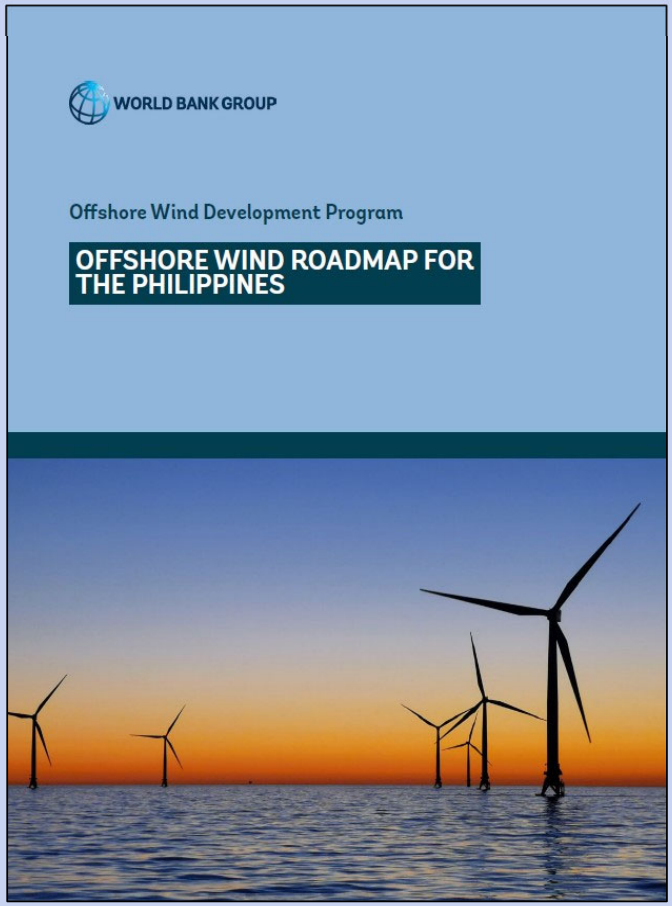
OFFSHORE WIND DEVELOPMENT IN THE PHILIPPINES

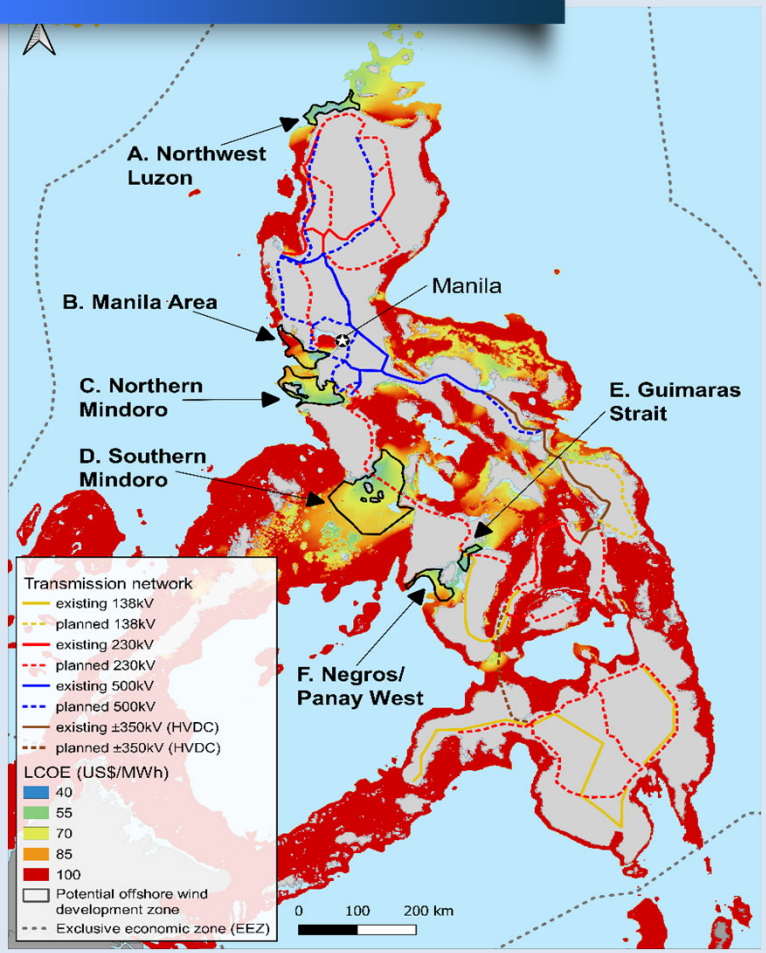
MARISSA P. CEREZO
Director
Renewable Energy Management Bureau

S jjwlsvi$[mrh$Hizipstq irx$Vsehq et



1. **Developed in partnership with the World Bank Group and Energy Sector Management Assistance Program (ESMAP)**
2. **Launched 20 April 2022**
3. **Unveiled the following:**
   - **Philippines Offshore Wind Potential**
   - **Scenarios for Development**
   - **Challenges and Opportunities for Developing Offshore Wind**
   - **Recommendations for the Philippines**

OSW Potential



178 GW of OSW Potential

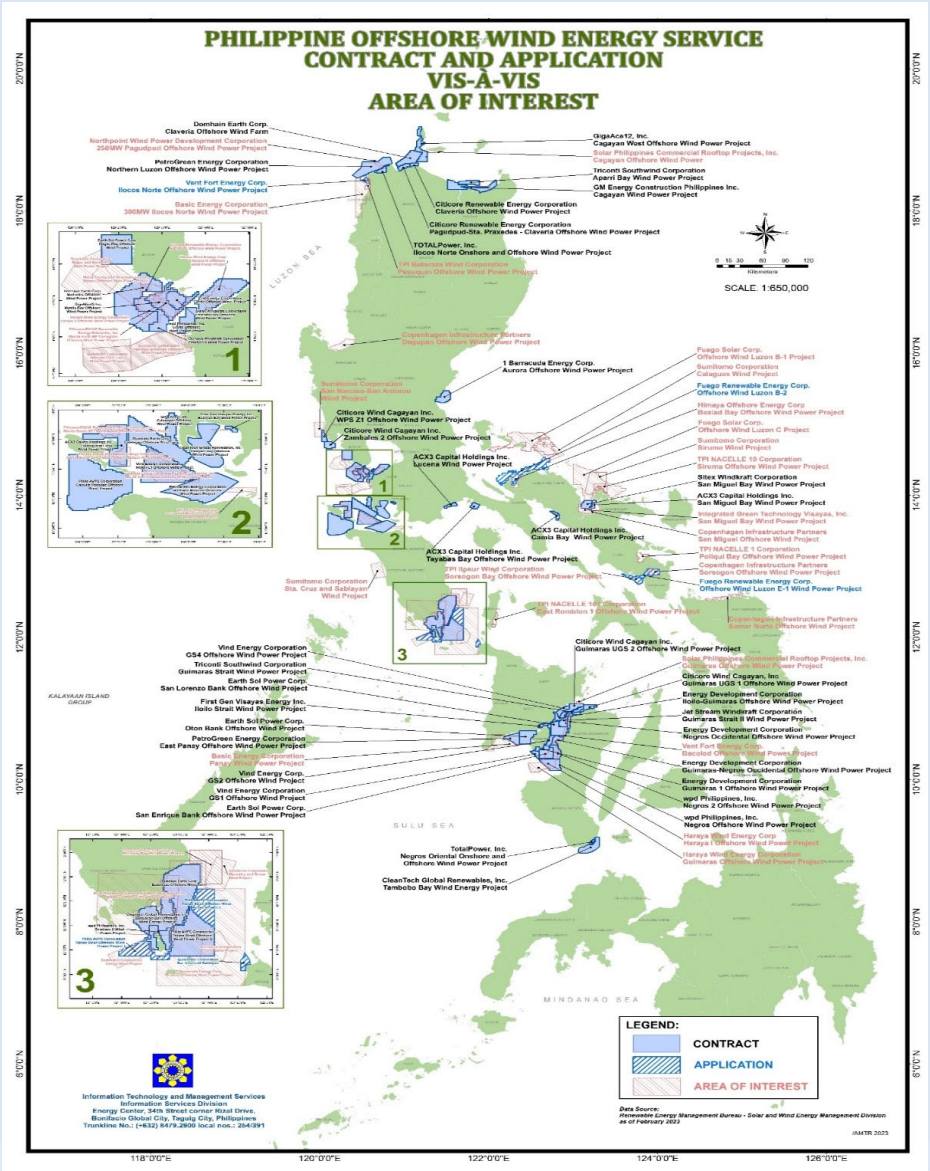
(18 GW Fixed and 160 GW Floating)

Six (6) Potential OSW Development Zones identified:

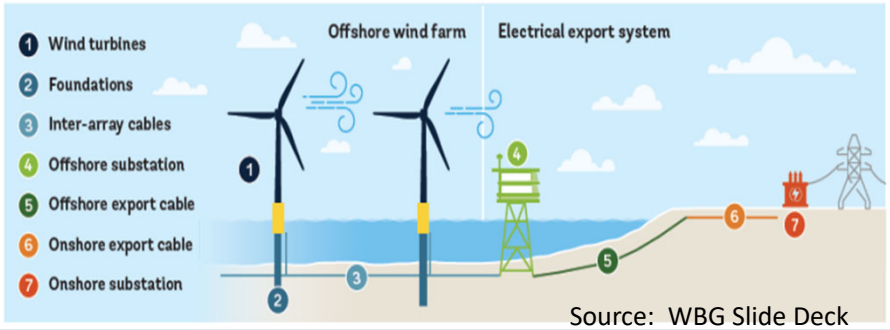
Potential Development Zone	Type	Capacity
A: Northwest Luzon	Floating	2 to 5 GW
B: Manila area	Fixed and floating	0 to 3 GW
C: Northern Mindoro	Floating	3 to 10 GW
D: Southern Mindoro	Floating	20 to 36 GW
E: Guimaras Strait	Fixed	0 to 1 GW
F: Negros / Panay area	Floating	2 to 3 GW

OSW Contracts Awarded

- To date, a total of 80 OSW Contracts have been awarded; with total potential capacity of 62.137 GW.
  - Spread mainly in North of Luzon, West of Metro Manila, North and South of Mindoro, Panay and Guimaras Strait.
  - All are currently under Development Stage - activities are mainly preliminary wind data gathering, application for endorsements, and request for System Impact Studies



Oi}$Glepoirkiw$* $Sttsvxyrmxmiw



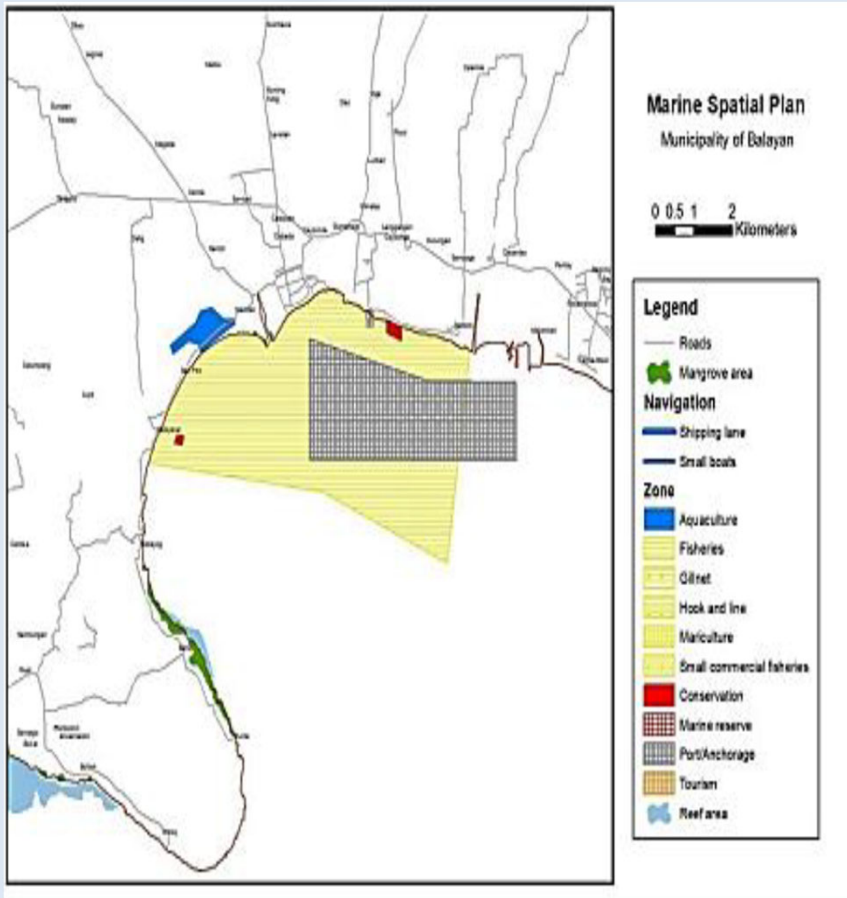
Source: WBG Slide Deck

1. **Permitting and tenurial instruments**
   - Robust, transparent, and timely processes for leasing and permitting.
2. **Market Support**
   - Competitive and responsive market system solely for OSW
3. **Port Infrastructure**
   - Suitably sized and strategically located ports are essential for the storage, assembly, construction and operation of OSW farms.
4. **Grid Asset Availability**
   - Extension and upgrades of transmission network and interconnection facilities when and where it is needed.

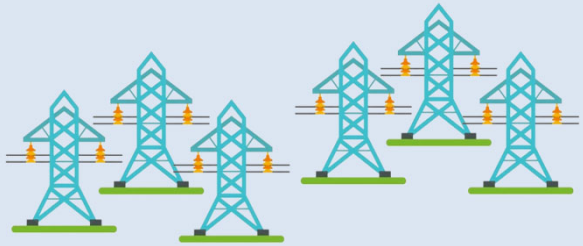
Irefpork$Tvskveq w$erh$Tvsnigxw

1. **Marine Spatial Planning**
   - ETP TA to assist in identifying areas suitable for OSW Development.
   - Avoid potential socio-environmental conflict for the awarded OSW Projects.

2. **Permitting and Consenting of OSW Projects**
   - ETP TA to assist in the development of an efficient permitting process of OSW projects within the framework of EO 21 and in line with international best practices.



Irefpork$Tvskveq w$erh$Tvsnigxw



3. Grid Infrastructure Readiness

- Grid Integration and Transmission Planning (World Bank Group)
  - ✓ Review of wind speed model estimates and temporal trends
  - ✓ Transmission Grid Modelling:
    - Modelling scenarios of OSW wind buildout to investigate required grid upgrades
    - Infor, strategic planning and development of grid to unlock areas of most favorable OSW resource

- Develop Smart and Green Grid System
  - ✓ Smart and Green Grid Plan by DOE, TransCo and UP NEC
  - ✓ Proposed CREZ Phase II to cover OSW Projects.

Irefpork$Tvskveq w$erh$Tvsnigxw

4. Port Infrastructure Readiness

- Based on international experience, there are no ready ports for OSW. New ports are built, or existing ports need to be re-purposed;
- ADB to assist in the assessment of the 9 initial identified ports.

5. Capacity Building Program and Competency Mapping

- With assistance from USAID-ESP Intended for government agencies, financing institutions and OSW Developers.

Photo

Source: https://ogvacancies.blogspot.com/2019/04/prefchem.html

Major RE Investment Policies and Market Development Mechanisms

Green Energy Auction Program (GEAP)

RA 11234 (EVOSS)

"An Act Establishing the Energy Virtual One-Stop Shop for the Purpose of Streamlining the Permitting Process of Power Generation, Transmission, and Distribution Projects"

100% **Foreign Ownership in RE Projects**

Renewable Portfolio Standards (RPS) for On-Grid - mandates load-serving entities to source a minimum percentage of RE in their respective power supply portfolios.

2.52% starting 2023

Wkdqn#Arx$$

Rizal Drive Corner 34th St.
Bonifacio Global City
Taguig City

(632) 840 2151

www.doe.gov.ph

doe.gov.ph

doe_ph