

THE VALUE OF RENEWABLE ENERGY

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With the help of renewable energy, which in turn is the result of natural processes, the ecosystems that most people try to use precisely for their purposes are improving. Emerging energy markets and geopolitical uncertainty have brought energy security and energy infrastructure sustainability to the forefront of many national energy strategies. Security of supply is a major concern in global energy markets, from the European Union and the United States to Egypt and India. Examples of the use of renewable energy in buildings are solar water heaters, biomass boilers, heat pumps and free cooling.

Reducing energy demand in buildings and industry is key to the transition to a renewable energy-based energy system. Therefore, an integrated policy approach to renewable energy and energy efficiency is crucial. Most industries have access to renewable energy, and according to the data, they are a better fit.

Hydrogen, precisely produced from renewable energy sources, can meet the needs of high heat capacity industrial processes, namely the metallurgical and chemical industries (Adib, 2019).

Clean, renewable energy is a natural source of energy that does not emit any pollutants into the air that are harmful to health or climate, or cause any other serious environmental hazards. The main environmentally friendly technologies for renewable energy generation are onshore and offshore wind turbines and photovoltaic systems.

The main issues associated with nuclear power are radioactive waste, contamination from uranium mining and processing, the risk of reactor meltdowns (1.5% of all power reactors ever built experience some degree of accidental meltdown) and the possibility of the use of nuclear.

One strategy for grid stabilization is electricity storage, which often fills gaps

in wind and solar supplies.

Existing technologies include batteries, hydraulic accumulators, flywheels, compressed air storage. Profitable solar+ is already cheaper than coal or nuclear and replaces both. In fact, battery costs have fallen by 97% since 1991 (Jacobson, 2022).

The revolution in the global market can imagine how many new technologies will be developed to help countries start the process of decarbonizing their economies, or well-known companies like Google will invest heavily in solar projects (Amos, 2020).

References:

Adib R. (2019). *Why is renewable energy important?* Retrieved from <https://www.ren21.net/why-is-renewable-energy-important/>

Jacobson M. (2022). *Renewable Energy's Intermittency is Not a Showstopper.* Physics. Retrieved from <https://physics.aps.org/articles/v15/54>