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# Quarterly Activities Report

## October – December 2018

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*Accelerating adoption of batteries  
for a cleaner energy future*

4 February 2018



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- October to December activities
- FY2019 outlook
- PUREgraphite expansion to 75% and strategic investment by the St Baker Energy Innovation Fund
- Appendix

## CORPORATE INFORMATION

STOCK INFORMATION	
ASX Code	NVX
ASX Share Price @31 January 2019	A\$0.38
52 Week Low - High	A\$0.36 – A\$1.05
Shares on issue	123m
Market Capitalisation	A\$47m

CURRENT CASH POSITION	
Cash available to PUREgraphite JV at 31 December 2018	A\$2.26m
Cash available (excluding PUREgraphite JV) at 31 December 2018	A\$3.44m
<b>Total cash available for operations at 31 December 2018</b>	<b>A\$5.7m</b>

FY2018 FINANCIAL INFORMATION	
FY2018 Revenue	A\$2.1m
Total Assets @ 30 June 2018	A\$34.2m
Total Liabilities @30 June 2018	A\$1m

SHAREHOLDINGS	(m)	%
Board and KMP – ordinary shares	49.55	40%

## October – December activities



### **PUREgraphite (PG) – Ownership 75% + production rights 100% above 1,000 tpa**

- Conducted due diligence ahead of ownership increase and achieved control of JV (completed January 2019)
- Completed manufacturing for first lot of commercial furnaces (acceptance testing completed in January 2019)
- Installed first lot of commercial milling equipment in Tennessee facility
- Equipment trials and order specifications completed for remaining process equipment
- Continued product trials with beachhead customers
- Planned product trials with multiple global battery makers (started January 2019)
- Evaluated and short listed industrial properties suitable for scaling the business above 1,000tpa

### **Battery Technology Solutions (BTS) – 100% NOVONIX-owned**

- Continued growth in sales for BTS equipment and services, tracking for 30%+ YOY
- Started battery R&D partnership with Dalhousie University on 1 October & filed first patent application in December
- Filed US provisional patent for a silicon infused graphite material and manufacturing process (publication pending)

### **Corporate**

- Negotiated funding for exercise of PUREgraphite option resulting in strategic investment (January 2019)

- Achieve control of PUREgraphite & increase production rights to 100% > 1,000 tpa
- Expand PUREgraphite product trials with domestic US & global battery makers
- Commission our first commercial scale battery anode plant (Q2 2019)
- Execute first production & sales of battery anode material (H2 2019)
- Secure expansion site & commence planning for scaling PUREgraphite above 1,000 tpa
- Advance R&D of our *“Silicon Infused Graphite”* invention and secure strategic partner
- Achieve another 30%+ growth in sales for BTS equipment and services
- Develop next generation battery materials IP in partnership with Dalhousie University
- Develop next generation electrolyte IP via our in-house electrolyte R&D program
- Evaluate commercial options for Mt Dromedary Graphite Project

## PUREgraphite Expansion & Strategic Investment by St Baker Energy Innovation Fund

### A\$10.9m\* raised via 3 year convertible notes

- A\$10m via placement to strategic investor, St Baker Energy Innovation Fund
- A\$0.9m via placement to another leading Australian institutional investor

### Use of Funds

- Increase ownership, production rights & achieve control in PUREgraphite A\$7.1m
  - Ownership interest in PUREgraphite increased from 50% to 75%
  - Production rights increased from 50% to 100% for tons >1,000 tpa
  - Control of JV achieved
- Additional CAPEX & OPEX for higher ownership level A\$3.6m
- Cost of raising A\$0.2m

\* NVX may raise up to A\$15m, A\$10.9m of which is already committed. Any additional funds will be directed to accelerating production at PUREgraphite.

# Key Loan Note Terms



- Unsecured loan note issued at AUD \$0.40 per note;
- Coupon 10% per annum capitalised over a term of 36 months;
- Convertible at the option of the holder on 1 for 1 basis;
- Redeemable by NVX at any time (with 10 business days' notice);
- The notes are not listed or tradeable;
- 1 for 1 attaching Option, exercisable at \$0.80 per share within three years; and
- Settlement in two tranches (both subject to shareholder approval), with the initial tranche to complete following the General Meeting of Shareholders planned for March 2019 and the second tranche to complete on 1 July 2019 (Notice of General Meeting of Shareholders to be issued shortly).

\* NVX has entered into a A\$6m short term bridge loan with the St Baker Energy Innovation Fund to bridge between the exercise date of the PUREgraphite "Call Option" (30 January) and the pending shareholders meeting to approve the convertible notes. The loan is unsecured, has the same interest rate as the convertible notes and there is no establishment fees.



<https://www.stbenergy.com.au/>

- The St Baker Energy Innovation Fund invests in disruptive products in the clean energy sector
- These are some of the investments within the portfolio

## EV Charging, LED Lighting, Battery Technology & Materials



**TRITIUM**

<https://www.tritium.com.au/>



[www.goevie.com](http://www.goevie.com)





## St Baker Energy Innovation Fund

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*Australian energy entrepreneur, Trevor St Baker AO, is the founder and major shareholder of **ERM Power** (Australia's second largest electricity supplier to Australian commercial, industrial and government customers and owner of low emission gas fired power generation **Oakey Power Station** and **Neerabup Power Station**); joint owner of **Delta Electricity (Vales Point Coal Fired Power Station)** and owner of the **St Baker Energy Innovation Fund**, Australia's largest private energy innovation fund.*

***Trevor St Baker's energy innovation fund** invests in disruptive future technologies and products in the clean energy sector including electric vehicle charging systems (largest shareholder in **TRITIUM** and world leader in fast charger systems); electric vehicle charging networks (owner of **Evie Networks** which has plans to build an Australia wide EV fast charger network); next generation lighting (largest shareholder in **Nth Degree Technologies** with printed LED lighting); and battery technologies and materials (major shareholder in **Printed Energy** and now a significant strategic investor in **NOVONIX** a leading battery testing technology and battery materials development company).*

*Trevor St Baker is a very successful energy entrepreneur who has demonstrated over decades an ability to identify market needs and long term investment opportunities in the energy sector covering traditional energy infrastructure, transitional energy solutions and energy solutions for the future.*

*Trevor has a unique and integrated approach to investing in energy with consideration of immediate needs, medium and long term needs of the market and existing transitional and emerging technologies.*

*NOVONIX Limited Founder and Executive Director, Greg Baynton, said that achievement of control of PUREgraphite and the support from StBEIF marked the start of a new growth phase for the Company.*

*"Trevor St Baker's St Baker Energy Innovation Fund is the largest private investor in this space in Australia, and clearly has a global outlook in the new energy arena.*

*"This funding will transform our Lithium Ion battery anode material production opportunity and help scale production to achieve levels for initial commercial volumes."*

*"With the support of the SBEIF and the certainty of this much larger business opportunity in anode materials, 2019 should be a transformational year for NOVONIX", Mr Baynton said.*

## Quotes – Trevor St Baker

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*Trevor St Baker, founder of the St Baker Energy Innovation Fund said that the investment in NOVONIX complemented the Fund's investments in electric vehicle energy systems.*

*"The Fund's existing investments include TRITIUM, which is a global leader in fast-chargers for EVs, and Evie Networks, which is rolling-out a national ultra-fast EV charging network around Australia".*

*"NOVONIX has the world's most advanced battery testing technology, helping battery-makers accelerate battery performance and drive-down battery costs."*

*"Our investment will help NOVONIX commercialize its PUREgraphite-branded battery anode materials that will deliver better performance, longer-life and lower costs," Mr St Baker said.*

# Transaction Rationale

- PUREgraphite is commercializing high performance battery anode materials that target longer life and lower life cycle costs, based in the USA, targeting domestic and global markets
- US and global demand is growing rapidly and customers are seeking to diversify supply
- First commercial production and sales is set for H2 2019
- Plans are underway to scale to 1,000 tpa over 2019 and to 25,000 tpa by end 2023
- NOVONIX held a “Call Option” to increase ownership from 50% to 75% and increase production rights from 50% to 100% for production above 1,000tpa, and to achieve control of the joint venture
- This “Call Option” was exercised on 30 January 2019 for USD\$5m in accordance with the February 2017 Joint Venture agreement and funded via a short term bridge loan from the St Baker Energy Innovation Fund to be replaced by three year convertible notes, subject to shareholder approval at a meeting to be held in March 2019
- Internal modelling shows significant enterprise value potential for the PUREgraphite business
- **NOVONIX considers this PUREgraphite “Call Option” as a highly-compelling investment, effectively doubling the commercial opportunity of the business and providing control to enable acceleration of the business**

## Capital Structure – Post Convertible Note Financing



Undiluted Basis:	Number (m)	% (Undiluted)
Board and key management personnel – ordinary shares	49.55	35.47%
Other shareholders – ordinary shares	73.59	64.53%
	123.14	100%

Fully Diluted Basis:	Number (m)	% (fully diluted)
Board and key management personnel – ordinary shares	49.55	22.60%
Board and key management personnel – options and rights	24.6	11.22%
Employees and Contractors - options	1.86	0.85%
Other shareholders – ordinary shares	73.59	33.56%
Other shareholders – Convertible Notes @40cps; expiry January 2022	30.25	13.80%
Other shareholders – Convertible Notes @60cps; expiry August 2020	9.17	4.18%
Other shareholders – options @80cps	30.25	13.80%
	219.26	100%

Notes: Board and Management Options & Rights have strike or performance hurdle prices between \$0.30 and \$1.57

# Appendix




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- Company overview
- Business units
- EV forecasts
- Board of directors
- Executive team
- Investment highlights
- Exploration and mining tenements
- About NOVONIX
- Contact information



- **NOVONIX is an international battery technology company**
- **Maker of battery anode material that extends battery life**
- **Maker of battery tech that cuts R&D time to weeks from years**
- **Battery testing technology used by battery & OEM multinationals**
- **Based in USA and Canada with sales in fourteen countries**
- **Battery tech sales growing 30%+ YOY**
- **Now scaling battery anode materials production in USA**
- **Board experienced in building billion-dollar businesses**
- **Owner of a World-Class Natural Graphite Deposit (18%TGC)**

## Business units

Business / asset	Ownership stake	Business description
	<p>75% Ownership 100% Production Rights for tons &gt;1ktpa</p>	<ul style="list-style-type: none"> <li>• Makes battery premium EV-grade anode material</li> <li>• Joint venture with US battery expert COULOMETRICS</li> <li>• Currently building Phase 1 production capacity</li> <li>• Based in USA; Established in 2017</li> </ul>
	<p>100%</p>	<ul style="list-style-type: none"> <li>• Makes battery tech that cuts R&amp;D time to weeks from years</li> <li>• R&amp;D programs for electrolyte, silicon &amp; new materials</li> <li>• Battery testing, design and prototyping services</li> <li>• Based in Canada with growing sales in 14 countries</li> <li>• Established in 2013</li> </ul>
<p>MOUNT DROMEDARY</p> 	<p>100%</p>	<ul style="list-style-type: none"> <li>• Large, world-class high-grade (18% TGC) natural graphite deposit located in Australia</li> <li>• Pending mining approval for 50KTPA base case</li> <li>• Opportunity to scale project up to 200ktpa</li> <li>• Considering partner/divestment opportunities</li> </ul>



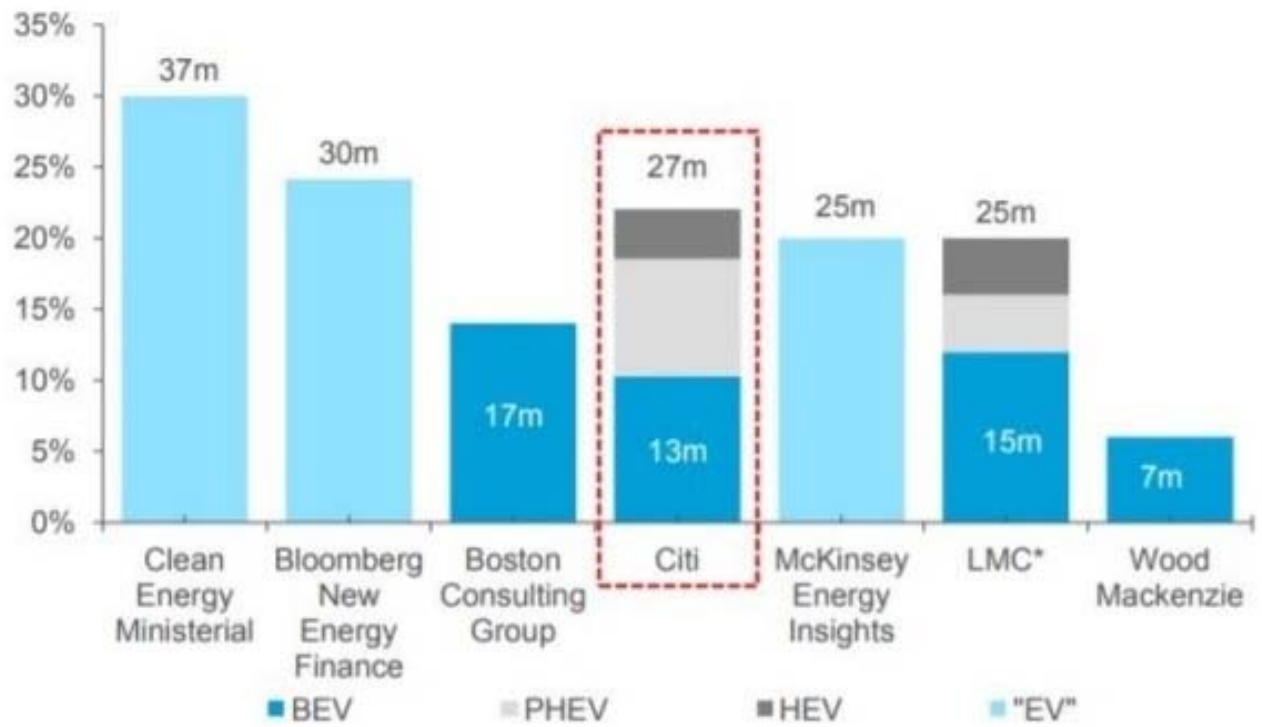
# Electric vehicle forecasts



## 1.5% to 24%

- 2017 EV Penetration (% of New Car Sales) – ~1.5%
- Average 2030 EV Penetration Forecast in 2030 – 24%

## EV penetration forecasts



**Chairman**  
Tony Bellas



**Managing Director**  
Philip St Baker



**Executive Director**  
Greg Baynton



**Non-Executive Director**  
Admiral Robert J. Natter



**Non-Executive Director**  
Andrew N. Liveris AO









**Non-Executive Director**  
Robert Cooper



# Executive team



<p><b>Managing Director</b> Philip St Baker</p> 	<p><b>Executive Director</b> Greg Baynton</p> 	<p><b>CEO PUREgraphite Joint Venture</b> Dr Edward Buiel</p> 	<p><b>CEO NOVONIX BTS</b> Dr Chris Burns</p> 
<p><b>CTO NOVONIX BTS</b> Dr David Stevens</p> 	<p><b>VP Business Development</b> Nick Liveris</p> 	<p><b>Mt Dromedary GM</b> Steve Hadwen</p> 	<p><b>CFO NOVONIX Group</b> Suzanne Yeates</p> 

## **Opportunity to position at an early stage in a global market with exponential growth**

- Exponential demand for rechargeable lithium-ion batteries being driven by EV and energy storage demand growth

## **Established brand in the rechargeable lithium-ion battery industry**

- NOVONIX is an established brand name known for making the most accurate battery cell test equipment in the world

## **Global footprint of blue-chip customers and sales in 14 countries**

- Our battery cell test equipment now used by leading battery, auto and equipment makers and researchers including PANASONIC, CATL, BOSCH, 3M

## **Innovative new products and process being commercialised in large growing market**

- Developing & commercialising innovations in battery anode materials & battery test equipment and undertaking R&D in next generation materials

## **Large world-class high grade (18%TGC) natural graphite resource in Australia**

- Considering strategic partners to progress the Mt Dromedary Battery Materials Project

## **Backed by a board experienced in building and running billion dollar businesses**

- Extensive experience in BD, resources, energy, advanced materials, battery industry, project financing, project delivery, operations and scaling

## **Highly-incentivised Board and Management**

- The Board and Management hold ~40% of the equity in the company

## TENEMENT LIST

Tenement	Permit Holder	Grant date	NVX Rights	Expiry date
EPM 26025	Exco Resources Limited	14/12/2015	100% (Sub-Blocks Normanton 3123 D, J, N, O and S)	13/12/2020
EPM 17323	MD South Tenements Pty Ltd (Subsidiary of NOVONIX Limited)	20/10/2010	100%	19/10/2021
EPM 17246	MD South Tenements Pty Ltd	26/10/2010	100%	25/10/2018
MLA100121	Novonix Limited	application	100%	

## About NOVONIX and further information

**NOVONIX LIMITED** (ASX: NVX) is an integrated 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 14 countries.

NOVONIX is majority owner of the PUREgraphite battery anode material joint venture headquartered in Chattanooga, Tennessee USA.

NOVONIX's mission is to accelerate the adoption of batteries for a cleaner energy future.

### FOR FURTHER INFORMATION

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Managing Director

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### Brisbane, Queensland, AUSTRALIA

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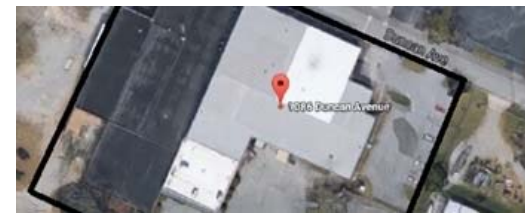
## Battery Technology Solutions (BTS) facility



### Dartmouth, Nova Scotia, CANADA

Contact: Dr Chris Burns  
Email: [chris@novonixgroup.com](mailto:chris@novonixgroup.com)  
177 Bluewater Road, Bedford, NS B4B 1H1,  
Canada

## PUREgraphite battery materials development facility



### Chattanooga, Tennessee, USA

1084 Duncan Avenue, Chattanooga, TN,  
37404, USA