Dear Madam President of the European Commission
Dear Executive Vice-Presidents of the European Commission
Dear European Parliament Committee Chairs
Dear Members of the European Parliament
Your Excellences Permanent Representatives to the EU

Re: European energy security needs energy storage

Russia’s invasion of Ukraine has exposed Europe’s fossil energy dependence. We welcome the European Commission’s strategy to phase out Russian fossil fuel dependence through the REPowerEU plan. The plan rightly identifies renewables, especially wind and solar, as key technologies to decrease Europe’s dependence on Russian oil, gas, and coal by providing renewable electricity and heating to our homes, cars, and industries.

The industry stands ready to turn these ambitions into reality provided Europe simplifies and accelerates the permitting of renewable energy projects. Speed is of the essence if we want to avoid locking our energy system with new fossil-based energy.

Renewable energy sources made up 37% of electricity consumption in the EU in 2020, but almost 80% in Austria and Sweden. Many more Member States will reach these shares of renewable electricity between 2025 and 2030, Germany for instance is now aiming at 100% renewable electricity generation by 2035.

This Europe-wide transition to a net-zero energy system requires us to plan our infrastructure, ensure proper investment signals, and continue to support innovative power generation technologies, grid innovation and flexibility solutions. A net-zero energy system will require a range of flexibility solutions – including demand-side and storage at different duration levels.

The dispatchable fossil generation we use today to balance the energy system is inconsistent with Europe’s climate, energy independence, and security of supply ambitions. Pumped storage hydropower, Europe’s incumbent electricity storage option, requires too much space to be scaled and remains vulnerable to climate change impacts on water availability.

What is urgently needed now is the massive and rapid roll-out of critical enabling technologies in the energy sector, notably energy storage solutions. Energy storage encompasses a wide technology family, including mechanical, thermal, electrochemical, electrical, and chemical storage with timeframes ranging from milliseconds to inter-seasonal. These solutions are at various levels of technological maturity and Europe has spent significant R&I funding to advance towards market readiness.
Without market uptake for these new technologies in step with the deployment of renewables, the EU will be physically unable to achieve a net-zero power system, and risks continued exposure to volatile fossil energy markets.

Strong political support for storage alongside renewable energy can create immediate market signals that will mobilise investments. To achieve this, storage needs to become a political priority alongside renewables and hydrogen, in the short term. There are three actions the European Commission can take in its REPowerEU Action Plan in May:

- **Set energy storage targets for 2030.** Just as the REPowerEU communication set targets for renewables and hydrogen, the follow-up in May should include 2030 targets for energy storage, creating long term investment signals. National Governments should leverage their NECPs to provide visibility on national roadmaps and actions for the development of storage. To this end, the EU urgently needs an energy storage strategy replicating in scope and ambition the Hydrogen strategy.

- **Promote the uptake of energy storage technologies.** The European Commission should extend Contracts for Difference under the Innovation Fund to cover energy storage technologies. The European Commission should also provide guidance on the design of standalone and co-located renewables+storage tenders in line with EU State Aid guidelines. Energy storage technologies should also feature prominently in Horizon Europe work programmes.

- **Mainstream energy storage in the European Commission’s implementation of the REPowerEU action plan and in the ongoing review of the Electricity Market Design.** It is key to identify and lift barriers to storage uptake, such as the lack of implementation of EU legislation in Member States and permitting bottlenecks.

With the US witnessing a dramatic uptake in energy storage, and China developing ambitious government plans to deploy storage solutions, the EU risks coming late to yet another technology trend. It is worthwhile recalling that it was the 1973 oil crisis that led governments around the world to invest in R&D for renewables. Without these early efforts, the magnitude of today’s renewable energy production in Europe would be unthinkable. Looking at the crisis we find ourselves in now, we need to fast-track a new generation of clean technologies without which energy independence from Russia will remain elusive.

Yours sincerely,

Breakthrough Energy  
Secretary General, EASE  
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