Talga Silicon Anode Receives UK Government Support

Battery anode company Talga Resources Ltd ("**Talga**" or "**the Company**") (**ASX:TLG**) is pleased to advise that it has received a commitment for grant funding under the UK Government's Automotive Transformation Fund[1,2] to complete a preliminary feasibility study into the commercialisation of Talga's silicon anode product in the UK ("the Study").

Talga has been developing its silicon anode lithium-ion ("Li-ion") battery product, Talnode®-Si, both at its battery materials centre in Cambridge, UK, and under the now concluded Faraday SAFEVOLT program (**ASX:TLG 26 March 2018**). This work demonstrated a promising commercial route to produce higher-energy density anodes for Li-ion batteries, with the potential to significantly increase the driving range of electric vehicles ("EV").

Following further positive development and recent market testing, Talga has moved to fast-track Talnode®-Si preliminary feasibility studies targeting stand-alone commercial production options in Europe (**ASX:TLG 14 October 2020**). As part of this process, Talga has applied for and been awarded ~A$520,000 in co-funding by the UK's innovation agency, Innovate UK, under the Automotive Transformation Fund ("ATF").

The ATF supports the large-scale industrialisation of an electrified supply chain for a zero-emission UK automotive industry, powered by a collaboration between the Advanced Propulsion Centre, the Department for Business Energy and Industrial Strategy, the Department for International Trade and Innovate UK.

Under the Study, technical and commercial work will be completed to define scale-up plans and support potential investment in establishing Talnode®-Si production in the UK.

The Study will include a series of work packages to cover scale-up trials, demand estimates, engineering plans and identification of the overall cost and sustainability benefits to Talga and the UK EV supply chain as a whole. Talga will work with a range of external UK consultants towards completing the Study in the first half of 2021.

Commenting on the ATF funding, Talga Managing Director Mark Thompson said:*"It is exciting to see our plans to fast-track Talnode®-Si being supported by the Automotive Transformation Fund, at a time when the UK's diverse and high quality automotive industry is undergoing rapid electrification. The UK has provided an attractive innovation ecosystem for Talga's silicon anode product over the last few years, and with the increasing local demand for high-performance battery materials it is proving an attractive location for future commercialisation."*

Julian Hetherington, Director of Automotive Transformation at the APC said: *"We are pleased to be supporting Talga's feasibility study to commercialise its silicon anode product in the UK. The APC is committed to ensuring a low-carbon future for the UK automotive industry that is backed-up by a stable, competitive and scalable supply chain. By undertaking feasibility studies like this we hope to be able to reach large-scale industrialisation and commercialisation of an electrified supply chain quicker and more effectively."*

Background

A global shift away from fossil fuels is leading to a boom in Li-ion battery applications, especially to power EVs. However the ramping up of EV markets require improvements to vehicle driving range as well as reduced cost. Both of these can be achieved by improving the energy density of the anode material in the Li-ion battery cell.

In theory, a pure silicon anode is capable of providing approximately 10 times the energy density of the standard graphite anode Li-ion battery. However in practice silicon expands greatly during charging; cracking the anode material, consuming lithium and shortening battery life. Additionally the production cost is significantly higher because of more expensive materials and non-conventional process technologies compared to graphite anode.

Talga's silicon anode product Talnode®-Si is a highly engineered composite of silicon, graphene and graphite designed to manage swelling and increase energy density, while utilising metallurgical-grade silicon for lower costs. The ATF co-funded project supports the natural next step towards commercialisation of Talnode®-Si via preliminary feasibility studies and scale-up of engineering and process technology.

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1 https://www.gov.uk/government/news/49-million-uplift-drives-automotive-industry-towards-green-future
2 https://www.apcuk.co.uk/news/apc-funding-announcement-nov20/

About ATF

In 2019 the UK Government created the Automotive Transformation Fund (ATF) to accelerate the development of a net zero vehicle supply chain, enabling UK-based manufacturers to serve global markets. ATF investments are awarded through the Advanced Propulsion Centre to support strategically important capital and R&D investments in the UK that will help companies involved in batteries, motors and drives, power electronics, fuel cells and recycling to anchor their future in the UK.

About the Advanced Propulsion Centre

The Advanced Propulsion Centre (APC) accelerates the industrialisation of technologies which will help to realise net-zero emission vehicles. It is at the heart of the UK government's commitment to end the country's contribution to global warming by 2050. Since its foundation in 2013, APC has funded over 113 low-carbon projects, involving more than 290 partners. The technologies developed in these projects are projected to save over 225 million tonnes of CO2, the equivalent of removing the lifetime emissions from 8.8 million cars. **www.apcuk.co.uk**

About Talga

Talga Resources Ltd (ASX:TLG) is building a European source of battery anode and graphene additives, to offer graphitic products critical to its customers' innovation and the shift towards a more sustainable world. Vertical integration, including ownership of several high-grade Swedish graphite projects, provides security of supply and creates long-lasting value for stakeholders. Joint development programs are underway with a range of international corporations.

Company website: **www.talgagroup.com**

Forward-Looking Statements & Disclaimer

Statements in this document regarding the Company's business or proposed business, which are not historical facts, are forward-looking statements that involve risks and uncertainties, such as estimates and statements that describe the Company's future plans, objectives or goals, including words to the effect that the Company or management expects a stated condition or result to occur. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. Investors are cautioned not to place undue reliance on forward-looking statements.

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