MARKET RELEASE
For Immediate Release
23 June 2021

Establishment of Joint Venture for the Manufacture of Thermal Battery Media

The Company is pleased to announce it has entered into a joint venture with The Sunlands Company Pty Ltd (Sunlands Co.) to manufacture the graphite based thermal storage media for Sunlands Co.'s thermal energy storage (TES) battery cells. Under the joint venture agreement each party will hold a 50% interest.

JV Business Model

The decision to form the joint venture follows extensive negotiations between the parties to agree offtake terms. The parties recognised that such terms would include the significant complexity of laying down a clear demarcation of their respective ownership of technologies relating to the advanced processing of graphite.

The Company and Sunlands Co. concluded that the preferred approach is the joint ownership and ongoing development of the technology underpinning the manufacture of the graphite storage media for TES battery cells based upon Sunlands Co.'s core technology.

QGL Director, David Trimboli pointing out the advantages of the structure commented that, "the JV model best aligns the interests of the parties and, for the Company, structures our investment in technologies in a way that will cement our position in a major downstream business".

Further, the collaboration between the parties will continue within the framework of the joint venture agreement and, as a result, the memorandum of understanding between the parties has been terminated.

Technology Contributions

Under the joint venture agreement, Sunlands Co. will contribute technology comprising certain advanced processing technologies and the specifications of the flake required to produce the final thermal storage media. This technology was made available to the Company in support of its application for a grant under the Commonwealth Government's Modern Manufacturing Initiative – Translation Stream (MMI Translation) which the Company announced on 26 April 2021.

The Company will be required to successfully complete its existing research program, including the research which is the subject of the MMI Translation grant application and contribute this technology to the joint venture.

In the event that Quantum is unable to fund the research and development, Sunlands has the right but not the obligation to contribute any research and development funding shortfall. Any shortfall will

not impact the Company's joint venture interest however, the transfer price attributed to the storage media in respect of the sale by the joint venture to Sunlands Co. will be adjusted.

The parties have agreed that this adjustment will be applied by way of a discount to the price of the manufactured storage media supplied to Sunlands Co. The amount of this discount will be calculated such that the funding shortfall provided by Sunlands Co. will be amortised over a period of not more than 5 years from the commencement of first supply by the joint venture to Sunlands Co.

Transfer Pricing Structure

Under the joint venture agreement, both the transfer price in relation to the sale of flake product by the Company to the joint venture and the joint venture's sale of the storage media to Sunlands Co. will be negotiated no later than the commencement of production from the Uley 2 mine.

The joint venture's manufacturing process will deliver a significant value add to the Company's flake products. The Company's share of this added value under the joint venture will result in a material increase in the Company's operating margins to the extent of the flake supplied to the joint venture.

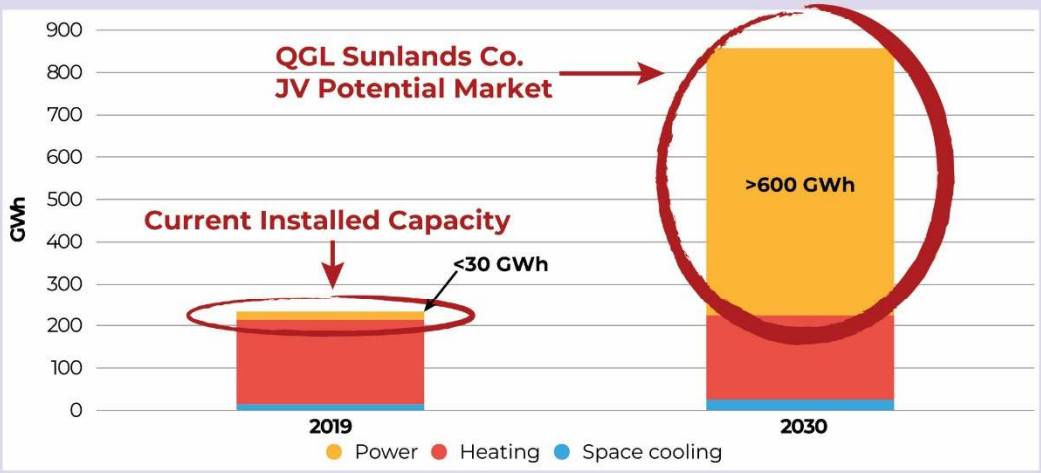
The Company will provide further guidance on the direct financial impact once Sunlands Co.'s near term demand for media storage product has been determined.

The Global Thermal Energy Storage Market

The joint venture is a major step forward in the Company's plans to participate directly in an emerging energy market segment with extraordinary growth potential.

David Trimboli explained that "the JV positions Quantum as a potentially significant player in the grid connected energy storage sector. The drive to increase renewables generation within grid networks and ultimately decarbonise networks underpins the massive growth forecasted in the energy storage market. This is a global market and our participation in the manufacture of the most critical component of Sunlands Co.'s TES cells transforms our business from a local supplier and processor of critical minerals to a participant in this global energy markets."

Figure 3: Installed TES capacity projections according to IRENA's Paris Agreement-aligned Transforming Energy Scenario



Note: Heating projections are not in the scope of this analysis due to a lack of data on aquifers and small-scale distributed TES (e.g. residential water tanks). Nonetheless, growth in the installed capacity of these technologies is expected given their versatile use from short to seasonal scale.

Copyright © IRENA 2020. IRENA Innovation Outlook Thermal Energy Storage 2020

Sunlands Co. partner, Quentin Law, agreed that this market represents an extraordinary opportunity for the parties, "the recent findings released by IRENA paint a clear picture of the way forward to a zero-emissions paradigm. *Within the next 8 to 10 years, IRENA has forecast electricity generation derived from thermal energy storage to increase by 30 times the 2019 installed base*. As part of a vertically integrated business, the joint venture is ideally placed to aggressively service this market".

Independently of the Company's research program, its collaboration with Sunlands Co., now being undertaken under the joint venture arrangement, remains focussed on supporting Sunlands Co's commercial pilot program. Sunlands Co. continues to build upon the results of its July 2020 techno-economic feasibility with its engineering partners including feasibility study manager ProTherm Systems (https://www.protherm.co.za/). The Company will make further announcements in respect of the details of the pilot program over the coming weeks.

About The Sunlands Company Pty Ltd

Sunlands Co. is the owner of certain proprietary thermal management and storage technologies that utilise high purity natural flake graphite as the critical material in its products including its thermal energy storage (TES) cells. Its TES cells have a broad application and include the following key capabilities:

(a) large scale systems for the storage of energy sourced from, (i) intermittent electricity generation such as renewables (i.e., solar PV, wind etc); or (ii) off peak electricity supply; or (iii) both, to deliver continuous dispatchable power;

(b) edge of grid supply balancing and augmentation of existing electricity infrastructure especially in regional and rural areas;

(c) small and mid-scale systems for the storage of energy to deliver Ancillary Services to existing electricity networks; and

(d) small scale and micro systems servicing energy distributors requiring greater control over the increasing export of energy from rooftop and community solar.

Quantum Graphite's Uley mine flake is considered by Sunlands Co. to offer superior geochemistry for its downstream processing and utilisation as the principal thermal storage media for its technologies.

FOR FURTHER INFORMATION CONTACT:
Company Secretary
Quantum Graphite Limited
T: +61 3 8614 8414
E: info@qgraphite.com