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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.

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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**





- 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

- Develops industry leading lithiumion 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





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



### **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

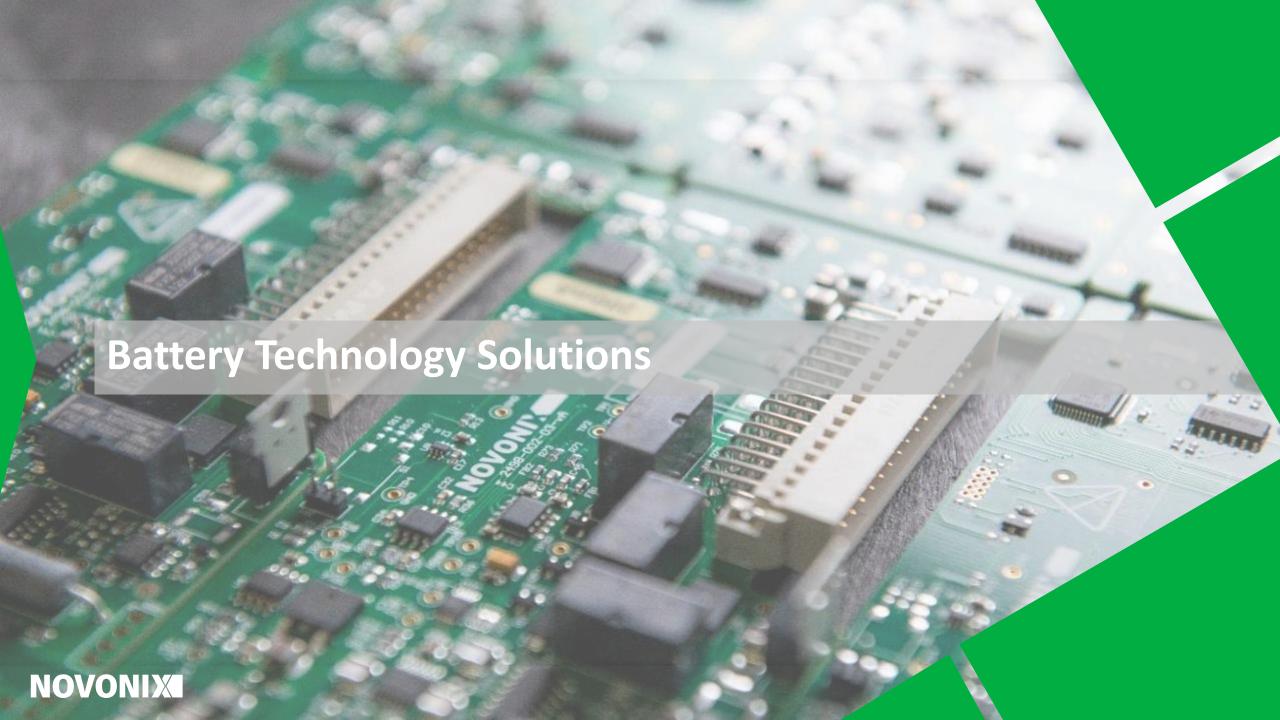
NOVONIX believes corporate governance is central to its business objectives and a critical element contributing to the preservation of shareholder value

### **Environmental Benefits of NOVONIX's Technology**

		· ·		
		Anode Technology	Cathode Technology	
	Inputs	<ul> <li>Clean power sources<sup>1</sup></li> <li>High purity input materials</li> </ul>	<ul><li>Reduced power requirements</li><li>No reagents</li></ul>	
	Process	<ul> <li>Proprietary furnace &amp; process technology</li> <li>Increased energy efficiency</li> <li>No chemical purification</li> </ul>	<ul> <li>Proprietary all-dry zero-waste cathode synthesis technology</li> <li>Decreased capital cost</li> <li>Lower processing costs</li> </ul>	
	Outputs	<ul> <li>NOVONIX's anode materials 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> <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 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.





### **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



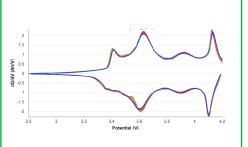
Pouch and cylindrical cell manufacturing pilot line



Diagnostic tools and performance testing

#### **Data Solutions**

**Customer Research & Development Services** 

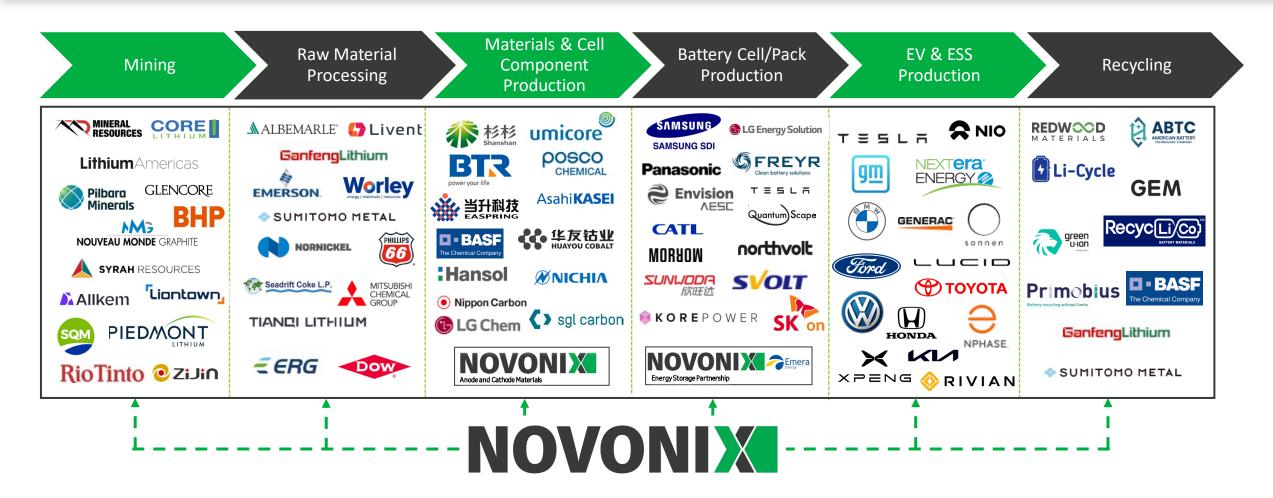


Battery technology insights driven by AI & advanced data analytics with SandBoxAQ

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 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.



# Industry Leading R&D Powered by Artificial Intelligence



- Leading lithium-ion battery testing equipment and R&D services
- Unparalleled visibility across the entire industry driving value-add opportunities



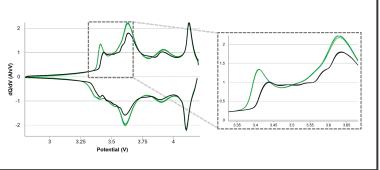


- Enterprise SaaS company that combines artificial intelligence (AI) with quantum analysis (AQ) to address some of the world's most challenging problems
- Alphabet spin-out



#### **New Product Overview:**

- Machine learning algorithms and quantum simulations for battery R&D
  - Data Processing/Visualization
  - Analysis and Report Automation
  - Al and ML tools
  - Materials discovery
  - Cell performance prediction



NOVONIX AI powered Data Solutions platform will not only be bring a new NOVONIX SaaS product, but will also help enable and optimize ongoing materials development





# **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 harmful chemicals



#### **Strategic Relationships**

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

### **Key Strategic Relationships & Highlights**



- 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



- Panasonic ENERGY
- 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



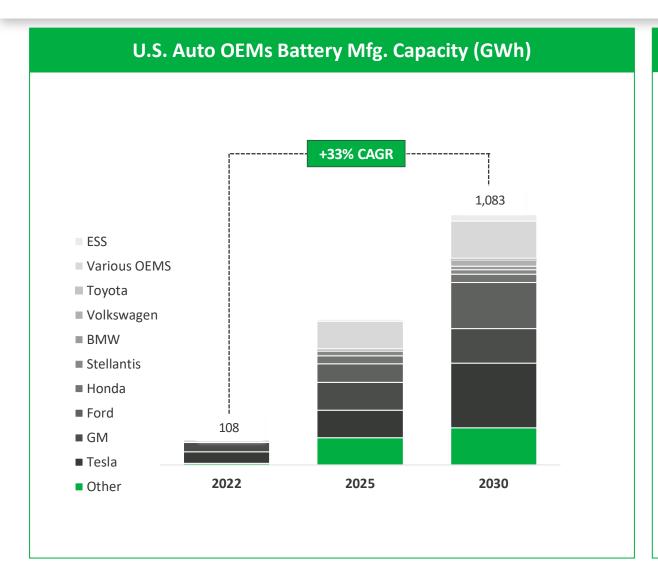
In August 2021, Phillips 66 made a \$150 million strategic investment to become NOVONIX's largest shareholder and engaged PSX in technology development agreement

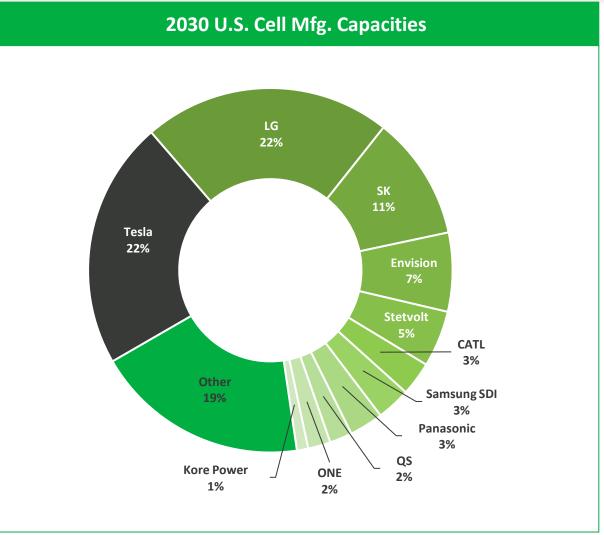


Partnership with Harper International, a domestic specialized furnace technology leader, developing and supplying NOVONIX with proprietary systems for thermal processing



# **Auto and Cell Manufacturing Driving Market Demand**

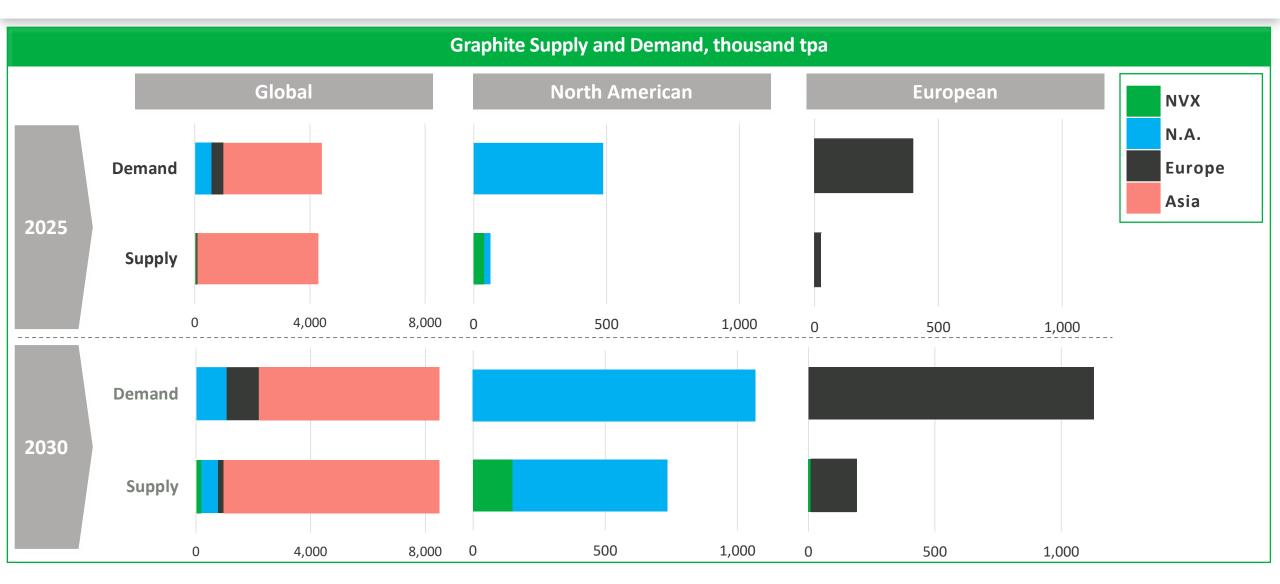




Source: Credit Suisse, Benchmark Minerals Intelligence, Company Reports



# **Local Anode Material Supply Shortfalls Foreseen Globally**



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



### **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

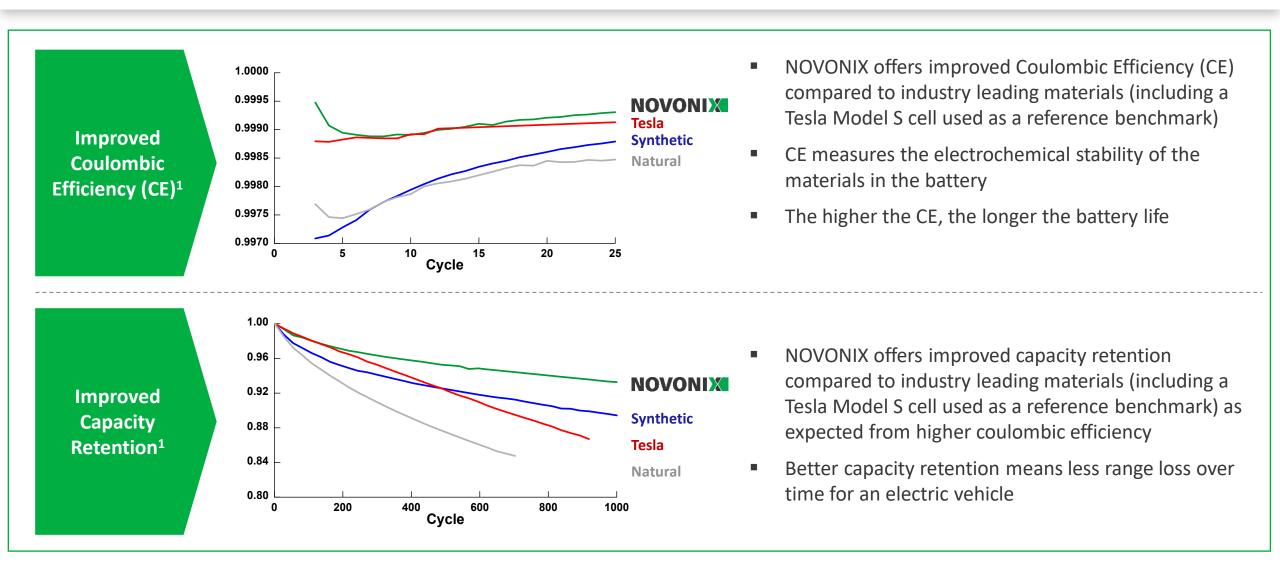
- LGES is a leading U.S. based developer of battery cell technology for EV and ESS Batteries
- LGES has developed relationships with GM, Honda, Hyundai and Stellantis in North America to supply EV batteries
- LGES plans to have ~250 GWh of gigafactories in North America

#### **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



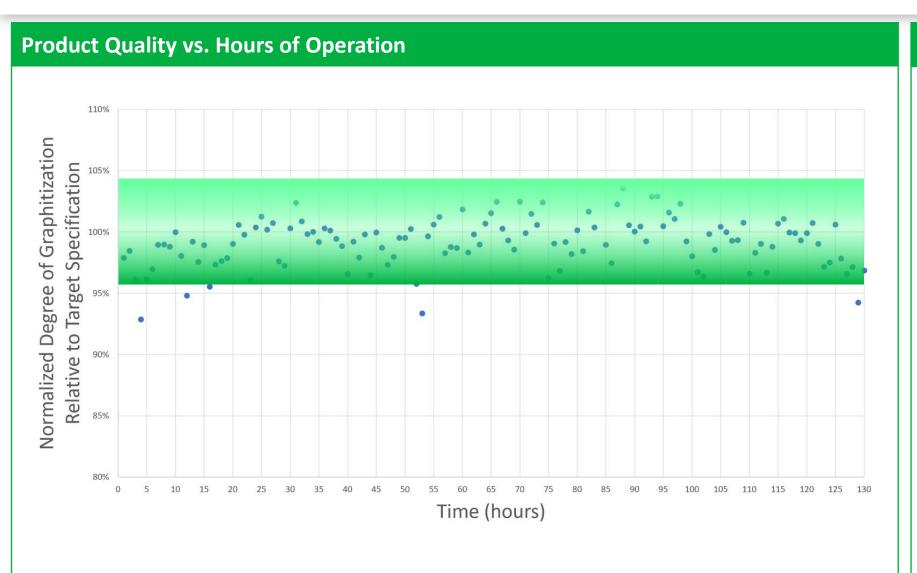
# **NOVONIX Anode Material Outperforms in Head-to-Head Testing**



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



### **NOVONIX** has Demonstrated Meeting Target Product Specifications



### **Highlighted Achievements**

- GX-23 was analyzed and met all it 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



### **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**

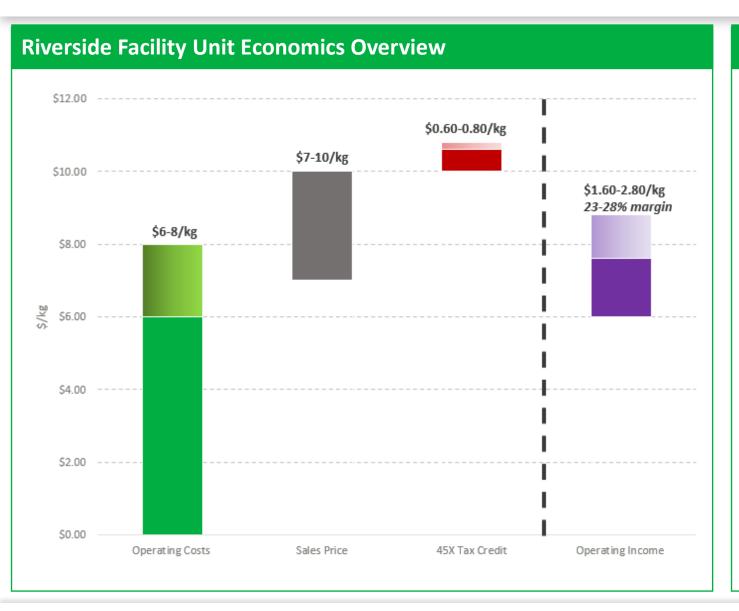
- Demonstrated successful production with the Company's Generation 3 Furnaces meeting design targets, including throughput, cost, and sustainability targets
- Increased production capacity target from 10,000 tpa to up to 20,000 tpa for Tennessee Facility
- Expected capital and operating costs for future 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 a Pathway to Profitable Production in the USA

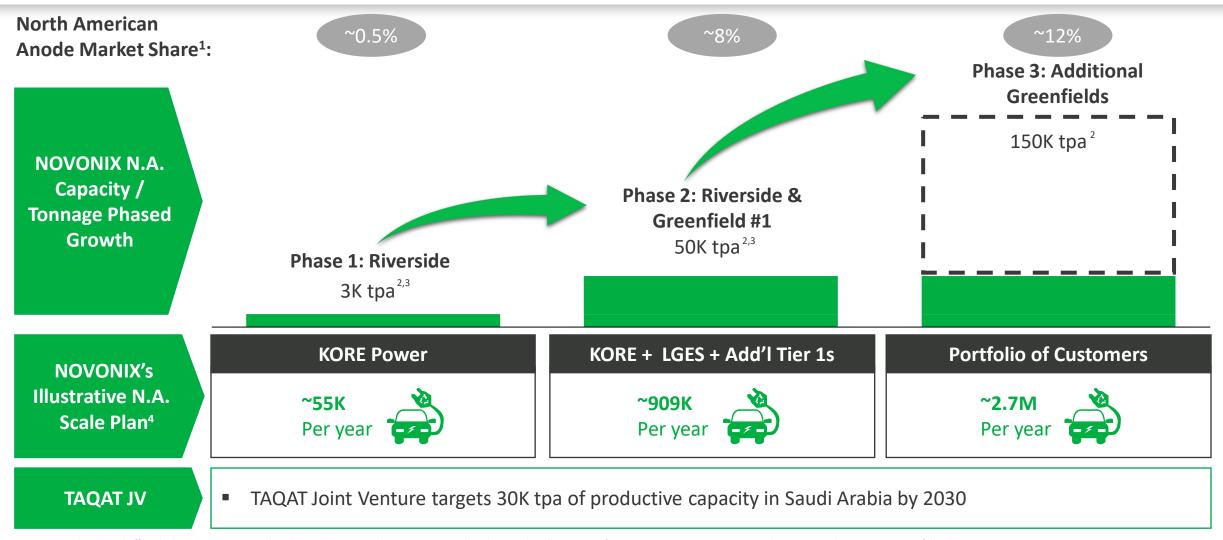


### **Highlights**

- 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



- 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
- 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 to 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

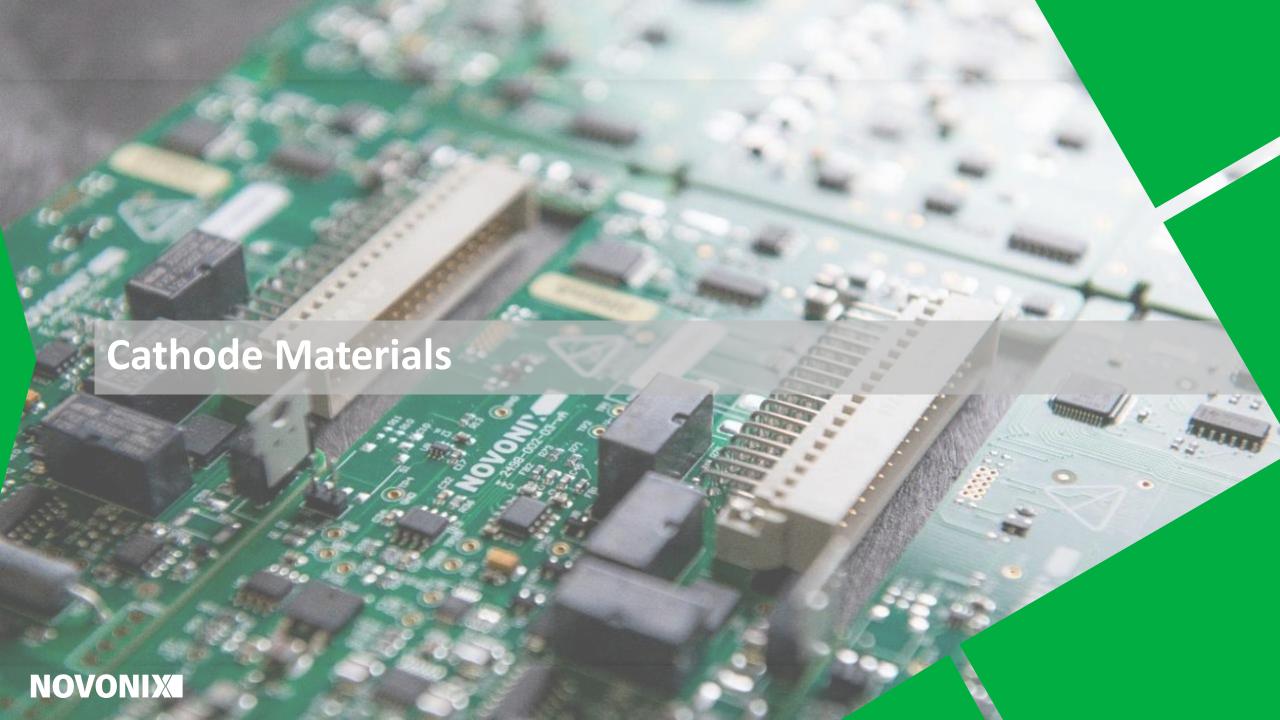
### IRA Tax Credits & Consumer Credit

- 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 value<sup>1</sup> 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 MESC Grant & DOE LPO Loan

- NOVONIX was selected for US\$150 million of grant funding by the Department of Energy (DOE) 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
- 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

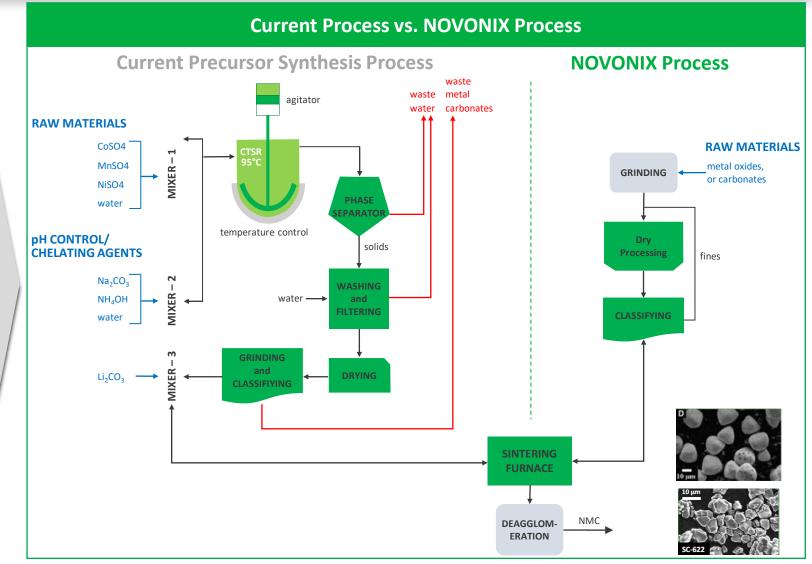




### **NOVONIX - Cathode Synthesis Provides Clean and Simple Process**

### **Opportunity 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 of US\$100B by 2030¹
- Current synthesis process is complex, produces water waste and is costly
- Each tonne of cathode powder generates 15,000 liters of water waste<sup>2</sup> and 1.6 tonnes of sodium sulphate waste<sup>1</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



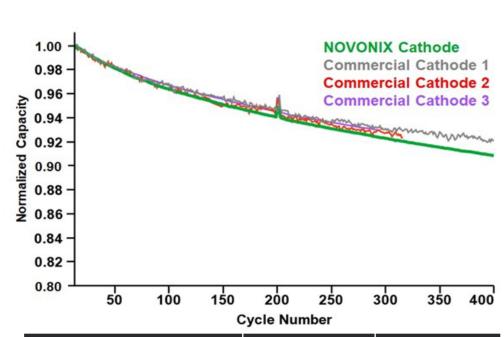
L. Benchmark Minerals, various Equity Research reports including Bernstein and JP Morgan and NOVONIX estimates

<sup>2.</sup> 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 Cycle Performance Matches Commercial Material**

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

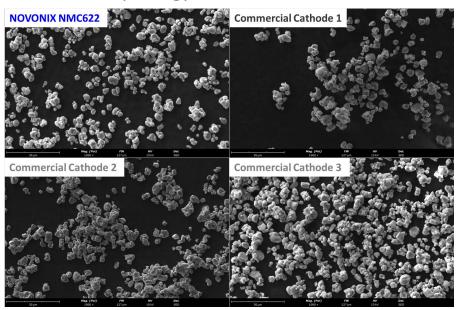


Product	Reference NMC622	NOVONIX NMC622
Capacity at c300 (%)	92.5%	92.1%
First Cycle Efficiency (%)	84.9%	84.9%

40°C; 1.2M LiPF<sub>6</sub> 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



# **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

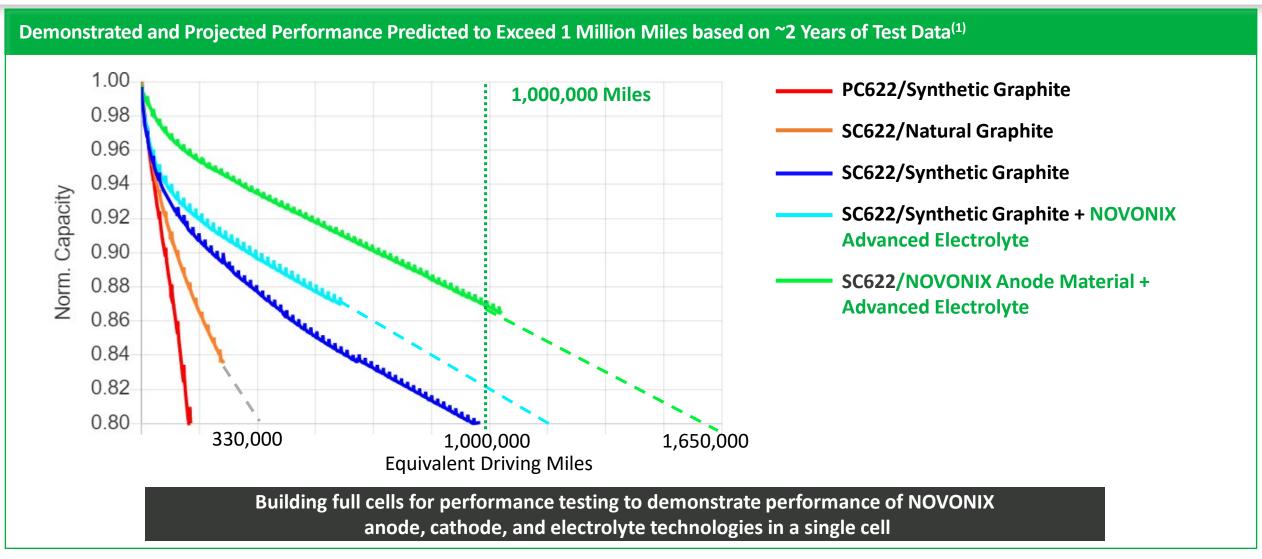
More Environmentally Friendly process

- ~27% lower power consumption & CO2 intensity
- ~65% less water usage
- Eliminates production of sodium sulphate biproduct
- 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.



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



<sup>1.</sup> 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**



