Clean Energy Solutions

Providing services across the life cycle of renewables and nuclear projects.
Wood is a global leader in project delivery, engineering and technical services, providing efficient, integrated solutions across the asset life cycle in multiple sectors. We are proud of our rich heritage which underpins our unrivalled breadth and depth of capability. We employ people with the brightest minds and the sharpest skills, who use our leading-edge technology to help our customers succeed.

Our differentiators include our extensive range of services, the quality of our delivery, the passion of our people and our unique culture. True to our values, we work in an open and transparent way; a committed partner to our customers, supply chain and the communities we work with.

Our values set the tone for what is important in our business, they are the essence of our identity and fortify everything we do.

Care
Working safely with integrity, respecting and valuing each other and our communities

Commitment
Consistently delivering to all our stakeholders

Courage
Pushing the boundaries to create smarter, more sustainable solutions

“Each and every individual in our business has the ability to make a significant impact to our safety delivery. Safety is what we care about most and being safe means looking out for yourself and showing care for your colleagues. Keep safety at the heart of every conversation you have.”

Robin Watson,
Chief Executive
Clean energy is complex, but we are well positioned to support at any stage of a project. We are one of the leading engineering and technical services organisations within the clean energy industry.

**Partner**
Investors, owners, developers and lenders in clean energy all have one thing in common – they want to build and invest in successful projects. We provide services that support the delivery of nuclear and renewables projects around the world.

Our focus is on maximising clean energy assets; from the early stages of site selection and feasibility, right through to the operation and maintenance to enhance production, safety and profitability.

Our consultants, engineers, technicians and analysts have vast experience of working on a variety of clean energy projects across a wide geographical spread.

**Experience**
From technical due diligence on an offshore wind farm in the German North Sea to implementing the design and installation of a solar site in the United States, our scope of work covers all renewable technologies. In nuclear energy, we have more than 60 years of experience.

Our experience spans from new-build power stations and reactor support to waste management and decommissioning.

Successful project delivery is at the heart of everything we do and our in-depth capability ensures our services are tailored to your needs – offering practical, informed advice at any stage of your project.

We offer a complete spectrum of clean energy solutions throughout the asset’s life with expertise in:

- Analytics, technology and laboratories
- Construction and commissioning
- Engineering, design and project management
- Safety, licensing and regulatory
- Plant operations and life extension
Providing innovative solutions to challenges and complexities facing the industry.
Analytics, technology and laboratories

By combining engineering and technical excellence with innovation, research and development we have solved some of the world’s most complex clean energy problems.

**Forward thinking**

Our understanding of clean energy is underpinned by constant research and development. As a business we are continually designing new technologies to offer innovative solutions to industry challenges.

We are at the forefront of industry development; in nuclear working on fusion, the next generation of fission reactors and small modular reactors; and with renewables technologies such as wave, floating wind and energy storage.

With our extensive experience in the renewables and nuclear sectors, we offer a portfolio of product and performance software to support our customers. From our wind measurement products such as Galion Lidar and MetMast through to our radiation detection and measurement technology with ORION ScanSortSM and ScanPlotSM, we can help owners better understand their assets.

Our aim is to optimise performance across the full asset life cycle by combining data analysis with powerful software to reduce operational and maintenance costs.

**World-leading expertise**

Our reputation is founded on the very best technical expertise across the globe and our approach is highly collaborative. Our staff are at the forefront of their disciplines, playing an active role in industry trade associations, technical groups and national industry standard committees.

We constantly strive to develop ground-breaking solutions for the benefit of the clean energy sector. We have a proven track record of providing industry-leading technical and engineering services, working with leading developers and operators on some of the world’s largest and most challenging nuclear and renewable sites.

With a number of facilities including nuclear laboratories, inspection validation centres and remote inspection facilities, we are well equipped to support applied research and innovation. Our experience provides unique insights into the complex issues faced by our customers and we provide, flexible, commercial and technical solutions that span the entire sector.

When electricity generation at two UK nuclear power stations was constrained by a rise in temperature, we helped EDF Energy to reduce temperatures by 20°C, allowing the reactors to restore power output. Together, we created a new approach by remotely drilling bleed holes within the reactor control rod tubes. A test rig was constructed at our facility to conduct trials, provide training and demonstrate the technique could provide a solution.
Engineering, design and project management

With a long track record, our design and engineering expertise supports the delivery of clean energy projects.

Engineering innovation
By combining technical excellence with innovation, research and development, we can solve complex engineering challenges.

From site selection to detailed assessment of environmental and planning constraints or by acting as full EPC contractor, we offer flexible and tailored services at any stage of a project.

Design
Our whole of life design service covers all aspects from concept and optioneering to detailed design and analysis. We utilise the latest technology to deliver solutions which add real value to nuclear and renewables projects.

Project success
Project management is at the heart of our capabilities. Our tiered approach ensures our services are tailored to the relative needs of each project.

We help minimise risk through cost estimating and control, planning and scheduling, risk analysis, change control and forecasting. We ensure the effective management of strategic programmes to suit customer needs.

We were awarded the construction monitoring contract and acted as the lenders’ technical advisor for the Beatrice offshore wind farm project. Once fully operational, the 84 turbines will provide power for 450,000 homes and will be Scotland’s largest offshore wind farm.
We supported Egypt’s largest solar photovoltaic (PV) power plant to commercial operation. The 64.1 MW solar park, located in Benban, Aswan, is part of Benban’s solar development complex. On completion, Benban Solar Park will become one of the world’s largest solar generation facilities.

Construction and commissioning

We have the expertise and capability to build and deliver your clean energy project to commercial operation.

Bringing your project to life
The construction and commissioning phase is vital to the success of any project. We provide front-end regulatory and design consultancy, as well as engineering and programme construction management services.

It is key that the construction phase is managed to ensure the safe, timely and most cost-effective delivery of a working asset into handover to the operations phase.

Managing the process
We provide consulting support, specialist resource, project management and bespoke software to execute commissioning scopes to every scale and complexity.

Our proven engineering and operational experience means we bring a deep understanding of key challenges, bridging the gap from construction to commissioning and ongoing operations.

Our experience has enabled us to be involved in the construction of some of the world’s largest clean energy projects.
Safety, licensing and regulatory

We help to reduce risk in highly regulated and hazardous environments.

Safety is key
At Wood, we follow a “no compromise” safety culture and incorporate safety into every aspect of the life cycle. Our success is dependent on our ability to manage risk and our people are dedicated to the safe delivery of any project.

Our impartial advice helps to ensure the safety of a facility and its people. We have extensive nuclear and renewables experience making us well placed to support best practice and ensure issues and constraints are managed effectively.

We conduct our activities in a manner that minimises our environmental impact and provides our staff with a safe work place by maintaining an integrated management system which meets the requirements of ISO 9001:2015, ISO 14001:2015 and BS OHAS 18001:2007.

Meeting regulatory standards
We understand that meeting the legislative requirements of the highly regulated clean energy sector can offer major challenges for companies.

Our flexible service can comprise of a complete package or individual components of safety and licensing solutions. We apply our in-depth knowledge of international regulatory bodies to help our customers develop safety processes and methodologies that enable them to meet the necessary conditions.

We have guided our clients by providing support in licensing approvals and helping to understand the technical requirements of various environmental issues. Our licensing knowledge extends from project feasibility and risk reduction through to licensing and permissioning.

We also support regulatory organisations in assessing safety justifications presented by asset operators.

Comprehensive experience of all major reactor types.
Wood has supported EDF Energy’s UK EPR Project at Hinkley Point since 2008. By helping to map French codes and standards to the UK equivalent, and by modifying translated documents, we have ensured clarity for the UK regulators during the generic design assessment process.
Plant operations and life extension

We understand the complex issues of managing assets. For decades, we have provided support to operators facing ever-increasing challenges to ensure their assets are safe and efficient as possible.

Flexible service
The performance of a project relies on owners and operators considering all aspects of asset management. We help to maximise energy yield and minimise lost revenue from downtime.

Whether as a complete package or as individual services, our comprehensive plant operation offering covers all clean energy technologies. Our asset management and operational services include round-the-clock monitoring through to hands-on maintenance and commercial operation support.

We offer technical and engineering solutions for enhancing the performance of assets, extending their value and increasing return on investment. Our understanding of clean energy engineering, system structures and components along with design and operational experience allows us to provide a service offering tailored to your project.

Improving asset performance
With effective inspection and maintenance practices, ageing degradation can be managed and operational life can be extended well beyond what was originally planned.

We have successfully planned and managed major projects on behalf of nuclear and renewables asset owners and have extensive experience supporting the long-term safety and performance of project sites, ensuring compliance with local regulations, codes and standards.

With an innovative approach we have designed a portfolio of products and performance software to help owners and developers better understand their assets.

Plant life management
For nuclear customers we provide safe practical solutions for overcoming life-limiting issues and extending the operational performance of aging assets.

Our wind and solar optimiser services can be applied to existing assets or during the preconstruction phase of a project to increase annual energy production and financial returns.

For more than 20 years, we have participated in numerous wind power projects ranging from a single turbine to large multi-site wind farms.
We were selected to carry out power performance testing (PPT) on Europe’s largest onshore wind power project. The 1,000 MW Fosen Vind project, which is located in central Norway comprises six onshore wind farms and will have the combined capacity to power up to 170,000 Norwegian households when complete.
Wood is a global leader delivering technical, engineering and project services across the entire asset life cycle. We operate in more than 60 countries, employing about 60,000 people. We provide performance-driven solutions from development to decommissioning for a broad range of industries including all energy sectors, process and refining, power and utilities, mining and manufacturing.

For further information please go to: