

## PRESS RELEASE COVERAGE REPORT

Distributed on 18 September 2015 – 36 press pick-ups

**Redflow reduces ZBM battery cost by over 50% and drops below grid price**

**Wind Power Engineering and Development (USA)**

<http://www.windpowerengineering.com/featured/business-news-projects/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price/>

**Energy Storage News**

<http://energystorage.org/news/esa-news/redflow-reduces-zbm-battery-cost-over-50-and-drops-below-grid-price>

**PV Magazine (Global)**

[http://www.pv-magazine.com/services/press-releases/details/beitrag/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price\\_100021086/#axzz3lnW9WXiu](http://www.pv-magazine.com/services/press-releases/details/beitrag/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price_100021086/#axzz3lnW9WXiu)

**Alternative Energy Magazine**

<http://www.altenergymag.com/news/2015/09/15/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price/21369>

**EQ Solar Mag International**

<http://eqmaglive.com/EQ-ARTICLE-35049-Redflow-reduces-ZBM-battery-cost-by-over-50--and-drops-below-grid-price.html>

**North American CleanEnergy**

<http://www.nacleanenergy.com/articles/21302/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price>

**Engineering news (Global)**

<http://www.engineeringnews.co.za/article/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price-2015-09-15/searchString:REDFLOW>

**Wind Kraft Journal (Germany)**

<http://www.windkraft-journal.de/2015/09/15/redflow-reduziert-mit-zink-bromid-batterie-kosten-um-mehr-als-50/>

**Renewables SeeNews (global)**

<http://renewables.seenews.com/news/redflow-cuts-zbm-battery-cost-below-grid-price-492996>

**Energ Magazine (Italy)**

<http://www.energymagazine.it/productnews/2900-redflow-riduce-del-50-i-costi-dei-sistemi-a-batteria-zbm.html>

**Canal Energia (Italy)**

<http://www.canaleenergia.com/archivio-articoli/3050-dall-australia-saldi-sullo-storage-arriva-lo-zinco-bromuro-al-50.html>

**Duurzaam Bedrijfsleven (The Netherlands)**

<http://www.duurzaambedrijfsleven.nl/industrie/8887/australische-accubouwer-kan-strijd-met-stroomnet-aan>

**Wind Tech International**

<http://www.windtech-international.com/product-news/news/products-news/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price>

**Alternative Energy Africa**

[http://www.ae-africa.com/read\\_article.php?NID=6615](http://www.ae-africa.com/read_article.php?NID=6615)

**Recharge News (Global)**

<http://www.rechargenews.com/solar/1411201/solar-power-deals-and-company-news>

**Solar Server (International)**

<http://www.solarserver.com/solar-magazine/solar-news/current/2015/kw38/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price.html>

**Energetica International**

<http://www.energetica-international.com/news/50-cost-reduction-on-zbm-batteries->

**Energy Manager Today**

<http://www.energymanagertoday.com/redflow-and-flextronics-reduce-zinc-bromide-battery-pricing-0115790/>

**Renewable Energy News**

<http://www.renewanews.com/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price/>

**Energetica India**

<http://www.energetica-india.net/news/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price>

**Green tech Germany**

<http://www.greentech-germany.com/redflow-reduziert-mit-zink-bromid-batterie-kosten-um-mehr-als-50-a2012831>

**Solar News (Spain)**

<http://www.solarnews.es/2015/09/15/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price/>

**Power Info Today**

<http://www.powerinfotoday.com/hydroelectric/2685-redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price>

**Start Business (global)**

<http://start.com.gh/site/news/view/23489/Redflow-reduces-ZBM-battery-cost-by-over-50-and-drops-below-grid-price>

**PR Log**

<http://www.prlog.org/12493474-redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price.html>

**The Power Times (India)**

<http://www.thepowertimes.in/index.php/extras/jstuff/content-views/category-list-view/1613-redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price.html>

**Energy Business News (Australia)**

<http://www.energybusinessnews.com.au/latest-news/redflow-slashes-battery-prices/>

**Inside Marine (global)**

<http://insidemarinepr.blogspot.fr/2015/09/redflow-reduces-zbm-battery-cost-by.html>

**PV Resources**

<http://www.pvresources.com/> ; <http://sunenergysite.eu/>

**Environment Guru**

<http://www.environmentguru.com/pages/elements/element.aspx?id=2729147>

**Telezkope Energy Science**

<http://telezkope.com/Science/Energy-Science/6635476/redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price>

**Process Industry Match**

<http://www.processindustrymatch.com/technology/2278-redflow-reduces-zbm-battery-cost-by-over-50-and-drops-below-grid-price>

**Your Chemical News**

[http://www.yourchemicalnews.com/redflow+reduces+zbm+battery+cost+by+over+50%25+and+drops+below+grid+price\\_121308.html](http://www.yourchemicalnews.com/redflow+reduces+zbm+battery+cost+by+over+50%25+and+drops+below+grid+price_121308.html)

**Renewable Energy Technology**

<http://www.renewable-energy-technology.net/grid-energy-storage-news/redflow-reduces-zbm-battery-cost-over-50-drops-below-grid-price>

**Control Engineering Asia**

<http://www.ceasiamag.com/2015/09/redflow-reduces-zbm-battery-cost-by-over-50-percent-and-drops-below-grid-price/>

**Eco-Generation Australia**

[http://ecogeneration.com.au/news/redflows\\_below\\_grid\\_price\\_batteries\\_part\\_of\\_a\\_trend\\_towards\\_incredibly\\_rapi/99029](http://ecogeneration.com.au/news/redflows_below_grid_price_batteries_part_of_a_trend_towards_incredibly_rapi/99029)

**RELEASE CONTENT**

**Redflow reduces ZBM battery cost by over 50% and drops below grid price**

**Redflow**, the Australian provider of energy storage flow batteries, has announced that it has decreased its zinc-bromide battery (ZBM) cost by 50% through technology improvements and a stronger manufacturing relationship with Flextronics. The company is now able to offer its naked ZBM product at a cost of US\$20c per kWh throughput, down from US\$48c just 6 months ago. With this dramatic reduction, energy from Redflow's ZBM product drops below grid price.

"We are pleased to announce substantial enhancements to our ZBM electrode lifetime expectations, manufacturing warranty and base pricing. Our ZBM battery is now the best priced energy storage



product in the market and today's price per kWh is a game changer that should generate substantial amounts of interest among customers. We have received orders for ZBM products from Europe and Australia, with further progressive orders expected," commented Redflow's Chairman, Simon Hackett.

Redflow has already outsourced the majority of the manufacturing process for its key product, the ZBM, to global scalable manufacturing specialist Flextronics in North America. The ZBM electrode, which is currently still being manufactured in Brisbane, will now also be outsourced to Flextronics.

Following substantial R&D work over the last 12 months, Redflow has started the transition to the use of its latest electrode surface coating, ACN13, in its production batteries. The use of ACN13 in production will be integrated with the outsourcing of electrode manufacturing to Flextronics. In-house testing has shown a substantial improvement in physical operating characteristics and projected lifetime thanks to the new materials.

To allow for the full outsourcing to be completed efficiently, and to maximise the benefits of the transition to ACN13, the production rate of ZBM products by Flextronics will be substantially reduced until the full electrode outsourcing process is concluded. Operating cost reductions in Brisbane have been realised with manufacturing in Brisbane reducing.

"These enhancements build upon the continued success of our battery testing programme, our migration to ACN13, and continued progress in reducing the manufacturing cost of our products," said Hackett.

The recommended retail price for the ZBM2 (10kWh) and ZBM3 (11kWh) products has been reduced significantly to US\$8,000 (16% reduction) and US\$8,800 (10% reduction) respectively. Wholesale product pricing is negotiated with system integrators based on their requirements and volume commitments. As a result of these improvements, the nominal levelised cost of energy (LCOE) for the delivery of energy from ZBM2 and ZBM3 batteries has fallen by over 50% to US\$0.20/kWh using the expected 40,000 kWh electrode stack lifetime.

What's more, thanks to the increased lifetime of ACN13, Redflow has improved the manufacturing warranty on its ZBM products to 10 years, or their standard warranted energy throughput, whichever comes first. The electrode energy warranty applies specifically to the electrode stack, with the balance of the ZBM modular component set maintaining a one-year warranty against manufacturing defects. Redflow is now pleased to offer this improved warranty on all new ZBM2 and ZBM3 product sales. For more information please visit [www.redflow.com](http://www.redflow.com)

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## **NOTE TO EDITORS**

### **ABOUT REDFLOW**

Redflow is a market leader in flow battery technology, providing high energy density energy storage solutions with a small foot print. Redflow are the first flow battery company to outsource the manufacturing its products.

To meet the challenges of increasing peak energy usage, rising energy delivery costs, intermittent renewable energy, unstable grid connections and off-grid areas, Redflow have developed a range of zinc-bromide flow batteries. These batteries provide effective and sustainable energy storage



solutions for numerous applications e.g. telecommunications, T&D, micro grids, smart grids, renewables integration and on-and off- grid remote power.

At the core of the Redflow global network is a research and development centre in Brisbane, Australia. Redflow's global presence also incorporates offices in the USA and Europe, and a gigawatt manufacturing facility in North America.

In a commitment to providing reliable and cost-effective energy storage, Redflow are the first flow battery company to outsource manufacturing to global giant Flextronics. Our manufacturing partnership ensures scalable manufacturing alongside strict quality management and consistent production.

#### **PRESS CONTACT**

**Jonathan Collings - [Alesia Communications](#)**

FR +33 (0) 652 694 221 | [Skype](#) jonathancollings1 | [jonathan@alesia-communications.com](mailto:jonathan@alesia-communications.com)