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DEMO SITES

ADO Stadium, in the Netherlands



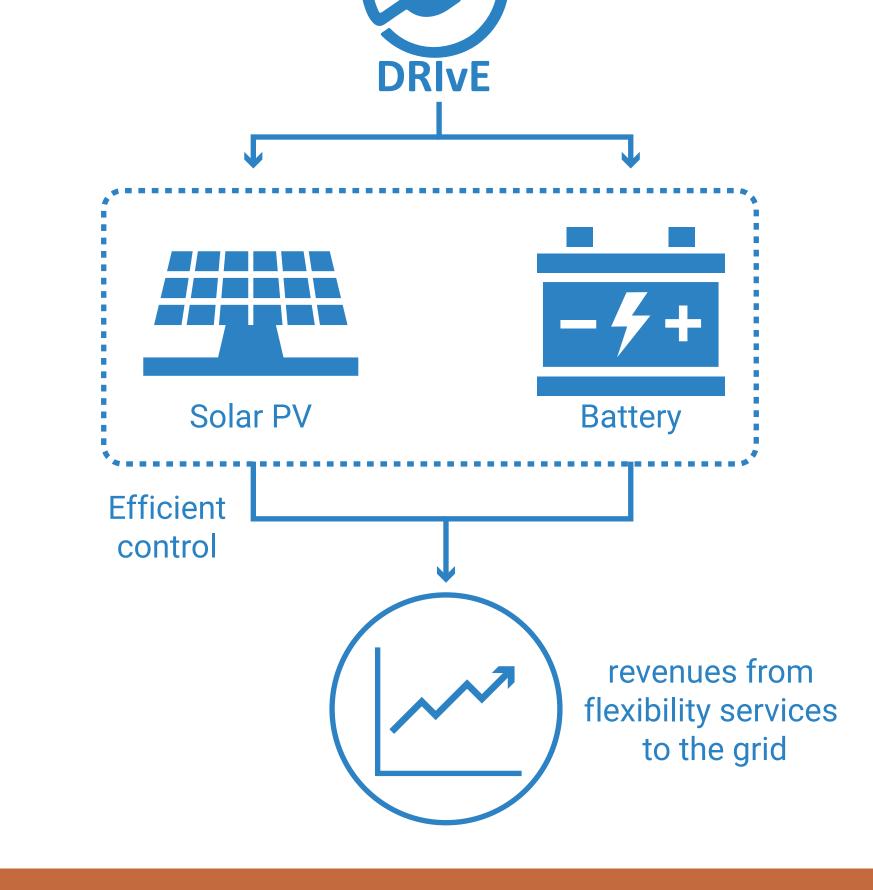
SCHØLTenergy





Focus of the demo: Football

stadium in the Netherlands with solar





panels, energy storage system and EV charging points. The potential flexibility that the stadium can offer to the grid in those moments in which there are no football matches but in which there is solar production.

Direct replication potential: other stadiums or big sport arenas with peak of intensive energy use but low baseline energy compared to the peak.

Objectives: Balancing the network surrounding the demo site by using the capabilities of an installed energy storage. This approach facilitates the delivery flexibility services called "Frequency Containment Reserve" to the electricity network operators which creates added revenues for the pilot owner.

Assets: A 650 kWp PV system, a Lithium-ion battery (flexible load) with 750 kWh capacity, and 750 kW discharge/charge power; 20 Electric Vehicle charging points of 22 kW each; Direct connection to Medium Voltage grid (managed by the Distribution System Operator Stedin)

Method: Physical testing

Results: Based on the combined results (flexibility service) revenues and internal energy management) and costs (profit share towards the entities involved, recurrent flexibility management cost and hardware installation including the battery), and taking into account the high volatility of the FCR prices, a payback time between 8-10 years can be expected for the ADO stadium owner of the investment made in the battery system



This project has received funding from European Union's Horizon 2020 research and innovation programme under grant agreement n° 774431. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of the following information. The views expressed in this publication are the sole responsability of the author and do not necessarily reflect the views of the European Commission.