Edinburgh start up eyes a European prize

Edinburgh start up energy company Gravitricity is the only Scottish firm shortlisted in the Europe-wide New Energy Challenge. This means they are in with a chance of winning £100,000 to build their energy storage project.

Representatives of the company are off to Holland to pitch their business idea in the international start up competition, New Energy Challenge which aims to find energy technologies of the future.

Charlie Blair CEO Gravitricity

Charlie Blair managing director said : “We are up against six other firms and we expect the competition will be intense. There were over 300 entries initially and now we are in the final straight. This weekend we’ll begin with a few days of coaching and workshops in Delft before we showcase our project to a jury of experts in Amsterdam. We will know by the end of next week if we have won.”

If they do win the company will be supported by Shell through their Gamechanger programme and will be able to build a prototype. Their idea uses gravity to store large amounts of energy in purpose built shafts.

Blair concluded : “The climate emergency means the world will rely increasingly on renewable electricity – and we need to find ways to store that energy.”

Gravitricity Concept Demonstrator

Gravitricity uses one or more heavy weights suspended in a deep shaft by cables attached to winches. When there is excess

electricity, for example on a windy day, the weight is winched to the top of the shaft ready to generate power.

This weight can then be released when required – in less than a second – and the winches become generators, producing either a large burst of electricity quickly, or releasing it more slowly depending on what is needed.

Unlike batteries, the Gravitricity system can operate for decades without any degradation or reduction in performance.

The idea of using gravity to store energy is not new. Britain already relies on a number of pumped storage hydro schemes, such as Ben Cruachan, where water is pumped uphill to be released when required.

The start-up plans to build models from 1 to 20MW, and estimates each Gravitricity Energy Storage System will last up to 50 years. They are currently short-listing a number of sites for their first full-scale working prototype.

www.gravitricity.com