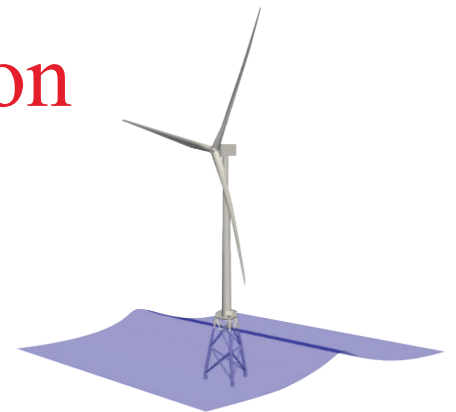




Transforming offshore wind through digitalisation

Arup is a leading multidisciplinary consultancy with extensive experience in the planning, design and management of offshore wind energy projects. Our services encompass supply to demand and, in particular, digital solutions that optimise windfarm design and operation, helping clients integrate the complexities and managing the risks of offshore wind development.



Data led decision-making

As the amount of offshore wind projects around the world increases, assessing local conditions for optimum foundation type, and optimising existing assets are vital. Our digital tools and digital asset management approach help operators to drive down operating costs, extend asset life and optimise performance to add value – as well as planning for the decommissioning of the earliest projects as they reach the end of the operation.

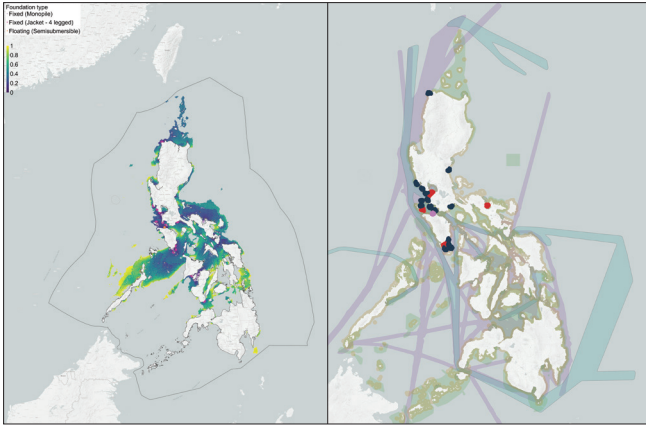
Our other services

Infrastructure / engineering

- Project management
- Owner's engineering services
- Consenting, planning & ESIA
- Feasibility studies
- Energy yield assessments
- Geotechnical / metocean
- Concept, FEED and detailed design services
- Floating platform design
- Mooring system design
- Condition monitoring
- Turbine and OSS Foundations
- Ports and vessels
- Offshore transmission
- O&M Strategy / WTG technology

Business and investor advisory

- LCOE site selection analysis
- Financial modelling
- Business cases
- Economic impact assessments
- Viability / bankability assessments
- Technical due diligence
- Capital structuring
- Fund raising
- PPP advice



SCALE deployment model

Arup's SCALE deployment model is a cutting-edge analysis tool that provides fast assessment of levelized cost of energy (LCOE), site comparison, and consenting risk assessment. The model incorporates Optif, Arup's foundation expert tool, to provide robust feasibility designs at the site selection and auction phase of projects and supports assessment of the lowest cost and most appropriate foundation options.



Life Extension and Asset Management Platform (LEAP)

Arup's Life Extension and Asset Management Platform (LEAP) enables ongoing calculation of foundation fatigue life based on monitoring, survey and inspection data.

Combining innovative and reliable monitoring with leading cloud-based data processing, LEAP enables risk based asset management decisions to be made in-house and life extension to be justified.

Contact us

Peter Thompson

East Asia Energy Business Leader

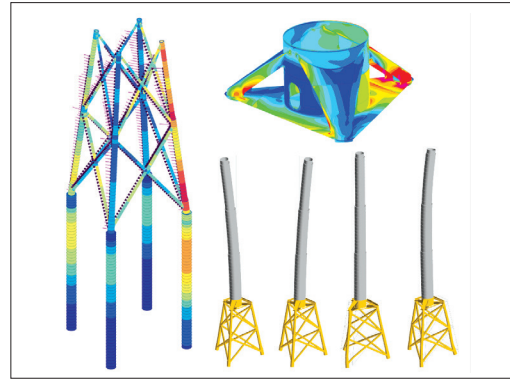
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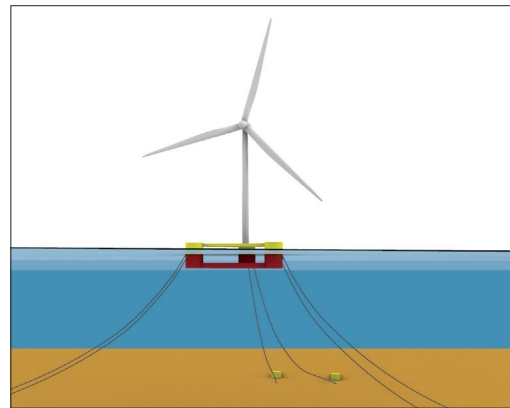
e: jin.sasaki@arup.com

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Optif – optimised foundation

Optif provides a suite of efficient and optimised foundation design assessment tools for both monopile and jacket foundation structures. The tools combine various structural and geotechnical programmes to undertake complex soil-structure interaction analyses in a continuous manner as a single end-to-end automation digital product. It can significantly shorten the manual iterative processes from hours to minutes, providing a full set of output results to justify each design while allowing more refined and bespoke design cases to be developed.



Floating offshore wind expert system

The system has been set up based on our previous offshore wind experience in Europe and our internal research studies, allowing designers and clients to have an initial view on the size, mass and cost for floating offshore wind foundation options under various site conditions. The new floating offshore wind digital design tool (FOx) goes an extra mile to provide a more project- and region-specific analysis and showcase our advanced digital design competence to our client.

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