

Abstract

Energy storage possibilities for the liberalized electricity market

Energy storage systems (ESSs) will play a key role in enabling the European Union to reach its decarbonization goals and improve energy efficiency. ESSs are devices which can absorb energy after it is generated in order to use it at a later time.

They can provide a variety of application solutions along the entire value chain of the electrical system, from generation support to transmission and distribution support to end-customer uses. A quick overview of some of the main prospects will be shown. The cost of those applications is an important and maybe the most relevant point of the technology selection process. In my presentation I would like to summarize the pros and cons of some technologies based on the classification of the used form of energy. I will approach the connection between the facilities and the realization from this point of view.

In the next semester, I plan to get more information about the effects of ESSs with static load flow simulations. The next step will be a composition of a controlling strategy which I can implement on a real life environment in Fót, Hungary (Smart Grid Presentational Park).

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