



## **Project to Develop Cost-Reducing Technology for TLP Floating Offshore Wind Turbines Accepted by the Green Innovation Fund**

**Tokyo, January 21, 2022** – MODEC, Inc. ("MODEC"), together with JERA Co., Inc. ("JERA"), Toyo Construction Co., Ltd. ("Toyo Construction"), and Furukawa Electric Industry Co., Ltd. ("Furukawa Electric"), has received, on 21 January, notice of acceptance of their joint grant application, under the Green Innovation Fund program of the New Energy and Industrial Technology Development Organization ("NEDO"), to conduct a project to develop cost-reducing technology for tension leg platform ("TLP") floating offshore wind turbines (the "Project").

To achieve carbon neutrality by 2050, the Japanese government has set a goal of increasing offshore wind power generation capacity, including floating offshore wind, to 30–45 GW by 2040. Because Japan has limited shallow-water sites where the bottom-fixed offshore wind turbines now being developed around the world can be installed, there is a strong domestic demand for practical floating offshore wind turbines that can be installed in deep-water further from shore.

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 mooring lines are expected to be more socially acceptable than other mooring systems because they can reduce the space occupied under the sea by 1/1,000 approximately (in case of 100m water depth, as example) and have less impact on existing businesses such as the fishing industry and ship operations.

The Project aims to establish component technologies for TLP floating and mooring systems and subsea power transmission systems with the aim of commercializing floating wind farms in the early 2030s.

The four companies will jointly conduct component technology development for about two years. JERA will conduct surveys and measurement of the planned verification site, design power generation facilities, and establish environmental parameters. In addition to conducting simulations and demonstrations of component technologies previously studied by each company—floating and mooring systems by MODEC, mooring foundations by Toyo Construction, and power transmission systems by Furukawa Electric—a basic plan for a 15 MW-class power generation demonstration facility will be drawn up based on design and environmental parameters provided by JERA. The four companies will also begin considering supply chains for mass production and cost reduction with the aim of realizing commercial projects following the power generation demonstration.

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 TLP. As for the TLP, MODEC has the world's best track record, 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 turbines by using next-generation TLP, MODEC works together with Toyo Construction, Furukawa Electric and JERA.



Conceptual drawing of TLP (Tension Leg Platform) [Source: MODEC]

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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.