



Partners celebrate the signing of the MoU with Ulsan.

Photo: CoensHexicon

South Korea in plans for flagship 1GW floating wind complex

MoU between port city of Ulsan and consortia using technologies from Principle Power and Hexicon could see multi-phase project move into water starting in 2022

by **Darius Snieckus** in Tokyo

25 January 2019

Updated 25 January 2019

South Korea's first floating wind power complex has taken a key step forward with the signing of a memorandum of understanding (MoU) between the southeastern industrial port city of Ulsan and four groups reportedly aiming to eventually build out a combined 1GW of offshore capacity off the island nation.

The MoU, inked by Ulsan mayor Song Chul-ho and development consortia, made up of SK E&S / Copenhagen Infrastructure Partners (CIP), Shell / CoensHexicon, the Green Investment Group, and Wind Power Korea / Principle Power, sets in motion plans to deploy in the region of 100 units at various "deep water" sites some 50km (31 miles) offshore, with the first stage of a multi-developer project to be switched on in 2022.

The agreement, which will kick start a two-year wind resource assessment programme using floating Lidar, also aims to spur development of a local supply chain.

Though no investment figures were made public at the time of the MoU's signing, last year it was reported that Ulsan was targeting construction of a complex made up of over 50 floating units by 2022 that represents a capital spend of some 1.5 trn won (\$1.3bn).



Michael Hannibal, partner at CIP, said to *Recharge*: "We are pleased to see the increasing global interest in offshore wind, including new markets taking it into their energy mix. Offshore wind has already

Floating wind power blows into Asia

Read more



proven its reliability and cost efficiency and provide many benefits to the electrical system [and] we are excited to be part of exploring the potential for floating wind in new markets.”

A Shell spokesperson stated the MoU with Ulsan paved the way for “initial steps [to be taken] in assessing the feasibility of a floating wind opportunity in South Korea”, with partner Hexicon adding the agreement was “an important milestone in [its] fruitful corporation with Coens [and] that it was now preparing for permit applications and fabrication start”.

California-headquartered Principle Power was one of the earliest movers in the floating wind space, with a current project pipeline totalling some 9GW for its three-column steel semisub concept, WindFloat, including arrays off the UK, Europe, Asia, and a 150MW wind farm moving ahead off Humboldt County on the US West Coast for switch-on as early as 2024.

“We are very excited to be part of Ulsan city's vision for the development of the floating wind sector,” Principle Power CEO Joao Metelo told *Recharge*. “This important step shows floating wind is already a commercial reality globally and a major opportunity for policy makers and local industries around the world.”

Swedish technology designer Hexicon – which was on track to install a prototype of its innovative twin-turbine concept off Scotland before falling afoul of cash flow problems linked to being too late to qualify for an UK Renewable Obligation Certificates – in 2017 signed a deal with South Korea's Busan Techno Park & Renewable Energy Centre to underpin R&D work in the region, in the wake of forging a joint venture with Coens Co to form CoensHexicon.

Shell is currently also working with Innogy and Stiesdal Offshore Technology to develop a prototype of a new-generation TetraSpar floating wind concept .

While a number of key arrays are under development for installation off Europe and the US, it was an as-yet-unnamed 500MW-plus project off Japan being developed by French sector pioneer Ideol and investors including Acacia Renewables, the Asian arm of global energy investment giant Macquarie, that was seen as front-runner to become Asia's largest commercial-scale floating wind farm if brought on line as planned in 2024.

Of the 115-120GW in conventional bottom-fixed offshore wind capacity expected to be installed globally by 2030, 12-15GW is in the frame to be floating, according to analyst forecasts — and almost half of that would be in the waters off China, Taiwan, South Korea, Japan and the region's other nations. A recent note from Danish consultancy Qvartz, some 22GW could also be scoped for future development by then.

Adds quotes from CIP, Shell and Hexicon.