

## **Workshops on Green Energy& Circular Economy- Energy Storage, System, and Problem Solve Experiences hold by ECCT LCI and TPRI of Taipower**

(R&D Planning Office: Ms. Hsiang-Lin Chang)

In response to the global carbon reduction trend, TPRI of Taipower organized the " Workshops on Energy Storage, System, and Problem Solve Experiences " with European Chamber of Commerce Taiwan (ECCT) Low Carbon Initiative (LCI) in the afternoon on November 17, 2021. The meeting was co-chaired by Dr. Chung, General Manager of TPRI, TPC and Jennifer Wang from ECCT LCI Steering Committee. The participants included members from ECCT LCI and TPC, in a total of 140 people participated in this online workshop. Hitachi Energy, Bureau Veritas, Enel X, and TÜV Rheinland were invited to share their experience for business management of energy storage and related safety regulations during operation of the system. Discussed topics include " Unlocking New Revenue and Stabilizing Electric Grids with Energy Storage", " The Safety and Grid-connection Solution of Energy Storage System", " Energy storage: A Case Study in Real-Time Asset Optimization in a Complex, Energy Market" , and " ESS international approval and market




overview". This workshop deeply discussed the current status and prospects of energy storage, energy storage system, and problem solve experiences, which can be used as a reference for Taiwan Power Company to organize our energy storage technology strategies.

As Taiwan's main power supplier, Taipower needs to actively prepare and respond to the international trend of net zero carbon emissions. In the future, TPRI will continue to hold a series of green energy exchange workshops with ECCT LCI. By learning from the experiences of various countries, we hope that we can develop the most suitable way to reduce carbon emission in Taiwan. The next following workshop will be held in February 2022 and focus on electric vehicle. TPRI will continually and truly help grasp international trends of energy development.

Opening Remarks

**Dr. Chung Nien-Mien**

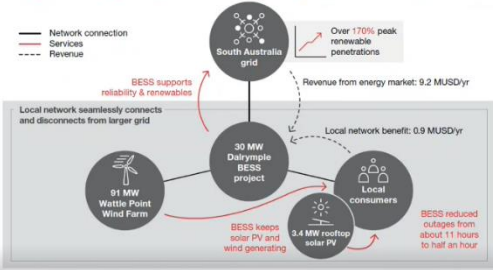
General Manager  
Taiwan Power Research Institute  
Taiwan Power Company

Case study: ESCRI-SA Dalrymple Project

HITACHI Inspire the Next

Showing the benefits of grid-forming (GFM) BESS with virtual synchronous machine, smart controls, and automation



Local network seamlessly connects and disconnects from larger grid

Local network benefit: 0.9 MUSD/yr

Revenue from energy market: 9.2 MUSD/yr

Over 170% peak renewable penetrations

91 MW Wattle Point Wind Farm

30 MW Dalrymple BESS project

24 MW rooftop solar PV

Local consumers


BESS supports reliability & renewables

BESS keeps solar PV and wind generating

BESS reduced outages from about 11 hours to half an hour

Total revenue streams of the PowerStore BESS offset project capital cost within 2 years

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"Up to 19GW of new dispatchable resources are needed by 2040 to back up renewables"



- Australian Energy Market Operator (AEMO)

