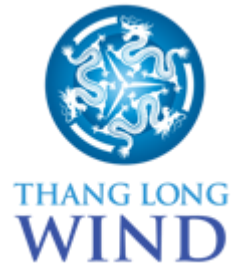
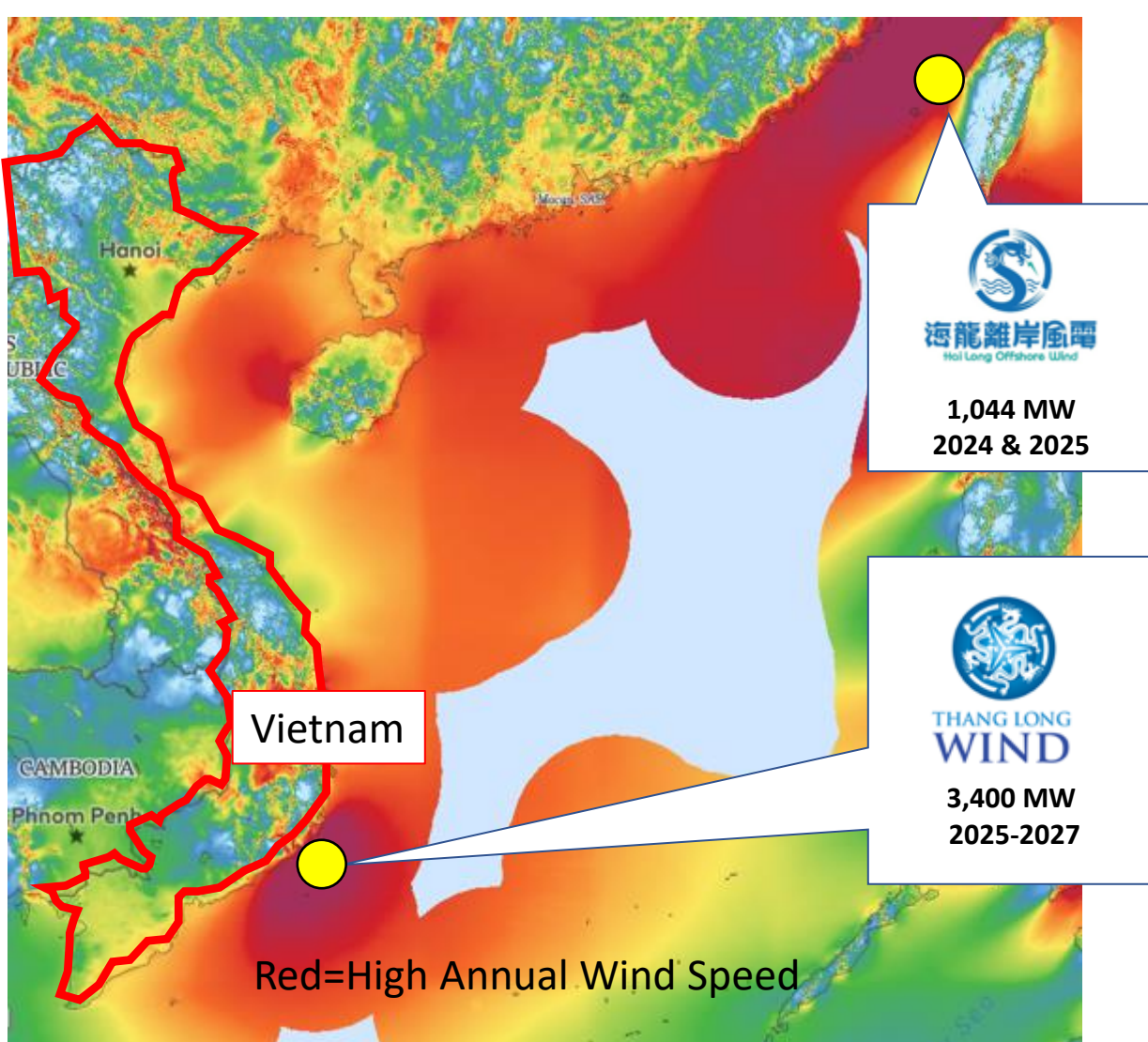


THANG LONG DEVELOPMENTS

OFFSHORE WIND AND HYDROGEN PROJECTS

BINH THUAN, VIETNAM



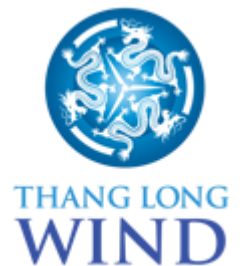


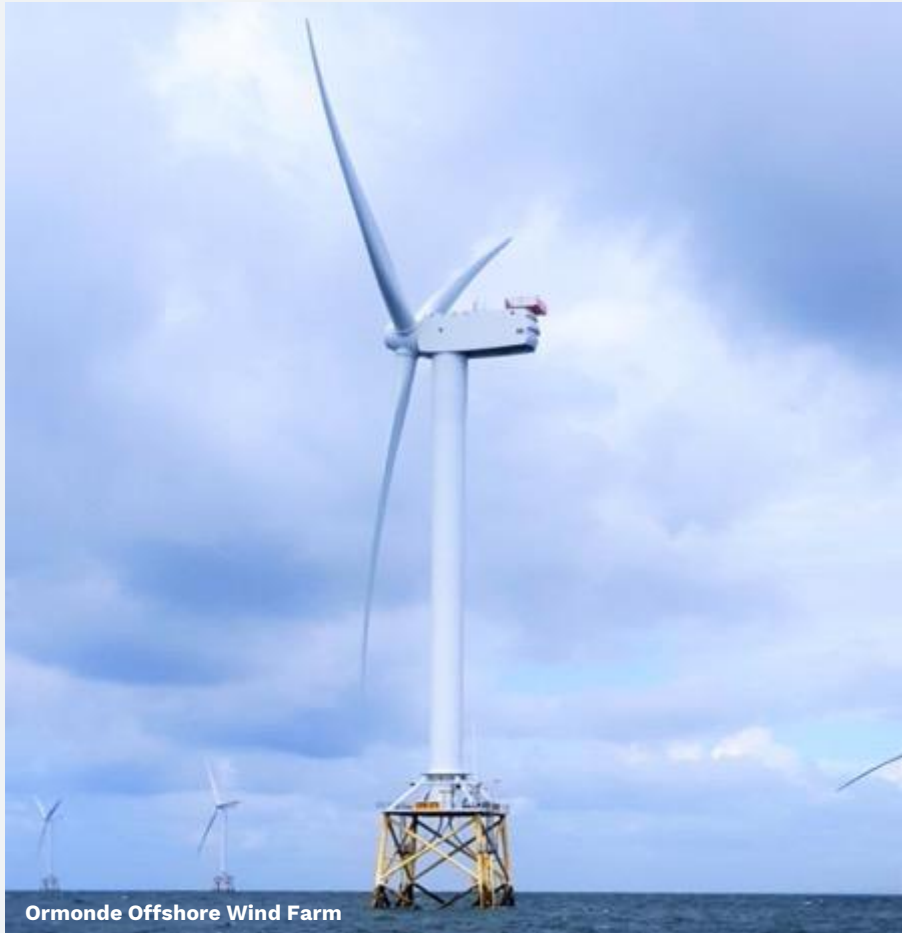
Asia - Average Offshore Wind Speed (150m AMSL) Source: Global Wind Atlas

Site Selection

Wind Resource

- Enterprize conceived the Thang Long Offshore Wind Farm in Vietnamese waters based on experience from our Hai Long JV Project in Taiwanese waters.
- Enterprize recognised the offshore Binh Thuan wind resource being potentially equal to, or better than that of the Taiwan Strait.
- Further investigations were focused on other project factors such as water depth, geology, grid, environmental resources, fishing and shipping.

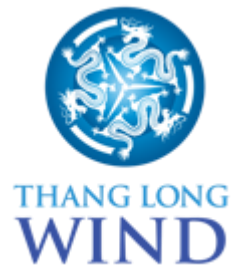




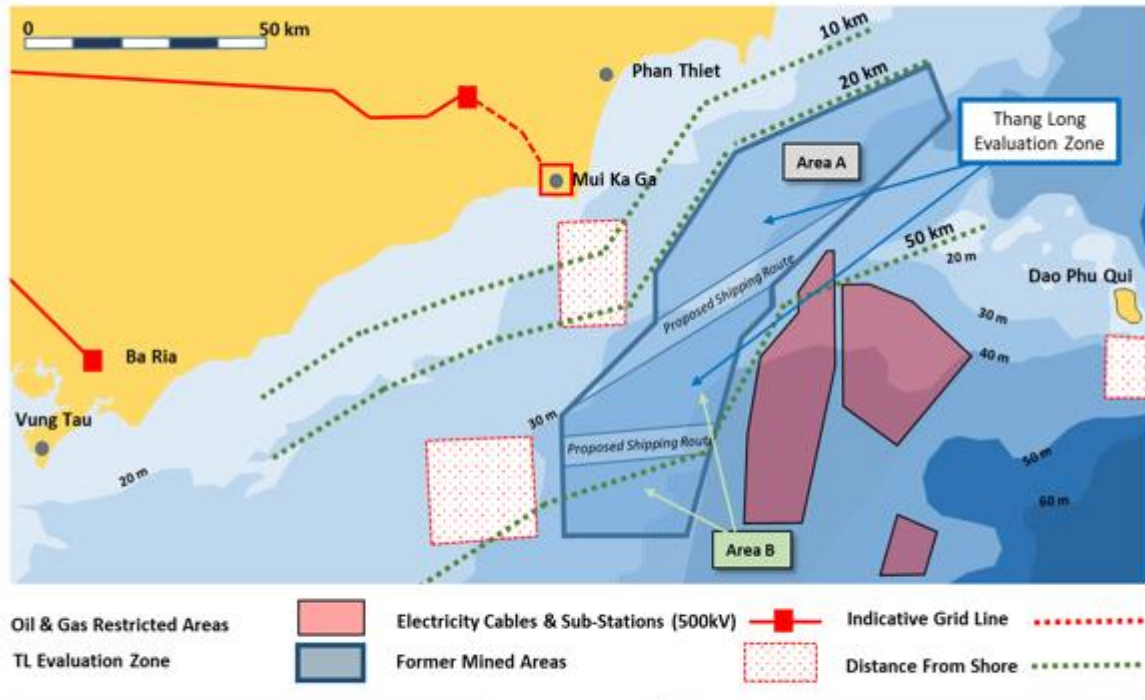
Proposal to the Government of Vietnam

Site Selection

- Thang Long Zone is an area of circa 2,800 square km.
- Enterprize to bring forward proposal of 3,400 MW of phased development of offshore wind generation
- Application for Survey License submitted for Prime Ministerial approval in June 2018.
- Survey Consent approved January 2019.
- Ministerial Survey approvals June 2019.
 - EIA
 - Sea-Bed Surveys
 - Wind data acquisition
 - Grid connection evaluation
 - Grid stabilization proposals



Thang Long Offshore Wind Power Project Geographical Overview



Key differentiating strategy : evaluate the entire Thang Long Zone in order to identify the full potential benefit for Vietnam.

Planning Considerations

Site Selection

- Based on international good practice
- Compliant with Equator Principles
- Minimum 20 km from coast to minimise visual impact
- Minimum 5 km from oil, gas and former military areas
- Shipping lanes excluded
- Water depths of up to 50m
- Avoid of probable environmental resources (reefs, etc.)

Progress – Survey Consent

Project De-Risking

- Survey work began June 2019
- Now over 2.0 years of excellent wind data
- Consultation with fishermen on survey work
- Completed initial aerial reconnaissance survey
- Completed Initial Sea-bed Survey

Survey work demonstrated commitment to utilising Vietnamese companies and people.



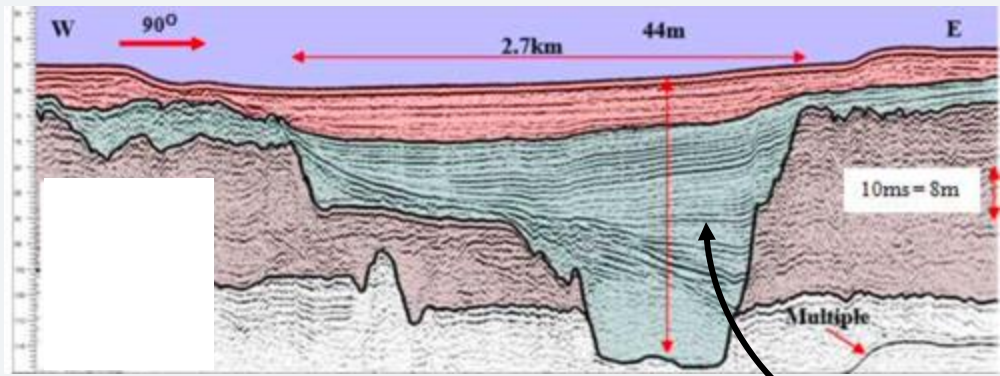
1. Installation of aerial survey equipment at Noi Bai Airport
2. Survey team
3. Fishermen consultation meeting at Ham Thuan Nam 2020

3.

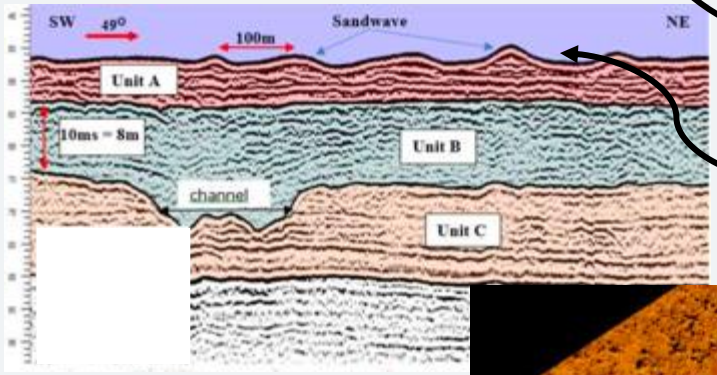
Progress –Sea Bed Survey

De-Risking

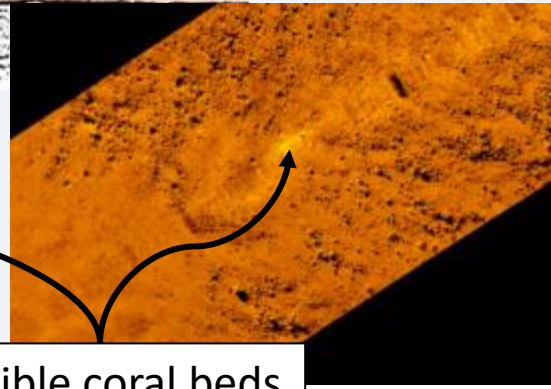
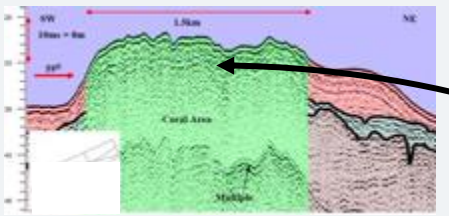
- Provided good quality data which has helped to define the lower cost offshore wind development areas and those areas to avoid.
 - *The sample sections show an incised palaeo-channel, sand waves and a possible coral outcrop at the surface.*
- We conclude that the majority of the area comprises a sequence of sedimentary beds which show no evidence of basalt intrusions.



Channel



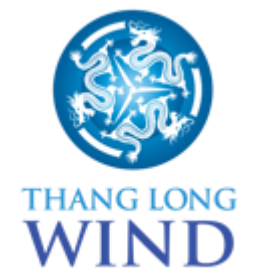
Sandwaves



Possible coral beds



Original site selection vindicated.
No reduction in prospective area



Resource Measurement

Lidar & Flidar Deployment

- Lidar located on PVEP oil platform
- Floating Lidar – first in Vietnam
 - *Contract with PTSC / Fugro*
 - *Guardship contracted locally*
 - *Deployment in September 2021*
- Excellent ‘bankable’ data sets
- Confirms pre-survey expectations



Project Finance

Preparing the Way



Enterprize has appointed Societe Generale as Finance Advisor

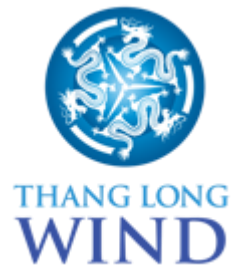
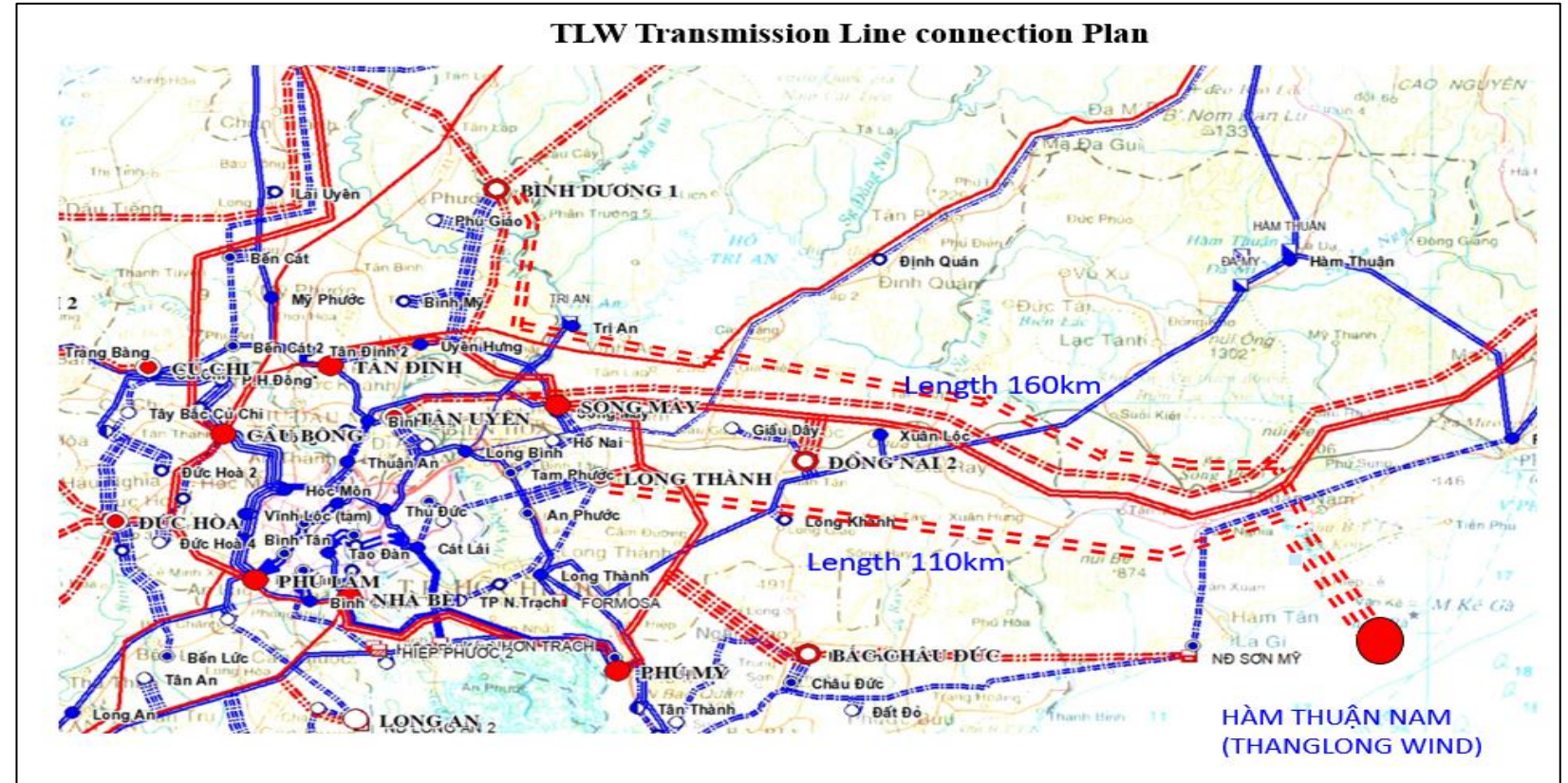
- Early engagement of the Financial Advisor has always proved advantageous in avoiding non-project financeable choices.
- Work Programme conducted to 'Equator Principles' to maximise uptake potential for the financing.
- Societe Generale have specialised in helping development of bankable PPA's with national electricity authorities.



Vessel for conversion to FHPU Platform

Transmission Grid Considerations

- 110 Km transmission line from Ham Thuan Nam to Long Thanh in order to release the first 1,800 MW production from TLW.
- 160 Km transmission line from Ham Thuan Nam to Binh Duong in order to release the later 1,600 MW production from TLW.





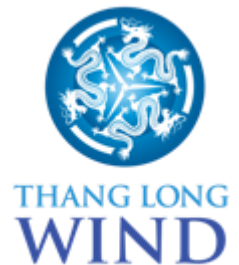
Enterprize impacts Vietnam economy

Offshore Sub-Station contract with PTSC

- Enterprize's Hai Long Joint Venture in Taiwan has awarded a critical equipment contract to PTSC M&C/Semco to supply 2 Offshore Sub-Stations with 550MW Capacity each for Hai Long 2 and Hai Long 3 Projects with total contract value nearly 180 million USD of which the value for PTSC M&C is nearly 90 million USD
- First major offshore wind facilities contract placed in Vietnam.
- All components of the Offshore Substation will be manufactured at PTSC M&C's site in Vung Tau



PTSC's manufacturing base and services port in Vung Tau



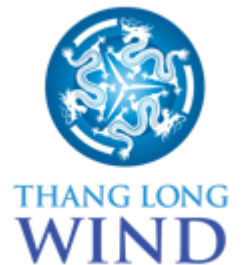
Grid Stabilisation

Compressed Air Energy Storage

- Commercial consideration of energy storage with CAES technology adjacent to TLW onshore substation.
- Expandable
- Simple Technology with components readily available
- Potential to serve other RE projects



Thang Long Wind 2 Green Hydrogen Project



Global Hydrogen Demand Gap

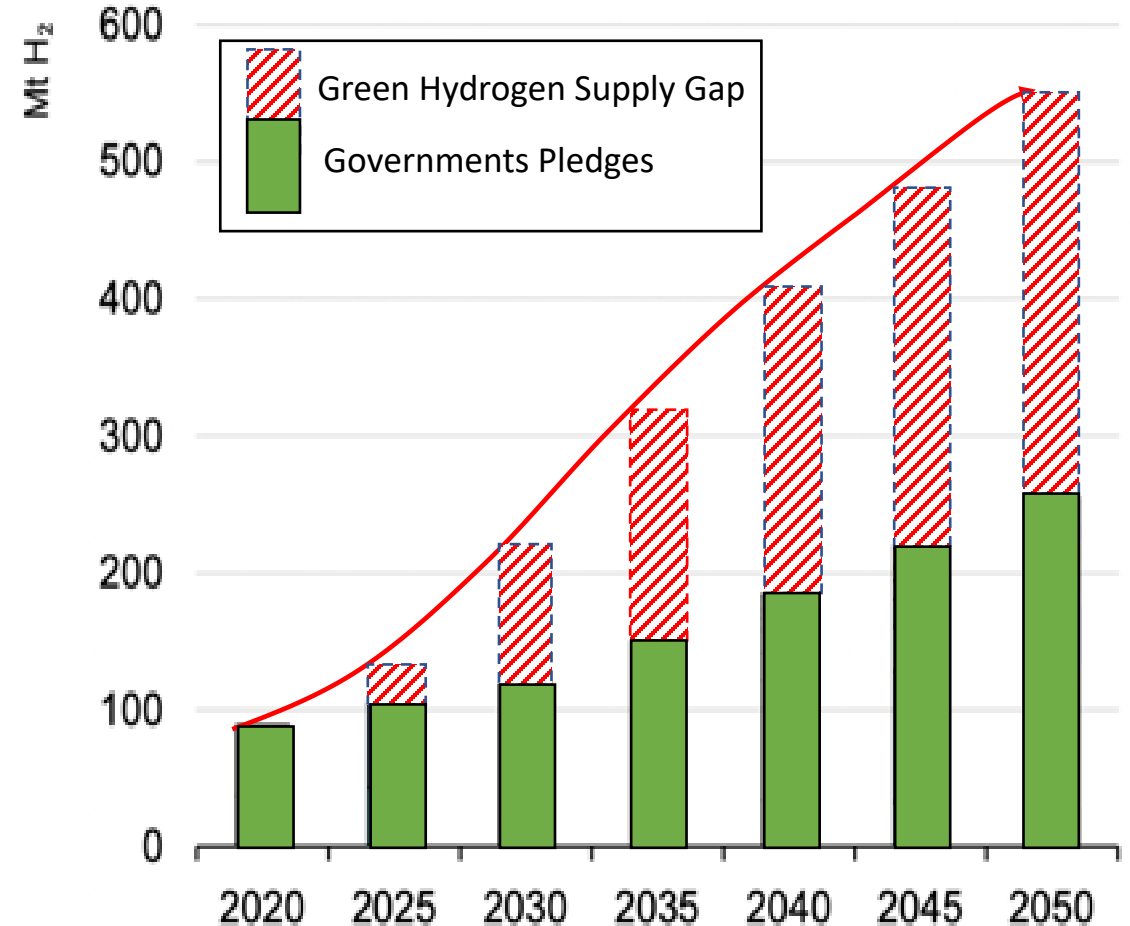
Major Shortfall Predicted IEA Study – Released October 2021

- **Net Zero Demand for GH2 outstrips Government pledges by over 100% in 2050 (300 Mt)**
- **Consequence:**
 - Major imbalance of energy consumption vs. climate targets
 - Industrialised economies already positioning for GH2 resources:
 - Germany, Japan Netherlands.

- **Demand drive from (for example):**
- International Maritime Organisation (IMO) 2030 zero carbon ship fuel commitment – a new market
- Power generation and conversion of the fertilizer market to zero carbon will drive increasing demand
- Replacement for oil and gas



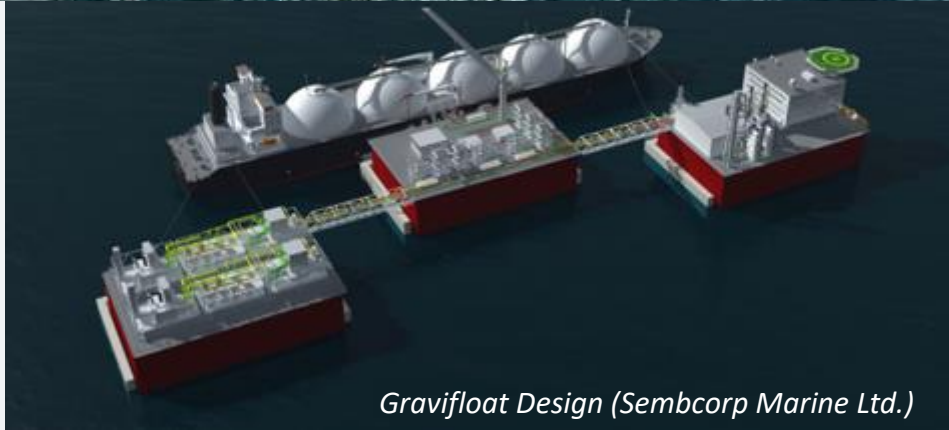
Announced Pledges Scenario



Grid Stabilisation – Role of Green Hydrogen (H₂) & Ammonia (NH₃)

Thang Long Wind 2

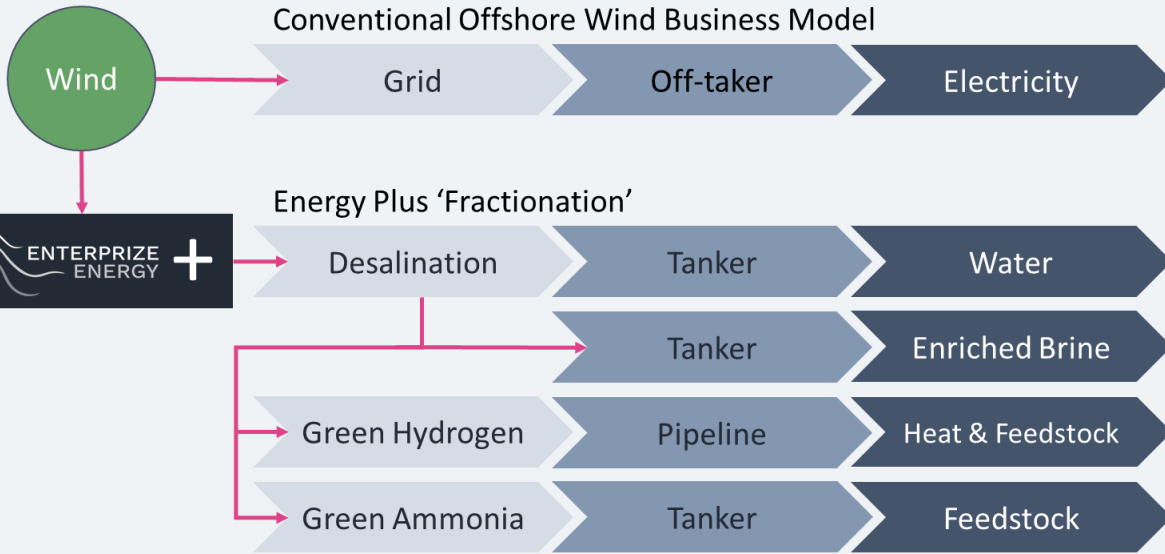
- Decarbonisation policy and energy supply needs are driving the development of the ‘Green Gases’, H₂ and NH₃ as a replacement for oil, gas and coal.
- Activity in the H₂ sector is already gaining momentum and market development will mean development planning should begin now to be ready for 2026 – 2030
- Projected LCOH lower than VN expectation curve

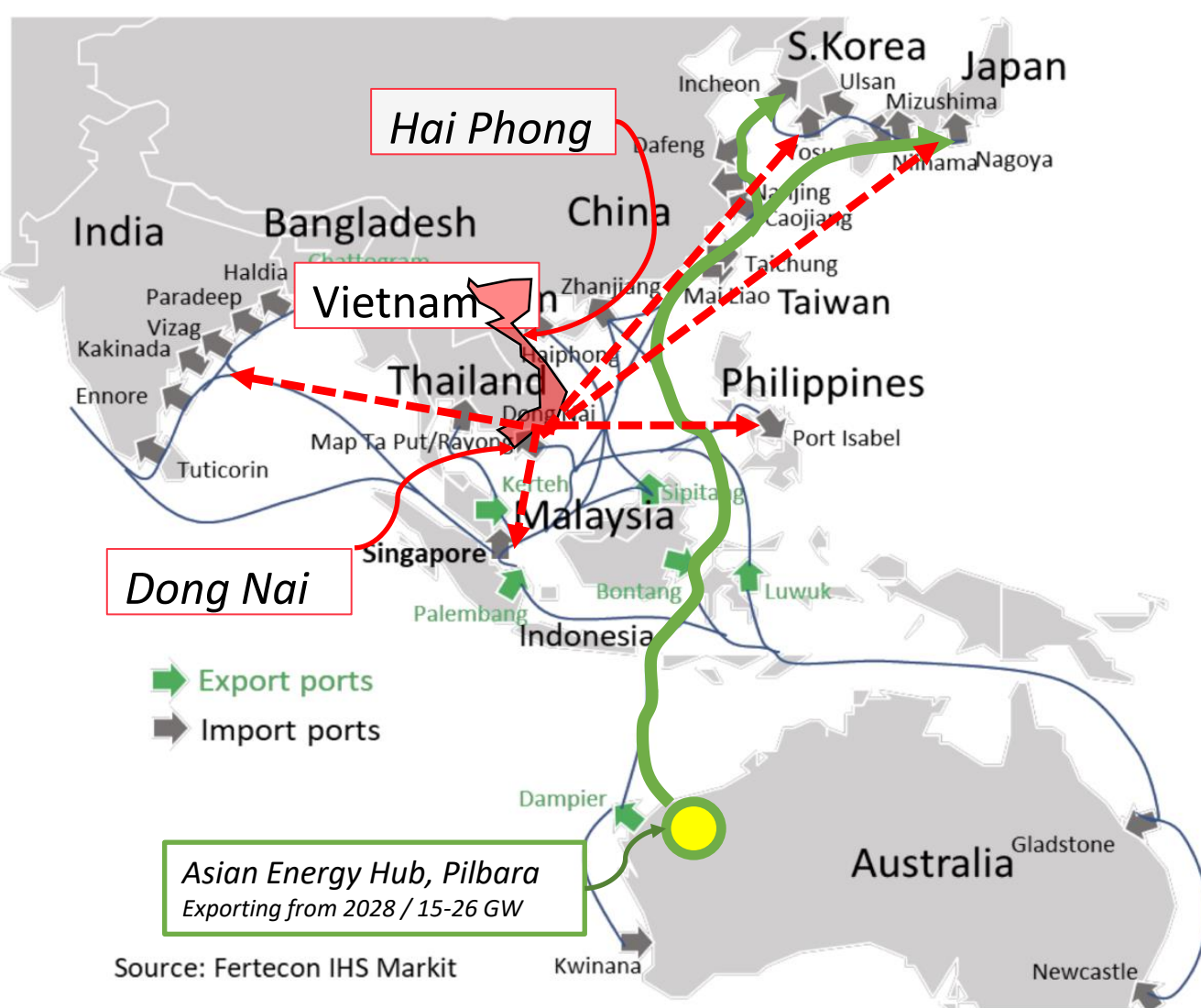


Grid Stabilisation Thang Long Energy Plus

Thang Long Wind 2

- 'Energy Plus'
 - Primary and curtailment energy is converted to 'green gases' Hydrogen (H₂) and Ammonia (NH₃).
 - Gases can be stored or transported to other locations for use.
 - Local combustion can provide grid services
 - Bi-product sales can reduce the price of electricity supplied by the conventional 'offshore wind to wire' business model.
 - Bi-products include:
 - Fresh water
 - Enriched brine
 - Oxygen

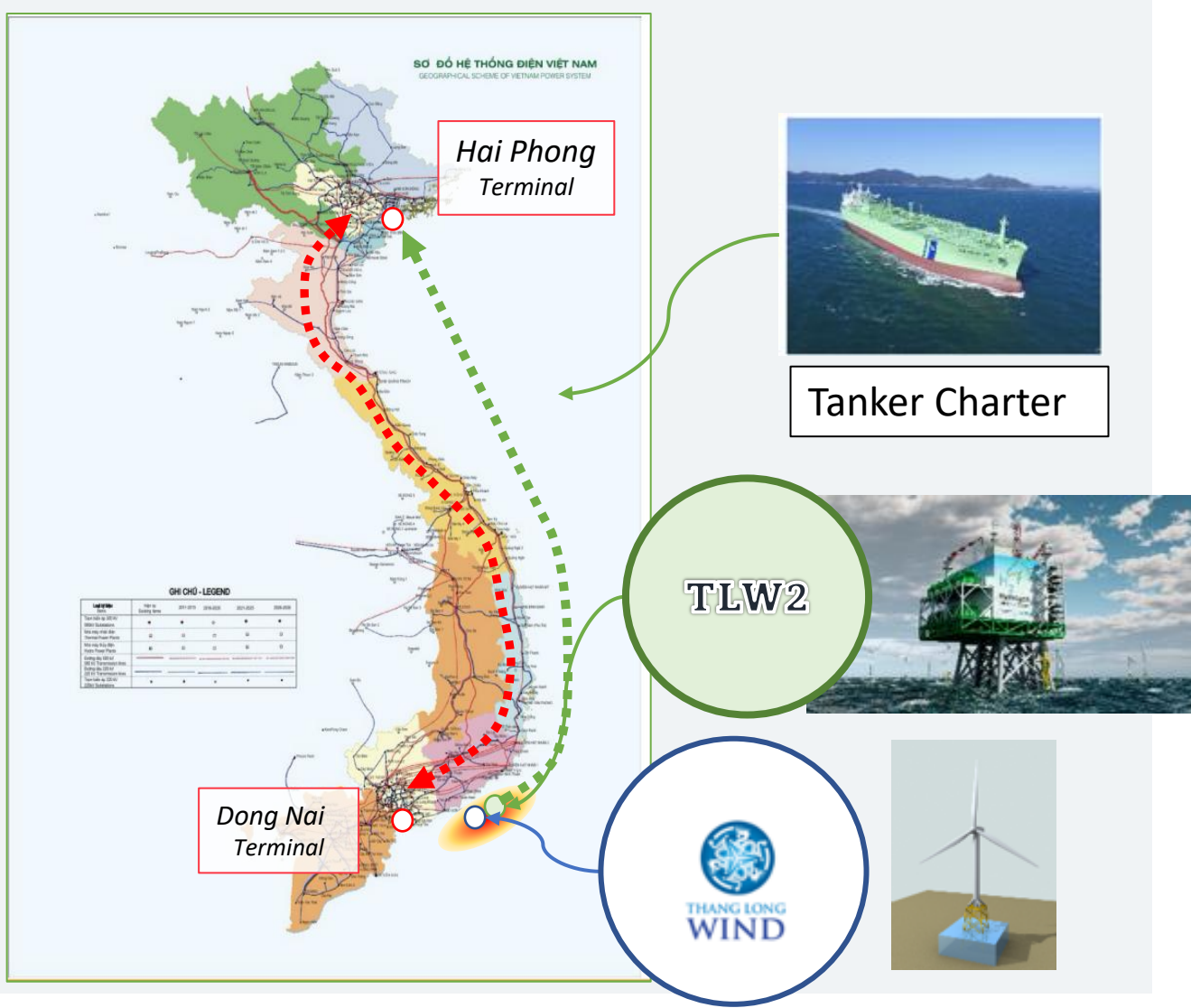




Benefits for Vietnam

Vietnam Export Potential

- Vietnam location central to a high demand area
- Existing technology can be used to transport 'Green Gases'.
- Australian projects targeting Japan and Korea markets - Vietnam is closer.
- More local demand from Singapore & Malaysia



Thang Long Wind 2

Green Hydrogen (H2) & Ammonia (NH3) – Vietnam Internal Use

- Transportable ‘Green Gas’ offers Vietnam additional benefits
- Opportunity to supply fertilizer market with decarbonised product through existing infrastructure
- Oxygen by-product decarbonises industry
 - ‘Green’ steel
 - ‘Green’ Cement
 - Hydroponics
 - Aquaculture



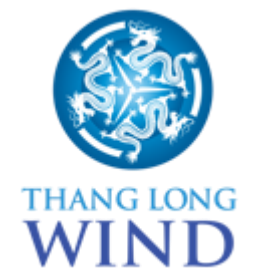
Tanker Charter



TLW2



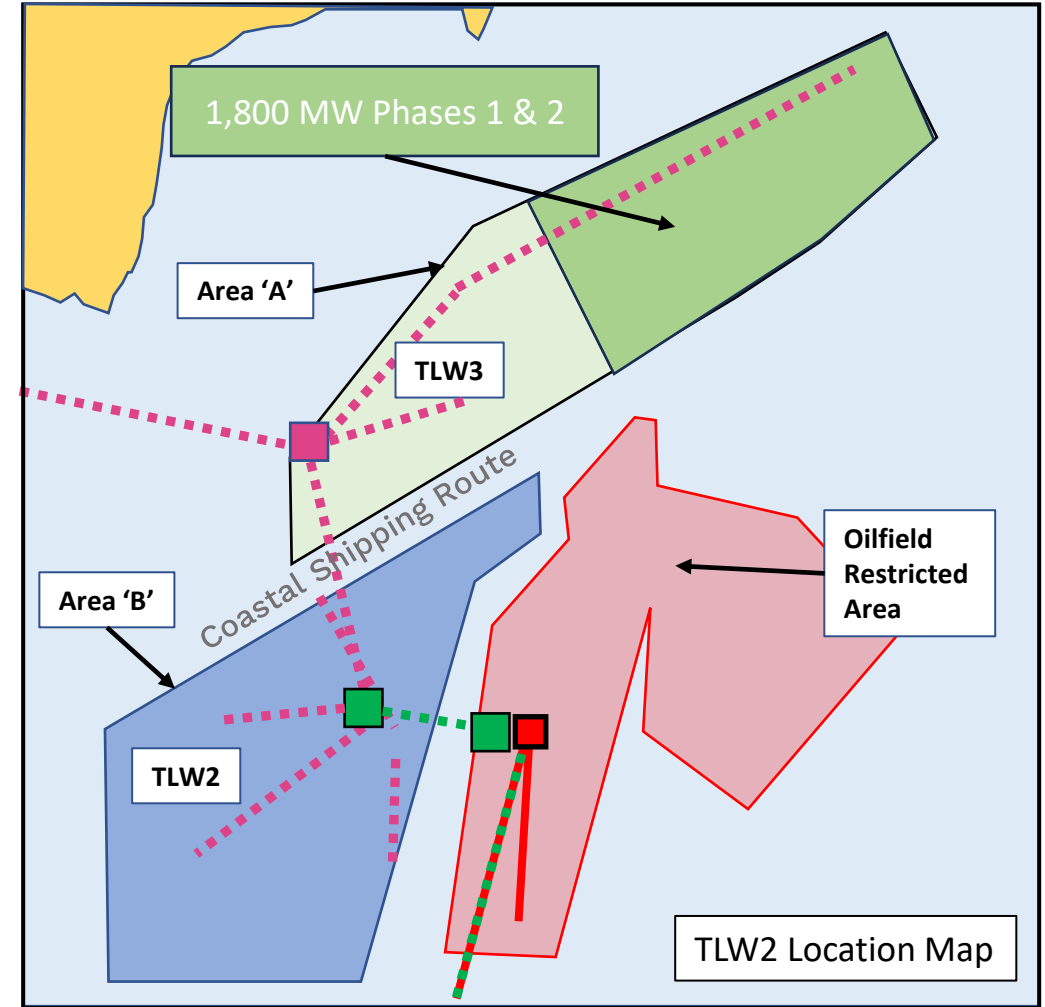
THANG LONG WIND



Thang Long Wind

Summary

- **A World Class Asset prepared for Project Finance**
- **Finance Advisor Appointed**
- **Significantly de-risked through Survey & Data Acquisition**
- **Adherence to Equator Principles**
- **3,400 MW Offshore Wind Potential plus 2,000 MW Green Hydrogen element**
- **Energy potential of 15 billion kWh per year**
- **Estimated H2 output -300,000 tonnes per annum**
- **Grid stabilisation elements incorporated**
- **First Phases capable of meeting Pre-2030 PDP8 FID & construction**



① Thang Long Wind Phases 1 to 4 – total 3,400 MW

TLW2 Thang Long Plus – total 2,000 MW

■ Potential Location – Green Hydrogen Facilities & Pipeline

■ Potential Location – Cables & OSSP

■ Location – Nan Com Son 2 Natural Gas Facilities & Pipeline



THANK YOU FOR YOUR ATTENTION !

