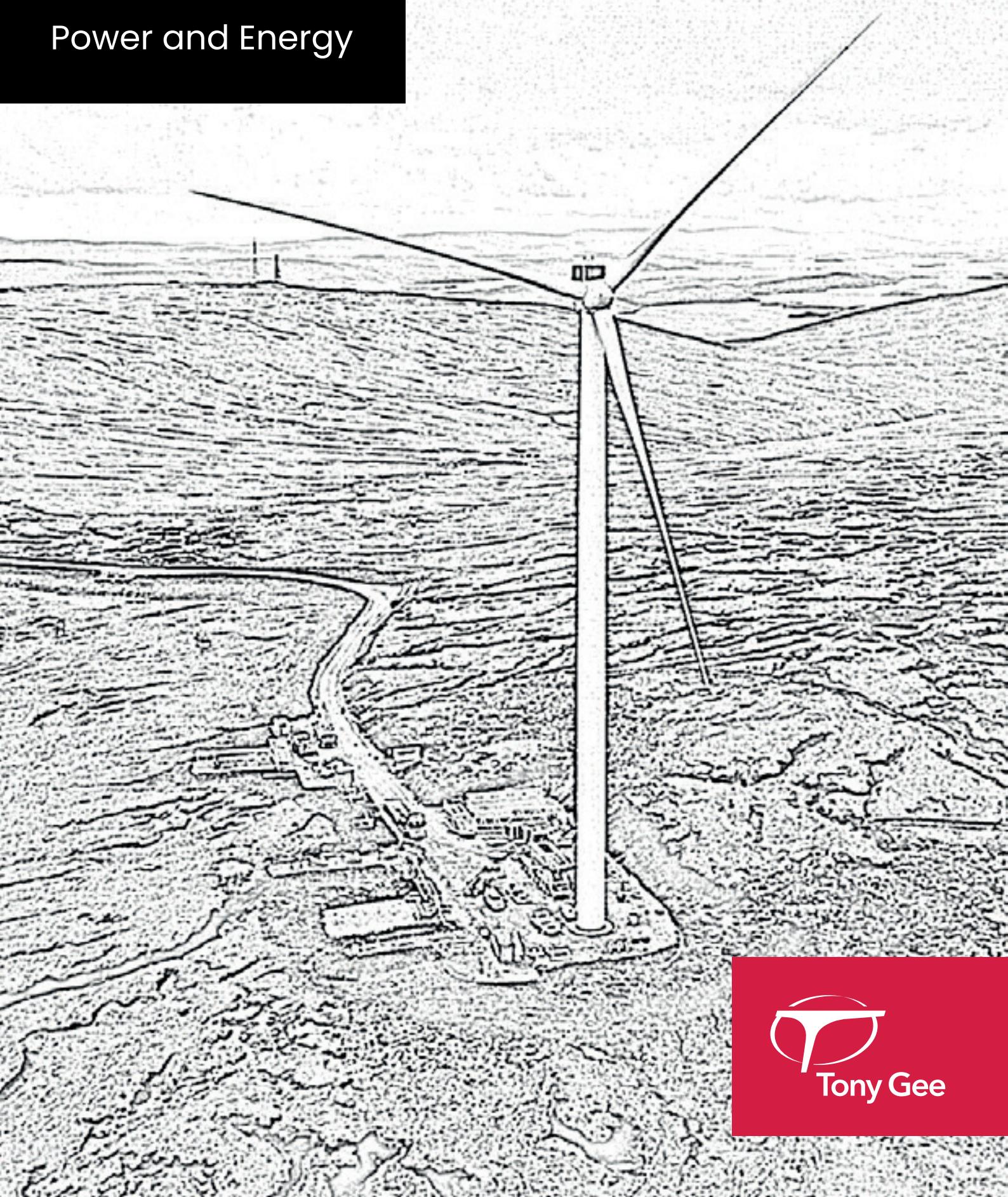


Design once, engineer right

Power and Energy



Tony Gee

Design once, engineer right

Our work is always the best it should be, anticipating challenges and revealing possibilities, avoiding waste and better serving the needs of society and the environment - for today and the future



Viking Wind Farm

Sectors



Power and Energy



Highways



Rail



Marine



Aviation



Commercial and Industrial



Defence



Health

Tony Gee and Partners

Tony Gee is an owner-managed business which focuses on civil, structural and geotechnical engineering and infrastructure design services. Founded in 1974, we are a multi-award winning firm which has a reputation for providing high-calibre, complex and innovative engineering solutions, with a particular flair for the unique and challenging.

We have offices throughout UK and internationally and have established, world-leading capabilities that can deliver solutions at a global level, whilst recognising the needs of local clients and communities.

Our reputation has been built through the delivery of creative solutions and alternative design solutions. Our designs always embrace buildability at their core through the deployment of modern and sometimes unique construction methods and technologies. Our approach is always to work collaboratively alongside our clients to develop innovative solutions, designing both permanent and temporary works together, focussing in particular on the integration of design with construction that delivers cost, time and material resource savings.

Our key differentiators and USPs:



Technical - Highly experienced local teams that understand the challenges faced by clients and invested in its success



Understanding - Construction risk in the design process methodology and design integration



Sustainable - Designing with carbon and biodiversity net gain in mind



Flexible - Agile and responsive in service delivery



Always collaborative - Working with clients and contractors on complex projects



Experienced - Socially, financially and environmentally, through our safe and buildable infrastructure designs

"A firm which has carved out a strong reputation as a provider of technical maestros who can sort out any complex construction challenge"

New Civil Engineer Magazine



Our Power and Energy Expertise

Design and engineering services...

-  Preliminary design for planning
-  Detailed design for construction
-  Temporary works design
-  BIM and digital modelling
-  Wind turbine foundation design
-  Bulk earthworks and platform design
-  Access track and junction design
-  Sustainable drainage design
-  Bridges and buildings design
-  Road improvements design
-  Site investigation
-  Feasibility studies
-  Asset inspection and assessment
-  Design checking
-  Construction methodology
-  Site monitoring
-  Expert witness



Kergord HVDC Converter Station



...and where we apply them

Renewables



Onshore wind



Offshore wind



Solar



Pumped hydro

Grid and energy storage



Transmission



Distribution



Battery storage



Green hydrogen



Reactive power



EV charging

Nuclear



New build, life extension
and decommissioning

Our Culture

Our culture shapes everything we do, from how we approach challenges to how we interact with one another and our environment.

It's defined by six key principles: Curiosity, Respect, Excellence, Agility, Teamwork, and Empowerment.



Designing for a sustainable future

Sustainability has become a cornerstone of our work. We embrace all the services that are now demanded by client organisations and projects and retain in-house capabilities in sustainability, digital delivery, carbon, social value and whole life costing. We are an accredited carbon neutral organisation.

Simply Safe

Simply Safe is our cultural approach to safety and the well-being of people and is woven throughout everything that we do. We value technical excellence – inviting and tackling the hardest engineering challenge but always with a deep commitment to our civic duty to protect our people, our industry colleagues, and the wider public from harm. We can make safety simple by planning ahead, designing right first time, and considering the whole life-cycle of every project.

Giving something back

At Tony Gee we take pride in giving back to communities. Whether this is for the contributions we make to charity and good causes or for the engagement in wider industry and local community activity that we support our staff to make. We empower them to make a difference.

Our people make us

We are a business of people. Our size allows us to maintain our values and culture through simple lines of communication and to be able to remain flexible and responsive to changing demands. We employ highly qualified and experienced staff and develop them through progressive training programmes to develop the broad range of skills across all disciplines that we have built our reputation on.



Tony Gee in the Power and Energy Sector

Tony Gee's experience in the Power and Energy sector ranges from pre-planning feasibility assessment and conceptual layout design for developers through to detailed design and construction supervision for contractor clients. Over the past decade, we have developed a strong track record and capability in the UK, supporting a range of projects across our three core markets – renewables, grid and energy storage and nuclear. We regularly collaborate with long-term strategic partners to offer a complete multidisciplinary service offering to our clients.

Buildable, value driven power solutions

Our culture centres on delivering our promises to clients focusing on practical, buildable, value driven decision making and technical excellence to achieve predictable project outcomes. Whether it be an onshore wind farm or a nuclear power station, we combine our permanent infrastructure and temporary works expertise to deliver genuine value by design. The close relationships we have built over many years with some of the UK's leading developers, contractors, utility companies and plant suppliers has given us a detailed understanding of materials and construction methods, buildability, practical site issues and the demands of the project programme throughout every stage of project development.

Digital Power and Energy

We regularly employ a range of digital tools and techniques that add value to projects. These include bespoke in-house automated design tools as well as 3D models and visualisations that convey construction sequencing and site layouts using tools such as InfraWorks and Lumion. We also use building information management (BIM) and collaborative working through common data environments. We can also employ Design for Manufacture and Assembly to reduce construction costs and deliver high quality solutions and information where it is needed. As an important part of our unique ability to integrate temporary and permanent works design, Tony Gee can provide a full spectrum of digital engineering services

Our team

Our engineers and designers are highly capable in the latest analysis techniques and industry best practice. We undertake high quality, relevant training to ensure they are suitably qualified and equipped to work on a broad range of Power and Energy projects.



Onshore Wind



Leanamore Wind Farm

Tony Gee provides the full range of civil engineering design services for the design and construction of onshore wind farm projects. We support both developer and contractor clients at all stages of the project lifecycle, from initial feasibility assessment and concept layout design to support planning application, through to detailed design and construction supervision.

We pride ourselves on our ability to develop optimised, buildable schemes that balance requirements of multiple project stakeholders. We add value by identifying engineering and constructability challenges at the front end of the design process, ensuring these are addressed in the concept design prior to planning application, de-risking future stages of project development. At detailed design stage, we seek to refine and further optimise schemes through innovative wind turbine foundation and bulk earthworks design, affecting carbon, programme and cost savings.

As wind turbine generator technology evolves, new offsite engineering challenges for onshore wind farm developments are presented. We work with specialist haulage contractors to assess and optimise offsite road improvement works that enable transportation of abnormal loads from port to site, including assessment of existing structures.



Kennoxhead Wind Farm Bridge



Viking Wind Farm

Bad Å Cheò Wind Farm



Brechfa Wind Farm



Benbrack Wind Farm



Inverclyde Wind Farm



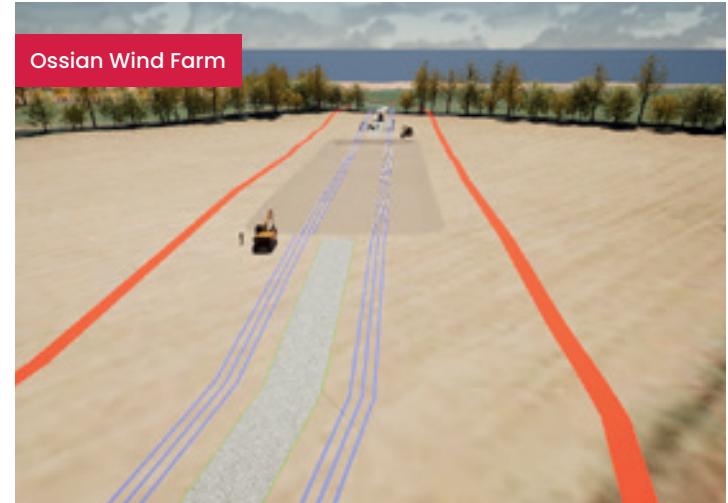
Offshore Wind



We provide a comprehensive range of civil engineering design services for the design and construction of onshore elements of offshore wind farm projects. We support both developer and contractor clients at all stages of the project lifecycle, from initial feasibility assessment and concept layout design to support planning application, through to detailed design and construction supervision.

At pre-planning stage, we support developer clients with civil infrastructure siting, including constraints mapping, landfall feasibility assessment, cable corridor routing, horizontal directional drill (HDD) siting, substation/ converter station compound siting, as well as transportation route and constructability assessment. We engage specialist contractors to support design development, ensuring well considered, buildable solutions are embedded from outset.

At detailed design stage, we support contractor clients with design of onshore civil infrastructure, including bulk earthworks, platforms, access tracks, interconnectors, drainage, substation/ converter station buildings, joint bays, access junctions, construction compounds and road improvements.



Solar and Battery Storage



Solar Farm

Tony Gee supports both developer and contractor clients with design and construction of solar and battery energy storage system (BESS) projects. Increasingly, these two forms of complementary energy production and storage technologies are twinned on projects. Our civil, structural and geotechnical engineers support both pre-planning and detailed design and construction supervision of projects, ranging from small-scale to large-scale DCO projects, including Nationally Significant Infrastructure Projects (NSIP).

At pre-planning stage, we support developer clients with site layout design, optimising specification and siting of battery and solar arrays and supporting civil infrastructure, whilst taking cognisance of site constraints. We ensure constructability considerations are embedded from outset.

At detailed design stage, we support contractors with design of bulk earthworks, platforms, access tracks, drainage, foundations, building design and access junctions.

Battery Storage



Wind Farm and Battery Storage



Transmission and Distribution



Beauly Substation

We provide a wide range of civil engineering design services for the design and construction of grid transmission and distribution infrastructure projects. We support both developer and contractor clients at all stages of the project lifecycle with development of both HVDC and AC projects, from initial feasibility assessment and concept layout design to support planning application, through to detailed design and construction supervision.

At pre-planning stage, we support developer clients with concept layout design, ensuring multidisciplinary design requirements are captured and coordinated, as well as needs of other project stakeholders, ensuring robust, buildable solutions are embedded from outset.

At detailed design stage, we seek to refine and further optimise schemes through innovative bulk earthworks and buildings design, affecting carbon, programme and cost savings. We engage specialist contractors to support the design process, ensuring a coordinated response that exceeds clients' expectations.

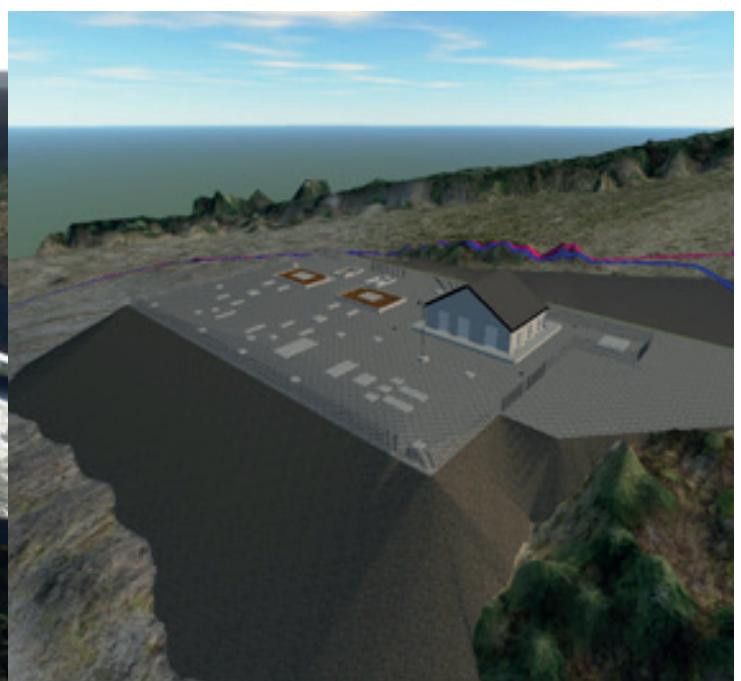
We work collaboratively with specialist haulage contractors and local roads authorities to assess the impact of abnormal transformer loads on existing infrastructure, developing optimal road improvement and bridge strengthening proposals.



Tomatin Substation Transformer Delivery



Sinclairs Bay HVDC Switching Station



Nuclear



Hinkley Point C

Tony Gee provides a broad range of civil engineering design services which support nuclear new build, life extension and decommissioning projects. Our civil, structural and geotechnical engineers work to deliver both temporary and permanent civil infrastructure design solutions as well as independent design checks on complex infrastructure elements. Where possible, our focus is to integrate temporary works design into the permanent works design, introducing a range of project benefits.

In nuclear new build, we are currently supporting design of temporary works at Hinkley Point C (HPC) and Sizewell C (Szc). At HPC, works include temporary crane foundations, temporary site layouts, temporary pool bunkers to facilitate pre-fabrication, temporary concrete pumping stations, building staged early thermal cracking analysis as well as jetty temporary works. At Szc, works include design of multi-phase temporary SSSI bridge structures as well as Marine Bulk Import Facility (MBIF) structure.

We have supported life extension, remedial and temporary works design at a range of existing UK nuclear power stations, including Bradwell, Dungeness, Hunterston, Hartlepool, Heysham, Hinkley, Sizewell and Torness.



Sizewell C, SSSI Bridges



Hinkley Point C, Big Carl

Construction Engineering and Temporary Works



Solwaybank Wind Farm

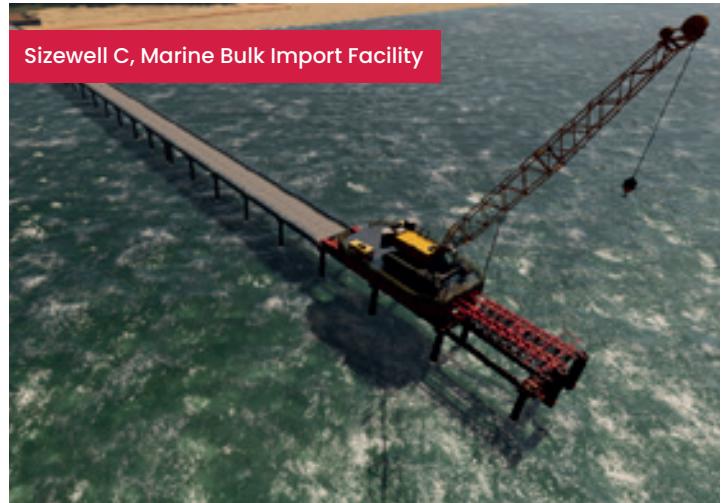
We have developed an extensive capability in both temporary and permanent works design, focussing on integration of design with construction. Our reputation has been built through the delivery of innovative and alternative designs that have taken into account the employment of construction methods, modern and innovative techniques as well as the effective use of materials. Our approach is always to work alongside our client to consider robust, combined solutions, designing both permanent and temporary works together.

We have extensive knowledge and experience of working for contractors across the globe, recognising and understanding the logistical challenges associated with major infrastructure schemes. Providing buildable designs is at the core of Tony Gee, and the reason why we are one of the preferred consultants for many contracting clients. Within the highly constrained environments, we understand that how to build is just as important as what to build.

There will be considerable investment in marine and port infrastructure to enable delivery of equipment and materials needed to build Power and Energy projects, particularly onshore wind, offshore wind and supporting grid infrastructure. We leverage our permanent and temporary works experience and capability across our Marine and Power and Energy sectors to the benefit of projects.



Hinkley Point C Jetty



Sizewell C, Marine Bulk Import Facility



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