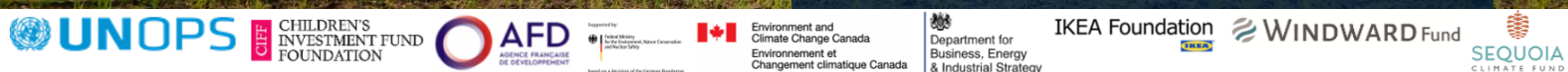




Upgrading design and implementation of the Energy Battery Storage Market Mechanism of the Philippines Electricity Market Corporation



PROJECT INFOSHEET



PROJECT FACTS

Country: Philippines

Duration: 1 year

Start date: 7 December 2021

Implementer: NEL Consulting

Partnerships:

Philippines Electricity Market Corporation
Energy Regulatory Commission of the Philippines;
Department of Energy

BACKGROUND

The nationally determined contribution (NDC) to the UNFCCC commits the Philippines to 75% greenhouse gas (GHG) reduction by 2030, largely with international support. This constitutes, together with the 2019 moratorium of coal fired energy production, a basis for decarbonizing the Philippine economy and energy sector, with goals aimed at enabling a conversion of the Philippines into a low carbon economy.

AIM OF THE PROJECT

ETP is providing technical assistance to the Philippines Electricity Market Corporation to set up modern, competitive market mechanisms for fostering investments in battery energy storage – a strategic intervention to pave way for expansion of variable renewable energy in the energy mix. A rule-based market operations, in which battery energy storage plays a key role, enable progress on the course for development of low-carbon electricity systems to attain the target of 35% of RE in the energy mix by 2030, and 50% by 2040.

PROJECT STRATEGY

APPROACH

ETP aims to ensure that the Philippines Electricity Market Corporation holistically supports energy transition and transition to low carbon energy systems as well as the attainment of Government's NDC.

REASONS FOR IMPLEMENTATION

- The Philippines displayed continued growth of RE - a total installed capacity of 5,502 MW for commercial use and 210.87 MW for own use. While these figures reflect a reduction from the earlier volumes of RE in the mix, RE is being ramped up in the Philippines, noting the renewable energy project applications under RE Act of 2008, with a total potential capacity of 1,478.9 MW.
- An increase in variability of RE requires a corresponding increase in ancillary service. The Battery Energy Storage System (BESS) is a new technology that can provide Frequency Control Ancillary Services (FCAS).
- In the context of the unbundled energy sector, the Philippine Electricity Market Corporation's (PEMC) mission is to ensure there is power, efficiency, market, and competition in the energy industry through the effective and efficient governance of the Wholesale Electricity Spot Market (WESM).

RESULTS AND IMPACT

ETP provides policy and technical assistance in the development of measures and mechanisms and supports market consultations necessary for promoting the market participation in the Battery Energy and other Energy Storage Systems within the Wholesale Electricity Spot Market.

This strengthens the governance functions of the Philippines Electricity Market Mechanism to include technologies – batteries as part of the country's energy transition program.

The project supports the Philippines Electricity Market Mechanism in the establishment of a framework for the coordinated operations and governance of the battery system and other energy systems in the power grid to become reliable and secure.



Signing of the Partnership Agreement between PEMC and ETP

SPECIFIC OUTCOMES



Competitive conditions established for the battery storage service in the Wholesale Electricity Spot Market, de-risking investments and new developers of renewable energy to finance renewable energy investments



Achievement of satisfactory compliance rating by the market participants, who operate Battery Energy Storage System and other energy storage system, determined by the Philippines Electricity Market Mechanism



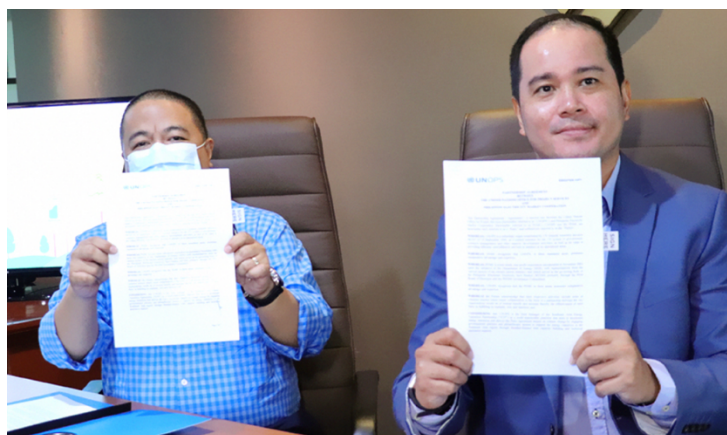
Introduction of protocols for Battery Energy Storage System and other energy storage system for their scheduling and dispatch in the energy-only and eventually in the co-optimized market for energy and reserves



Increased level of competitiveness in the spot market in terms of Battery Energy Storage System and other energy storage system ownership

FUTURE OUTLOOK

Potential future interventions under this programme include technical upgrade of the national grid and widening of the BESS services in the off-grid areas of the country through technical assessments, capacity development and financial packaging for grid upgrade and BESS services. A clean energy access can be made a country-wide reality.



Signing of the Partnership Agreement between PEMC and ETP

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