

Sand Battery

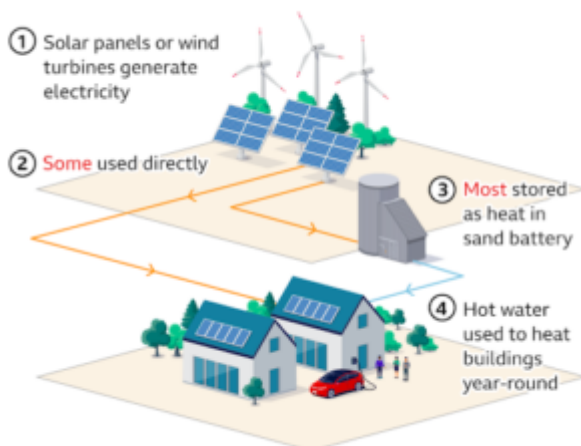
July 7, 2022

In news—Researchers in Finland have installed the **world's first fully working sand battery**, making a major breakthrough in solving the global energy crisis.

About sand battery-

- Researchers claimed that this development can **solve the problem of how to store renewable energy by storing green power for months at a time.**
- This could **solve the year-round problem of supply**, which has proven to be a major issue for green energy.
- **The sand batteries use low-grade sand**, which is **later heated up in the battery employing electricity generated from wind and solar energy**, which is generally considered to be cheaper.
- The **sand can store this energy in the form of heat at about 500 degrees Celsius.**
- This **can then be used to warm homes, especially in the winter**, when the demand is typically higher and so are the energy prices.

How sand batteries work



BBC

- **While ideas like these are still being tested and it's not known whether these sand batteries can**

store electricity as well as heat, measures like this one are being backed by the local government as a promising start.

- In Finland, this development is especially crucial and is a light of hope because of the long and cold winters it faces.
- **Finland has the longest Russian border in the European Union (EU).**
- In the wake of **Finland's decision to join the North Atlantic Treaty Organization (NATO)**, Moscow has halted gas and electricity supplies.
- **About 40 per cent of the European Union's (EU) gas comes from Russia**, and cutting off natural energy export strategy from Russia brews trouble for many
- In such times, finding alternative energy supplies to fill in the gap can be crucial, and **Finland's latest sand batteries can prove to be the right step in the right direction.**