

15 November 2018



## V-KOR Vanadium Battery Successfully Completes Perth Demonstration

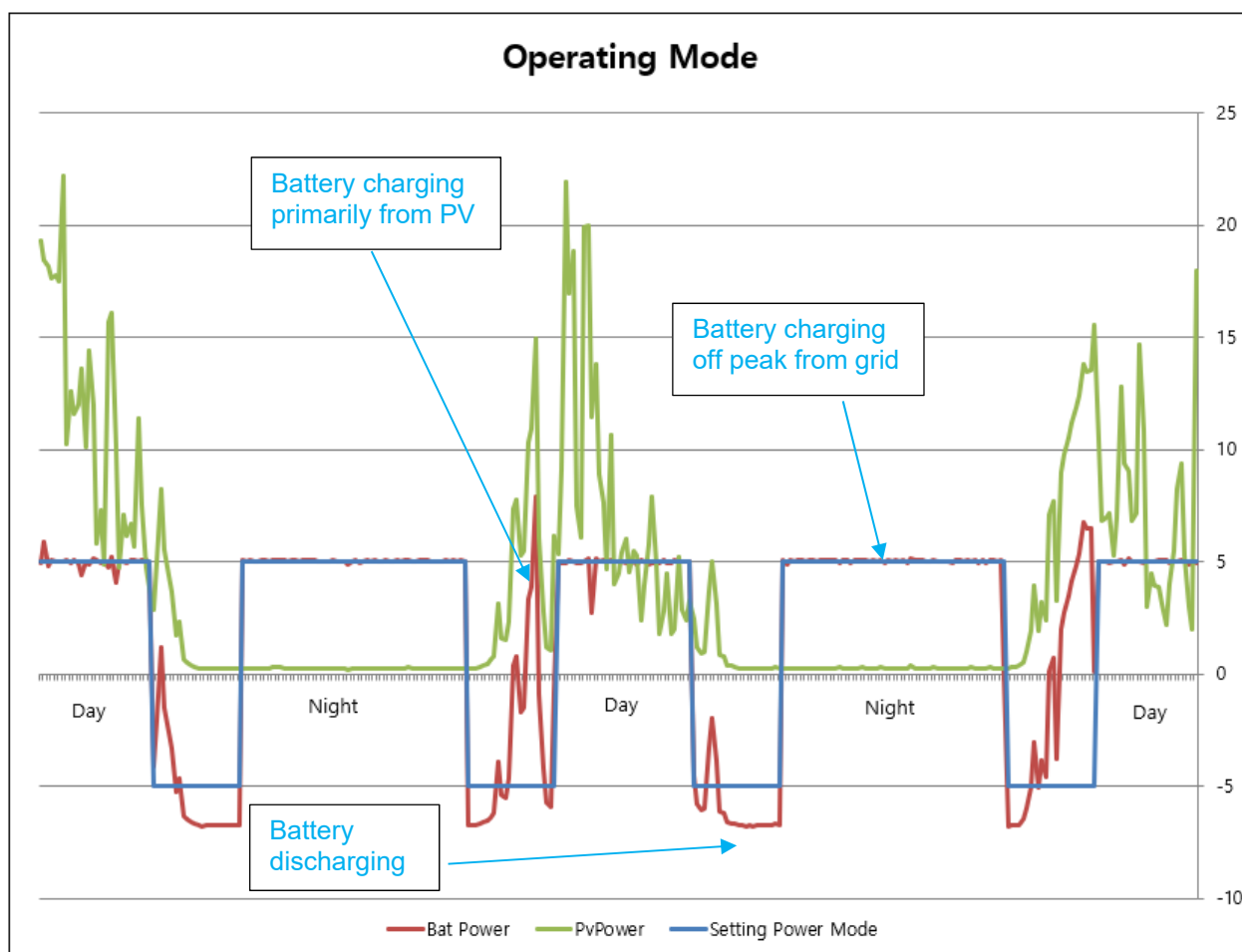
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- Project completion meets criteria for release of KETEP funds (approx. AUD\$120,000)
  - 25kW/100kWh V-KOR vanadium battery **successfully integrated with the Western Power electricity grid** at OzLinc Industries trial site in Perth, for its first Australian grid connection deployment
  - Project learnings incorporated into the development of a larger 25kW stack, and scalable containerised energy storage solution for hybrid grid systems that incorporate solar PV, wind turbines, gas or diesel power generators
  - Protean Energy subsidiary - KORID Energy, receiving interest from multiple parties to supply 25kW stack in SE Asia market
  - Protean advances its patented V-KOR stack technology for KETEP's **1MW/4Wh vanadium redox flow battery** project, through which Protean received a project funding **commitment of AU\$3.0M**
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Protean Energy Ltd (**Protean, POW** or the **Company**) is pleased to advise that the Korean government funded trial of the 25kW/100kWh V-KOR vanadium battery deployment at OzLinc Industries site in O'Connor Perth, Western Australia has concluded (the **Project**).

The Project successfully integrated into the Western Power operated local Western Australian electricity grid and demonstrated the ability to cycle through two charge/discharge cycles per day. This included charging from solar only, grid only and solar/grid. The Project has met the requirements for release of all funds as per the grant conditions from the Korean Institute of Energy Technology Evaluation and Planning (**KETEP**).

Learnings from the trial installation are being incorporated into the design of a larger single 25kW stack (as opposed to the 2 x 12.5kW configuration used in the Project), as well as informing improvements to the design of a containerized solution suitable for large scale electricity grid deployments. KORID Energy has received interest from multiple parties to supply a 25kW stack to the SE Asian market.

Protean will now advance utilisation of the patented V-KOR stack technology for KETEP's 1MW/4Wh vanadium redox flow battery project, through which Protean received a project funding commitment of AU\$3.0M. KETEP reviewed multiple VRFB producers in the space and selected V-KOR's stack technology for the 1MW/4Wh project.



VKOR Battery showing two Charge/Discharge Cycles per day

Protean's Chairman, Bevan Tarratt, said "The Project has been extremely valuable for understanding the implementation requirements for projects in the Australian region and has provided important insights into the development of our flagship 25kW stack development. We have identified target customer segments that can benefit from the Company's unique value proposition and this is now helping refine the commercialisation program for the 25kW stack. We are focused on delivering a highly efficient, low cost 25kW stack that will competitively position V-KOR for large scale battery configurations."

#### ABOUT PROTEAN ENERGY LIMITED (ASX: POW)

Protean Energy Limited is focused on the commercialisation of the V-KOR vanadium battery energy storage systems via its Korean joint venture subsidiary, KORID Energy Ltd (**KORID**).

Protean is also developing a multi-energy mineral project in South Korea through its 50% holding in Stonehenge Korea Limited (**SHK**). SHK is a JV company between Protean and KOSDAQ-listed DST Co Ltd (**DST**). SHK owns 100% of the rights to 3 projects in South Korea, including the Company's flagship Daejeon Vanadium Project.

For further information, see [www.proteanenergy.com](http://www.proteanenergy.com) or phone: T: + 61 8 9481 2277