

# NOVONIX

ASX ANNOUNCEMENT

31 October 2017

QUARTERLY ACTIVITIES REPORT – SEPTEMBER 2017



## HIGHLIGHTS

- Announcement of future appointment of Andrew Liveris, AO to the Board of Directors
- Appointment of Admiral Robert J. Natter to the Board of Directors
- Mr Liveris and Admiral Natter to invest \$1,000,000 in NOVONIX shares
- Government of Canada provides funding of C\$500,000
- Company name change to NOVONIX LIMITED (ASX:NVX) 10 July
- Numerous Li Ion Battery & EV market announcements during the quarter
- Strong sales of NOVONIX battery testing equipment and services
- PUREgraphite trials pilot plant in China ahead of shipping to Tennessee, USA

NOVONIX Limited (ASX: NVX) (“NOVONIX” or “the Company”) is pleased to provide the following Quarterly Activities Report for the September 2017 Quarter.

## FUTURE APPOINTMENT OF ANDREW N. LIVERIS TO THE BOARD

After a period of negotiation, NOVONIX announced the future appointment of Andrew N. Liveris AO to its Board of Directors as further step in the Company’s downstream integration strategy and plans. The appointment will be made following Liveris’ transition from his roles with Dow and DowDuPont in 2018.



Mr Liveris will be instrumental in assisting the Company with its strategic positioning, international marketing and the scaling the business.

Mr Liveris will invest A\$500,000 into Ordinary Shares of the Company by way of Private Placement, subject to Shareholder Approval at the Company's 2017 AGM.

Mr Liveris is currently the Executive Chairman of DowDuPont, a \$73 billion<sup>1</sup> holding company comprised of The Dow Chemical Company and DuPont with the intent to form independent, publicly traded companies in agriculture, materials science and specialty products sectors. Mr. Liveris also serves as Chief Executive Officer of The Dow Chemical Company. He is responsible for the Materials Sciences Division of DowDuPont and Chairs the Materials Sciences Advisory Committee.

*<sup>1</sup>Based on Dow and DuPont's Net Sales as reported in each company's 2016 Form 10-K filing.*

Mr Liveris has been a member of Dow's Board of Directors since February 2004, CEO since November 2004 and was elected as Dow's Chairman of the Board effective 1 April 2006. He was appointed Executive Chairman of DowDuPont in May 2016, and assumed that role upon close of the merger transaction between Dow and DuPont, which occurred on August 31, 2017.

A recognized global business leader with more than 40 years at Dow, Mr Liveris' career has spanned roles in manufacturing, engineering, sales, marketing, and business and general management around the world.

During more than a decade as Dow's CEO, Liveris has led the Company's transformation from a cyclical chemicals manufacturing company into a novel enterprise – one powered by science, driven by innovation and delivering solutions to the world. During the past 18 months at Dow Chemical, Mr Liveris has overseen the recently consummated merger between Dow and DuPont – a US\$130 billion transaction.

## APPOINTMENT OF ADMIRAL ROBERT J. NATTER TO THE BOARD

Earlier in the Quarter, NOVOINX announced the appointment of corporate and defense strategist, Admiral Robert J. Natter, USN (Ret.) to its Board of Directors as part of the Company's downstream integration and international marketing strategy.

Admiral Natter will be instrumental in assisting the Company with access to defense, marine and aerospace industries in his role as a Non-Executive Director.

Admiral Natter will invest \$495,000 into Ordinary Shares of the Company by way of Private Placement, subject to Shareholder Approval at the Company's 2017 AGM.

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Based in North America, Admiral Natter retired from active military service a decade ago and has since served on a number of U.S. Boards and Advisory panels in corporate and government. During his prominent 41 year Navy career, Admiral Natter served as the Commander in Chief of the U.S. Atlantic Fleet and as the First Commander of U.S. Fleet Forces Command, overseeing all Continental U.S. Navy bases, facilities and training operations.

Admiral Natter is a Non-Executive Director of BAE Systems Inc.; Non-Executive Director of Allied Universal, the largest US Security and Security Systems company with over 160,000 employees; Non-Executive Director of Corporate Travel Management, a Brisbane-based (ASX) international corporate travel Company; Chairman of the U.S. Naval Academy Alumni Association representing 60,000 graduates; and Director of the Yellow Ribbon Fund, a US wounded veteran charity.

Admiral Natter is President of R.J. Natter & Associates, LLC, a nationwide U.S. consulting and advocacy firm specialising in corporate and defense strategy. Admiral Natter is also a Member, Board of Regents of Washington DC based Potomac Institute for Policy Studies.

Admiral Natter has Masters Degrees in both Business Management and International Relations and is a graduate of the U.S. Naval Academy and the Naval War College where he was the fifth recipient of the Naval War College Distinguished Graduate Leadership Award.

His additional awards and decorations include the Silver Star, Navy Distinguished Service Medal (3 awards), Defense Superior Service Medal, Legion of Merit (five awards), Bronze Star with Combat V, Purple Heart, Meritorious Service Medal, (two awards), Navy Commendation Medal with Combat V, Navy Achievement Medal with Combat V, and various unit and campaign awards.

Admiral Natter's honors include in 1998 the Order of the Rising Sun from the Emperor of Japan, and the 1998 Order of National Security Medal from the Republic of Korea bestowed as a result of his tour as Commander of the US Seventh Fleet.

## NAME CHANGE

The Company changed its name on 10 July to NOVONIX Limited (ASX: NVX) to leverage the strong NOVONIX brand name its 100%-owned subsidiary has established in the battery industry, where it is well known for manufacturing the world's most accurate battery cell testing equipment and for providing outstanding quality and customer service. The name change also better reflects the composition and activities of the company post the 100% acquisition of NOVONIX in Canada and the establishment of the PUREgraphite joint venture with COULOMETRICS in the USA.

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The name change was approved by shareholders in a General Meeting on 10 July 2017.

## GOVERNMENT OF CANADA INVESTS C\$500,000 IN NOVONIX

The Government of Canada has provided funding of C\$500,000 for NOVONIX Battery Testing Services Inc by way of an interest free loan to help further develop and market NOVONIX's innovative battery testing technology. The funding was announced by The Honourable Kirsty Duncan, Minister of Science, on behalf of the Honourable Navdeep Bains, Minister of Innovation, Science and Economic Development and Minister responsible for the Atlantic Canada Opportunities Agency (ACOA). Darren Fisher, Member of Parliament for Dartmouth-Cole Harbour, also took part in the event.

The Canadian Federal funding is being allocated through ACOA's Business Development Program which supports small and medium-sized enterprises.

Over 70 people attended the announcement including NOVONIX founders Dr Chris Burns and Dr David Stevens and Professor Jeff Dahn from Dalhousie University where NOVONIX Battery Testing Services Inc was originally spun-out from.



Photo: NOVONIX Battery Testing Services Inc CEO, Dr Chris Burns speaking at the funding announcement.

## BATTERY & ELECTRIC VEHICLE ANNOUNCEMENTS

Many automakers and governments around the world have announced ambitious electric vehicle targets during the quarter, with some very notable announcements occurring in the last quarter including:

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- GM announces two more EV models within 18 months and 18 more globally within six years.
- Volkswagen announces plans to invest more than EUR50 billion (\$60bn) in battery cells and related technology, towards the electrification of its entire model portfolio by 2030 “at the latest”.
- China flags a long-term plan to phase out vehicles powered by fossil fuels.
- TESLA announces it will build the world’s largest grid battery in Australia.
- France announced that it will end sales of petrol and diesel vehicles by 2040 as part of an ambitious plan to meet its targets under the Paris climate accord.
- Volvo announces that from 2019 all new models will have an electric motor.

Following is a summary of EV targets announced by automakers.

Carmaker	Target	Time range
Tesla	500,000 vehicles sold p.a.	by 2018
	1 mn vehicles sold p.a.	by 2020
Volvo	1mn electrified cars (cumulative)	by 2025
VW	1mn EV sales p.a. (25% of total)	by 2025
	30 EV models	by 2025
BMW		2017
	15-25% of sales	by 2025
Daimler	10 new EV models	by 2022
Ford	40% of nameplates to have an electrified version	by 2020
	70% of sales in China to be electrified	by 2025
GM	2 new EV models	in 2018
	>18 additional EV/FCV models	by 2023
Nissan	20% of sales in Europe	by 2020
Chinese OEMs	4.52mn p.a. (in China)	by 2020

Source: ICCT, Company data, Goldman Sachs Global Investment Research

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Following is a summary of EV targets announced by governments.

Country	Target	Time range
UK	Ban ICE sales	from 2040
	60% of car and van sales	by 2030
	100k EVs in London	by 2020
Germany	1 million by 2020	by 2020
	6 million by 2030	by 2030
France	Ban ICE sales	from 2040
	2mn EVs	by 2020
	400k EVs in Paris	by 2020
Netherlands	7mn charging points	by 2030
	200k EVs	by 2020
China	1mn EVs	by 2025
	8% of sales	by 2018
India	5mn NEVs	by 2020
	7mn NEV sales p.a.	by 2025
	6-7mn NEV sales p.a. (as of 2015)	by 2020
Quebec (Canada)	100% EV sales	by 2030
California (US)	15.5% of sales	by 2025
	15% of sales	by 2025

Source: IEA, Country governments, Goldman Sachs Global Investment Research

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## OPERATIONS

A summary of operational activities for PUREgraphite, NOVONIX Battery Testing Services Inc., and the Mount Dromedary graphite project follows.



PUREgraphite is an exclusive joint venture between NOVONIX and COULOMETRICS formed on 1 April 2017 to establish commercial production and sales of ultra-high purity and high-performance anode materials for lithium-ion batteries.

This quarter was PUREgraphite's first full quarter.

PUREgraphite is being led by Dr Edward Buiel (founder of COULOMETRICS) in the role of CEO and is leveraging the existing facilities, staff and capabilities of the COULOMETRICS organisation to enable rapid deployment of the business plan.

We have a team of ten people now actively working within the business based in Chattanooga Tennessee.

The primary work streams underway include the following:

- Upgrade to existing facilities to accommodate initial production
- Refinement of production process design and assessment of production plant equipment and process service options
- Selection, construction and installation of production plant and equipment and establishment of service contracts
- Testing, qualification and selection of precursor materials and negotiation of supply agreements
- Ongoing product development, testing and refinement
- Customer engagement, product customisation and qualification

Pilot plant processing equipment was under manufacture during the quarter and



visits were made to China and tests performed on some completed equipment to verify performance of the equipment before shipping to the United States. More equipment is being specified and will need to be ordered, manufactured and installed. This work is ongoing.

Upgrades to the Chattanooga facility were ongoing during the quarter and continues. These upgrades included establishment of defined areas for the PUREgraphite business for production and administration, installation of security systems throughout the facility and electrical upgrades for furnaces and milling equipment.

Significant progress was made in assessing suitable graphite feedstock supply options and included processing materials and the manufacture and testing of batteries with a range of different materials. This assessment process is ongoing with larger scale tests being performed in the current quarter.

We are on track for pilot production plant installation, commissioning and production of small quantities before year-end including commissioning of jet mill, shaping mill, furnace and coating equipment.

We are maintaining our target of establishing a 1,000 tpa production capability by 30 June 2018 which will incorporate a combination of internal production and some outsourced operations.

We are also making good progress in assessing options, developing plans, assessing sites and service providers to rapidly scale the business up to 100 ktpa.



Battery Testing Services Inc.

With the acquisition of NOVONIX in Canada settling on 1 June 2017 we have completed our first full quarter as the new owner.

We have adjusted the business model to better integrate the new subsidiary and this has included significant changes to the pricing of equipment and services designed to promote greater use of our testing services, improve margins and more strategically control the sale of our technology.

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Sales during the quarter were strong, with orders coming from existing customers wishing to expand their NOVONIX systems and new customers who have not purchased NOVONIX systems before, including some very large and strategic global brand names.

Demand for our newly released larger 20A HPC testing system is strong, with the first two units shipped to two very large global battery makers in Asia, and with both companies seeking to buy more units based on the performance of the systems received.

Planning was undertaken to move to a larger facility to allow for expanded operations with the move expected to be completed before Christmas.

Progress was made by NOVONIX Battery Testing Services in the refinement of new proprietary battery cell testing technologies that will enable battery scientists to non-destructively perform electrolyte chemical analysis and gas measurement. Some patent applications were also made during the quarter relating to some of this technology. The Company is still assessing the best commercial strategy for these new potentially breakthrough battery research and testing technologies.

Planning was also undertaken to leverage the business resources, customer base, and the capabilities of the founders in the area of electrolyte development initially targeted at developing complimentary electrolyte solutions to package with high-performance graphite anode materials being developed by the PUREgraphite business, further differentiating our offering in the market. Over the next six months the company will tool-up to undertake proprietary electrolyte development and commercialization work.

MOUNT DROMEDARY

## **graphitePROJECT**

During the quarter the company undertook further work to satisfy the request for further information associated with our Environmental Authority application and to advance negotiations with land holders and native title holders.

We are targeting the granting of Environmental Authority and Mining License in the first half of 2018.

With the PUREgraphite joint venture in the USA moving forward immediately with sourcing artificial and natural graphite concentrates from a range of international



suppliers, the Mount Dromedary Graphite Project is now off the critical path for the downstream NOVONIX business. Despite this, we will be advancing the project approvals as quickly as possible such that the asset can be leveraged commercially and strategically in the future as early as possible.

There was no change to tenement list in the quarter.

## SIGNIFICANT ASX ANNOUNCEMENTS

The following significant announcements were lodged with ASX during the Quarter:

- 2017 Annual Report | 28 September 2017
- Corporate Governance Statement | 28 September 2017
- Govt of Canada Invests \$500K in NVX Funding | 30 August 2017
- Quarterly Cashflow Report | 26 July 2017
- Company Presentation | 18 July 2017
- Appointment of Admiral Robert J Natter to the Board of NVX | 14 July 2017
- Change of company name to NOVONIX Limited | 13 July 2017
- Quarterly Activities Report | 10 July 2017
- Results of General Meeting | 10 July 2017

## ABOUT NOVONIX

NOVONIX LIMITED (ASX: NVX) is a developer and supplier of high performance materials, equipment and services for the global lithium-ion battery industry with operations in the USA and Canada and sales in over a dozen countries.

NOVONIX's mission is to accelerate the global development and adoption of Lithium Ion Battery technologies for a cleaner energy future.

Through both its high-performance battery materials and its highest-accuracy battery testing equipment, the Company aims to enhance the performance and reduce the cost of EV-standard and energy storage batteries.

## COPORATE

Following the close of the September quarter, the Company announced a private placement of A\$4M through the issue of Ordinary Shares on 31 October. The placement to institutional investors and Sophisticated Investors, including clients of Morgans Financial Limited ("Morgans") received strong demand, closing early and oversubscribed, and was completed at an issue price of \$1.40 per share. Morgans acted as the Participating Broker and Settlement Agent for the placement.

The placement follows the announcement of the future appointment of Andrew N. Liveris, AO and the recent appointment of Admiral Robert J. Natter, USN (Ret.) to its Board of



Directors and is in addition to A\$1M being invested by Mr Liveris and Admiral Natter previously announced (subject to Shareholder approval at the Company's AGM on 21 November 2017).

The proceeds of the placement will fund the commencement of an in-house electrolyte development program (a potential complementary new product line), pursue strategic opportunities for NOVONIX Battery Testing Services including possibilities in the EV fast-charger sector, and to provide working capital for future growth opportunities.

NOVONIX announced that its balance sheet had been further strengthened and simplified with 98% of Convertible Notes issued in April 2017 having been converted to Ordinary Shares, resulting in the elimination of a significant redemption liability that was due to mature in the second quarter of 2018.

The Company held meetings with potential international customers, partners and key government agencies during the quarter in a number of countries. A number of international and domestic institutional investors, sector-focused funds and analysts made contact with the Company during the quarter, and further domestic and international meetings are planned during the current quarter.

#### FOR FURTHER INFORMATION

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