

Product

Offshore analysis

Product application

- Improve operating envelopes to maximise up time
- Provide guidance to ensure you are selecting the right equipment for the job
- Verify that your marine system is fit for purpose and meets regulatory requirements
- Minimise risk offshore by having analysis-driven solutions in place
- Reduce operational and CAPEX costs via intelligent data driven decision-making

Key features

- Solution driven approach
- Analysis tailored to customer specific needs
- In-house design, project management and offshore teams working closely together to ensure solutions are bespoke and suitable
- A peer reviewed report to describe the results and conclusions, which focuses on practical solutions
- Provides key outputs in a user-friendly format such as operational envelopes and tension requirements etc. to allow analysis and regulatory requirements to be easily applied in the field by the offshore operational teams
- ORANGE: our in-house IP software system that interfaces with OrcaFlex to provide a faster, efficient, consistent and auditable process for load case generation and post-processing

Aquaterra Energy's comprehensive analysis service verifies and optimises risers, conductors, renewables and intervention system design to deliver performance improvements and meet international regulations and requirements.

We believe that any analysis should provide savings to offshore operations that far exceed the original cost of the analysis work undertaken. This is achieved by providing recommendations that help to manage risks and optimise designs, driven by our dedication to a managed analysis service that promotes strong communication and project management.

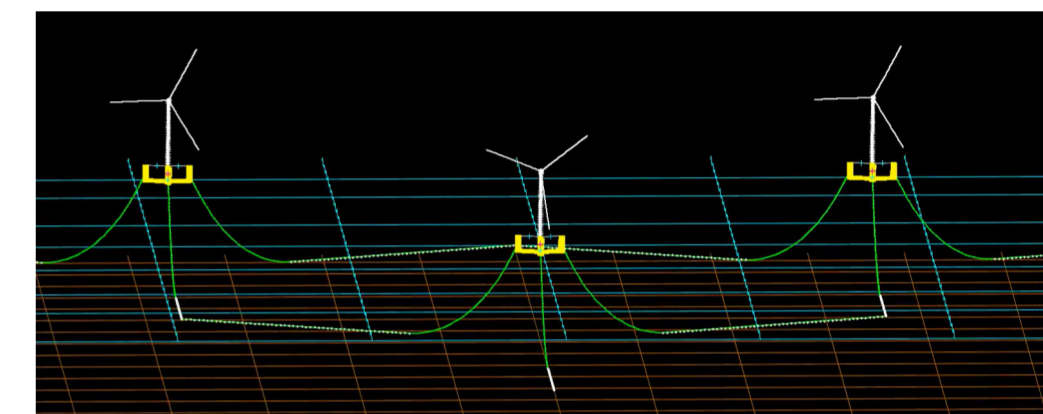
Our highly qualified and experienced team provides in-depth analysis, highlighting specific project needs and building bespoke models to replicate situations in offshore environments, meeting the individual operational requirements of our customers.

Our in-house analysis services:

- Provide cost savings through improved equipment selection and reduced rig downtime that far outweighs the cost of the analysis
- Identify ways to improve drilling or intervention windows by optimising space-out and overpull, avoiding expensive downtime during the operation
- Provide key operational information, such as optimal overpull, and wellhead fatigue lifetime, to ensure your well is a long-term success
- Minimise risk offshore by having solutions in place, such as knowing minimum conductor cement returns, minimum conductor wall thickness/material grade, acceptable connection types, lock to bottom and disconnect envelopes etc.
- Optimise equipment requirements from exploration, production, intervention to abandonment

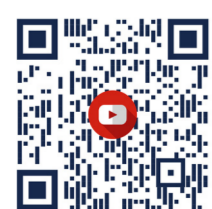
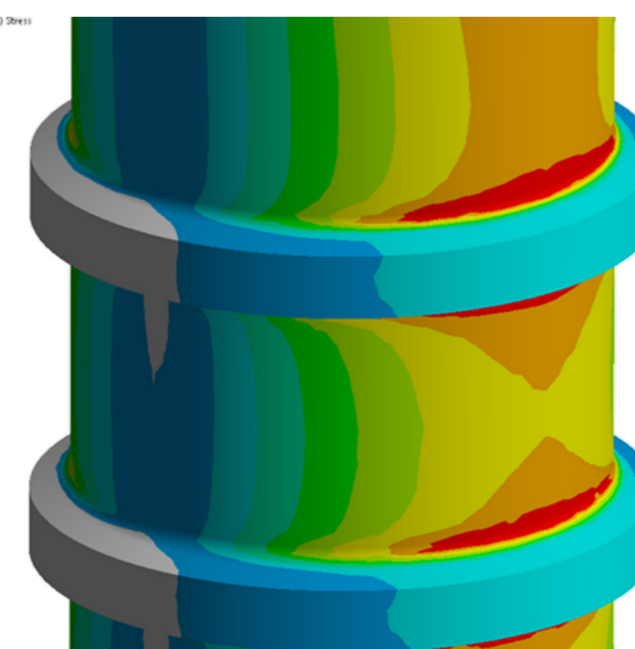
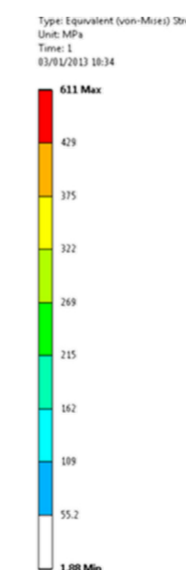
For a range of offshore operations:

- Riser and conductor analysis
- Platform well conductor analysis
- Semi-Sub/drill ship analysis
- Jack-Up shallow water subsea riser analysis
- Light-weight intervention vessel (LWIV) analysis
- Completion, workover and intervention analysis
- Fixed and floating offshore wind analysis



Our offering includes, but is not limited to:

- Stress, strength and stability analyses
- Tension optimisation
- Wave and vortex induced vibration (VIV)
- Running and retrieval
- Emergency disconnection (recoil)
- Storm hang-off and suspended riser well during transit
- Drift-off/drive and associated watch circles
- Thermal expansion
- Snag loading/trawl board impact
- Pipe capability
- Pile/soil modelling
- Production, installation, tieback drilling & intervention
- Locked to bottom analysis
- Support structures
- Tower loading
- Mooring lines and anchor design
- Fatigue assessments



INTELLIGENTLY ENGINEERED

+44 (0) 1603 788233 | contact@aquaterraenergy.com | www.aquaterraenergy.com

Visit our Youtube channel for more information on our offshore analysis solutions, and more.

Related Products and Services

Riser monitoring

Riser and conductor analysis, when completed before an operation occurs, will use environmental data based on previous trends. This will often include conservatism due to uncertainties in the planning operations, such as wave data being based on representative conditions, rather than real-time data. This conservatism can sometimes lead to unnecessary downtime for your operation.

Aquaterra Energy's Riser Monitoring System has been developed to overcome these challenges. It's a digital offshore solution that uses wave radars at the surface and accelerometers and aquadopps mounted along the riser system, to provide operators with real time data from their offshore operations via sensors.

Riser systems

Our work across riser systems, riser analysis and efficient well initiation is underpinned by our deep engineering expertise ensuring that whatever solution we design, develop and install meets the needs of each client and each application.

As an oil and gas OEM – we offer a range of integrated system packages to enhance operations, save rig time and accelerate time to first oil.

We offer:

- Surface riser systems
- Subsea high-pressure riser systems
- Completion and workover riser systems

Tension Monitoring

Our Digital Tension Monitoring System has been specifically designed to remotely measure, monitor, display and record the tension applied to riser and conductor systems, incorporating both local and remote alarm systems.

Our Digital Tension Monitoring System removes the need for manual tension monitoring. It works by electronically measuring the tension applied to the riser or conductor by using pressure transducers which turn hydraulic pressure within cylinders into an electronic reading. The outputs from these pressure transducers can be read remotely from an ATEX approved tablet, a control room PC or over a secure internet link anywhere in the world.

Offshore Wind

As turbines grow taller, waters get deeper, and floating projects come closer to commercial feasibility, it has never been more important to apply intelligent offshore engineering principles to the offshore wind sector.

Our offshore heritage means that we are perfectly placed to develop and implement innovative installation technologies, helping project developers, vessel owners and service companies maximise their value in the offshore wind supply chain.



Supporting the full offshore energy ecosystem