Switzerland energy storage economics

"The purpose of the coalition is to enable existing technologies for carbon capture and the production and storage of carbon-neutral gases and fuels to be brought to market quickly and reach industrial scale," says ETH President Jo?l Mesot, outlining the plan. The goal is to build a scalable, climate-neutral and flexible energy system within a reasonable time frame.

Achieving this goal will require a collective effort from the worlds of science, politics and industry. "Our two ETH universities alone have enormous combined potential: 150 research groups specialising in energy, around 460 scientists and four successful spin-offs are active in carbon capture and energy storage. Together with other research groups at the Paul Scherrer Institute PSI and the Swiss Federal Laboratories for Materials Science and Technology Empa, the ETH Domain has both the necessary expertise and scale to work with industry partners in addressing current challenges," says EPFL President Martin Vetterli. ETH Zurich and EPFL are now searching for technology and implementation partners, as well as financial backers and supporters from politics and society.

Around 20 companies and organisations have already voiced their interest in a collaboration: Alpiq, AMAG, Axpo, BKW Energie, SBB / CFF, Carvolution AG, Cemsuisse, Emil Frey Gruppe, Edelweiss, FIR Group AG, Gaznat, Gen?ve a?roport, GE Vernova, Gruy?re Hydrogen Power SA, Implenia, MAN Energy Systems, Migros Industry, Romande Energie, Rolex, Swissmem, SWISS International Air Lines, VBSA, Viteos SA, Verband der Schweizerischen Gasindustrie / Association Suisse de l''Industrie Gazi?re.*

The coalition plans to explore innovative technical solutions to create additional opportunities that use energy storage facilities to exploit the seasonal differences in electricity production in Switzerland and Europe. This will improve Switzerland''s security of supply and diversify energy trading with European and international partners, thereby creating new business areas and opportunities for technology start-ups and Swiss industry. The technical options will be systematically analysed in order to discover and implement the most effective solutions possible in terms of security of supply and cost.

The formal process of establishing the coalition will be completed by the end of 2023, enabling the first projects to be launched at the start of 2024. Demonstration plants, built on existing technology but on a megawatt scale, are to be productive from 2028 onwards and serve as research platforms. A budget of around 100 million Swiss francs is needed to fund the first phase of the project.

*''Axpo'' was added to the list of interested companies after publication of the media release.

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