

Optimal bidding strategy of a renewable-based virtual power plant including wind and solar units and dispatchable loads [J] A risk-based gaming framework for VPP bidding strategy in a joint energy and regulation market [J] Iranian Journal of Science and Technology, Transactions of Electrical Engineering, 43 (2019), pp. 545 - 558 H. Wang, L.

Pumped storage power stations are controllable with the characteristic of energy storage. It can be employed in combined bidding with REPPs, improving the flexibility of market bidding. In [10], it was pointed out that the combined bidding of wind power and pumped storage had good applicability in insular power systems.

The uncertainty of distributed wind and photovoltaic power generation is mitigated using energy storage in the microgrid, and market benefits are obtained through strategic bidding. In [10], a two-stage bidding strategy was presented for the microgrid containing wind power and pumped storage.

Finally, the results of a realistic case study are provided to show that the proposed approach can reduce the bidding bias of a virtual power plant in the electricity market, increase operating profit and reduce the cost of electricity purchasing.

With the development of power-to-gas (P2G) technology, hydrogen energy storage, another form of energy storage, can also be applied in a combined bidding strategy. Market frameworks are also studied in some papers. Chen et al. (2022) proposed a semi-centralized market mechanism for energy storage in the day-ahead market.

According to Fig. 3, the bid should be greater than with the energy capacity equal to in order to approach an optimal energy purchase. The FRU will be enabled if the ESS submits a bid with power level equal to the desired FRU value and a price between and .

Abstract: This paper proposes the use of Artificial Neural Networks (ANN) for the efficient bidding of a Photovoltaic power plant with Energy Storage System (PV-ESS) participating in Day ...

This paper proposes the use of Artificial Neural Networks (ANN) for the efficient bidding of a Photovoltaic power plant with Energy Storage System (PV-ESS) participating in Day-Ahead ...

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A two-stage bidding strategy of households PV-BESSs is proposed in peer-to-peer market (Zhang et al., 2019). Niknam et al. (2012) introduced a bidding strategy of combined PV-storage systems in day-ahead (DA) market, in which ...

Taking advantage of the favorable operating efficiencies, photovoltaic (PV) with Battery Energy Storage (BES) technology becomes a viable option for improving the reliability ...

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