

**22<sup>nd</sup> October 2010**

**News Update**

## **Powerhouses Combine for a World First Solar PV and Storage Demonstration**

### **RedFlow and The University of Queensland to Collaborate**

In what could be described as a powerhouse combination, innovative Brisbane company RedFlow Limited and The University of Queensland (UQ) have announced a world-first demonstration of a new, large-scale energy storage system in conjunction with Australia's largest and most powerful solar photovoltaic (PV) flat panel array.

The UQ 1.2MW PV project, announced earlier this year, will cover three buildings at UQ's St Lucia campus in Brisbane. It is due for commissioning at the end of 2010 when it will be the largest flat panel PV array in Australia and amongst the largest at any University around the globe. The facility will host a number of innovative research projects associated with understanding how to optimise MW-scale PV systems and study the impact of such systems on the local electricity network.

RedFlow will now be installing its newest battery storage system alongside one section of the UQ solar field. RedFlow's new system, the RedFlow 200 (formerly with a working name of 'X+BOS') marks the company's entry into the megawatt-scale class of energy storage systems. and is RedFlow's major development project in the current financial year. The RedFlow 200 is a 200 kW packaged system which can deliver up to 400 kWh of energy, and is based around 48 of RedFlow's zinc-bromine battery modules. Development is mainly focused on the power electronics and control systems.

Commenting on the project, RedFlow CEO Phil Hutchings said: "UQ is leading Australia with its current installation of the 1.2 MW solar PV array. We are delighted that we have reached agreement to put our RedFlow 200 unit on trial in conjunction with this system. It will store solar power generated from a 390 kW section of the PV array in the daytime, and feed it back into the local network at the times when it is most needed."

"Moreover, this will be a globally-leading PV-storage demonstration, as it will allow the side-by-side comparison with an identical 390 kW PV adjacent section of the array which has no storage at all, but will face the same periodic power drops created by passing clouds. Part of the demonstration period will be to show the effectiveness of large scale energy storage on managing harmonics and transient effects on the network which could otherwise occur."

Mr Hutchings continued: "Wherever possible, RedFlow prefers to demonstrate and test its new products in real-life, in the field applications. Having the RedFlow 200 at work here in Brisbane means we can readily demonstrate it and the actual performance data to our customers."

UQ physicist and leader of the research on the UQ 1.2MW PV array Professor Paul Meredith, said: "The UQ PV project is already a globally-significant solar research experiment and linking it to large-scale storage is the next leap forward in making solar energy readily available when consumers need it".



Professor Meredith also said: "It will also allow us and our partners to really understand the value of battery storage not only to meet peak demand but also to control power flow. Our scientists and engineers are very excited about this unique opportunity."

The RedFlow 200 is scheduled for initial installation at UQ in mid-summer, and with an upgrade in May 2011 to full capacity. The system will then operate for a 24 month demonstration phase.

RedFlow and UQ have agreed to share data on the interaction of storage, the PV array and the electricity network. Product development of the RedFlow 200 remains with RedFlow and its engineering team. All data and IP in relation to the RedFlow 200 design, construction and operation remains with RedFlow.

For further information:

Ofa Fitzgibbons

**Howorth**

Phone: +61 2 8281 3811

Email: [ofa@howorth.com.au](mailto:ofa@howorth.com.au)

Phil Hutchings

**CEO, RedFlow Limited**

Phone: +61 7 3376 0008

Mobile: +61 402 120 531

Email: [phil.hutchings@redflow.com.au](mailto:phil.hutchings@redflow.com.au)



*The RedFlow 200 prototype under construction at RedFlow's factory, October 2010*

### **About RedFlow**

Founded in 2005, RedFlow is now acknowledged as one of the world leaders in high performance zinc-bromine flow batteries (ZBM) for grid-connected electricity storage. RedFlow's utility-scale energy storage systems help reduce electricity distribution costs while building a bright future for Australian industrial manufacturing.

More information can be found at [www.redflow.com.au](http://www.redflow.com.au)