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Indonesia to build world's biggest tidal power plant

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Dutch consortium Tidal Bridge BV is set to construct the world's biggest tidal power plant in Flores, East Nusa Tenggara (NTT), along with a floating bridge, a project that is expected to cost US\$200 million in its initial phase.

Made up construction engineering company Strukton International and private equity firm Dutch Expansion Capital (DEC), the consortium will team up with PT Pembangkitan Jawa Bali (PJB), a subsidiary of state-owned electricity firm PLN, to establish a joint venture called Tidal Bridge Indonesia (TBI) and set up Indonesia's first tidal energy facility.

TBI will first build the Pancasila Palmerah Bridge spanning 810 meters from Flores Island to Adonara Island, which will later be integrated with five tidal turbines on the Larantuka Strait in East Flores regency.

Each turbine will have an installed capacity of 16 megawatts (MW), while the actual electricity generated will only reach 6 MW, resulting in a combined power generated.

statement on Saturday following a visit to the project site.

At present, the world's biggest tidal power plant is the Sihwa Lake station in South Korea. Controlled by the Korea Water Resources Corporation, it has an output capacity of 254 MW.

The tidal power project in NTT is a follow-up to a heads of agreement (HoA) between Tidal Bridge BV, the Public Works and Housing Ministry and NTT provincial administration, signed during President Joko "Jokowi" Widodo's visit to the Netherlands on April 22, 2016.

The ministry completed a prefeasibility study for the national strategic project last year.

The company, meanwhile, also sealed a memorandum of understanding (MoU) with PLN on Feb. 22 to conduct a feasibility study and a connection impact assessment to review the use of tidal power in the latter's electricity system.

After completing the first development phase of the tidal power project, Tidal Bridge BV plans to increase the plant's capacity to between 90 MW and 115 MW, with a

and agro-culture sector, while all boosting tourism.

Aside from the Larantuka Stra Indonesia still has huge tidal por er potential in other regions, a cording to the Energy and Miner Resources Ministry's energy co servation and renewable energy of rector general, Rida Mulyana.

"We still have a lot more straithat [...] deserve to be developed he added.

Several institutions, including the Agency for the Assessment at Application of Technology (BPP) Surabaya's 10 November Institute of Technology (ITS) in East Ja and the Bandung Institute of Technology (ITB), have started studing the types of technology mesuitable to exploit Indonesia's tice power potential.

Local firm PT Arus Indones Raya, in collaboration with France based Naval Energies, has carrie out studies in 10 locations to deve op the sector.

In its latest electricity procur ment business plan (RUPTL) for the 2018-2027 period, PLN env sions the development of renev able power plants with a total capacity of 14,911 MW. Of the figure 8,283 MW will come from hydr

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