



ASX ANNOUNCEMENT

FOR IMMEDIATE RELEASE TO THE MARKET

PPK Group Limited – ASX Code: PPK

Wednesday, 16 October 2019

**JOINT VENTURE RESEARCH AGREEMENT WITH DEAKIN UNIVERSITY
CAPITAL RAISING \$8.5 Million**

PPK Group Limited (PPK) is pleased to announce that it has entered into a Joint Venture Research Agreement with Deakin University and BNNT Technology Limited to advance research into a range of BNNT potential uses leading to commercialisation where appropriate (“Joint Venture Research Agreement” or “JVRA”).

PPK has also agreed to a placement of 2.0M shares at a price of \$4.25 to raise \$8.5M with funds to be utilised in the advancement of JVRA research, for furtherance of the BNNT identified opportunities, potential acquisitions and for general working capital.

BNNT

On 13 November 2018 PPK announced a joint venture agreement with Deakin University to manufacture Boron Nitride Nanotubes (BNNT) on a commercial basis through BNNT Technology Limited (“BNNTTL”), the joint venture company owned 50% by PPK. BNNTTL holds an exclusive 20-year license in respect of the BNNT technology developed by Deakin University.

A test production plant was constructed at Deakin University at Geelong, Victoria and on 3 October, 2019 Deakin confirmed that each of the process elements of the production plant were completed and the plant was operational. An ongoing development program is now focused on establishing the range of production process settings required for BNNT purity, size and type to allow the initiation of higher volume production.

The Joint Venture Research Agreement has been entered into to allow for the research, development and commercialisation of both new and existing technologies and products where BNNT can be used to create and/or improve these technologies and products. PPK sees the JVRA as a significant step forward which has the potential to accelerate the development and use of BNNT.

PPK GROUP LIMITED

ABN: 65 003 964 181

Level 27, 10 Eagle St, Brisbane QLD 4000
GPO Box 754, Brisbane Qld 4001
Tel: +61 7 3054 4500 Fax: +61 7 3054 4599

The initial list of new application projects targeted by the JVRA (some of which are already undergoing research) include the development of:

- A new type of battery based on Lithium Sulphur (Li-S) and using BNNT as both an integrated protective insulation layer and a component in composite anodes which will allow faster charge rates and increased battery cycle life. This project has been under research at Deakin for 5 years;
- 3D printing synthesis technology for metallic alloy composites with excellent mechanical properties for aerospace application;
- New manufacturing processes for transparent materials such as polycarbonate, perspex, acrylic and glass to enhance ballistic resistance performance whilst reducing weight and/or thickness;
- Thermally conductive and electrical insulating materials and related preparation technologies for electronic device packaging purposes;
- Blended polymers such as polypropylene, polyethylene and PVC to create new industrial uses for the unique superior products;
- Improved mechanical properties of brittle ceramics.

New BNNT applications are not restricted to the initial list above and the priorities within are able to be adjusted to meet both scientific and commercial demands.

As part of the JVRA, Deakin University will provide existing intellectual property, services of specialist personnel from the Institute For Frontier Materials and other equipment including use of the university's specialist facilities where required.

BNNTTL will provide BNNT and related technologies, products, technical skills and know-how.

PPK will provide all other services to commercialise the new technologies and services, including the procurement of other specialists with experience in these respective industries. PPK will also provide and or source and assist with funding and industry partnerships.

This Joint Venture shareholding structure is comprised with PPK owning 65%, Deakin University holding 25% and BNNTTL holding the 10% balance. Flexibility to adjust the equity mix on each separate BNNT application has been maintained.

PPK Executive Chairman Robin Levison commented "It is very encouraging to see the relationship between Deakin University and PPK strengthen, and we are delighted to be again working alongside Deakin University to assist in the enablement and commercialisation initially of these six market leading applications. The Board and management of PPK have been greatly encouraged by the investor support shown since the initial BNNT announcement in November 2018 and are confident that these new technology commercialisation opportunities will not only be beneficial to PPK in the medium term but also create a *portfolio development effect* that both increases revenue and profitability opportunities for PPK whilst reducing overall commercialisation risk".

PPK will release a Presentation separately to this announcement and readers may refer to it to better understand the potential that BNNT could provide to each new application project.

CAPITAL RAISING

PPK's investment in BNNTTL has attracted a large amount of market support. In order to maintain the momentum of the research and development and specifically fund the JVRA application development, PPK has agreed to make a placement of 2.0M shares to raise \$8.5M. The placement is to a range of institutional investors and has been made with the assistance of Blue Ocean Equities Limited. Funds will be used to assist with funding of the research referred above, to other BNNT related opportunities that might arise, potential acquisitions and otherwise for general working capital.

Funds are expected to be received by 22 October, 2019 and an Appendix 3B Application for Quotation and cleansing notice will be lodged with ASX upon the issue and allotment of the shares. The placement is within the 15% capacity referred to in ASX Listing Rule 7.1.

For further information contact:

Robin Levison

Executive Chairman of PPK Group Limited
on 07 3054 4500.