

Launching NewSETS – implementing novel storage solutions for a sustainable energy transition

A consortium led by **Flexens Oy Ab** has succeeded in securing funding through the [ERA-Net SES MiCall19 framework](#). The other consortium partners are **LUT University, Polar Night Energy Oy** and **Pumped Hydro Storage Sweden Ab**. With a total budget of **4.1 million euros**, the three-year project called **NewSETS** focuses on novel energy storage solutions.

ABOUT NEWSETS

[NewSETS](#), short for "New energy storages promoting sustainable energy transition in societies", is all about storing energy. The project centres around two main storage types: **underground pumped hydro storage** and **seasonal heat storage**. The former, provided by the Swedish company Pumped Hydro Storage, employs conventional pumped hydro methods in a new space: underground. The latter storage type is developed by the Finnish company Polar Night Energy and uses high-temperature sand to store heat. Both technologies present low-emission and innovative approaches to energy storage.

NewSETS links demonstrations, feasibility studies, market and system analyses with ambitious communication efforts. The underground pumped hydro storage will be demonstrated in the project, while the team will perform feasibility studies for the seasonal heat storage. In addition, the effects of the two storage types on the energy system will be comprehensively studied - also in combination with other storage solutions.

The NewSETS project aims to establish a positive outlook among energy stakeholders and make climate change mitigation efforts visible to everyone through skilful communication. It is an ambitious project rooted in international collaboration and mutual interests in a sustainable energy transition.

NewSETS officially started in the summer of 2021. Now, the joint communication of NewSETS is finally launched through the project's own webpage. **Juhani Riikonen**, project manager, anticipates a fruitful continued collaboration.

"Looking forward to working with the consortium on this. It will be interesting to see how these storage types can benefit energy systems and complement each other in the renewable energy transition", says Riikonen.

NewSETS official webpage can be found here: <https://www.newsets.eu/>



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PARTNERS



Flexens Oy Ab is a project developer and investor implementing critical technologies needed to enable societies to run 100 % renewable energy sources. Flexens was founded in 2018 to capitalize on the skills and capabilities created in building the world-leading RES testbed and demo platform, Smart Energy Åland, capturing the rapidly growing demand for renewable energy systems. Through a public-private-partnership with multi-level actors on Åland, Flexens has founded a clear pathway and developed the essential framework needed to ensure rapid novel RES technology diffusion and implementation.

<https://flexens.com/>



LUT University (Lappeenranta-Lahti University of Technology) is a pioneering science university in Finland, bringing together the fields of science and business since 1969.

<https://www.lut.fi/web/en/>

POLAR NIGHT ENERGY

Polar Night Energy is an innovator of seasonal heat storage, embracing renewable energy by providing stable and affordable heat storage for industrial applications. Offers seasonal heat storage for district heating and industrial applications.

<https://polarnightenergy.fi/>

PUMPED HYDRO STORAGE

Pumped Hydro Storage solution enables large-scale electricity storage with the help of proven technology combined with the unique idea of installing pumping power in abandoned mines. The storage method (PSH) is characterized by low cost, high efficiency, and long service life.

<https://www.sens.se/17/21/pumped-hydro-storage/>

MORE ABOUT MICALL19

[ERA-Net SES Joint Call 2019 On Energy Storage Solutions Framework](#)

