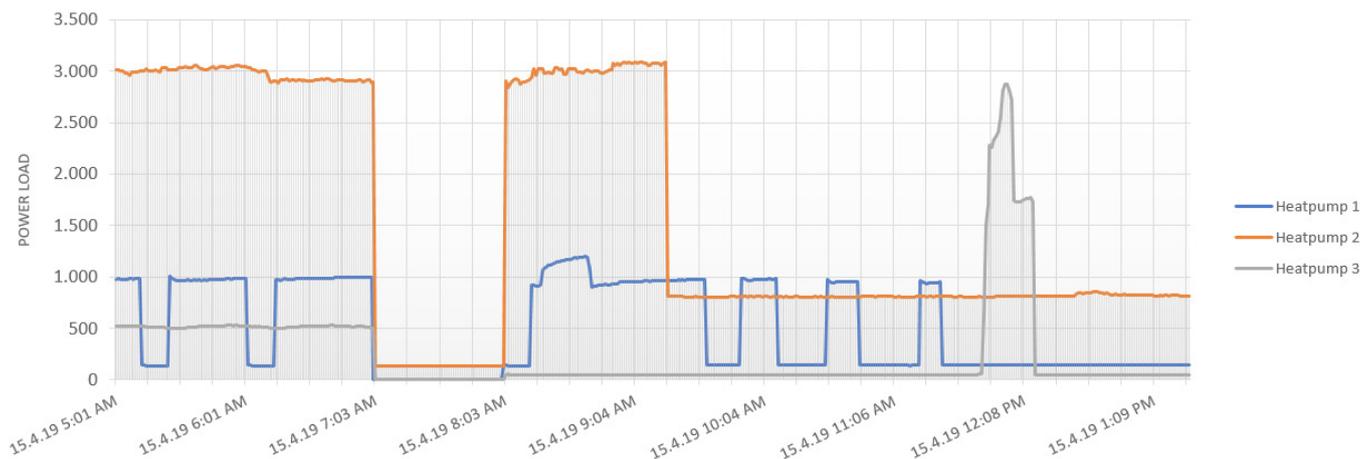


GERMAN DEMO SUCCESSFULLY CONTROLS DOMESTIC HEATER BY USING THE NEWLY DEVELOPED SMART GRID HUB

DSO Avacon managed to control residential heaters through its IT platform Smart Grid Hub (SGH) that was developed during earlier phases of the German Interflex Demonstrator.



With this faculty, the gateways and a certification- DSO can finally tap ready control unit. After the into dormant flexibility successful commissioning and reserves offered by integration into the SGH, the domestic heaters, such as heat first devices were successfully pumps and storage heaters. It controlled directly from the grid control room. allows the system operator to control room. balance the network, optimize system operation and increase the hosting capacity for locally generated green energy.

The SGH is fully integrated with the DSO's grid control SCADA on one side, and the national smart meter framework (SMFW) on the other. Avacon recently successfully migrated the SGH and its first pilot customers on the smart meter framework. The recent milestone included project customers that use night storage heaters or heatpumps for central heating.

hour. The duration of the trigger signal is marked in red. The devices in this demonstration are heatpumps that can be interrupted for short periods by the DSO under the current regulation. Avacon demonstrates here a one-hour reduction of power consumption to avoid peak-load situations. The graph shows the successful switching as well as a rebounding effect when heatpumps catch up the delayed consumption. ●

The first tests aimed to shift load times for one hour ahead and back, in order to demonstrate how even decades-old double-tariff mechanisms can be used today to solve the contemporary challenges of Europe's energy transition.

These load management functions aim to synchronize consumption and supply for forecasted times of high renewable infeed into the grid. It also allows to improve the DSO-operation in general.

Since the beginning of 2019, these households were equipped with a certified smart meter. It's the first nationwide certified smart meter

The charts above illustrate the load curve for a sample of three heaters that were triggered to reduce consumption for one