

August 4, 2021
Kawasaki Kisen Kaisha, Ltd.
Chubu Electric Power Co., Inc.



Commencement of Joint Development Agreement for Tidal Energy Project in Canada

Kawasaki Kisen Kaisha, Ltd. (hereinafter "K" LINE) and Chubu Electric Power Co., Inc (hereinafter Chubu Electric Power) have entered into a Joint Development Agreement (JDA) with DP Energy, a renewable energy developer headquartered in Ireland, for the Uisce Tapa Tidal Energy project (hereinafter the Project) in Nova Scotia, Canada.

This project will be the first tidal energy project in which a Japanese company will participate overseas. In this Project three underwater turbine generators are planned to be installed in the Bay of Fundy, Nova Scotia, Canada, with the aim to start operation of the first turbine in 2023. The project holds a 15-year Power Purchase Agreement of 530 CAD/MWh awarded with Nova Scotia Power Incorporated and is recipient of approximately 30 million CAD grant from Natural Resources Canada.

JDA is limited to contribution of development cost. After FID, the first turbine would be installed.

Chubu Electric Power will contribute to the realization of carbon-free society by developing renewable ocean energy and so on as one of the measures to achieve the "Zero Emissions Challenge 2050".

"K" LINE Group is promoting its efforts to reduce greenhouse gas (GHG) emissions in accordance with its "K" LINE Environmental Vision 2050. In addition to promoting its own decarbonization, "K" LINE Group will contribute to the realization of a carbon-neutral society by supporting the decarbonization of society through developing renewable ocean energy.

<Comments>

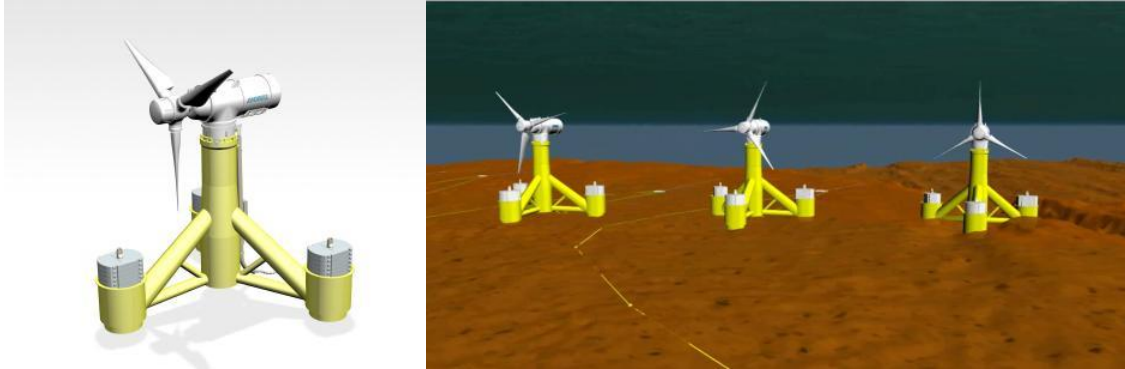
"Uisce Tapa Tidal Generation would be a trigger Project to utilize ocean energy contributing to the global decarbonization." said Hiroki Sato, Executive Officer, Corporate Planning & Strategy Division at Chubu Electric Power.

"Through this Project, "K" LINE aim to contribute to in the business that supports the decarbonization of society while utilizing our experiences accumulated in the field of international marine transportation together with partner companies." said Satoshi Kanamori, Executive Officer, in charge of LNG, Carbon-Neutral Promotion at "K" LINE.

<Project Information>

(1) Tidal Power Generation

Power generation method which utilize the kinetic energy of the tidal current and generally converts it into rotational energy with a water wheel to generate electricity.



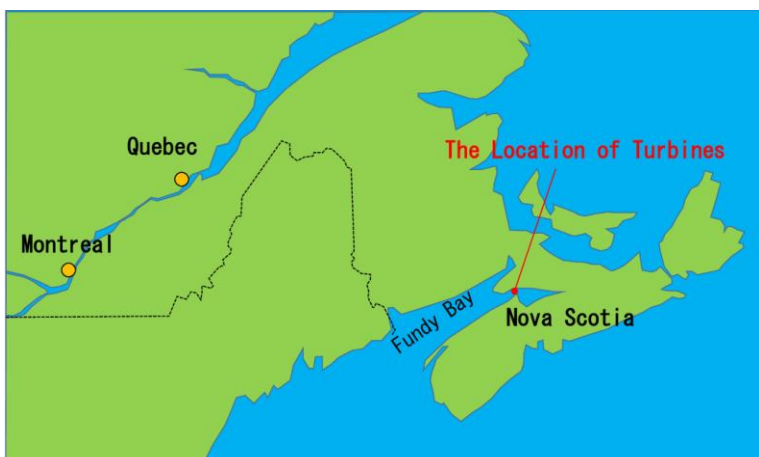
OTurbine Image(Bottom Mounted)

(2) Uisce Tapa Tidal Energy project

Location	The Bay of Fundy*1, Nova Scotia, Canada
Power Output	1,500kW × 3 turbines (supplied by ANDRITZ, Austria)
Estimated Annual Power Generation	approximately 1.7 GWh (equivalent to circa 5,400 homes' useage per year)
Scheduled start of operation	2023: 1 st turbine 2026: 2 nd & 3 rd turbines
Approval and Licenses	Under consideration for approval by the Fisheries and Oceans Canada

*1 The Bay of Fundy is one of the largest tidal range in the world.The maximum difference of tidalmarks is approximately 16meters.

OLocation Details



Source : Created by Chubu Electric Power

(3) About DP Energy

Established	First DP Energy company was incorporated in October 1996
Location	Headquartered in Ireland
Owner/Director	Maureen De Pietro, Simon De Pietro
Business	Renewable Energy Development (Wind power, Ocean energy, Solar power, etc.)