

IUMI – Offshore Wind

Offshore Wind - to support a growth of Japanese Offshore Wind Industry

23rd May 2023

Tokio Marine & Nichido Fire Insurance Co., Ltd.

1. Japanese Government position

◆6th Strategic Energy Plan (2020)

-In October 2020, Prime Minister Suga made a commitment on an achievement of Net Zero by 2050.

-Within various resources, Government considers Offshore Wind is quite promising.

-Installation target for Offshore Wind is quite aggressive



Government plan of promoting offshore wind

Year	Capacity	Commitment/ Agreement
2030	10GW	Minister of Economy, Trade and Industry
2040	45GW	METI Public-Private Council
2050	90GW	Japan Wind Power Assosiation

Reference : http://jwpa.jp/page_259_jwpa/detail.html



2. Japan's Offshore Wind situation

Upcoming project at "general sea area"

-Since 2019, Japanese Government has been working on expanding the offshore wind by introducing new system for both port and general sea area.

-Currently, 23 projects are nominated, and Auction for Round 1 already concluded.

-Auction for Round 2 already launched for 3 general sea areas

Feed In Tariff

Projects	Price/Kwh	Period
Awarded before 2020	JPY 36.0	
Round 1 and after	JPY 29.0/ JPY36.0 Floating	20 Years
2030-2035	JPY 8.0 - JPY 9.0	



Area 1 : Awarded to Toda Corp consortium on 11th June 2021 Area 2-5 : Awarded to Mitsubishi Corp Consortium on 24th December 2021

3. TMNF's achievement

TMNF Offshore Wind

-Started writing offshore wind in 2013. -Accumulated expertise by writing offshore wind projects globally.





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4. TMNF's achievement

TMNF achievement

- Introduction of Marine Warranty Survey
- Introduction of Knock for Knock regime
- Introduction of International Insurance Wording (WINDCAR/WINDOP)

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5. TMNF's challenge onward

Risks specific to Japan

- Natural Catastrophe Earthquakes, Tsunami, Typhoons,
- Seabed Conditions
- High Wave Hight, Strong Wave Motion
- Lack of Experience in terms of Offshore Wind
- Undeveloped Supply Chain





5. TMNF's challenge onward

NATCAT - Earthquake/Tsunami/Typhoon

- In European countries EML/Scenario based Assessment is carried out for assessing the project's maximum loss. However, in Japan where it is exposed to Nat Cat risks, PML/Probability Assessment shall be carried out as well. Setting the Combined Single Limit (CSL) with this amount will lead to Premium cost saving.
- Japanese lenders have experience in applying the PML amount to CSL for providing finance to their project finance cases.

Estimated Maximum Loss Scenario Assessment

Evaluation of Estimated Maximum Loss based on estimated scenario

- Losses arising from dropping offshore substation equipment during lifting
- Losses arising from disconnection during cable layering
- Losses arising from flood during storage of turbine in port
- Losses arising from largest Typhoon in the past hitting the site

Probable Maximum Loss Probability Assessment

Evaluation of Probable Maximum Loss once in XX years, by few hundred million times simulation

- Earthquake Tsunami : Probable Maximum Loss based on maximum seismic motion once in 475 years
- Typhoon : Probable Maximum Loss based on average wind speed once in 100years



5. TMNF's challenge onward

Seabed Conditions

-Japan does not have homogeneous seabedstructure like in the North Sea.
-For safe execution of construction, sufficient seabed investigation per each location is necessary.

High Wave Height/ Strong Wave Motion

Operating Window for Offshore Work is relatively short compared to that in the North Sea due to the unique sea conditions.





Lack of Experience in terms of Offshore Wind

-Very limited Offshore E&P activity in Japan, so we do not have experienced offshore contractor of this type (although we have experienced Marine Construction Contractors)

-Collaboration with Marine Warranty Surveyor is essential.

Undeveloped Supply Chain

-Most of the Main Parts coming from Europe -Possibility of claim being higher (more loading risks and more storage risks)

-Downtime being longer which triggers higher claims for DSU/BI







