

# Tony Gee News

## World class efficiency at Viking Wind Farm

**Viking Wind Farm, on mainland Shetland, is expected to be one of the most efficient onshore wind farms in the world, with a total generating capacity of 443MW.**

Currently being developed by renewable energy developer SSE Renewables, construction is by RJ McLeod on a site which covers approximately 70km<sup>2</sup>, including 70km of access tracks and 103 wind turbine generator (WTG) foundations.

Tony Gee was appointed by SSE Renewables as the design consultant for the WTG foundations (both geotechnical and structural), and the design of Sandwater Road, Kergord Access Track, and all on-site junctions.

Tony Gee currently has a team of technical advisors on site supervising the construction of these aspects as well as fulfilling the role of the Geotechnical Clerk of Works.

Construction of the wind farm started in September 2020 and over 90% of the access tracks are now complete. The rest are due for completion early in 2022.

Geotechnical inspections of the WTG foundations began in May 2021, with 35 now excavated and tested. Construction of the steel reinforcement for the foundations began in June 2021, and to date, 17 concrete foundation pours have been completed (16.5%), with a further 8 planned.

The project has faced some unique challenges due to the location, the ever-changing Shetland weather and the reliance on ferries for the delivery of construction materials not available locally. However, construction is moving at pace and is expected to increase in the new year. The Tony Gee team on site is looking forward to a busy new year, with all 103 WTG foundations expected to be complete by autumn 2022.



## ACE Best UK Consultancy Award for Tony Gee

**Tony Gee has been awarded the Best UK Consultancy (Large) at the Consultancy and Engineering Awards 2021 organised by the Association for Consultancy and Engineering (ACE).**

The judges noted Tony Gee's success in an extremely difficult year, highlighting its 'innovative, interesting and impressive' approach to the use of its management boards. They commented that a move to split project delivery, financial and staff support was innovative and clearly effective. They also recognised Tony Gee's Pledge to Net Zero announced in 2020.



*Chris Young said: "To get this level of recognition is fantastic and reinforces the positive feedback we receive from our clients on project delivery. I feel privileged to work with a terrific team. This award would not have been possible without their hard work and dedication, especially during the pandemic. It's great to celebrate this success with them."*



## Sustainability: What does it mean?

Sustainability means different things to different people. It's a complex question.

The big focus from COP26 was carbon reduction, but the wider picture requires us to use natural resources in a responsible way, to protect our planet for future generations.

As engineers we have a tremendous opportunity to be part of the solution which is why, at a recent client event we hosted, I offered all our clients the chance to challenge us to be better.

There is clearly much more to do in tackling climate change and protecting our planet, but I do look forward with some optimism. In the past couple of years, the views within society seem to have turned a corner. Now most people recognise that we cannot go on doing the things we have always done, in the way we have always done them. It is time to change.

So for those that did not attend our event, I offer the same opportunity: challenge us to be better on environmental and sustainability issues in the designs we produce for you.

I am confident we will meet the challenge, but do please expect us to challenge you too. Together we really can make a difference.



**Chris Young**

Executive  
Managing  
Director



## Transpennine collaborations

**The Transpennine Route Upgrade (TRU) reached a key milestone after the successful completion of a 16-day blockade of the railway between Manchester Victoria and Miles Platting Junction.**

Delivered by the TRU West Alliance, this project is part of a multi-billion pound project to enable more, reliable train services and quicker journeys.

As a key supply chain partner to the Alliance, Tony Gee has been involved with the scheme since the tender stage providing bridge, permanent way, lineside civils and geotechnical design services. The team's contribution has been recognised as a key to the blockade's success. Design work included:

- New twin track alignment to allow speed increases from 30mph to 55mph.
- 2km of new track for the MVM line.
- Replace span 31 of MVM/6 over Dantzic Street

- Reconstruction and widening of MVM/15B (Queens Road, Underbridge).
- Break out the existing supports of span 38 of MVM/6 and cast new cill beams.
- Replace longitudinal timbers on MVM/7 (Bromley Street Subway) with track slab solution.
- Waterproofing, ballast wall extensions & ancillary works to MVL1/2 (Oldham Road, Underbridge).

The project has been positively received, was featured on the BBC North West Tonight programme and visited by the Prime Minister, the Transport Minister and the Chancellor of the Exchequer. It has been an excellent example of inter-office working with most offices contributing. Tony Gee will continue to work with the Alliance Partners and develop designs across the TRU programme as it moves to the next stages of construction.



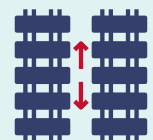
*Twin track alignment allows speed increases from 30mph to 55mph*



*2km of new track created for the majority of the MVM line*



*Replacement and break out of existing spans and new cill beams*



*Track slab solutions and ballast wall extensions*

## Leading the debate beyond COP26

**Tony Gee hosted a 'Reflections of COP26' client event in November continuing the debate on how the construction industry can take positive steps to address the climate emergency.**

Guest speaker at the main event in Southwark Cathedral, London, was TV presenter and engineer, Rob Bell. Additional local events were held around the country and live streamed to reduce the event's overall carbon footprint.

The events served as a conversation starter on how the construction industry can better its approach to the ongoing climate



crisis. Many different issues were discussed including reducing the demand for resources and energy, and encouraging the industry to challenge everything to reach the best sustainable outcomes. A full

summary of the discussions is available on the Tony Gee website. To ensure these important conversations continue, the team is planning further engagement with key clients in the year ahead.



# Carbon neutral status and new off-setting investment

**Tony Gee's 2020 carbon emissions footprint has been externally verified and certified as officially carbon neutral.**

The company has also introduced an annual carbon investment to ensure its operational emissions are offset each year.

Late in 2019 Tony Gee signed up to the Pledge to Net Zero campaign and it has been developing its operational carbon monitoring capabilities in house ever since.



Working with Carbon Footprint, Tony Gee's environmental efforts have been assessed and verified externally. This partnership also ensures the business only purchases high quality and effective verified offsets.

Tony Gee continues to work to reduce actual emissions, and the new annual carbon investment will further support operational emissions off-sets going forward. The annual carbon investment has been set at two tonnes of CO2e per employee. This quantity is sufficient to offset all Tony Gee's predicted carbon footprint, as well as provide additional investment in carbon mitigations.

Linking the investment level to staff numbers means that as Tony Gee reduces its absolute emissions, the gap, and the 'carbon negative' figure, will increase year on year ensuring an increasingly positive impact as time goes on. This practise will continue at a fixed rate over time with the view of achieving a carbon negative status for Tony Gee's processes and supply chain. Carbon emissions are now better defined and targeted for reduction.



## Green Apple award

**Tony Gee, working alongside Land and Water, has won an Environmental Best Practice Green Apple Award for work at the Calstock flood defence improvement scheme, in Cornwall.**

Working for the Environment Agency, Tony Gee redesigned the flood embankments' geotechnical requirements, changing the cement-stabilised fill to locally -sourced material. This cut costs, carbon content, cement haulage traffic and construction plant on site. This resulted in a 75% saving in construction carbon and a 72% reduction in whole life carbon, totalling a carbon footprint reduction of 7,350 tonnes. The new flood embankments were also set back landward to create an inter-tidal habitat area between new and existing flood defences.

## Tony Gee is accredited by the Living Wage Foundation

Tony Gee has been accredited as a Living Wage Employer.

Working with the Living Wage Foundation, the business has committed to ensuring everyone who works for Tony Gee earns a wage that meets their cost of living and not just the government minimum.

The real Living Wage is an hourly rate set independently and updated annually. The Living Wage is calculated according to real costs and changes depending on location. It is the only UK wage rate that is voluntarily paid by almost 9,000 businesses.

Tony Gee believes in a fair wage for all its team and believes in treating its suppliers in the same way.

# The UK's largest EV charging hub opens for buses in Glasgow

**First Bus, Scotland's largest bus operator, is electrifying half of its bus fleet operating from the Caledonia depot. The first phase of the electrification programme went live prior to the COP26 global climate change conference in the UK in November.**

SSE Contracting employed Tony Gee to design the civils aspect of the installation which involves two new substations and feeder pillars, cable routes across the bus depot hardstanding, and EV charging point plinths. RJ McLeod has been selected to construct the works.

Part-funded to the tune of £28.2m by the Scottish Government's Scottish Ultra-Low Emission Bus Scheme, and with some additional investment of £35.6m from operator First Bus, the completed depot will have space to charge 300 buses from 162 Heliox charging points.

This development will make the Caledonia depot the largest EV charging hub in the UK. When work is complete and all the buses are charging, the demand will be the same as for a small town of 10,000 people.



Phase two of the major works at the depot are now underway and due for completion in the summer of 2022. The project's success will mark a significant step forward in First Bus' plans to operate a zero-emissions bus fleet by 2035.





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# Leading design in Devon

**The North Devon Link Road serves as a gateway to northern Devon and northern Cornwall, connecting the regions to the rest of the UK via the M5.**

The project upgrades the existing A361 North Devon Link Road, situated on the eastern side of Barnstaple, and will include improvements to the existing road network. The scheme includes junction improvements and widening to provide better overtaking opportunities, hence reducing congestion and improving journey time reliability.

Tony Gee is the Lead Designer delivering the detailed design in collaboration with the contractor Alun Griffiths to ensure the most sustainable solutions possible. This has involved reuse and retention of existing structures in the widening works and removal of waste materials off site.

Tony Gee has also worked with Griffiths and, end client, Devon County Council to incorporate sustainable approaches into the permanent design. The solutions include the reuse of pavement plannings in the permanent surfacing works; and sustainable drainage systems to improve water quality and reduce discharge rates.

Tony Gee also refined the design to minimise the amount of vegetation clearance by retaining existing verges and existing boundary fencing.

As part of the earthworks design Tony Gee identified material for reuse on site from the cuttings which will reduce the volume of imported fill required and minimise vehicle movements in the transportation of material to and from site.

## Tasmania's largest-ever infrastructure project

Tony Gee is delighted that McConnell Dowell Constructors are the preferred tenderer for the new Bridgewater Bridge Project in Australia. This is set to be Tasmania's largest-ever infrastructure project - the new Bridgewater Bridge.

Tony Gee designed the main bridge for McConnell Dowell during the ECI tender period and look forward to developing the design in the coming months, ahead of major construction starting mid-next year.



DEPARTMENT OF STATE  
GROWTH TASMANIA /  
MCCONNELL DOWELL

## Werrington tunnel opens and wins award

**The new Werrington tunnel, carrying freight trains under the East Coast Main Line, was officially opened in December.**

The tunnel brings significant improvements to passenger journeys by eliminating the disruption caused by freight trains crossing the tracks. The project cuts journey times, allows more passenger trains through, and improves reliability. The 11,000-tonne curved concrete tunnel was built next to the railway line and, as an engineering first in the UK, was slid into place under the existing railway.

Working alongside Mott MacDonald for Morgan Sindall, Tony Gee designed the permanent portal and the tunnel approach structures for the slide as well as the temporary works for the portal jacking. Morgan Sindall invited Tony Gee staff, including graduates,



apprentices and students to walk the 1.6km route taking in the sights of the new dive under.

Just as the project opened to rail traffic, the team's efforts were officially recognised at the Ground Engineering Awards where the project received the 'UK Project with a Value of over £3m' Award.