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## Salisbury Battery Trial – initial insights

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South Australia has climatic conditions that support a high penetration of solar photovoltaic (PV) generation. Although providing significant benefits to customers, PV systems do not necessarily assist in managing peak demands on the distribution network, and can cause additional issues during low demand periods when they can cause large negative flows on the network. Battery storage devices can potentially be utilised in conjunction with solar PV to reduce peak demands as well as mitigating other potential impacts of high penetration PV generation.

SA Power Networks is conducting a trial in Salisbury, South Australia, in which it has integrated solar PV with battery storage at 100 residential premises. Both local and coordinated remote control is available. The trial is aimed at assessing the potential for this technology as an alternative to traditional distribution network development and identifying the potential value from the perspectives of the customer, Retailer and Distributor.

This trial has confirmed the viability of integrating renewable generation with battery storage and its use to manage network demand. However, it has also identified that at this time, the potential value for each participant is insufficient to induce any one to invest widely. Only by coordinating the control of the scheme to deliver benefits for more than one party would the investment become economic. The structural and pricing arrangements of the Australian National Energy Market also present implementation challenges.