

**Session Title: Energy System Integration**

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**Abstract title: Demand side flexibility expansion in Japan**

Utilization of DER(Distributed Energy Resources) is going to be a key factor for Power system in next generation in the meaning of sustainability and decarbonation, which is called 'DSF(Demand Side Flexibility), including Battery, EV, Demand response, other appliances.

DSF expansion had been led by European Area, where wind power generations and PV are rapidly increasing. DSF can absorb the RE volatility through Intra kWh market, Reserve market and Distribution stability market.

In Japan, DER utilization started after Great Earthquake in 2011, through the step of Demand Response, VPP pilot project. From now, on the polity of Carbon Neutral 2050, DSF expansion will be accelerated through energy market policy and DER innovation effort.