

# Benefits of Energy Storages for Wind Power Trading

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*Abstract*-In Germany renewable energy is paid by law with a high and constant amount, wherefore there is no real competition between renewable and conventional power plants. This work analyses the possibilities of wind farm operators to take part in an open energy market and increase their income with new payment alternatives. These alternatives are the energy exchange and the control power market where it is technically already possible to take part with wind energy generators. To secure a steady supply of energy and to allow a time variant supply, a storage is used for optimization. With the storage unit it will be also possible to buy energy at the exchange and charge it at lower prices and sell it at later higher prices.

The results show that an increase of profit is possible. Already without using a storage unit the wind farm gets more profitable by selling energy also to other energy markets. With the assistance of a storage unit this income could be 50 percentage more compared to the governmental payment.