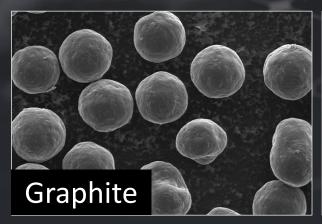
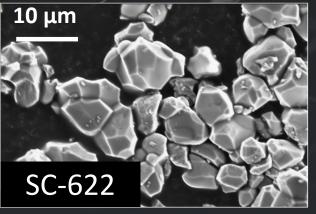
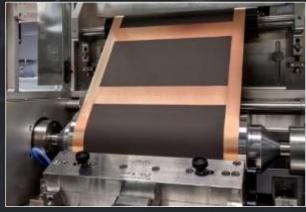
# NOVONIX

NOVONIX LIMITED (ACN 157 690 830)









**AGM Presentation** 

30 November 2021

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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 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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- Contact Information

## **Financial Summary**

STOCK INFORMATION @ 26 November 2021			
ASX Code	NVX		
ASX Share Price	A\$10.68		
52 Week Low – High	A\$1.01 – A\$11.35		
Shares on issue	482,563,962		
Market Capitalisation	A\$5.15B		

CASH POSITION @ 30 September 2021		
Cash Available	A\$291.0M	

FINANCIAL INFORMATION FY2021	
Revenue	A\$5.2M
Total Assets @ 30 June 2021	A\$202.9M
Total Liabilities @ 30 June 2021	A\$18.5M



## Who We Are

NOVONIX provides battery development and material technology. We develop and supply what we believe to be the most accurate battery testing technology in the world. To our knowledge, we are the only qualified US-based supplier of battery-grade synthetic graphite anode material.



Most Accurate Battery Testing
Technology



Only Qualified US-Based
Supplier of Synthetic Graphite
Anode Material



Developing New Applications and Partnerships







ASX: NVX

# Our Leadership and Board of Directors

## **Leadership Team**



**Dr. Chris Burns**Chief Executive Officer



Nick A. Liveris
Chief Financial Officer



Rashda Buttar SVP & General Counsel



**Suzanne Yeates**Financial Controller & Co Secretary

### **Scientific & Technical Advisors**



**Dr. Jeff Dahn**Chief Scientific Advisor



**Dr. Mark Obrovac**Sponsored Researcher

## **Board of Directors**



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



Andrew N. Liveris AO

Non-Executive Director



Admiral Robert J. Natter
Executive Director



Zhanna Golodryga Non-Executive Director



Trevor St Baker AO

Non-Executive Director



**Greg Baynton**Non-Executive Director



Robert Cooper
Non-Executive Director

Key leadership and technical experience:

























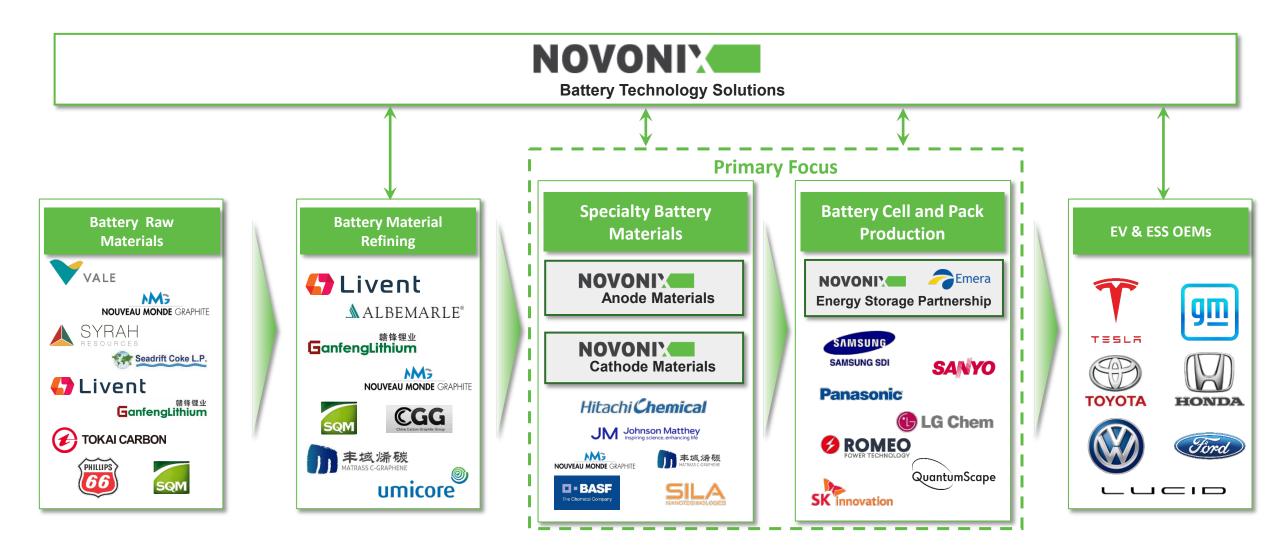




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VX OTCQX: NVNXF

# We Play a Critical Role in the Lithium-Ion Battery Value Chain



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



# NOVONIX Provides Battery Development and Material Technology







SAMSUNG SDI

Conditional Sales Agreement



Non-binding MOU

First supplier of US-made high-capacity long-life synthetic graphite anode material







Energy storage partnership in North America<sup>1</sup>

(Exclusive in battery technology)

Battery Technology Solutions serves as the pillar for innovation across the NOVONIX ecosystem, creating a positive feedback loop to drive technological advancement and deliver best-in-class products and services for customers

(1) We are currently collaborating with Emera to design a battery pack including innovative designs, custom manufacturing and control systems to support Emera Technologies' BlockEnergy microgrid.



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## NOVONIX Notable Milestones



22 Dec 2020: Expanded collaboration with Samsung to utilize the next generation technology being developed with Harper International, with deliveries set to commence in the second half of 2021



**19 Jan 2021:** Leading researcher, Dr. Jeff Dahn appointed as Chief Scientific Advisor, effective July 2021



**12 Feb 2021:** NOVONIX entered into a new five year research sponsorship agreement with Mark Obrovac's Research Group of Dalhousie University



26 Feb 2021: Completion of ASX equity raise of A\$115m to support growth of NOVONIX Anode Materials with an additional ~A\$16m from directors



**09 May 2021:** Filed draft registration statement with U.S. SEC in connection with a potential initial public offering in the U.S. via Nasdaq



09 Aug 2021: Phillips 66 announced US\$150m strategic investment in NOVONIX, advancing NOVONIX's production of synthetic graphite for highperformance lithium-ion batteries

December 2020



# Harper

22 Dec 2020: Strategic alliance announced with US-based Harper International to develop specialized furnace technology to enhance NOVONIX's synthetic graphite manufacturing process



**21 Jan 2021:** NOVONIX Anode Materials selected to receive US \$5.57mm grant from the US Department of Energy



**19 Feb 2021:** Emera and NOVONIX partner on innovative residential energy storage technology



Apr 2021: Completed installation of first Generation 2 furnace system built by Harper under our strategic partnership program and initiated build of first Gen 3 furnace



23 Jun 2021: Under contract to purchase and retrofit former Alstom building in Chattanooga, TN. – 400k+ sqft and will accommodate planned 8k+ tonne per year production<sup>1</sup>



**20 Oct 2021:** Zhanna Golodryga joins the Board of Directors as Phillips 66 right to nominate a Director. Ms. Golodryga is the SVP, Chief Digital and Administrative Officer for Phillips 66

1. Purchase completed on July 28, 2021



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## Phillips 66 Announces Strategic Investment in NOVONIX

### Phillips 66

- Phillips 66 is a diversified energy manufacturing and logistics company.
- Phillips 66, with a portfolio of Midstream, Chemicals, Refining, and Marketing and Specialties businesses, the company processes, transports, stores and markets fuels and products globally
- Phillips 66 is a global producer of petroleum needle coke, the key precursor material for synthetic graphite
- Headquartered in Houston, the company has 14,000 employees committed to safety and operating excellence
- Phillips 66 had \$57 billion of assets as of June 30, 2021
- Phillips 66 produces the precursor for synthetic graphite at advanced facilities located in Lake Charles, LA and Humber, UK

#### **Announcement**

#### Phillips 66 Announces Strategic Investment in NOVONIX

Investment will expand Phillips 66's presence in the battery supply chain and advance NOVONIX's production of synthetic graphite for high-performance lithium-ion batteries



August 09, 2021 10:00 AM Eastern Daylight Time

HOUSTON & BRISBANE, Australia--(BUSINESS WIRE)--Phillips 66 (NYSE: PSX) today announced it has entered into an agreement to acquire a 16% stake in NOVONIX Limited (ASX: NVX, OTC: NVNXF), a Brisbane, Australia-based company that develops and supplies in-demand materials for lithium-ion batteries.

"This strategic investment enables Phillips 66 to directly support the development of the U.S. battery supply chain," said Greg Garland, Chairman and CEO of Phillips 66. "It advances our commitment to pursue lower-carbon solutions while leveraging our leadership position and expertise in the specialty coke market and supporting NOVONIX's emerging position in U.S.-based anode production."

Phillips 66 is a leading global manufacturer of specialty coke, a key precursor in the production of batteries that power electric vehicles, personal electronics, medical devices and energy storage units. NOVONIX, a leading producer of synthetic graphite, processes specialty coke to make high-performance anode material for these batteries. The investment supports the development of a fully domestic supply chain for sales into the U.S. electric vehicle and energy storage system markets.

"We're excited by Phillips 66's vision for a sustainable future and confidence in our business plan and management team," said NOVONIX CEO and co-founder Chris Burns, Ph.D. "Phillips 66's investment will provide us with the capital needed to support growth and ongoing R&D as we continue to scale our synthetic graphite production and develop new technologies for higher-performance energy storage applications. We look forward to continuing to build our relationship with Phillips 66 as both a strategic partner and investor."

## **Deal Highlights**

- Phillips 66 subscribed for 77,962,578 ordinary shares of NOVONIX for a total purchase price of US\$150 million
- Phillips 66 will nominate one director to NOVONIX's Board of Directors
- This investment is driven by Phillips 66's
   Emerging Energy organization, which is
   tasked with building a lower-carbon
   business platform and shares a similar long term vision and focus on sustainability as
   NOVONIX
- The investment by Phillips 66 will help support a capacity expansion of an additional 30,000 mt/year, which is expected to be completed by 2025
- The transaction closed September 30, 2021
- No financial advisors, brokers or other intermediaries were used by NOVONIX in this strategic investment



## NOVONIX Enables the Only Fully Domestic US Supply Chain of EV Battery Anode Material (BAM)

### **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**



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



# Battery Manufactures and Auto OEMs have Announced New Gigafactories to Support NA EV Growth

Gigafactories Announced before 2021					
Auto OEM	Investment	2025E Capacity	Status	State	
GM (W)	\$300M	16 GWh	Operating	MI	
TESLA	NA	53 GWh	Operating	NV	
NISSAN	NA	10 GWh	Operating	TN	
<u>GM</u>	\$2.3B	15 GWh	Announced Dec'19	ОН	
TESLA	\$1B	95 GWh	Operating 2021	TX	
	\$1.7B	10 GWh	Operating 2022	GA	
	\$5.3B	199 GWh			
	Auto OEM  GM (W)  TESLE  GM	Auto OEM Investment  \$300M  NA  TESLE  NA  \$2.3B  \$1B  TESLE  \$1.7B	Auto OEM         Investment         2025E Capacity           \$300M         16 GWh           NA         53 GWh           NA         10 GWh           \$2.3B         15 GWh           \$1B         95 GWh           \$1.7B         10 GWh	Auto OEM Investment 2025E Capacity Status  \$300M	

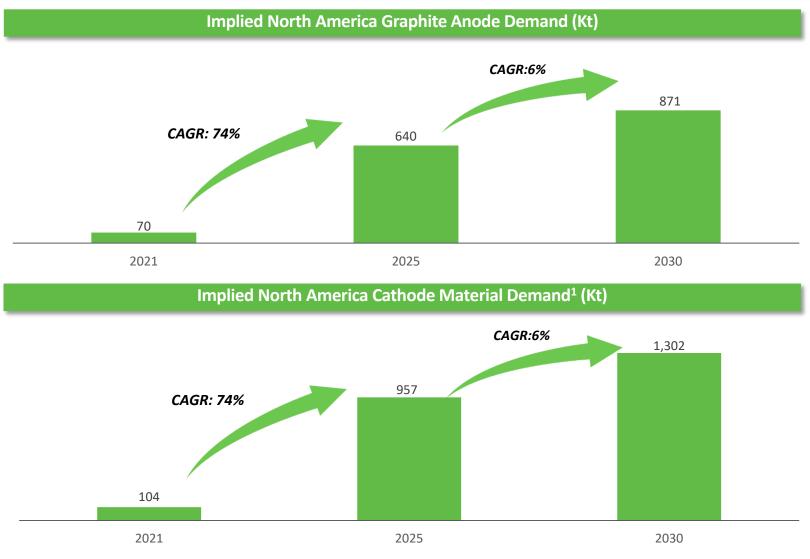
	Gigafactories Announced since 2021				
Battery Manufacturer	Auto OEM	Investment	2025E Capacity	Status	State
① LION ELECTRIC	① LION ELECTRIC	\$185M	5 GWh	Operating 2022	QC
iM3NY	NA	NA	32 GWh <sup>(1)</sup>	Operating 2022	NY
1 LG Chem	<u>GM</u>	\$2.3B	35 GWh	Operating 2023	TN
<b>SK</b> innovation		~\$0.8B	12 GWh	Operating 2023	GA
<b>SK</b> innovation (BlueOvalSK JV)	Ford	\$11.4B	129 GWh <sup>(2)</sup>	Operating 2025	KY/Ti
<b>● K O R E</b> P O W E R	NA	NA	12 GWh	Operating Q2 2023	ΑZ
BRITISHVOLT	NA	NA	60 GWh <sup>(3)</sup>	NA	QC
GLG Energy Solution	STELLANTIS	NA	40 GWh 40 GWh	Operating Q1 2024 Operating 2025	TBD
TOYOTA TOYOTA TSUSHO	TOYOTA	\$1.3B	NA	Operating 2025	TBD
Total:		\$16.0B	365 GWh		

Source: Company press releases and management analysis.

(1) Expected capacity by 2028. (2) Expected capacity by 2025 across 3 plants: 2 in Kentucky and 1 in Tennessee. (3) Included in 2030 implied Anode and Cathode material demand.

ASX: NVX

## NOVONIX is Critical to Advancing the North American Electrification Story and Supply Chain





## FY2021: NOVONIX Anode Materials Activities

Q1

- Produced material using Generation 1 furnace systems for customer sampling
- Customer Development
  - Samples issued to other prospective customers under confidentiality agreements
  - New engagements with cell manufacturers, auto OEMs (Original Equipment Manufacturers) and ESS (Energy Storage Systems) focused companies

Q2

- Initiated transition plan from Generation 1 furnace technology to Generation 2 systems
- Continued work on new precursor materials for lower cost and improved performance
- Targeted development programs for customer focused on electric vehicle and energy storage system requirements
- Continued sampling programs with domestic and international battery manufacturers and automotive OEMs with strong technical feedback and interest in evaluating mass production materials

Q3

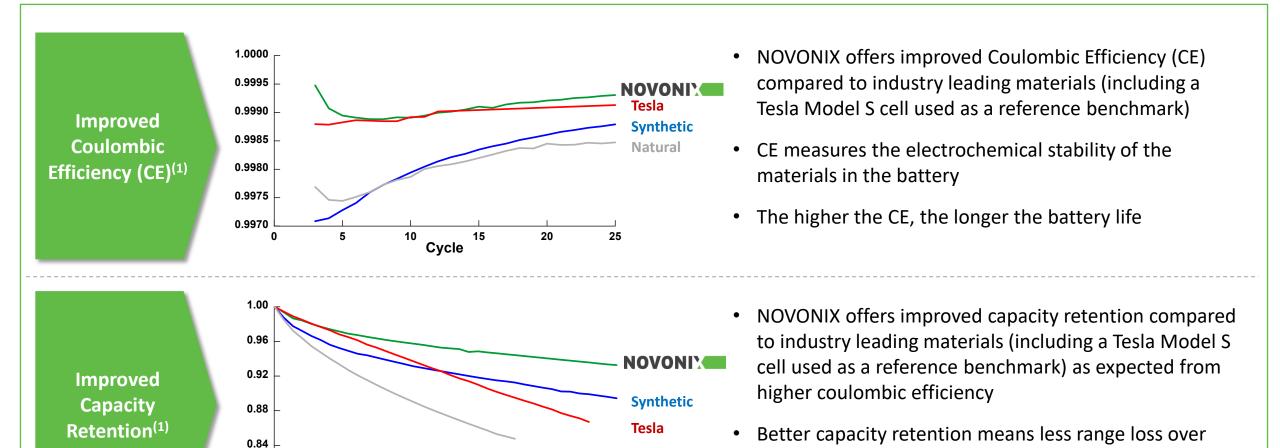
- Completed installation and began production of material through the first Generation 2 furnace system
- Initiated build of first Generation 3 furnace system to be installed in Tennessee
- Signed lease expansion to 120,000 sq ft with possession date of May 1, 2021 and progressed site selection process for expansion to 10,000 tpa of total production capacity
- Progressed engineering work for 30,000 tpa expansion plant to support 2025 production targets

Q4 to Current

- Acquired 400,000+ sq ft new manufacturing site, Riverside, to grow to 10,000 tonnes per year by 2023
- First mass production materials from Generation 2 shipped to Sanyo and Samsung for testing
- Begin installation of first Generation 3 system in Riverside to complete by the end of this calendar year
  - Continued process technology development and partnership discussions with equipment and material suppliers
- Progressed additional customer relationships with strong growing demand in the United States for local supply of synthetic graphite



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



0.80

200

Cycle



800

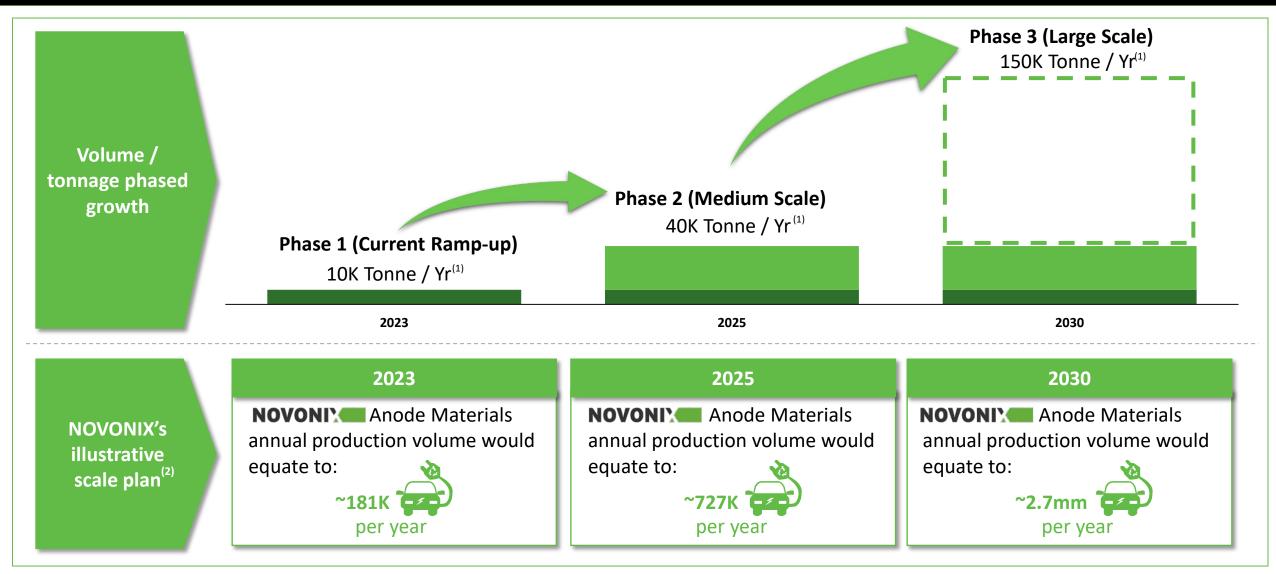
time for an electric vehicle

Natural

1000

<sup>1.</sup> Data based on internal measurements taken as part of verificiation process.

## Phased Growth Plan For NOVONIX Anode Materials



 $(1) \ Company \ expectations, \ which \ may \ or \ may \ not \ materialize. \ (2) \ Assumes \ 55 kg \ of \ graphite \ per \ EV.$ 



## Secretary of Energy Jennifer M. Granholm Celebrates NOVONIX's New Riverside Facility





## **Key Observations**

- Purchased on July 28<sup>th</sup>, 2021, this 400,000+ square-foot plant will allow for 10,000 tonnes per year of synthetic graphite anode material production by 2023
- On November 22<sup>nd</sup>, 2021, NOVONIX celebrated Riverside Recharged to inaugurate the new Riverside facility with keynote speaker Secretary of Energy Jennifer M. Granholm
- Other speakers included:
  - Director Andrew Liveris AO
  - Director Zhanna Golodryga
  - CEO Chris Burns
  - U.S. Rep. Chuck Fleishmann

- TN ECD Commissioner Bob Rolfe
- Hamilton County Mayor Jim Coppinger
- City of Chattanooga Mayor Tim Kelly
- Former U.S. Senator Bob Corker

"The local support for this means not just something for Chattanooga, and it's
not just for Tennessee, but it really is for the country. The fact that we're at a
facility that once employed about 230 people and that now is going to employ
300 people, making the future of our transportation energy system secure, is
such a great day for America." - Secretary of Energy Jennifer M. Granholm

NOVONIX .

OTCQX: NVNXF

ASX: NVX

# FY2021: NOVONIX BTS Activities

Q1	Q2	Q3	Q4 to Current
<ul> <li>Continued work with Dr. Mark Obrovac's group at Dalhousie and internal team on new IP generation</li> <li>Worked with various lithium suppliers (Lake Resources and others) in the process expanding on precursor production and final cathode production</li> <li>Focus of technical work:         <ul> <li>High Nickel Cathode Materials, Including Cobalt-Free</li> <li>Dopant and Coatings for Improved Performance</li> <li>Single Crystal Cathode (SCC) and Polycrystalline Cathode Processes</li> </ul> </li> </ul>	<ul> <li>Expanded staff and initiated build out of addition to existing BTS facility, adding ~65% additional space for continued growth</li> <li>Expanded capital equipment to allow for increased bandwidth to support external and internal cell building and testing projects</li> <li>New projects commenced for global customers in mobility, energy storage and consumer electronics</li> </ul>	<ul> <li>Continued strong revenue growth and expansion of hardware sales and R&amp;D service offerings</li> <li>Entered into conditional Agreement of Purchase and Sale on new ~35,000 sq ft facility in Halifax area for continued expansion</li> </ul>	<ul> <li>Grew revenue by ~24% compared to FY20</li> <li>Expanded staff to 46 at end of FY21 compared to 20 at end of FY20</li> <li>Completing addition to existing Bluewater Road facility for cell assembly and testing</li> <li>Closed on new ~35,000 sq ft facility in Halifax area and started facility renovations</li> <li>Received approval for up to CA\$1,281,819 through a payroll rebate from Nova Scotia Business Inc over 5 years to support hiring plans</li> <li>Continued strong revenue growth and expansion of hardware sales and R&amp;D service offerings into FY22</li> </ul>



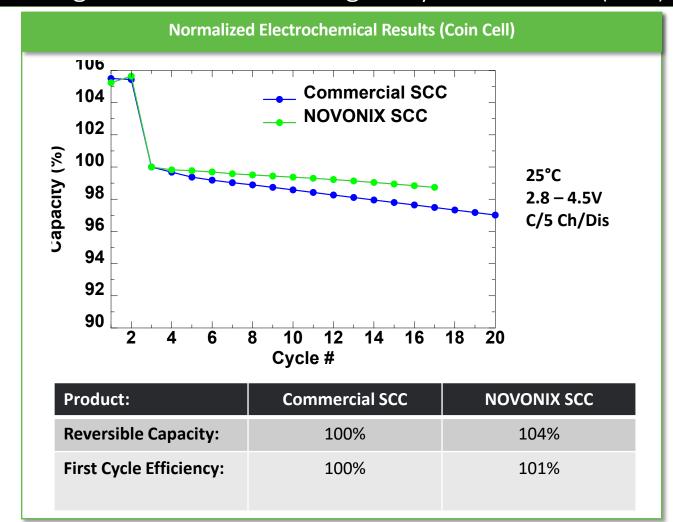
ASX: NVX OTCQX: NVNXF

# FY2021: NOVONIX Cathode Activities

Q1	Q2	Q3	Q4 to Current
Began planning for investment and team growth based on patent application filings	<ul> <li>Pilot line 90% commissioned with final piece of equipment delayed in shipping</li> <li>Analytical lab fully commissioned</li> <li>Newly synthesized materials continuing electrochemical testing for internal qualification</li> <li>Began engagement with multiple current commercial precursor and cathode suppliers to discuss technology and opportunities</li> </ul>	<ul> <li>Initial Phase 1 pilot line operational for material optimization and performance characterization</li> <li>Continued process development internally and collaboratively with Dr. Obrovac's group at Dalhousie pursuing new IP</li> <li>Equipment selection and facility planning initiated for 10 tonne per annum capable demonstration line to be installed in new BTS facility in 2022.</li> </ul>	<ul> <li>Began renovations at new facility to allow for pilot line commissioning in 2022</li> <li>Received approval for \$475,000 CAD grant from NRC-IRAP to support expansion of cathode development team</li> <li>\$1.675M CAD grant from Canadian federally funded non-profit organization to support expansion of cathode synthesis technology</li> <li>Continued progress in technology development and demonstration of material performance</li> </ul>



# Early Cathode Synthesis Technology Results Demonstrate Results Better or Comparable with Long Life Commercial Single Crystal Cathode (SCC)



## **Key Observations**

- Normalized electrochemical results in coin cell tests show NOVONIX outperforming in reversible capacity, first cycle efficiency, and cycling performance
- NOVONIX continues to optimize material through processing as well as through the use of coatings and dopants to further improve performance
- Polycrystalline cathode comparative performance test work also ongoing, with polycrystalline cathodes having some advantages over SCC

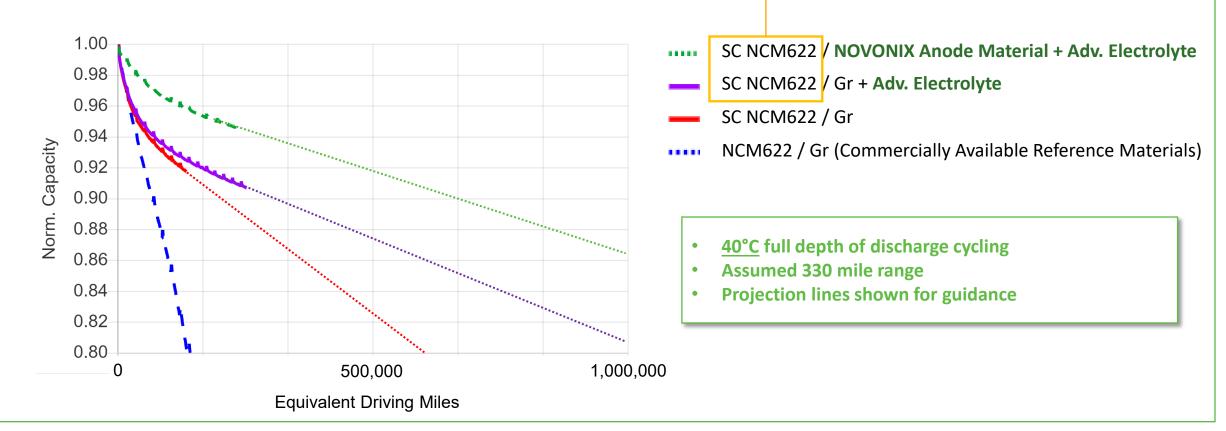


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# NOVONIX's Complete Battery Cell Technology is Leading the Way for Next Generation EV Batteries

## Demonstrated and Projected Performance Predicted to Exceed 1 Million Miles(1)

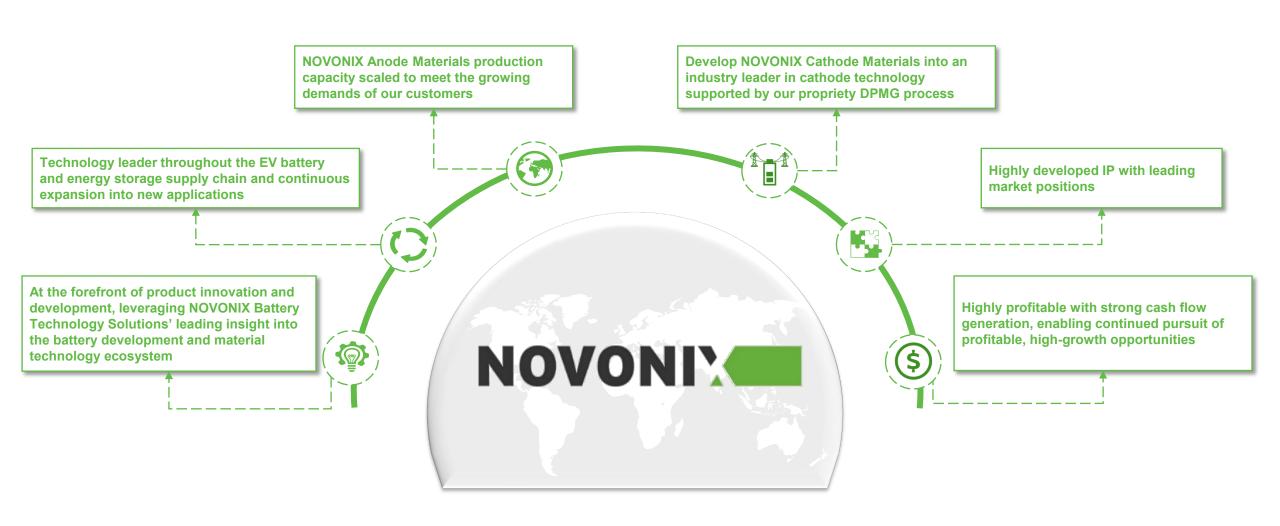
- SC NCM622 shown here is the same Commercial SCC reference material shown in previous slide
- Next step to build full cells for performance testing to include in this data set and demonstrate NOVONIX anode, cathode and electrolyte technologies in a single cell







## Our Goals for the Future of NOVONIX





# Contact Information

#### **NOVONIX Anode Materials**

353 Corporate Place, Chattanooga, TN, 37419, USA



1029 West 19th Street, Chattanooga, TN, 37408, USA



#### **NOVONIX BTS**

177 Bluewater Road, Bedford, NS B4B 1H1, Canada



110 Simmonds Drive, Dartmouth, NS B3B 1N9, Canada



Send all investor queries to: <a href="mailto:IR@novonixgroup.com">IR@novonixgroup.com</a>

This announcement has been authorised for release to the ASX by the Chairman, Tony Bellas.



ASX: NVX OTCQX: NVNXF

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