# NOVONIX

## Set for Growth

**May 2023**

***Citi's 2023 Energy and Climate Technology Conference***

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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
- Anode material facility build-out advancing and strengthening our strategic moat
- 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*

# Leading U.S. Battery Materials and Technology Development Company

NOVONIX

**Providing Revolutionary Clean Energy Solutions to the Battery Industry**

**Leading U.S.-based Supplier of Synthetic Graphite Anode Material**

NOVONIX ANODE MATERIALS

**Advanced Battery Testing and R&D Expertise**

NOVONIX BATTERY TECHNOLOGY SOLUTIONS

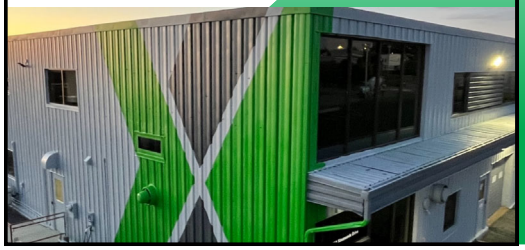
**Developing New Applications and Partnerships utilizing Dry Cathode Technology**

NOVONIX CATHODE MATERIALS

# Synergistic Operating Structure

## NOVONIX Anode Materials (NAM)

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



## Battery Testing Solutions (BTS)

- Develops industry-leading lithium-ion battery cell testing equipment while providing expert R&D services
- Competitive intelligence from unparalleled visibility across the entire industry drive value-add opportunities
- In-house testing technology drives advancements in a fraction of the industry standard

## NOVONIX Cathode Materials

- Leverages proprietary all-dry cathode synthesis technology to provide clean energy solutions to the battery industry
- Dry process technology minimizes waste and the environmental impact while producing high performance materials
- Pilot will demonstrate large-scale production of up to 10 tonnes per annum

# Capitalizing on the Growth Opportunity

## The Opportunity

Focus on developing technologies and materials that are needed for long-life high-performance battery applications

## Increased Demand

Global graphite demand for electric vehicles and energy storage systems is growing with forecasts of a 15x increase[1] in demand from 2021 to 2030

## Localized Production

Execute phased growth strategy with roadmap to achieve North American production capacity of 150,000 metric tons of synthetic graphite per annum (tpa) by 2030

## Battery Supply Chain

Commercialize NOVONIX proprietary pipeline of advanced battery technologies to accelerate the domestic clean energy transformation

1 – PWC, Gigafactories & Raw Materials August 2022

# NOVONIX Proprietary Process Technology Leads the Clean Energy Transformation

## Environmental

Life Cycle Assessment (LCA)[1] demonstrated a ~60% decrease in global warming potential (GWP) relative to conventional anode grade synthetic graphite versus Chinese product

## Social

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

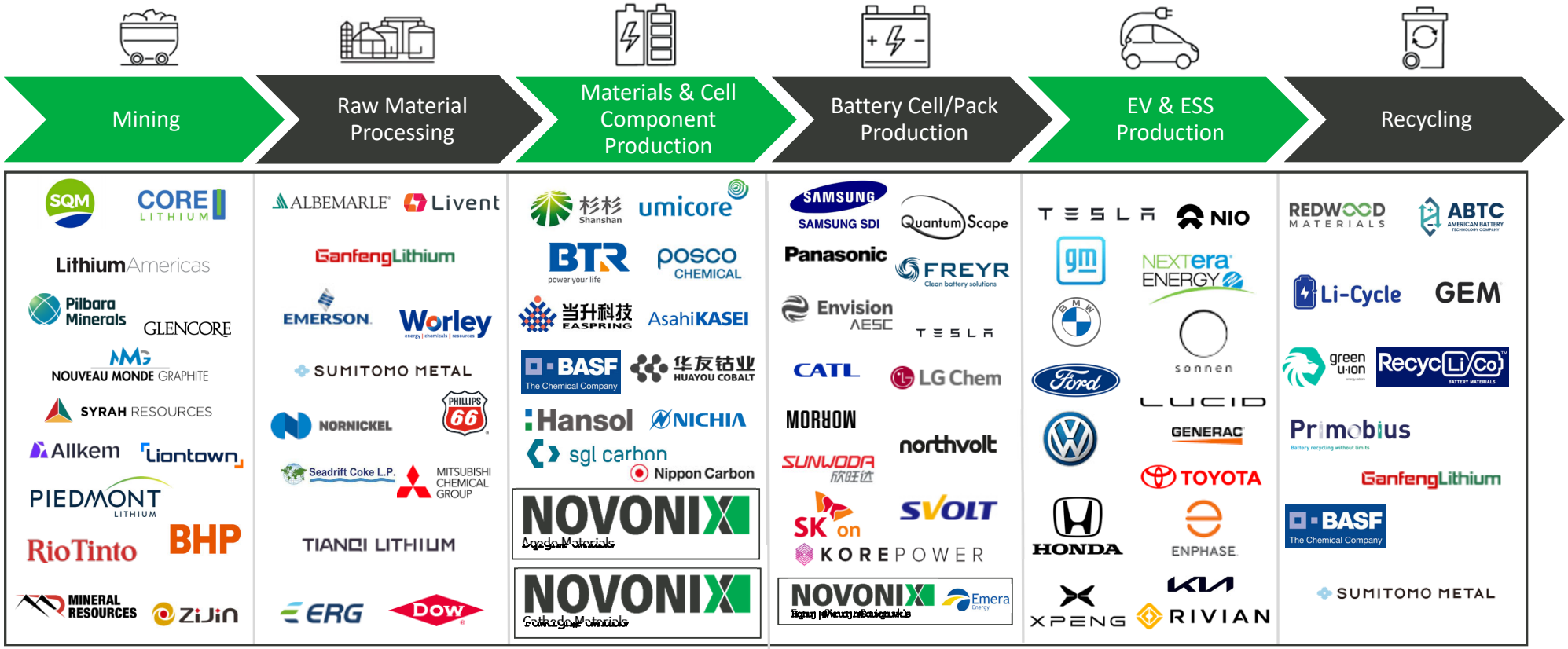
## Governance

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

| Inputs | Process | Outputs |
|---|---|---|
| ▪ Clean power sources[2]<br>▪ Highest purity input materials | ▪ Proprietary furnace & process technology<br>▪ Increased energy efficiency<br>▪ No chemical purification | ▪ NOVONIX's anode materials support higher performance lithium-ion batteries resulting in longer life<br>▪ Negligible facility emissions |

1 - The Life Cycle Assessment (LCA) conducted by Minviro Ltd.
2 - May FY2021 figures from Tennessee Valley Authority

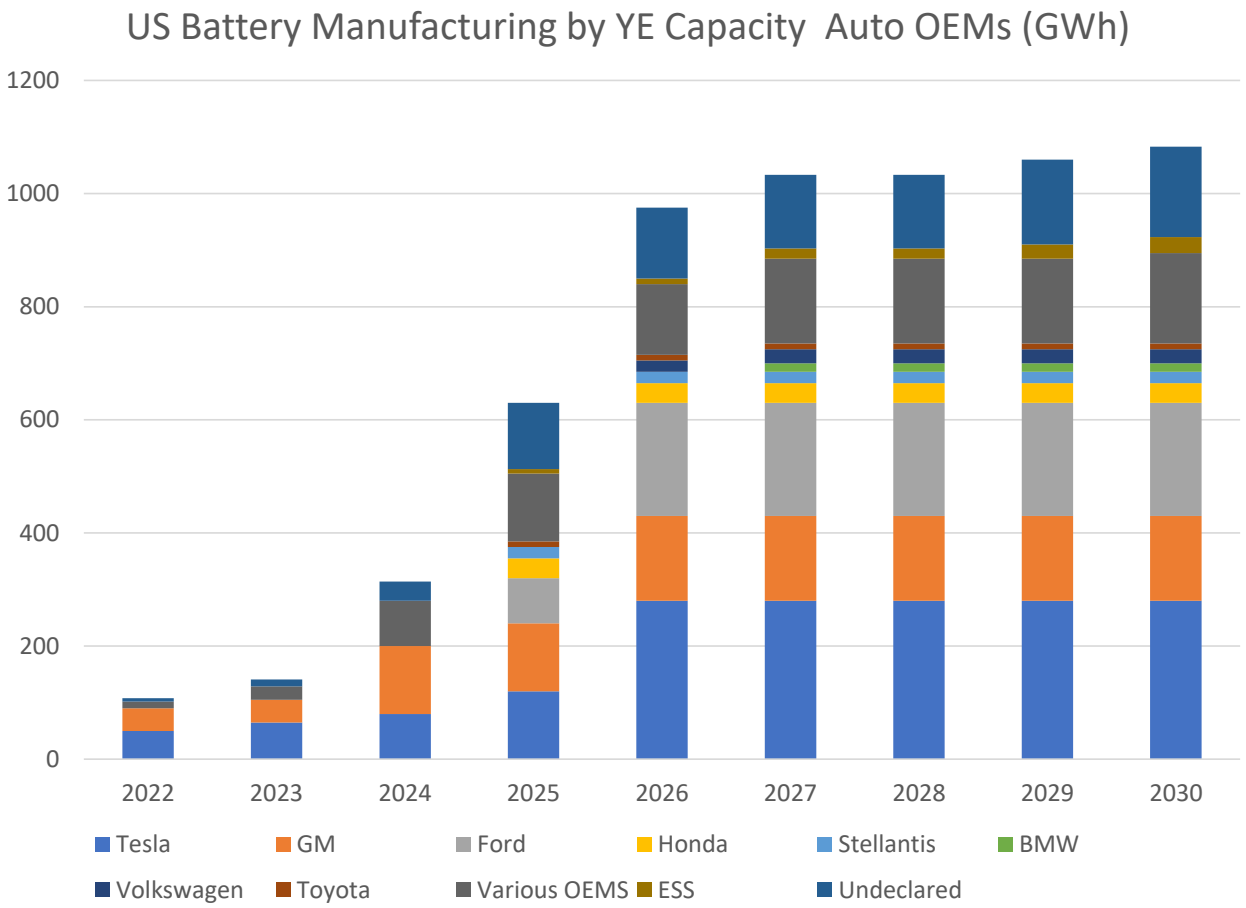
# NVX Plays a Critical Role in the Lithium-Ion Battery Value Chain

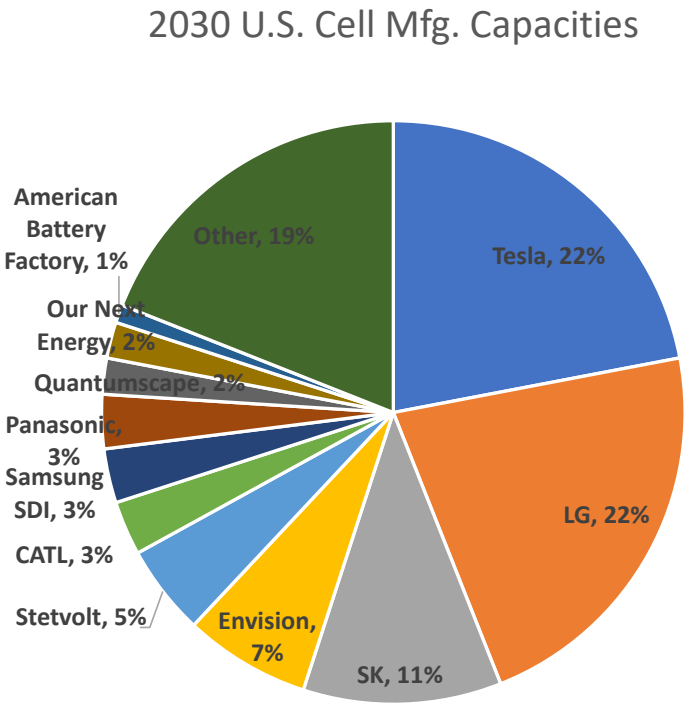



**Visibility across the entire battery value chain provides competitive intelligence and attractive opportunities for NOVONIX**

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

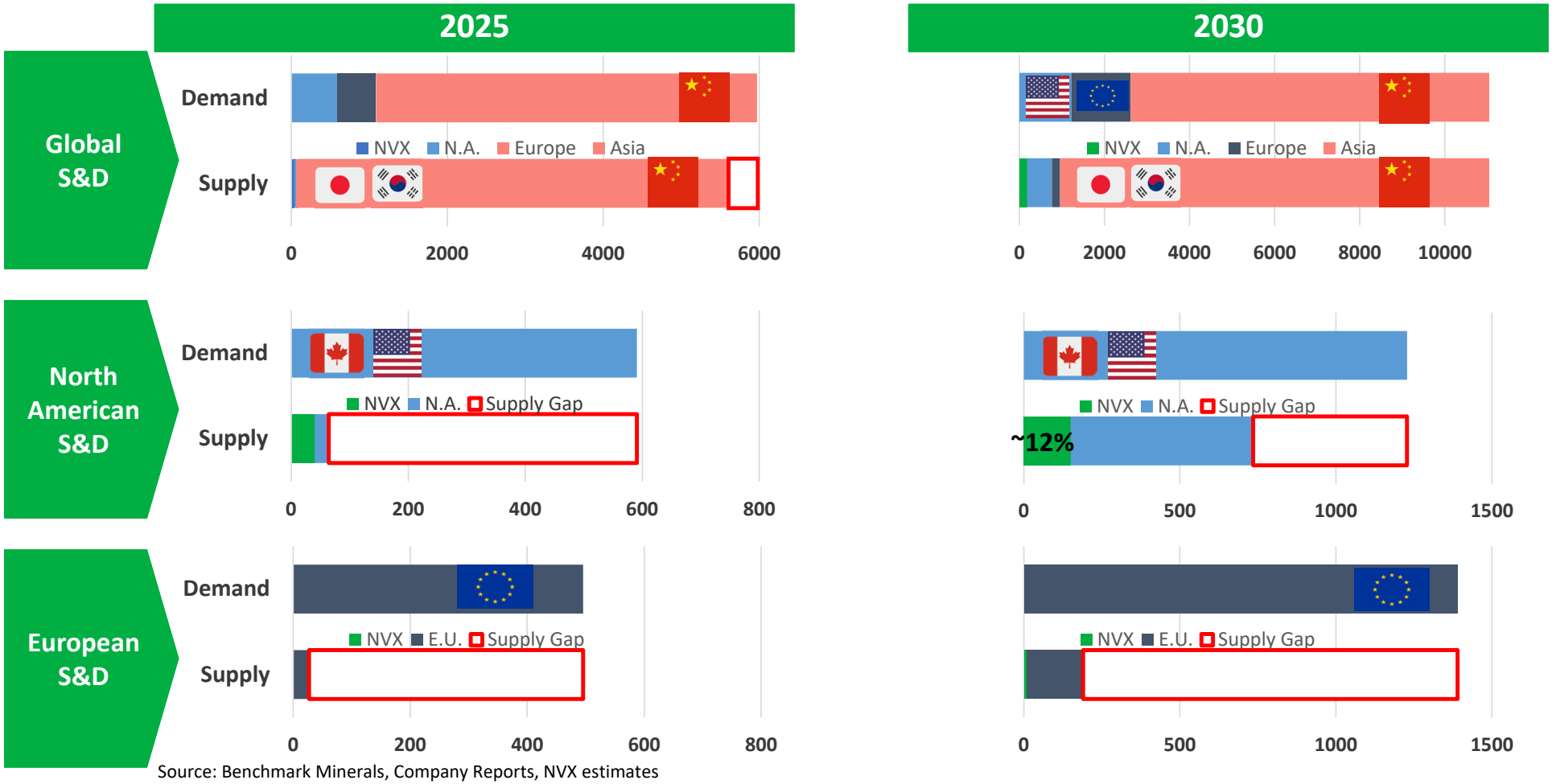
# Significant Market Battery Demand is Coming to U.S.



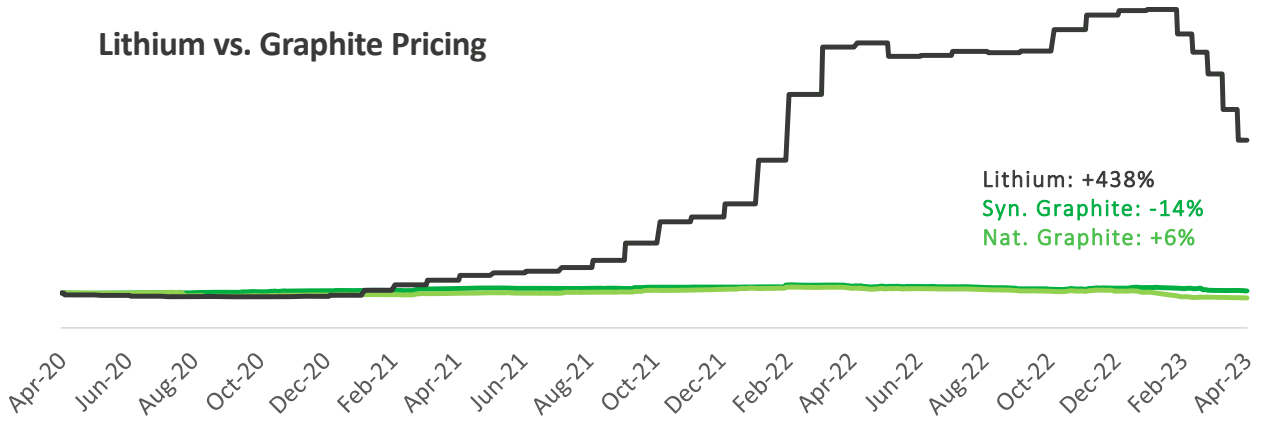

Source: CS, Benchmark Minerals, Company Reports

# Local Anode Material Supply Shortfalls Foreseen Globally



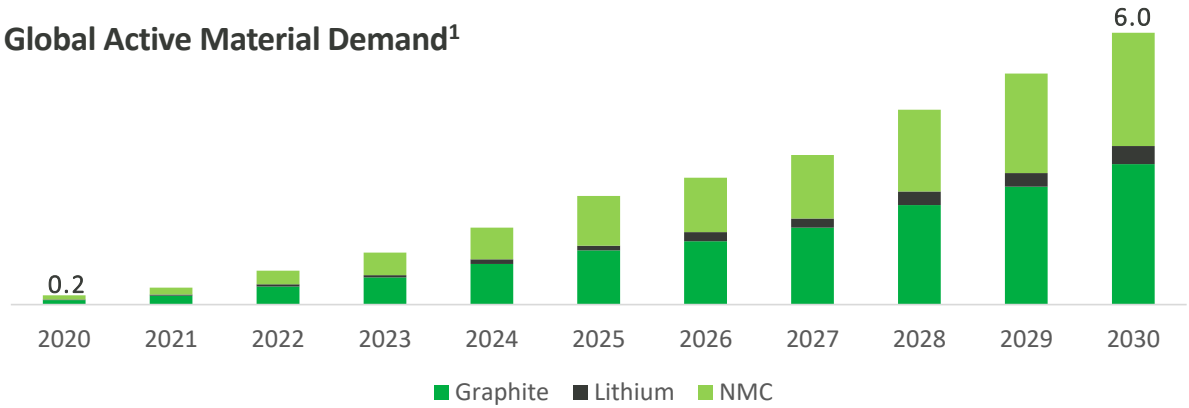

Source: Benchmark Minerals, Company Reports, NVX estimates

# Localization Impact expectation on Graphite Pricing yet to Materialize




## Graphite Pricing Tailwinds

Factors impacting future prices include the impact of market localization, security of domestic supply premiums, tax credits, section 301 tariffs.




## Forecasted to Grow ~15x

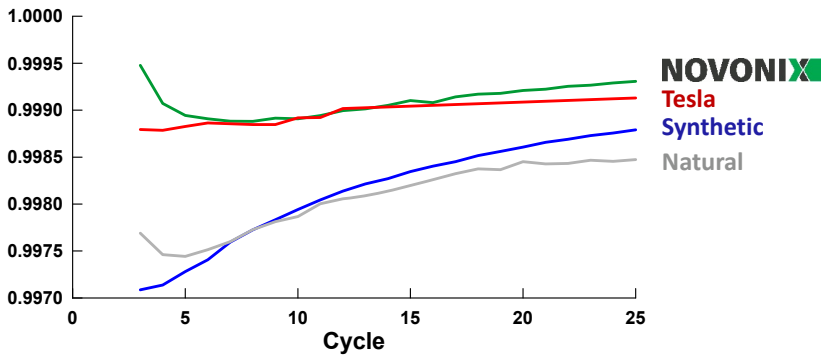
The global market for active materials is forecasted to grow by a factor of 15 from 2021 to 2030. By weight, graphite is the primary active material of all critical materials.

1- Global active material demand ramp up (million tons) based on electric vehicle sales figures.
Other active materials include Nickel, Manganese and Cobalt.

Source: Bloomberg, PWC, Shanghai Metal Markets

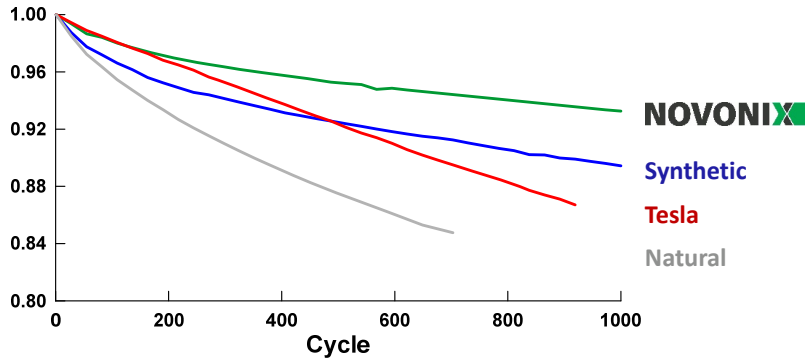
# NOVONIX Anode Material Outperforms In Head-to-Head Testing

**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 Retention[1]**




- 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 verification process.

# 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 2022 until September 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. Includes **$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[1] 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.
- **Entered Phase 2 of DOE LPO Loan process in late 2022**. The loan, if received, would contribute toward funding the company's current expansion of battery materials capacity

# Phased Growth Plan Matches Customer Demands

**North American Anode Market Share[1]:**

~0.5% | ~10% | ~16%

**NOVONIX N.A. Capacity / tonnage phased growth**


**NOVONIX's illustrative N.A. scale plan[4]**

| KORE Power | KORE + add'l Tier 1s | Portfolio of Customers |
|---|---|---|
| ~55K per year | ~727K per year | ~2.7M per year |

**TAQAT JV**

- TAQAT Joint Venture targets 30K productive capacity in Saudi Arabia by 2030

(1) Market share based off implied North American graphite demand in 2021, 2026, and 2031. Source: Benchmark Mineral Intelligence Gigafactory Assessment – June 2022. Based on announced capacity. Assumes full utilization.
(2) Company expectations aligned with customer contracts and anticpated customer demand , which may or may not materialize
(3) KORE Power agreement to supply Koreplex anticipates a ~3,000 tonne per annum delivery rate in 2H 2024 ramping to ~12,000 tonne per annum rate in 2028.
(4) Assumes 55kg of graphite per EV.

# NOVONIX Anode Materials Phase 2: Greenfield Site Selection Underway

## Greenfield Plan Overview

- A new Greenfield facility is planned to support an initial 30,000 tonnes per annum (tpa) by 2025, with potential to expand up to 75,000 tonnes
- Site selection process currently underway with several jurisdictions currently being considered
- NOVONIX was selected for US$150 Million in DOE grant funding to support buildout of this facility for domestic production of high-performance, synthetic graphite anode materials

## Site Rendering

# NOVONIX Enters Joint Venture with TAQAT Development

## Agreement Enhances Revenues and Secures Low-cost Input

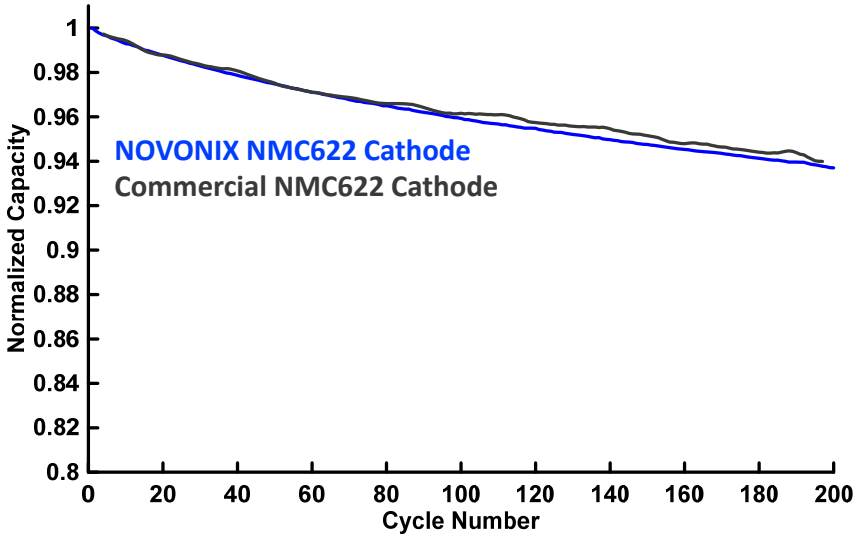
- **NOVONIX has agreed to form a Joint Venture (JV) in the Kingdom of Saudi Arabia** to produce high-performance synthetic graphite
- **JV will undertake FEED Study for the facility in its first year** with the target to begin facility construction in 2024
- **NOVONIX will contribute access its proprietary intellectual property to the JV** for the production and sales of high-performance synthetic graphite in the (MENA) region
- JV will be made up of TAQAT holds 60 percent equity stake and **NOVONIX holds a 40 percent** stake with each party contributing their share of equity required for operating and capital costs for engineering and subsequent facility construction and operation

**Chris Burns commented "The joint venture will leverage NOVONIX's existing work in North America and will allow us to more quickly scale our operations to extend our geographical reach to the global market".**

NOVONIX TAQAT

# Cathode Cycle Performance Similar to Commercial Material

## Full Cell Cycling Performance of NOVONIX Single Crystal NMC622

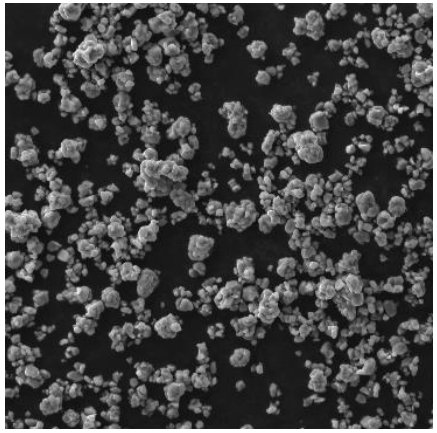



| Product | Reference NMC622 | NOVONIX NMC622 |
|---|---|---|
| Capacity at c200 (%) | 94.4% | 94.1% |
| First Cycle Efficiency (%) | 84.9% | 84.9% |

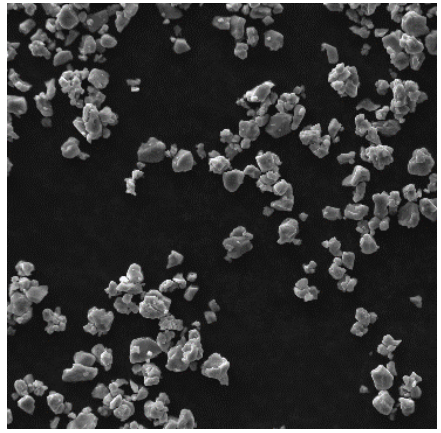
*40°C; 1.2M $LiPF_6$ EC:EMC:DMC(25:5:70)+3VC; [Charge] : CC-0.33C; [Discharge] : CC-0.33C*

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



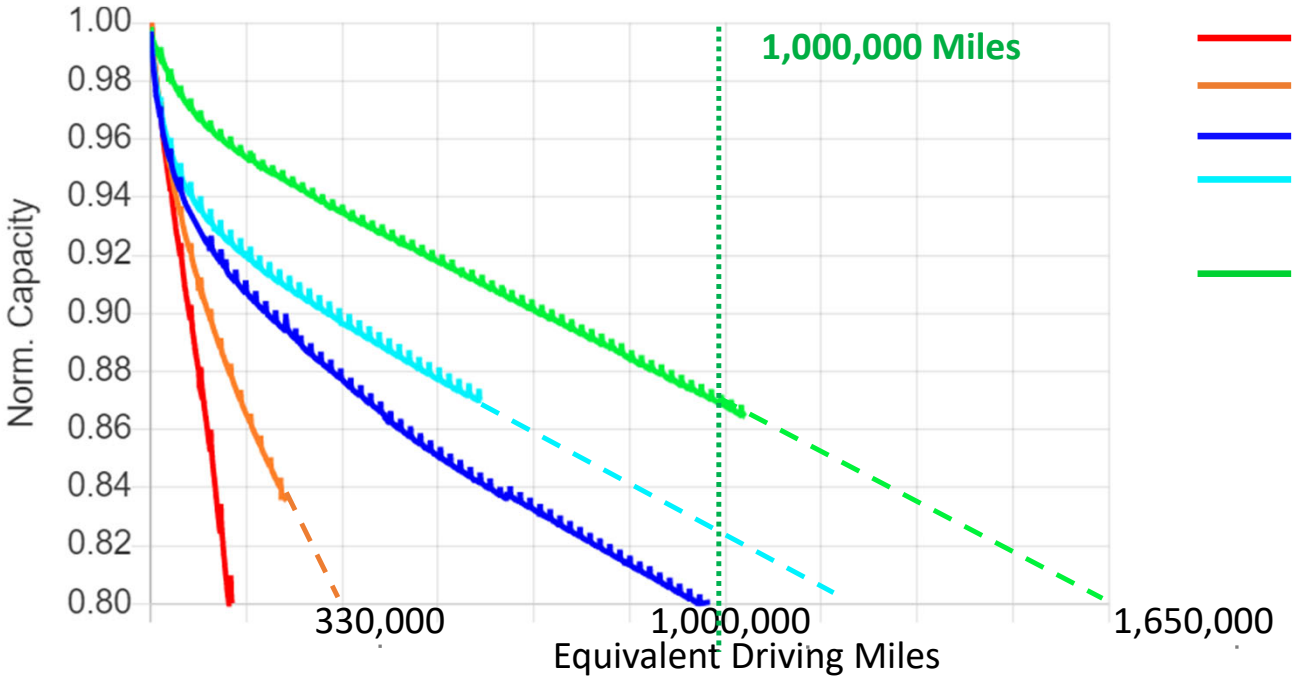
**Reference NMC622**



**NOVONIX NMC622**

# NOVONIX's Battery Cell Technology paves the way for the Next Generation

**Demonstrated and Projected Performance Predicted to Exceed 1 Million Miles from ~2 Years of Test Data[1]**




- PC622/Synthetic Graphite
- SC622/Natural Graphite
- SC622/Synthetic Graphite
- SC622/Synthetic Graphite + Advanced Electrolyte
- SC622/NOVONIX Anode Material + Advanced Electrolyte

**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 vérification 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