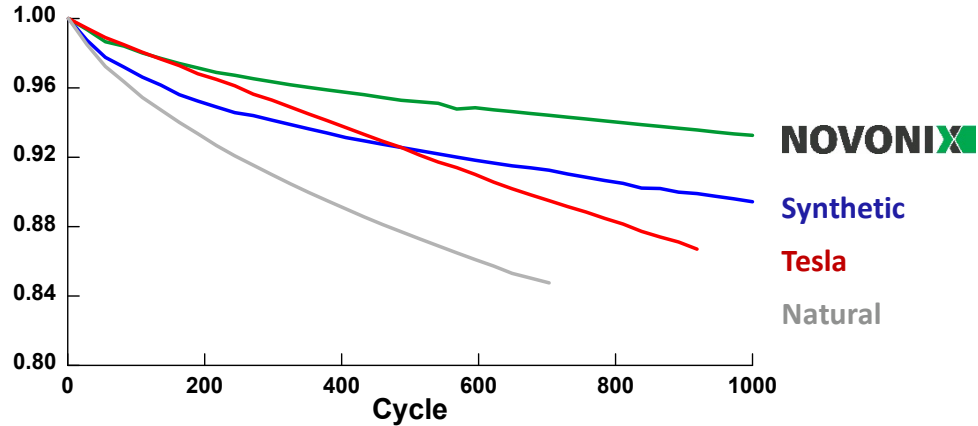
NOVONIX Anode Material Outperforms in Head-to-Head Testing

Improved Coulombic Efficiency (CE)¹



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

Improved Capacity Retention¹



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

1. Data based on internal measurements taken as part of product verification process.

NOVONIX Establishes Strategic Relationship with LG Energy Solution

LG Energy Solution (LGES) Overview



LGES has 7 plants in North America built or planned for completion in 2025

- 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 to have ~250 GWh of gigafactories in North America

Highlights of JDA & Investment Agreements

- NOVONIX and LGES recently 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

Riverside Facility Begins Production in 2024

Riverside Facility Overview

- In 2021 celebrated opening of NOVONIX's new Riverside facility attended by US Secretary of Energy, Jennifer Granholm
- NOVONIX has been running Generation 3 Furnaces campaigns through 2023 to better understand furnace performance and provide customer samples
- Supply Agreement with KORE Power to begin deliveries in late 2024 scaling to 12,000 tpa for their KOREplex Facility



Riverside Facility in Chattanooga, Tennessee

Riverside Update & Next Steps

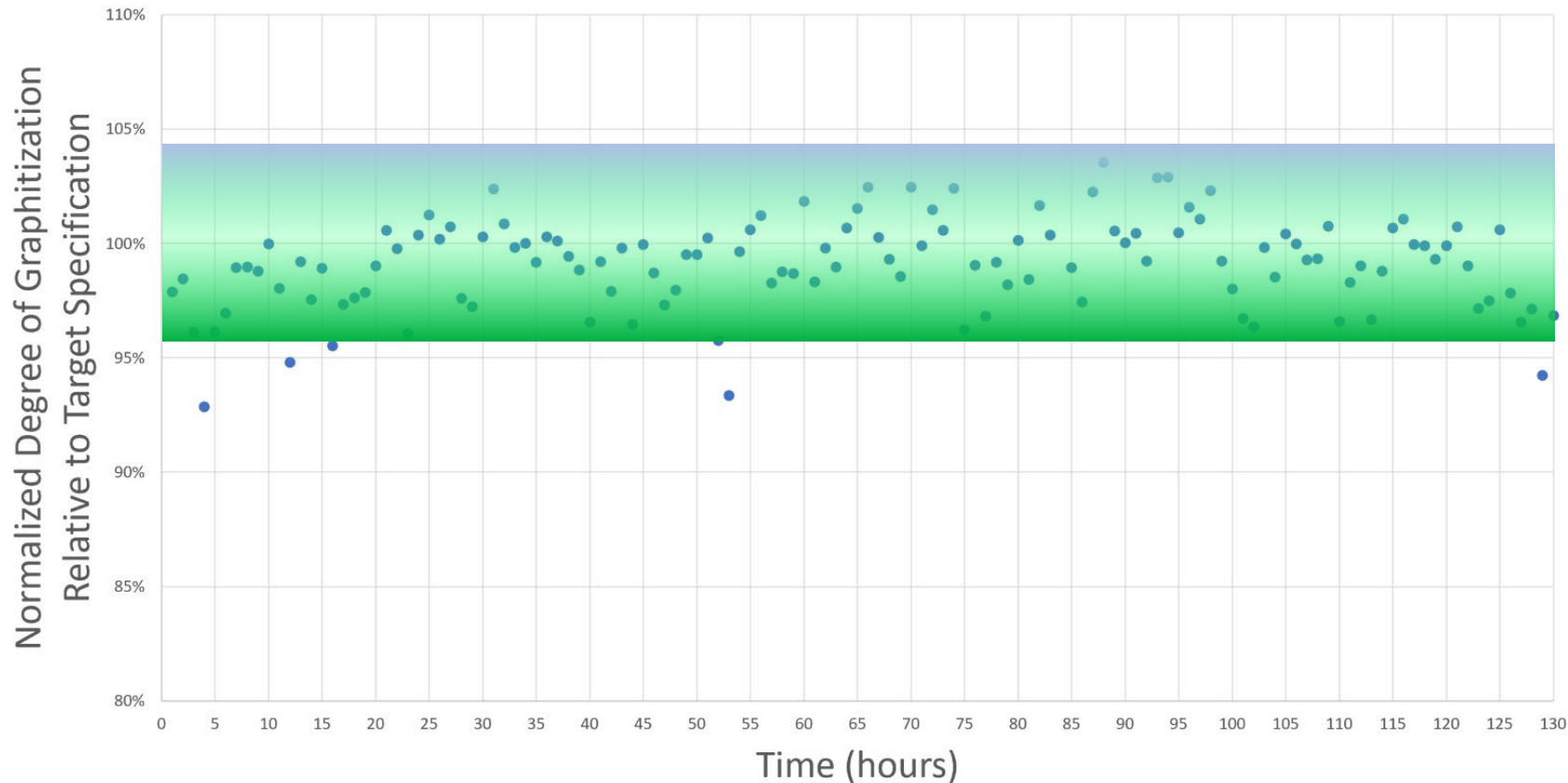
- Demonstrated successful production with the Company's Generation 3 Furnaces meeting design targets, including throughput, cost, and sustainability targets
- Increased production capacity target from 10,000 tpa to up to 20,000 tpa for Tennessee Facility
- Expected capital and operating costs for future facilities projected to be lower than the Company's initial estimates
- Engineering anticipated by Q1 2024 to support ordering of mass production equipment for Riverside buildout and supports potential future expansions



NOVONIX Generation 3 Continuous Induction Furnace Systems

NOVONIX has Demonstrated Meeting Target Product Specifications

Product Quality vs. Hours of Operation

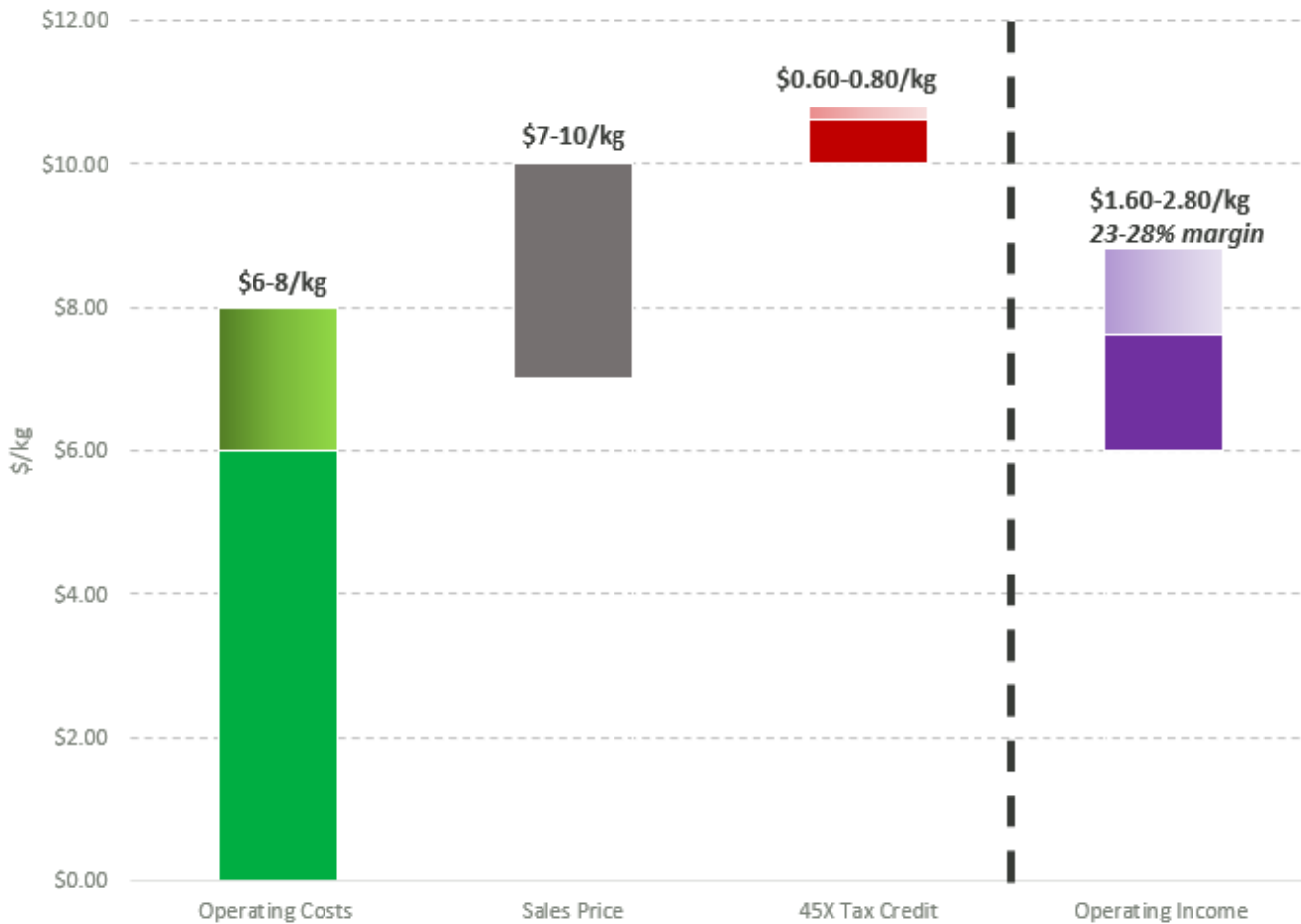


Highlighted Achievements

- GX-23 was analyzed and met all its target physical and electrochemical specifications in a recent production campaign, data shown in the chart demonstrating 130 hours of in-spec material
- The continuous output from a single Generation 3 Furnace, producing multiple tonnes of material, was confirmed to meet the target for the degree of graphitization for the product
- Meeting production targets at competitive cost while reaching our high-energy efficiency target with a near zero-emission process

NOVONIX has Demonstrated a Pathway to Profitable Production in the USA

Riverside Facility Unit Economics Overview



Highlights

- Recent production campaigns validate furnace throughput and demonstrate improved unit economics for Riverside
- Unit economics expected to improve with increased scale of facility
- Pricing to range dependent on
 - Product specification
 - Localization premium
 - Government programs
 - Section 301 Tariffs
 - IRA 30D Compliance, 45X, 48C

Phased Growth Plan Matches Customer Demands

North American Anode Market Share¹:



NOVONIX N.A. Capacity / Tonnage Phased Growth



NOVONIX's Illustrative N.A. Scale Plan⁴

KORE Power	KORE + LGES + Add'l Tier 1s	Portfolio of Customers
~55K per year	~909K per year	~2.7M per year

TAQAT JV

▪ TAQAT Joint Venture targets 30K tpa of productive capacity in Saudi Arabia by 2030

1. Market share based off implied North American graphite demand in 2025, and 2030. Source: Benchmark Mineral Intelligence Gigafactory Assessment – April 2023. Based on announced capacity. Assumes full utilization.
 2. Company expectations aligned with customer contracts and anticipated customer demand, which may or may not materialize
 3. KORE Power agreement to supply Koreplex anticipates a ~3,000 tpa delivery rate in 2H 2024 ramping to ~12,000 tpa rate in 2028.
 4. Assumes 55kg of graphite per EV.

U.S. Legislation Providing Direct Support to NOVONIX's Business Plan

Section 301 Tariffs

- In August 2017, the Office of the United States Trade Representative (USTR) launched an investigation into China's allegedly unreasonable and discriminatory trade practices under Section 301 of the Trade Act of 1974. The tariff exclusion "necessity review" was extended in December 2023
- **Section 301 includes a 25% tariff on artificial graphite imported from China** to help remove unfair market distortions imposed by China's anticompetitive behaviors and size advantage in the battery materials sector

IRA Tax Credits & Consumer Credit

- **Inflation Reduction Act of 2022 ("IRA") includes an estimated \$369 billion in investments** related to "climate change and energy security," including 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 for qualifying electric vehicles, starting in 2023 based on the origin of materials and localization of manufacturing**
 - **\$3,750 of the credit must meet critical minerals requirement** - The critical mineral credit requires certain thresholds of the percentage of the value¹ of the critical minerals in the vehicle's battery to be extracted or processed in the United States or from a country which has a free trade agreement in effect with the U.S. EV credit eligibility is disqualified if materials are used from foreign entities of concern starting in 2025
 - **\$3,750 from battery components** - The battery component requirement will be met if the percentage of the value of the components in the vehicle's battery that were manufactured or assembled in North America is equal to or greater than 50 percent in 2023 and increasing from that time

DOE Loans

- DOE Loan Programs Office (LPO) has \$15.1 billion in loan authority to support the manufacture of eligible light-duty vehicles and qualifying components under the Advanced Technology Vehicles Manufacturing Loan Program (ATVM), authorized by the Energy Independence and Security Act of 2007, providing debt capital at U.S. Treasury rates
- **Invited to Phase 3 of DOE LPO Loan process in May 2023.** The loan, if received, would contribute toward funding the company's current expansion of battery materials capacity



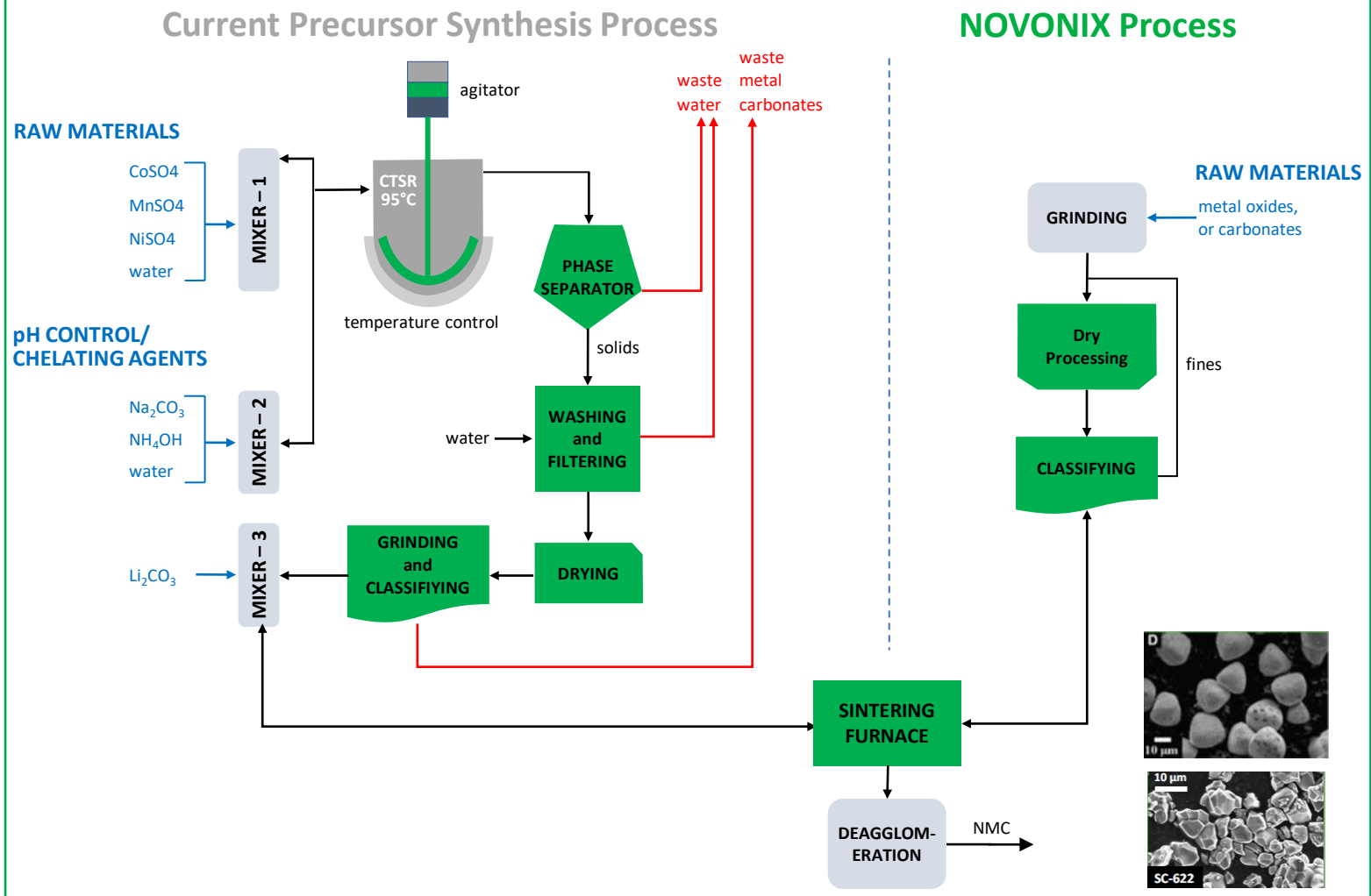
Cathode Materials

NOVONIX - Cathode Synthesis Provides Clean and Simple Process

Cathode Synthesis Development Overview

- Cathode material represents about 30% of the cost of a battery cell
- In 2021 the global cathode market size value was US\$19B, with a forecasted revenue > US\$100B by 2030¹
- Current synthesis process is complex, produces water waste and is costly
 - 15,000 liters of waste water² is generated per tonne of cathode material
- With multiple patent applications filed, NOVONIX's all-dry zero-waste cathode synthesis technology delivers:
 - Higher yields at lower costs
 - No water waste
 - High Nickel cathode materials

Current Process vs. NOVONIX Process



1. 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 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 labour costs
- Low-to-no processing reagents
- Lower power consumption
 - More efficient calcination
 - Fewer processing steps
- Lower maintenance costs
- Lower waste treatment costs

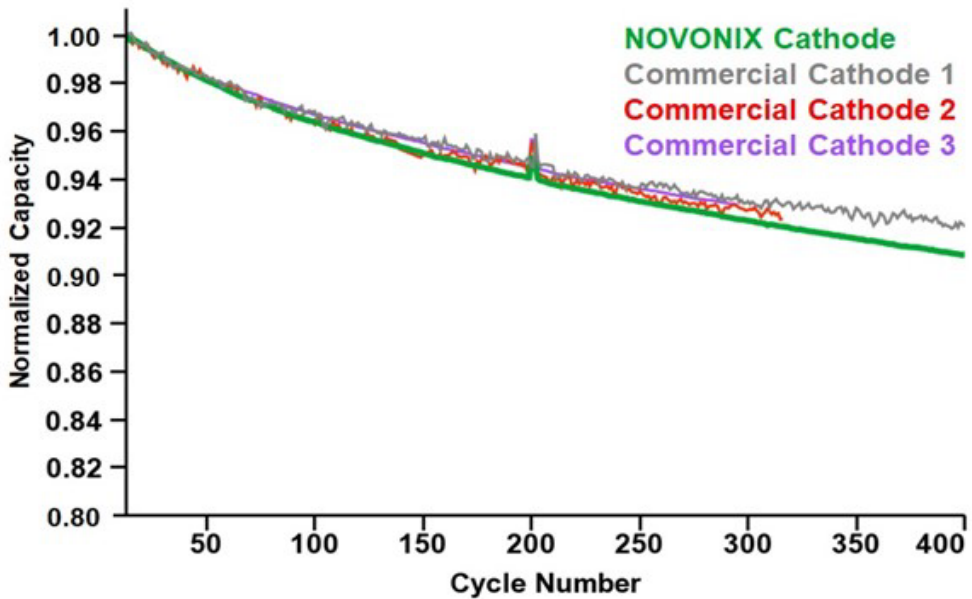
More Environmentally Friendly process

- ~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.

Cathode Cycle Performance Matches Commercial Material

Full Cell Cycling Performance of NOVONIX Single Crystal NMC622

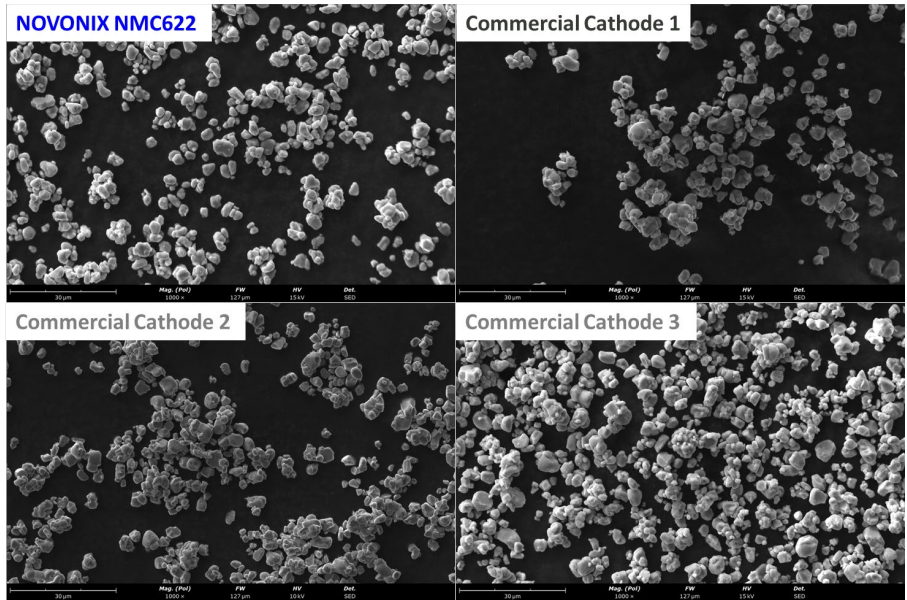


Product	Reference NMC622	NOVONIX NMC622
Capacity at c300 (%)	92.5%	92.1%
First Cycle Efficiency (%)	84.9%	84.9%

40°C; 1.2M LiPF₆ EC:EMC:DMC(25:5:70)+3VC; [Charge]: CC-0.33C; [Discharge]: CC-0.33C

Enhanced Production Process Yields Consistent Performance

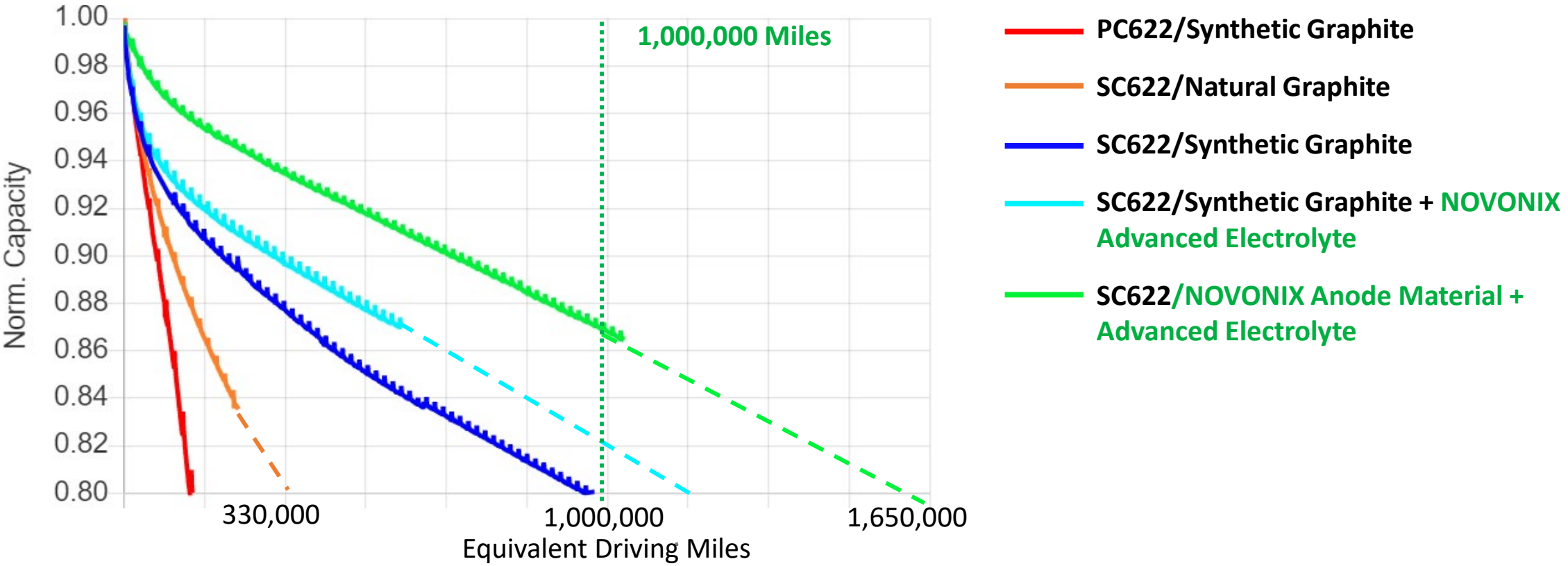
- Normalized electrochemical results in 1Ah pouch cell show that NOVONIX NMC622 has comparable electrochemical performance to commercial NMC materials
- NOVONIX all-dry zero-waste single crystal cathode materials share similar morphology to commercial NMC Powders



- Higher nickel and cobalt-free materials are also being made using our process technology

NOVONIX's Battery Technology Paves the Way for the Next Generation

Demonstrated and Projected Performance Predicted to Exceed 1 Million Miles based on ~2 Years of Test Data⁽¹⁾



Building full cells for performance testing to demonstrate performance of NOVONIX anode, cathode, and electrolyte technologies in a single cell

1. Data based on internal measurements taken as part of verification process. 40°C full depth of discharge cycling, Assumed 330-mile range. Projection lines shown for guidance. SC NCM622 shown here is Commercial SCC reference material.

Goals for the Future of NOVONIX

