

Technology and market mapping of grid scale energy storage solutions

This research project will investigate options for the integration of energy storage technologies in conjunction with offshore wind power plants in the Danish electricity grid. The resulting recommendations of the project will help shape Ørsted's energy storage strategy as they strive to provide stable, secure, cheap, green electricity. Consideration should be given to various types and scales of energy storage along with the various grid ancillary services markets that should be engaged with.

Engineering challenges to be solved

The research team will be required to analyze and synthesize technical, cost and market characteristics of several energy storage solutions across several implementation scenarios. They will need to propose solutions that are both commercially attractive to Ørsted and capable of providing for the needs of the Danish electricity grid.

Engineering backgrounds needed

Backgrounds in energy engineering, power systems, materials science, techno-economic modelling, future scenario studies, energy markets and business case generation will be valuable.

What do you hope can be achieved with the project?

It is anticipated that the research team will provide recommendations for the types and scales of energy storage that could be installed in conjunction with offshore wind power plants in Denmark.

Furthermore, it is expected that recommendations regarding involvement in grid ancillary services markets will be provided.