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ATKINS

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Offshore Wind and Wave Renewable Energy

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SOFEC is working to find new and innovative designs

Continually adapting to support state-of-the-art technologies




PRINCIPLE POWER

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We are committed to the highest standards of safety and integrity. We are proud of our legacy and impeccable track record over the last 45 years, always delivering value in everything we do.

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# Click on a project name for more information.

## Project-selected Floating Wind Systems

Hywind — Norway 1 — Statoil — Steel. Draft 36m — Scotland 1 — Operational 75 - 200m

Fukushima Mirai — Japan 1 — Marubeni — Steel. Draft 25m — Operational 50 - 200m

SeaTwirl S2 — Sweden 1 — SeaTwirl — Steel. Draft 31m — Operational 50 - 200m

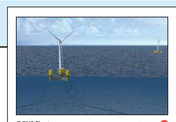
Fukushima Shimpuu — Japan 2 — Marubeni — Steel. Draft 17m — Operational 50 - 200m

Damping Pool — France 1 — Ideol — Japan 1 Taiwan 1 — Steel or concrete — Ireland 1 — Draft 7.5 - 9m. Operational > 28m — United Kingdom 1

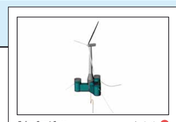
Hexicon — Scotland 2 — Hexicon — Steel. Draft 15m — Operational 50 - 200m

Windfloat — France 1 — Principle Power — Portugal 1 — Concrete. Draft 20m — Operational 40 -1000m

Volturn USA — USA 1 — Maine AV — Concrete. Draft 20m — Operational 40 - 200m



DCNS Floater — France 1 — DCNS — Steel. Draft 10m — Operational 50 - 200m



Cobra Semi-Spar — Scotland 1 — Grupo Cobra — Concrete. Draft 36m — Spain 1 — Operational 60 - 200m

Nautilus — Spain 1 — Nautilus Floating Solutions — Steel — Operational >35m

TLP — France 1 — SBM Offshore — Steel — Operational >45m

ABOUT

Floating Wind Energy is an emerging industry in which much has been accomplished in a relatively short time. Goals are being reached ahead of schedule and many records broken due to the economical and technical capabilities and the entrepreneurial determination of many. The Levelized Cost of Energy (LCoE) for floating wind will continue to be lowered to that of other MRE systems, making it potentially a key player to contribute to the global energy transition.

There are many floater concepts around, some in their low Technology Readiness Levels (TRL), others near commercial readiness. To prevent subjectiveness in the selection of the systems shown on this map, we chose to only show floaters that were confirmed selected for one or more projects. Where believed correct but unconfirmed the data is marked with an*. All projects shown as 'commissioned' or 'under construction' were officially confirmed and the 'planned projects' up to 2021 verified with industry representatives. Projects planned beyond that generally show a preliminary schedule that is subject to reaching milestones for consent, permissions, project financing and grid connection. Remarks as to the accuracy of the data are welcomed at data@floating-wind-energy.nl

NOTICE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**This map or data should not be used for navigation.**


| Project | Operator | System | Turbine | MW | D/D | Mooring | Status |
|---|---|---|---|---|---|---|---|
| FRANCE | | | | | | | |
| 1 Floatgen | Floatgen | Ideol Damping Pool | Vestas | 2 | 30 - 20 | Cat/Taut 6 | 2017 |
| 2 Groix-Belle-ILe | Eolfi / CGN EE | DCNS & Vinci | GE Energy | 4 x 6 | 70 - 20 | Semi-taut 6 | 2020 |
| 3 EolMed (Gruissan) | Quadran / Ideol | Ideol Damping Pool | Senvion | 4 x 6,2 | 50 - 15 | Catenary 6 | 2020 |
| 4 PGL (Faraman) | EDF EN | SBM | Siemens | 3 x 8 | 90 - 22 | Taut 3 | 2020 |
| 5 EFGL (Leucate) | Engie/EDPR/CDC | Eiffage/Windfloat | Halliade | 4 x 6 | 70 - 20 | Catenary 3 | 2020 |
| 6 Quadran Commercial | Quadran / Ideol | Ideol Damping Pool | | 500 | | | |
| GERMANY | | | | | | | |
| 1 Gicon SOF | Gicon | TLP | Siemens | 2,3 | 18 - 21 | Tether 4 / taut 4 | |
| IRELAND | | | | | | | |
| 1 Gaelectric / Ideol | Gaelectric | Ideol Damping Pool | | 15 | | | 2021 |
| 2 Gaelectric Commercial | Gaelectric | Ideol Damping Pool | | 1.5 GW | | | |

| Project | Operator | System | Turbine | MW | D/D | Mooring | Status |
|---|---|---|---|---|---|---|---|
| JAPAN | | | | | | | |
| 1 Fukushima Ph1 | Marubeni | Semisub Mirai | Hitachi | 2 | 120 - 20 | Catenary 6 | 2013 |
| 2 Fukushima Ph2 | Marubeni | Semisub Shimpuu | Hitachi | 7 | 120 - 20 | Catenary 8 | 2016 |
| 3 Fukushima Ph2 | Marubeni | Spar Hamakaze | Hitachi | 5 | 120 - 20 | Catenary 6 | 2016 |
| 4 Sakiyama | Toda | Spar (frmr Kabashima) | Hitachi | 2 | 100 - 5 | Catenary 3 | 2015 |
| 5 Kitakyushu NEDO | Marubeni | Ideol Damping pool (2) | Hitachi | 6 | 70 - 1.5 | Cat/Taut 6 | 2018 |
| 6 Fukushima Comm. | Marubeni | Semi-sub | | 1GW | 120 - 30 | | |
| 7 Goto Sakiyama | Goto | Concrete SPAR | | 11 x 2 | 100 - 8 | | |
| KOREA (South) | | | | | | | |
| 1 Aguille Flat | Unison / KETEP | Semisub | Unison 750 | 0,75 | | | |
| 2 Dongbu | Halla Wind | GustoMSC Tri-float | | 100 | | | |
| | | | | | | | 2020 |
| NORWAY | | | | | | | |
| 1 Hywind I | Statoil | Spar floater | Siemens | 2,3 | 200 - 7 | Catenary 3 | 2009 |
| 2 SWAY Test 2.6 mW | SWAY | Sway Spar | Siemens | 2.6 | 200 - 7 | Tethered 1 | 2017 |

| Project | Operator | System | Turbine | MW | D/D | Mooring | Status |
|---|---|---|---|---|---|---|---|
| PORTUGAL | | | | | | | |
| 1 WindFloat Atlantic | Windplus/EDP | Windfloat | Vestas | 3 x 8 | 100 - 30 | Catenary 3 | 2019 |
| 2 Winfloat WFA Ph2 | Windplus/EDP | Windfloat | Vestas | 125 | 100 - 30 | Catenary 6 | |
| SPAIN | | | | | | | |
| 1 Flocan S Canary | Cobra | Cobra Semi- Spar* | Gamesa | 5 x 5 | 100 - 5 | Catenary 3 | 2020 |
| 2 Nautilus | Velatia | Nautilus Semi-sub | | 1 x 5 | 50 | Catenary 6 | 2020 |
| 3 Hexicon Canary | WunderEnergy | Hexicon | | | | | |
| SWEDEN | | | | | | | |
| 1 SeaTwirl S1 | SeaTwirl | SeaTwirl SPAR | SeaTwirl | 0.3 | 30 | Tether 1 | 2015 |
| 2 SeaTwirl S2 | SeaTwirl | SeaTwirl SPAR | SeaTwirl | 1 | 30 | Cat/Tether 4 | 2018 |
| 4 Freia 1 | Freia Offshore | Hexicon | | 2 x 3 | 25 | Catenary 10 | |
| TAIWAN / CHINA | | | | | | | |
| 1 CSC / Ideol | China Steel | Ideol Damping Pool | | | | Cat/taut 6 | 2020 |
| 2 Eagle Island* | Xiapu County | Fujian | CE | 24 x 2 | 30 - 16 | | 2019 |

| Project | Operator | System | Turbine | MW | D/D | Mooring | Status |
|---|---|---|---|---|---|---|---|
| UNITED KINGDOM | | | | | | | |
| 1 Hywind Scotland | Hywind Scotland | Spar floater | Siemens | 5 x 6 | 100 - 25 | Catenary 3 | 2017 |
| 2 Dounreay Tri | Hexicon RES | Hexicon | CSIC | 2 x 5 | 62 - 15 | Catenary 10 | 2018 |
| 3 Kincardine | Kincardine | Cobra Hybrid-Spar* | Senvion | 8 x 6.15 | 62 - 15 | Catenary 3 | 2018 |
| 4 Atlantis / Ideol | Atlantis / Ideol | Ideol Damping Pool | | 100 | | Cat/Taut 6 | 2021 |
| 5 Atlantis commercial | Atlantis / Ideol | Ideol Damping Pool | | 1.5GW | | Cat/Taut 6 | |
| 5 TLPWind UK | Iberdrola | TLP* | | 5 | 81 - 25 | Tethered 3 | |
| UNITED STATES | | | | | | | |
| 1 Aqua Ventus I | Maine AV/DCNS | Volturn US | | 2 x 6 | 65 - 26 | Catenary 3 | 2020 |
| 2 AWH Oahu North | AWH Hawaii Wind | Various options | | 50 x 8 | | | 2021 |
| 3 AWH Oahu South | AWH Hawaii Wind | Various options | | 50 x 8 | | | 2021 |
| 4 Progression Oahu | Progression | Various options | | 50 x 8 | | | |
| 5 Morro Bay Offshore | Trident Winds | Various options | | 100 x 7 | | | |
| 6 Maine Aqua Ventus II | Un. of Maine | Semi-sub | | 60 x 8 | | | |
| 7 Maine Aqua Ventus III | Un. of Maine | Semi-sub | | 4500 | | | |

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**Quest Floating Wind Energy**

# Floating Wind Energy

## Projects of the World 2018

(edition 2/2018)

This map offers an insight into the currently known active, planned or forecasted Floating Wind Projects and their allocated floating systems. The data shown on this map has been gathered by dedicated research and where possible verified with project owners and system designers.

Electronic & printed versions of this map are available by online order or mail to order@floating-wind-energy.nl

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