

Croatia gravity energy storage

The EU's European Investment Bank has pledged support for a long-duration thermal energy storage project and a gravity-based energy storage demonstration project.

They have been selected among 15 projects defined as large-scale -- each requiring capital costs of more than EUR7.5 million (US\$8.5 million) -- through EU Innovation Fund grants for Project Development Assistance (PDA), administered by the bank.

Of these, seven were selected to receive direct funding from a EUR1.1 billion budget and include hydrogen, carbon capture and storage, advanced solar cell manufacturing and other technologies.

The other 13 projects cover technologies including wind propulsion for cruise ships, hydrogen fuel cells for marine vessels, green methanol production, greenhouse gas (GHG) and carbon capture and storage, bioethanol, power-to-liquid for aviation fuels and other areas.

There is also an electric vehicle (EV) battery project, which will use ultra-pure electrolyte salt to improve lithium-ion batteries and a project to develop and upscale the synthesis of curved graphene and electrode production technologies.

Sun2Store, a 100MW/1,000MWh thermal energy storage project in Spain was selected for a PDA agreement. Using technology developed by US startup Malta Inc, the project will enable 10-hour duration storage of energy.

Malta Inc has developed a technology it calls "pumped heat" electricity storage, which could provide up to 200 hours of storage, although the company is largely targeting 10 – 12 hour applications. It converts electricity to heat, which is then stored in molten salt. Simultaneously, the system produces cold energy stored in special vats of an anti-freeze-like cooling liquid.

The hot and cold energy are then converted back into electricity as required, using a temperature difference-driven heat engine. The company has raised funds from investors including Bill Gates' Breakthrough Energy Ventures and is one of the founding members of the international Long Duration Energy Storage Council.

Funds have been granted to Malta Inc's European affiliate company, Malta Iberia Pumped Heat Electricity Storage (Malta Iberia). The EIB will provide technical assistance to Malta Iberia, including an independent technology assessment, which will verify the storage facility's key technical parameters.

Located in mainland Europe, the project follows a 250kW demonstrator which operated in Scotland’s

capital city Edinburgh throughout the summer and for which specialists appointed by the EIB have begun evaluating test results.

The results of the Edinburgh demonstrator are to be combined with a review of local revenue streams to produce a commercial risk assessment that will inform detailed design and development activities.

"We already have a high level of confidence in our technology and its ability to store energy effectively. What these studies will bring is increased understanding and confidence in how a full-scale project will play into a specific energy market," said Chris Yendell, project development manager at Gravitricity.

Contact us for free full report

Web: <https://www.hollanddutchtours.nl/contact-us/>

Email: energystorage2000@gmail.com

WhatsApp: 8613816583346

