

Talga Executes Binding Agreements with Faraday Battery Partners

Talga Resources Ltd

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www.talgaresources.com**Corporate Information**ASX Codes **TLG, TLGOA**Shares on issue **202.9m**Options (listed) **44.8m**Options (unlisted) **33.0m****Company Directors****Terry Stinson**

Non-Executive Chairman

Mark Thompson

Managing Director

Grant Mooney

Non-Executive Director

Stephen Lowe

Non-Executive Director

- Talga has executed formal collaboration agreements with all consortia partners for Innovate UK 'Faraday Battery Challenge' programs
- Partners include automotive company Jaguar Land Rover, battery material suppliers Johnson Matthey and Croda, cell technology companies Faradion and PV3, along with leading UK institutions Cambridge University and Warwick Manufacturing Group

Australian advanced materials technology company, Talga Resources Ltd and its UK subsidiary Talga Technologies Limited ("Talga" or "the Company")(ASX: TLG), is pleased to announce it has executed collaboration agreements with all consortia partners to commence three UK Government Faraday Challenge ("Faraday") battery programs.

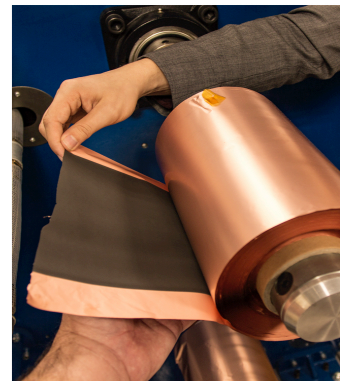
The execution of formal agreements follows the awarding of the grants under Faraday, a £246 million UK Government commitment over the next four years into battery development for automotive electrification (see ASX:TLG 5 Dec, 2017). The initiative will encompass cell manufacture, modules, battery pack design/assembly and vehicle applications, and follows an undertaking by the UK Government to place a ban on new petrol and diesel engines by 2040.

Talga's participation in the funding program of Innovate UK, the government development body, follows successful tests by Talga of its natural carbon materials and technologies in Li-ion batteries (see ASX:TLG 9 Oct, 2017 and 10 Oct, 2016).

Talga Managing Director, Mark Thompson commented: *"Talga is delighted to complete documentation and formally unite with these leading companies at the forefront of material innovation towards better and safer batteries. Additionally these UK Faraday programs will enhance Talga's ability to deliver on our energy and battery sector technical and commercial objectives."*

Department for
Business, Energy
& Industrial Strategy**Innovate UK**

- ▶ Talga has secured significant funding to support three R&D projects:
 1. Safe High Voltage EV battery materials – led by Talga together with Johnson Matthey, Cambridge University and TWI;
 2. Sodium-ion batteries for automotive power applications – led by Faradion together with Talga, Jaguar Land Rover, Warwick Manufacturing Group ("WMG") and Croda; and
 3. Supply Chain Accelerator for Li-ion Electrode materials in UK – led by Talga together with PV3 and WMG.
- ▶ Talga receives 70% rebate against eligible costs (expected ~A\$1.0m against a ~A\$1.5m budget over 1-2 year period).



PROGRAMS

Talga, together with its consortia partners have secured significant funding support under the 'Innovation' aspect of Faraday. Talga will receive a 70% rebate against its eligible costs, including salaries, consumables, equipment and contractor expenses (see ASX:TLG 5 Oct, 2017). Talga's participation in the programs range from 12-24 months and development activities will be led from Talga Technologies Limited in Cambridge UK, utilising the Company's Swedish high grade graphite and functionalised graphene processed at Talga's test facility in Germany. The funding will support the following three projects:

Sodium-ion batteries for automotive power applications ("Sodium")

The Sodium project aims to replace current 12 volt lead-acid batteries with more sustainable sodium-ion technology, enabling lighter batteries with less emission and environmental impacts of both battery manufacture and recycling. The sodium-ion technology can potentially be extended to Li-ion batteries where it could also drastically lower cost per unit of energy storage.

Under Sodium, **Talga will develop and supply the battery anode materials**, and is partnered with auto company Jaguar Land Rover, sodium cell developer Faradion, materials company Croda and university technology arm Warwick Manufacturing Group ("WMG"). The program builds on world leading sodium-ion battery research carried out to date by both Faradion and WMG.

Safe High Voltage EV battery materials ("Safevolt")

This Talga led project includes Johnson Matthey, one of the UK's largest battery materials companies and global scale cathode manufacturer, along with leading UK institution Cambridge University and manufacturing research group TWI. The collaboration aims to achieve a significant increase in the driving range of EV's, solving a variety of issues that are impediments to mass electrification of transport. This will be achieved by improving the energy density, weight and cost of Li-ion battery cells that operate at higher voltage, which will also require better thermal materials to improve safety.

Under Safevolt, **Talga and TWI will develop and supply graphene-silicon hybrid and graphene-metal alloy anode materials** to match high voltage cathode materials developed by Johnson Matthey. Increased safety of the battery cells will be addressed with novel electrolytes to be developed by Cambridge University.

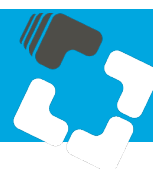
Supply Chain Accelerator for Li-ion electrode materials in the UK ("Scale Up")

This Talga led project includes advanced materials manufacturer PV3 and leading battery R&D institution WMG partnering with Talga to form a battery manufacturing supply chain in the UK. By developing new high performance battery materials and cell production technologies, the costs of electric vehicles may be decreased, with the effect of increasing UK competitiveness in EV markets and ultimately lowering emissions.

Under Scale Up, **PV3 and Talga will develop economic and cost effective manufacturing processes for high energy density cathode (Nickel Manganese Cobalt) and anode materials (graphitic carbon)** respectively, in conjunction with manufacturing technology supplied by WMG.

For further information, visit www.talgaresources.com or contact:

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About Talga

Talga Resources Ltd (“Talga”) (ASX: TLG) is an advanced materials technology company enabling stronger, lighter and more functional graphene and graphite enhanced products for the multi-billion dollar global coatings, battery, construction and carbon composites markets. Talga has significant advantages owing to 100% owned unique high grade conductive graphite deposits in Sweden, a test processing facility in Germany and in-house product development and technology. Joint development agreements are underway with a range of international corporations.

About Faraday

The Faraday battery challenge is part of the Industrial Strategy Challenge Fund, where UK government will invest £246 million to support the development of new battery technologies; funding research, innovation and scale-up facilities for batteries for the electrification of future vehicles and other applications that support an electrified economy. This should lower carbon and help to tackle air pollution while creating new opportunities and industries.

By focusing on the automotive sector initially, the challenge will allow the UK to realise its commitment to move to full electrification and zero emissions vehicles, and make the most of the growing batteries market - estimated to be worth £5 billion in the UK and £50 billion across Europe by 2025.

Innovate UK and the Engineering and Physical Sciences Research Council will deliver the challenge on behalf of UK Research and Innovation. Info: www.gov.uk/government/collections/faraday-battery-challenge-industrial-strategy-challenge-fund

