

6<sup>th</sup> April 2018

## **Inquiry into Microgrids and Associated Technologies in WA**

Dear Committee members,

VSUN Energy and its parent company Australian Vanadium Ltd are interested in engaging with the members of the Economics and Industry Standing Committee to assist with information for the 'Inquiry into Microgrids and Associated Technologies in WA'. VSUN Energy is a subsidiary of Australian Vanadium Ltd and together we are focused on vanadium from both a mining perspective and in its use in vanadium redox flow batteries in settings such as microgrids. VSUN Energy's remit is to advance the knowledge and understanding of vanadium redox flow batteries' abilities.

Australian Vanadium Ltd has one of the highest-grade vanadium deposits in the world, it's located just south of Meekatharra in Western Australia. Vanadium is traditionally used to strengthen steel, but has a growing use in energy storage. Australian Vanadium Ltd has installed a vanadium electrolyte pilot plant at UWA and has successfully produced battery-grade electrolyte there.

Our Managing Director, Vincent Algar, launched the Energy Storage Committee for Vanitec, the global non-profit organisation working for all sectors in the vanadium industry and is a key member of the group. He is considered an expert in the vanadium field and would be a valuable person for the committee to talk to about both the supply chain and the vanadium redox flow battery's use in the microgrid setting. He is also very knowledgeable about the mining sector and the way it can transition to the use of renewable energy.

Vanadium redox flow batteries (VRFB) are particularly useful for microgrids in places like Western Australia due to their ability to cope with high temperatures and the fact that they are non-flammable. VRFB can be used to provide charging stations for electric vehicles and with their temperature hardiness and ability to store a large amount of energy, they are particularly suited to remote areas in WA.

AVL and VSUN Energy are both employers within the value chain and would appreciate the opportunity to be involved in discussions and be able to provide input relating to maximising economic and employment opportunities associated with the development of Microgrids and associated technologies.

Yours sincerely,



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