

# The ideas we back aim to change and positively impact the world

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## RFC Power Ltd - RFC Power secures seed investment to develop the world's lowest cost flow battery

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**RFC Power, a leading developer of flow battery systems, today announced the closing of a seed round of investment from IP Group plc. The funding will allow the London-based company to expand its team and accelerate technology development.**

Tim von Werne, CEO of RFC Power, commented: "Completing the seed funding is an important step for the business, enabling us to accelerate both technology development and engage with external partners to bring this exciting new technology to market. Every year the demand for safe, reliable long duration storage is growing."

RFC Power, a spin-out from Imperial College London, has developed new classes of low-cost hybrid gas-liquid flow battery chemistry, leveraging concepts from fuel cells, underpinned by work carried out in the labs of Professors Nigel Brandon and Anthony Kucernak. Nigel Brandon is the Dean of the Faculty of Engineering and co-founder of Ceres Power holdings plc, an AIM-listed global leader in fuel cell technology.

Energy storage is a critical component of the transition from conventional fossil fuel generation to a low-carbon energy system dominated by variable renewable generation such as solar and wind. Flow batteries are a form of rechargeable battery ideally suited for long duration, stationary energy storage. Uptake of current technologies, such as all-vanadium systems, is limited by electrolyte cost.

RFC Power's patented hydrogen-manganese system combines optimised cell architecture with low-cost chemistry. The system has a high single cell voltage, high power density, high round trip efficiency, extremely long cycle-life and crucially, capital costs which are a fraction of competing flow battery systems as the electrolyte is based on inexpensive, non-toxic abundant materials.

Andrew Symes, Investment Manager at IP Group, said: "The market opportunity for long duration battery storage is already large and it is likely to grow rapidly over the next 10 years. We believe that RFC can achieve a sustainable competitive advantage thanks to its two highly distinctive patent-protected systems with lower levelised cost than current offerings. In addition, the use of hydrogen in the hydrogen-manganese system gives it strong links with the emerging hydrogen economy."

<http://rfcpower.com/>

Contact: [info@rfcpower.com](mailto:info@rfcpower.com)

### Notes for editors

#### About RFC Power

RFC Power has developed new classes of low-cost hybrid gas-liquid flow battery chemistry, leveraging concepts from fuel cells. Their current leading hydrogen-manganese system has demonstrated strong performance and, unlike other flow batteries, uses inexpensive, non-toxic abundant materials.

The company was spun out from Imperial College's Departments of Engineering and Chemistry by the institution's innovation arm in 2017 and is underpinned by a number of scientific breakthroughs published in top tier scientific journals conducted in the labs of Nigel Brandon, Anthony Kucernak, Javier Rubio Garcia and Vladimir Yufit. Professors Nigel Brandon and Anthony Kucernak are both experienced entrepreneurs and senior academics at Imperial College London. Professor Brandon is Dean of the Faculty of Engineering, and founded the AIM-listed fuel cell leader, Ceres Power. Professor Kucernak has previously founded several spinouts including Bramble Energy and SweetGen.

RFC Power has previously received support from InnovateUK, EIT Climate-KIC and Fundación Repsol. <http://rfcpower.com/>

#### About IP Group plc

IP Group is a leading intellectual property commercialisation company which focuses on evolving great ideas, mainly from its partner universities, into world-changing businesses. The Group has pioneered a unique approach to developing these ideas and the resulting businesses by providing access to business building expertise, capital (through its 100%-owned FCA-authorised subsidiaries IP Capital and Parkwalk Advisors), networks, recruitment and business support. IP Group has a strong track record of success and its portfolio comprises holdings in early stage to mature businesses across life sciences and technology. IP Group is listed on the Main Market of the London Stock Exchange under the code IPO. For more information, please visit our website at [www.ipgroupplc.com](http://www.ipgroupplc.com)

#### About Imperial College London

Imperial College London is one of the world's leading universities. The College's 17,000 students and 8,000 staff are expanding the frontiers of knowledge in science, medicine, engineering and business, and translating their discoveries into benefits for our society.

Founded in 1907, Imperial builds on a distinguished past – having pioneered penicillin, holography and fibre optics – to shape the future. Imperial researchers work across disciplines to improve health and wellbeing, understand the natural world, engineer novel solutions and lead the data revolution. This blend of academic excellence and its real-world application feeds into Imperial's exceptional learning environment, where students participate in research to push the limits of their degrees.

Imperial is the UK's most international university, according to Times Higher Education, with academic ties to more than 150 countries. Reuters named the College as the UK's most innovative university because of its exceptional entrepreneurial culture and ties to industry. [www.imperial.ac.uk](http://www.imperial.ac.uk)

**Locations and contact**

**Head office**

Top Floor,  
The Walbrook Building,  
25 Walbrook,  
London, EC4N 8AF

**International offices**

**UK regional offices**

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