# RedFlow Limited



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## RedFlow SmartGrid Win Takes Order Book to Record Level

Electricity storage system company RedFlow Limited (ASX: RFX) has today announced it has secured a major supply contract for Australia's first commercial-scale Smart Grid project, taking its order book to a record level.

The Australian Government's \$100 million *Smart Grid*, *Smart City* initiative is an expansive and innovative undertaking which is designed to keep Australia at the forefront of energy technology and promote ground-breaking changes to the country's energy industry.

RedFlow has entered into a supply and installation contract for sixty RedFlow R510 energy storage systems with Ausgrid (formerly EnergyAustralia), which is Australia's largest electrical distribution utility.

The R510 units will be part of the *Smart Grid*, *Smart City* project which Ausgrid is developing in Newcastle, Scone and Sydney in 2011 on behalf of the Australian Government. The units will store electricity to distribute power into the grid at peak usage times.

RedFlow CEO Mr Phil Hutchings said the Ausgrid contract will bring RedFlow's current order book to a record level of more than \$3 million.

"We are delighted to be working alongside the *Smart Grid, Smart City* consortium which, along with Ausgrid, includes such leading companies and research institutions as IBM Australia, GE Energy, AGL, CSIRO and Transgrid," Mr Hutchings said.

"The contract we have secured represents a continuation of our work with Ausgrid since mid-2010 following our first installation of a single zinc-bromine flow battery module at its Smart Home in the Sydney suburb of Newington.

"The new R510 installations will put RedFlow's energy storage systems on the world stage when it comes to Smart Grid technologies which will eventually be rolled-out globally.

"This Ausgrid contract win provides further evidence that our systems are being well received by the market due to their quality, reliability, and efficiency in maximising energy storage."

Ausgrid Manager Smart Grid Mr Adrian Clark said the RedFlow units would form the first energy storage facet of the project.

"We will use RedFlow units to create a micro-grid near Scone, NSW, to power part of the community independently of the grid during maintenance or power outages," Mr Clark said.



"Other trials will involve using the energy storage systems to test drawing power from the grid in off peak times and sending it back during peaks.

"Our trials will help us understand the technical impacts of adding this technology to the grid and the benefits for households and electricity networks."

The RedFlow R510 units include a standard RedFlow 5 kW / 10 kWh zinc-bromine flow battery module, an inverter, remote control and communication systems all packaged into a steel enclosure ready for installation.

The units are scheduled for delivery to RedFlow's depot in Newcastle in the second and third quarter of 2011, for installation prior to November 2011.

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## **About Ausgrid**

Ausgrid is the largest electrical distribution network operator in Australia and provides power to 1.6 million homes and businesses through Sydney, the Hunter Valley and the Central Coast. It is wholly owned by the New South Wales Government and was formerly called EnergyAustralia, prior to the recent privatisation of the retail part of its business. Ausgrid is delivering one of Australia's largest infrastructure programs — an \$8 billion upgrade of the electricity network.

More information can be found at www.ausgrid.com.au

#### **About RedFlow**

RedFlow manufactures and sells electricity storage systems (ESS) based on its IP-protected zinc-bromine flowing electrolyte battery module (ZBM). RedFlow's 5 kW/10kWh ZBM is light-weight, compact and with volume manufacturing, low cost compared to alternative batteries. RedFlow manufactures both ZBMs and ESSs at its Brisbane factory, currently undergoing a major expansion. RedFlow ESSs have standard capacities of 10 to 20 kWh, and the range is being extended to the megawatt class with the M-category prototype under development. They are designed for peak load management and smart grid support in electricity networks, inclusion in hybrid solar and diesel generating stations and to add value to intermittent generation from renewable energy sources.

More information can be found at <a href="www.redflow.com.au">www.redflow.com.au</a>



### **About Smart Grids**

Smart Grids are an enhancement of existing electricity distribution networks. Most existing power grids were only designed to transmit power from a few major generation plants to a large number of customers (houses and businesses). This 'one-way' traffic model is being challenged with the rise of renewable energy alternatives such as solar power and the ability to communicate with smart household appliances.

Smart Grids, using modern communications and smart appliances:

- Mean that power can be routed in more optimal ways to respond to a very wide range of conditions;
- Accommodate small scale localised electricity generation like residential solar PV; and
- Allow flexible pricing regimes, so that the real cost of peak generation and distribution is recognised by users.

Smart Grids are a relatively new concept, made possible by modern and low cost measurement and control devices. In part, it means providing an overlay of two-way communications for all aspects of an electricity network, and even reaching into customers' homes.

Households where Smart Grids have been introduced, have the ability to better manage their energy use by providing information about how much energy is being used and the estimated costs.

The introduction of smart grids means that generators, distributors and most importantly customers have the means to reduce energy use and energy bills.

Smart Grids will become critical in the fight against climate change. It is estimated that if smart Grid applications were adopted throughout Australia they could reduce carbon emissions by 3.5 megatonnes per annum.