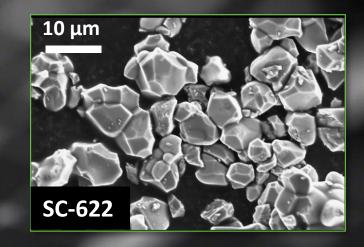
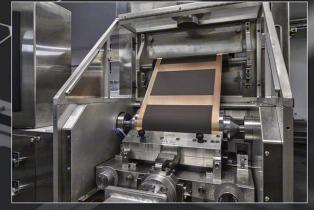
# NOVONIX

**NOVONIX LIMITED (ACN 157 690 830)** 











ASX Small and Mid-Cap Conference 2020



9 SEPTEMBER 2020

### General Disclaimer

- This document has been prepared by NOVONIX Limited ("the Company" or "NOVONIX"). No representation, expressed or implied, or warranty as to the accuracy or completeness of the information contained herein is made by any party and nothing contained herein shall be relied upon as a promise or representation as to the future. In all cases, recipients should conduct their own investigation and analysis of NOVONIX.
- This presentation, including the information contained in this disclaimer is not a prospectus, disclosure document, product disclosure statement or other offering document under Australian law or under any other law. It is for information purposes only and does not constitute an offer, invitation or recommendation to subscribe for or purchase any security and neither the presentation, disclaimer nor anything contained in them forms the basis of any contract or commitment. This presentation does not take into account your individual investment objectives, financial situation or particular needs. You must not act on the basis of any matter contained in this presentation, but must make your own assessment of the Company.
- All statements in this presentation, other than statements of historical facts, which address the future activities and events or developments that the Company expects to occur, are forward looking statements. Although the Company believes the expectations expressed in such statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in forward-looking statements.
- Forward-looking statements involve and are subject to known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company and/or its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include, among others, general business, economic, competitive, political and social uncertainties; the actual results of current activities; assumptions in economic valuations which prove to be inaccurate; possible variations product performance and reliability; climate events; political and regulatory changes; delays in obtaining approvals or financing or in the completion of development or construction activities.
- To the maximum extent permitted by law, none of NOVONIX or its related corporations, directors, employees or agents, nor any other person, accepts any liability, including, without limitation, any liability arising from fault or negligence, for any loss arising from the use of this presentation or its contents or otherwise arising in connection with it. Recipients should make their own enquiries in relation to any investment decisions.
- Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended. Forward-looking information contained herein is current as at the date of this presentation and the Company disclaims any obligation to update any forward-looking information, whether as a result of new information, future events or results otherwise. There can be no assurance that forward-looking information or statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information or statements. Accordingly, readers should not place undue reliance on forward-looking statements.
- This announcement has been authorised for release to the ASX by the Managing Director, Philip St Baker.



### Company Overview

### NOVONIX

- NOVONIX Limited (ASX: NVX)
- Application lodged for listing on the North American OTC Market: OTCQX® Best Market

# NOVONIX Battery Technology Solutions

- Technology accelerates R&D from years to weeks
- Partnership with Dalhousie University
- Battery testing, design, and prototyping services
- Sales to battery & OEM multinationals in 15 countries
- Owner of DPMG manufacturing technology



- First contracted supplier of US-made high capacity long-life synthetic anode
- Conditional sales agreement w Samsung SDI Dec19
- Non-binding MOU agreement with SANYO Jan20







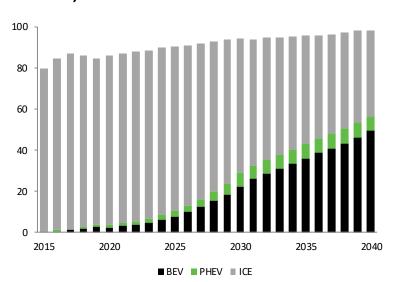
- Coming soon
- Leveraging NOVONIX DPMG technology
- Moving to pilot scale
- Ground floor patents in for new tech
- Single crystal cathode breakthrough



### Renewables and Green Energy Demand Driving Battery Materials Growth 10x by 2030

#### **More Electric Vehicles**

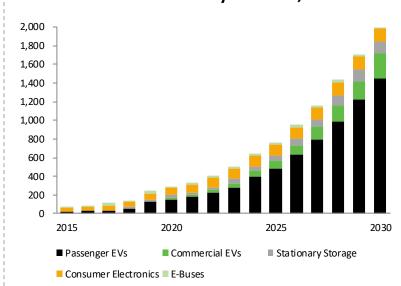
#### **EV Sales, Millions**



 Annual passenger EV sales to rise to 10 million per year in 2025, 28 million in 2028 and 56 million by 2040

#### **More Batteries**

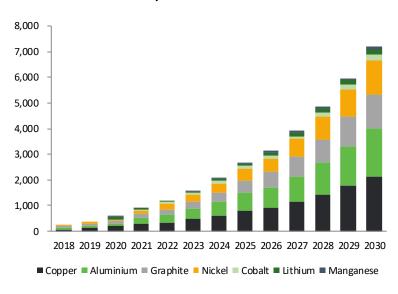
#### **Annual Lithium-Ion Battery Demand, GWh**



To fill this demand for EV growth, there are 99
 LIB megafactories in the pipeline with over
 2,000 gigawatt hours (GWh) of capacity for 2028

#### **More Battery Materials**

#### **Materials Demand, Thousand Metric Tons**



 As a result, demand for high performance battery materials is expected to grow >7x

Total addressable market of anode and cathode materials is going from ~US\$10B today to US\$50B – US\$100B in the next 5 - 10 years

Source: Avicenne Energy 2020



# Battery Growth is Happening in the US Now

#### **Current US Gigafactory Pipeline**

Battery Co.	Auto Co.	Investment	Capacity	Status	State
<b>LG Chem</b>	GM (W)	\$300M	3 GWh	Operating	MI
Panasonic SANYO	₹ TESLA	NA	35 GWh	Operating	NV
SK innovation		\$1.7B	9.8 GWh	Operating 2022	GA
<b>LG Chem</b>	<u>GM</u>	\$2.3B	30 GWh	Announced Dec 2019	ОН
SK innovation		\$2.5B	21.5 GWh	Announced April 2020	GA

- The U.S. expects to have 130 GWh online by 2023
- Europe expects to have 198 GWh by 2023, and has signaled more than 400 GWh in the pipeline

Source: Company press releases and Avicenne Energy.



# The Quest for the Million-Mile Battery

#### Million-Mile Battery requires three critical elements:

#### Requirement

#### **NOVONIX**

Long-life Anodes

• PUREgraphite Anode – developed & scaling

Long-life Cathodes

 NOVONIX DPMG Single Crystal Cathode – under development, IP filed

Long-life **Electrolytes** 

 NOVONIX Electrolyte – demonstrated performance and IP being filed

**NOVONIX** has all three elements in-house

GM VS TESLA FOR THE MILLION-MILE BATTERY

22 MAY 2020



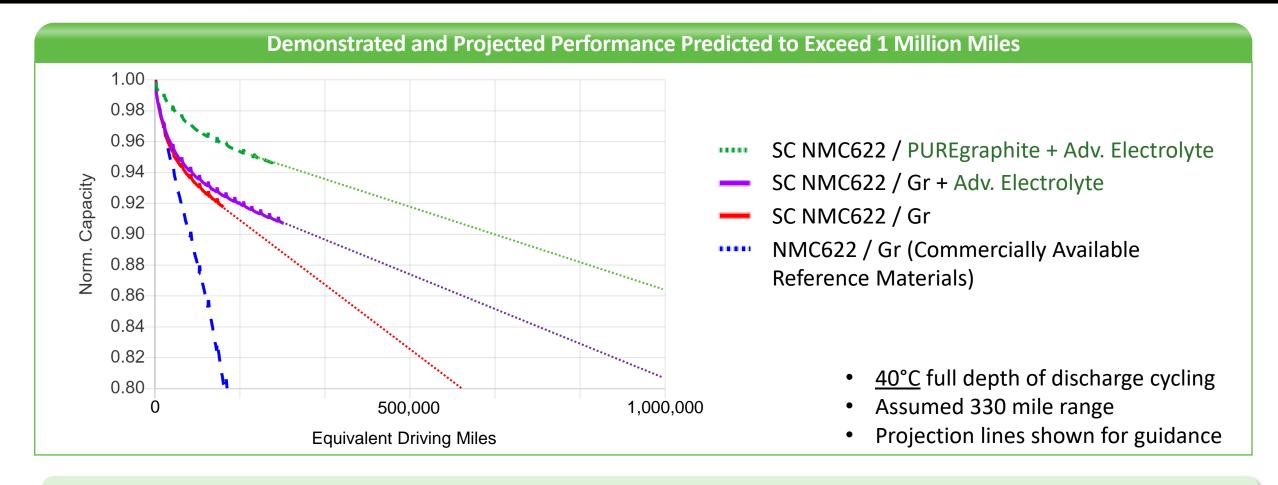
General Motors' million-mile battery is almost there'

Tesla Battery Day update flags launch of million mile battery in China first

MAY 15, 2020 · 8 COMMENTS · 4 MINUTE READ · BRIDIE SCHMIDT



# NOVONIX's Complete Battery Cell Technology



WHAT'S NEXT?

NOVONIX's technologies support "million-mile+ battery" performance



### Corporate Activities

#### **APRIL – JUNE 2020**

- \$63 million equity raise and capital restructure in June to enable execution of the business strategy and plan to become a market leading producer of ultra long-life anode materials for lithium-ion batteries for Electric Vehicles (EV) and Energy Storage Systems (ESS)
- The transaction included:
  - Redemption of all convertible notes
  - Repayment of all unsecured short-term loans
  - Funding to expand the PUREgraphite anode business to 2,000 tpa capacity over 2020 and 2021, and
  - Funding for commercialization of our recently announced breakthrough technologies - Dry Particle Micro Granulation (DPMG) and Single Crystal Cathode (SCC)
- Updated the market on NOVONIX's technology roadmap and "What's Next"

#### **AGREEMENTS WITH BATTERY MAKERS**





SANYO Electric Co., Ltd. a subsidiary of Panasonic Corporation of Japan



# PUREgraphite Update

#### Mass Production Plant, Customer and Product Update

- Mass production line operational after commissioning and optimization
- Samsung SDI Contract Update
  - First shipment being delivered to Samsung SDI in September; multiple scheduled over the next 6 months
  - Cell mass production at Samsung SDI with PUREgraphite material rescheduled to commence April 2021
- Sanyo MOU Update
  - Mass production samples to be evaluated now with production line operational
- Customer Development
  - Samples issued to other prospective customers under confidentiality agreements
  - New engagements with cell manufacturers, auto OEMs and ESS focused companies beginning with increased bandwidth of production at PUREgraphite
- Product and Technology Development
  - Scaling established relationships with supply chain partners
  - Continued product development with improved materials produced at pilot scale on test at Novonix BTS



# Why Customers Want NOVONIX Anode Material

#### **Key Customer Decision Drivers for Synthetic Graphite Anode Material**

#### We Deliver the Performance Required

 Improved coulombic efficiency and cycle life compared to industry leading materials (including a Tesla Model S cell)

#### We are Competitive on Cost

- Re-engineered product and process
- Globally competitive energy input

#### **We Guarantee Safety**

#### We are the Green Alternative

- Low emission energy sources
- No chemical purification

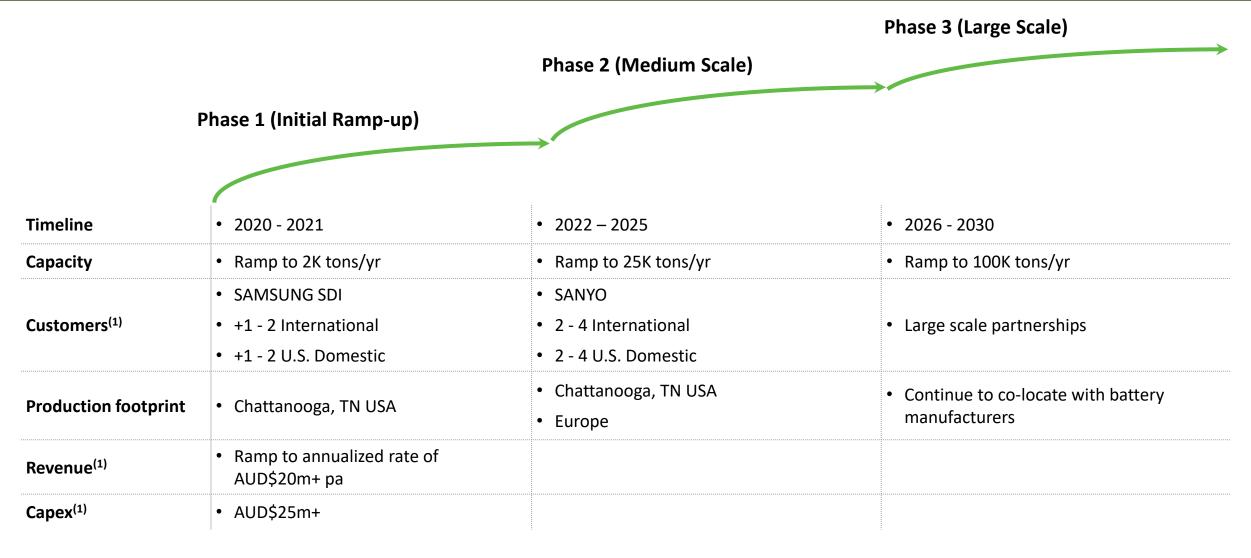
#### We Manufacture in the USA

Supply diversification

Performance Measures	Why Important	NOVONIX PUREgraphite	Chinese Synthetic	Japanese Synthetic	Natural
Capacity (mAh/g)	Increases Battery Energy Density	350	340–350	350–355	350–360
1st Cycle Efficiency (%)	Increases Battery Energy Density	93	88	91	90
Cycle Life	Electric Vehicles and Energy Storage Systems require very long cycle life	V. High	Medium	High	Low
Cost	Need to lower \$/kWh of energy storage for EV and energy storage system markets	\$\$\$	\$\$	\$\$\$\$	\$\$
Safety / Purity / Quality	High safety and reliability are critical aspects for electric vehicle and energy storage system batteries	V. High	Medium	High	Low
Emissions and Chemicals	Batteries support sustainability, but the input materials must also be made in an environmentally friendly manner	V. Low	High	High	High



# Phased Growth Plan For PUREgraphite



(1) These are indicative targets for the business, are subject to significant risks and do not constitute a form of forecast or a form of guidance for the business.



### Conclusion

### **NOVONIX...**

- Is delivering the battery materials the EV and renewables future needs
- Is redefining the manufacturing processes to deliver lower costs, waste and emissions needed
- Has core competencies across all areas of cell technology development
- Has strong connections with leading companies in the battery, auto, renewables and electronics
- Has demonstrated technology advantages in anode, cathode and electrolyte (with more coming)
- Has first commercial technology in PUREgraphite anode material with a contract with Samsung SDI
- Is the only company to break into this market from North America or Europe
- Has cathode technology entering pilot scale and commercialization phase now

- Cathode and anode market is going from ~US\$10B today to US\$50B US\$100B in next 5 10 years
- NOVONIX plans to be a tier one global supplier in this rapidly growing advanced materials market



### Contact Information

#### **CORPORATE**

Group Managing Director:
 Philip St Baker

Email: phil@novonixgroup.com Telephone: +1 970-376-4918 Telephone: +61 438-173-330

• Group Executive Director: Greg Baynton

Email: greg@novonixgroup.com Telephone: +61 414-970-566

 Group CFO and Co Secretary: Suzanne Yeates

> Email: suzie@novonixgroup.com Telephone: +61 439-310-818

• CEO - NOVONIX BTS and PUREgraphite: Dr Chris Burns

Email: chris@novonixgroup.com Telephone: +1 902-449-9121

CFO - NOVONIX BTS and PUREgraphite: Nick Liveris Email: nick@novonixgroup.com

Telephone: +1 989-859-3213

#### **OPERATIONS**

BTS - Bedford, Nova Scotia, CANADA 177 Bluewater Road, Bedford, NS B4B 1H1, Canada



**PUREgraphite - Chattanooga, Tennessee, USA** 353 Corporate Place, Chattanooga, TN, 37419, USA



