

## Obtained AiP for TLP type floating offshore wind turbine from ClassNK

**Tokyo, May 21, 2024** – MODEC, Inc. ("MODEC") and Toyo Construction Co., Ltd. ("Toyo Construction") have jointly obtained approval in principle ("AiP") from NIPPON KAIJI KYOKAI ("ClassNK<sup>\*1</sup>") for "floating structure & tether system and tether pile foundation for TLP type<sup>\*2</sup> floating offshore wind turbine".

The acquisition of AiP was one of the tasks of the NEDO's<sup>\*3</sup> Green Innovation Fund Phase 1 project, which was carried out by MODEC, Toyo Construction, Furukawa Electric Co., Ltd., and JERA Co., Ltd.

The AiP has been obtained based on the drawings and related documents of the floating structure & tether system provided by MODEC and those of the tether pile foundation provided by Toyo Construction.

In 2020, MODEC obtained AiP for the floating offshore wind turbines from DNV<sup>\*4</sup>. This time, for the demonstration project in Japan, both companies have obtained another AiP from ClassNK with the aim of preempting some of the evaluation items for Wind Farm Certification and Classification Surveys that will be required during the demonstration project. In acquiring this AiP, both companies also conducted a study on Japan's unique environmental conditions, such as earthquakes and tsunamis, and received valuable opinions from ClassNK, including the opinions of experts, which will be reflected in the design and the development during the expected demonstration project.

ClassNK	一般財団法人 日本海事協会 NIPPON KAIJI KYOKA
Approval	in Principle
- PF - O - W	
	TSWP-0012-AIP-24RE0286
この設計基本承認に係る証明書は、次の者に対して This statement for approval in principle is issued to	
二十次学期政体学会计	<b>末洋油铅性子</b> 合计
二方海广闭无怀马云社	来卢建政体践五社
MODEC Inc	TOYO CONSTRUCTION CO I TD
3-10, Nihonbashi 2-chome, Chuo-ku, Tokyo, JAPAN	1-105, Kandajimbocho, Chiyoda-ku, Tokyo, JAPAN
カカ河井寺洋上回も島奈和港(-計) デタにたわた	
次の浮体式汗上風力光電設備に対して発行された。 for the following floating offshore wind turbine unit	
TLP 型 浮体式浮	手上風力発電設備
TLP-Type, Floating Offs	shore Wind Turbine Unit
the normative reference stated below. The technology relate against the requirements of the normative reference, using t	ed to the safety and strength of this equipment was assessed he documents submitted by the applicant.
引用規格	
Normative reference:	
NKRE-GL-FOWT01: 浮体式洋上風力発電設備に関す Guidelines for Offshore Floating Wind Turbine Structu	るガイドライン(一般財団法人 日本海事協会 2021年12月) res, NIPPON KAIJI KYOKAI, December 2021
この浮体式洋上風力発電設備の概要及び審査対象図書につい 事項及び今後の開発において特に留意すべき事項については、	ては、付属書 1 に記載する。また、本証明書発行に際する付帯 付属書 2 に記載する。
The outline of the floating offshore wind turbine unit and its r	eviewed document are stated in Annex 1 of this statement. In
addition, the conditions on issuing this statement and the ite	ems for special attention in its further development are stated
in Annex 2.	
なお、設計に係る何らかの変更が行われた場合、一般財団法人	日本海事協会の承認を受けなければならない。変更についての
承認を受けなければ、本証明書は効力を失う。	KALL KALL BOOKAL This second is subside would alternate
become invalid.	a reason of cross, this approval in principle would otherwise
Tokyo, 10 May 2024	
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Sadao Akahoshi	
Sadao Akahoshi General Manager of Renewable Energy Department	
Sadao Akahoshi General Manager of Renewable Energy Department NIPPON KALII KYOKAI	
Sadao Akahoshi General Manager of Renewable Errory Department NIPPON KALII KYOKAI	Page 1 of



MODEC has been providing competitive floating solutions for the offshore oil and gas industry and recognized as a leading specialist for floating oil and gas production systems such as Floating Production Storage and Offloading (FPSO) vessels and TLPs. As for TLPs, MODEC has the world's best track record of construction, and its experience and technology enable the compact TLP with the large-capacity wind turbine to be realized, and high social acceptability and economic efficiency as well. Toward the early realization for floating offshore wind turbine equipment by using next-generation TLP, MODEC will continue to work on it.

\*1 ClassNK: an international accredited registrar and classification society headquartered in Tokyo, Japan.

\*2 TLP systems are expected to reduce the cost of power generation because the high stability of tension mooring to a seafloor foundation enables installation of large 15 MW-class wind turbines, which have the potential to become mainstream in the future, on compact floating platforms. In addition, TLP's mooring lines are expected to be more socially acceptable than other mooring systems because they can reduce the amount of space occupied under the sea by approximately 1/1,000 (for example, in 100m water depth) and have less impact on existing businesses such as the fishing industry and ship operations.

\*3 NEDO: New Energy and Industrial Technology Development Organization which is Japanese national research and development agency.

\*4 DNV: an international accredited registrar and classification society headquartered in Greater Oslo, Norway.

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The information contained in this news release is true and accurate at the time of publication; however, it may be subject to change without prior notice.