Distributed Energy Resources, What Can Be Learned from Experience of Australia and China

Chair:

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Scope of Panel

Introduction of renewable energy resources into the modern grid has resulted into high penetration of Distributed Energy Resources (DER). DER present opportunities and benefits both to the power system and to consumers and refers to technologies such as solar photovoltaics (PV), storage, electric vehicles, home energy management systems and demand management, which are predominantly installed at the consumer side. In many countries consumers are motivated to be more independent from the grid and more environmentally friendly through the installation of rooftop PV and battery storage. DER has also created unprecedented challenges for system operators.

Realising the overall benefits of DER requires coordination and action across the energy industry to facilitate their effective integration. In both Australia and China several trials have been conducted to understand how DER interacts with the grid and how challenges of high penetration renewables, such as shifting peak demand time to later in the afternoon, reducing minimum demand during daytime and lower levels of inertia can be managed. The panelists will discuss this opportunities and challenges in both China and Australia and will present some case studies.

Panelists:

Andrew Blaver, Horizon Power, Western Australia
Sharon Wang, State Grid Electricity of China, Beijing
Grace Liu, Australian Energy Market Operator