With capabilities ranging from original equipment manufacture (OEM), new plant construction and specialist inspection technologies to through-life support, Doosan Babcock has the experience and expertise to deliver energy solutions reliably and safely.
Doosan Babcock has been a major supplier of plant, equipment and specialist services to the nuclear industry for over 50 years. Our engineering, manufacturing and installation skills have supplied large parts of the current UK fleet while our maintenance, repair and overhaul (MRO) services and specialist inspection technologies keep plant operating safely. We have played a central role in the development of the UK’s nuclear fleet, from the earliest days to the present.

- In 1956 we supplied the steam-raising plant for the world’s first commercial nuclear power station – Calder Hall, UK.
- In 1995 we provided the steam generators for the UK’s most recent nuclear plant – Sizewell B.
- We provide fully integrated through-life support covering development, design, manufacture, procurement, site installation, commissioning, operational support and decommissioning.
- We design, manufacture and construct new nuclear facilities in partnership with clients and the UK supply chain.

Our consistent approach to safety and quality, coupled with our diversified and sophisticated engineering and service capabilities, mean that we are the trusted partner of the leading nuclear power utilities. We can provide our customers with:

- The largest directly employed workforce of Suitably Qualified and Experienced Personnel (SQEP) available in the civil UK nuclear industry.
- Engineering, procurement and construction (EPC) capability through to final decommissioning backed by engineering design, engineering technologies, fabrication and manufacturing, inspection and testing, and waste management expertise.
- An innovative approach to operations and services. Our global work in other industrial sectors, such as thermal power plant, turbines, oil and gas, petrochemical and pharmaceutical, allows us to bring a pragmatic perspective to your business.
- Our capabilities are based on proven collaborative skills, a powerful integrated supply chain and project integrator expertise.
Our capabilities are amongst the best in the industry. We have developed our ability to manage large projects through the deployment of specialised engineering processes and the provision of innovative solutions for our customers, such as sophisticated and precise welding and construction techniques in environments that demand exceptionally high performance.

Our workforce is one of the largest in the nuclear industry. We have expertise in design, manufacturing, on-site support and project management. By making a substantial and long-term investment in training, we have developed nationally accredited facilities in the UK. This enables our service resource managers to supply the right people with the right skills when and wherever they are needed.
We can define and deliver a bespoke service, or assemble a specialist team to support your operations, maintenance and plant-life extension requirements.

At Doosan Babcock, we take our environmental and social responsibilities seriously. We meet the needs of today without compromising the ability of future generations to meet their own needs. We demonstrate this by building long-term legacies through the training and development of our people, our care of the environment, support of local communities we work in and by helping our customers meet their own sustainability goals.

**PERFORMANCE**

Delivering quality services in a timely and safe manner is at the heart of what we offer our customers.

This is nothing less than they would expect in a demanding industry. But it doesn’t stop there. Doosan Babcock also chooses and works with the right partners for each project, ensuring that we maintain consistently high performance at all levels and at all times.
Our ability to deploy skilled teams to customer sites to sustainably deliver maintenance and outages is supported by our engineering and technology expertise.

Nuclear services

Operations maintenance and plant-life extension

With an unrivalled presence in the UK nuclear sector, we provide essential quality services that support the generation of safe, reliable, cost-effective nuclear power.

Site capability

Every generating nuclear site in the UK has a permanent Doosan presence. This allows us to accumulate an in-depth understanding of the local conditions and provides the basis for more efficient planning of support, operations and maintenance. It also enables faster and smoother responses to emerging events.

Our teams

We supply highly skilled and motivated teams to perform operational services, handle maintenance or develop and implement life extension strategies. Our experience includes working in a range of radiological environments on Magnox, advanced gas-cooled reactor (AGR) and pressurised water reactor (PWR) sites.

Full lifecycle support

We are systematically developing new commercial and technological innovations that add value, increase performance and enhance health and safety through long-term collaborative relationships with our customers.

Decommissioning and waste handling services

We carry out a key role in the nuclear decommissioning programme in the UK. We have developed innovative techniques and processes to facilitate the removal of radioactive waste and the remediation of nuclear facilities.

Radiological competence

Our services in decommissioning and waste handling are built on extensive experience of working in radiological environments, on the capabilities of our in-house Radiological Protection Advisors (RPAs), on our health physics capabilities and on our trusted supply chain.

Sentencing

A crucial factor in decommissioning projects is the accurate identification, characterisation and sentencing of waste streams. We have facilities and workshops licensed for the sampling and processing of low level waste and collaborate with accredited laboratories or offer purpose-built processes for handling hazardous materials.

Compliant execution

We carry out a full risk assessment and evaluation of deplanting/demolition methodologies and waste sentencing. We then deploy a SQEP team to carry out the agreed programme of work. Strict monitoring and documentation is necessary at every stage to ensure a fully compliant and safe decommissioning programme.
We provide EPC services from concept to feasibility studies, design, manufacture, procurement, site installation and commissioning.

**Nuclear EPC**

**Major nuclear projects**
Building on our proven nuclear track record, we design and implement innovative solutions, deploying skilled teams from across our power portfolio to deliver EPC projects within the nuclear industry.

**Project management**
Through the application of modern project management systems and processes, our experienced teams are focussed on delivering success. Our breadth of experience covers a range of projects and industries, enabling best practices and innovation to be identified and applied.

**Design and manufacture**
Our in-house engineering and design teams use the latest design methods and integrate with our highly experienced, directly employed construction and commissioning teams. Our world-class fabrication facilities ensure products are delivered to high quality standards and on time to support project delivery.

**Installing and commissioning**
Our 65 years of experience in nuclear plant mechanical construction gives us a unique knowledge and unparalleled skill base. We continuously invest in updating our nuclear construction and commissioning skills, drawing from UK and international expertise.

**Reliable delivery**
With integrated Quality Management Systems and supply chain expertise we deliver quality, cost-effective solutions. Organisationally we can provide the reachback into our diverse sector portfolio and bring world class innovative, compliant SQEP resources to a project.

**Regulatory, compliance, safety and quality expertise**
Our in-depth understanding of nuclear regulatory and site license requirements enables us to operate safely and compliantly in nuclear installations.
New build nuclear power plant
We are positioned to play a major role in the renaissance of nuclear power thanks to our long heritage as a major mechanical contractor and provider of specialist personnel and services to the nuclear industry.

We are your reliable partner for manufacture, construction of plant and equipment, installation of mechanical works and assured delivery in the construction of new nuclear power plant projects.

Key equipment and components
Since the early 1950s, we have supplied, installed and commissioned steam generation and mechanical systems, as well as other key equipment, for nuclear power plants throughout the UK.
As a leading provider of services and SQEP personnel to the nuclear industry, we are intimately involved in every aspect of the development of the industry. Our insights, combined with our global reach, amounts to a formidable nuclear new build capability.

Collaboration and commitment
We are committed to delivering engineering, procurement and construction (EPC) services specifically tailored to meet your project requirements. The scope can range from specific components to whole plant sub-systems and we can operate in the role of a project partner or turnkey supplier.

Training and development
Our significant sustained investment in our people, facilities and tooling enables us to deliver high levels of productivity to world class Quality, Health, Safety and Environmental standards.
We offer sophisticated and innovative technology, products and skills to help manage the challenges of the nuclear industry. Our close working relationships with our customers enable us to support their needs with bespoke technology solutions for both nuclear services, larger EPC and new build projects.

Technology focus

High integrity and remote welding
We offer various advanced technologies for remote welding that can be used to repair reactor pressure equipment and vessels. We master all the technologies required for high integrity pipework including mirror welding, high productivity Flux Cored and STT welding, Narrow Gap orbital TIG and Mechanised Flux Cored processes.

In-service inspection and non-destructive testing
We use advanced technologies to assess the condition of a broad range of plant components during operation which enables the creation and management of a more reliable, scheduled maintenance plan, and facilitates the optimisation of inspection periods.

Remote visual inspection
Our remote visual systems are used for routine monitoring and during interventions to shorten personnel exposure times. They also assist with effective planning and preparation and increases the safety and quality of work performed.

Design and constructability reviews
In today’s power market, plant availability has a huge impact on profitability. That is why we leverage the power of laser 3D-scanning and modelling to plan interventions and test installation scenarios.

Mobile waste encapsulation
Clients with accumulated radioactive wastes can make considerable savings on radioactive waste transport costs by consolidating mobile waste on site using our Low-Level Waste Mobile Solidification Plant.

We use advanced technologies to assess the condition of a broad range of plant components during operation.
Expertise from our network of specialists:

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Doosan Babcock and Doosan Power Systems

Doosan Babcock is part of Doosan Power Systems, which builds, maintains and extends the life of power plants across the world. We provide clean, efficient, flexible and integrated power solutions, using the latest technologies and best-in-class engineering expertise. From advanced turbine design and a range of boiler technologies to comprehensive after-build services, we offer a wide breadth of capabilities spanning both traditional and renewable fuels, as well as the industrial and petrochemical sectors.

We unite the rich heritage of Doosan Lentjes and Doosan Babcock in advanced steam generation, waste-to-energy and nuclear with the global leadership of Doosan Škoda Power in the design and manufacture of turbines. Supported by our global service capabilities, this winning combination gives Doosan Power Systems the capability to provide efficient and cost-effective solutions that create real value for our customers and their assets around the world.