Advancement in battery storage technologies is essential to overcome the replacement of fossil fuels with renewable energy.

Everyday engineers must closely monitor electrical grids and precisely match supply with demand. Industrial power plants have no way to store the energy that combustion and steam turbine generators are producing. Companies lose lots of money each year by producing more electricity than what consumers are using up. If companies are to produce less electricity when in high demand it places a strain on the electrical grid as well as compromises the quality of electricity sent to customers. This balance beam of meeting the demand peaks and valleys becomes even more challenging as our world continues pursuing net zero carbon production by phasing out fossil fuels as these have been used as a backup to provide a reliable steady supply of energy.

With the continuous advancement of battery energy storage systems, giant batteries, considerably more advanced than the household batteries we are used to, are able to be charged using renewable energy such as wind and solar power. Intelligent software is able to use algorithms to coordinate energy production and decide when to keep the energy reserved in the batteries and when to release it to the grid during peak demand.