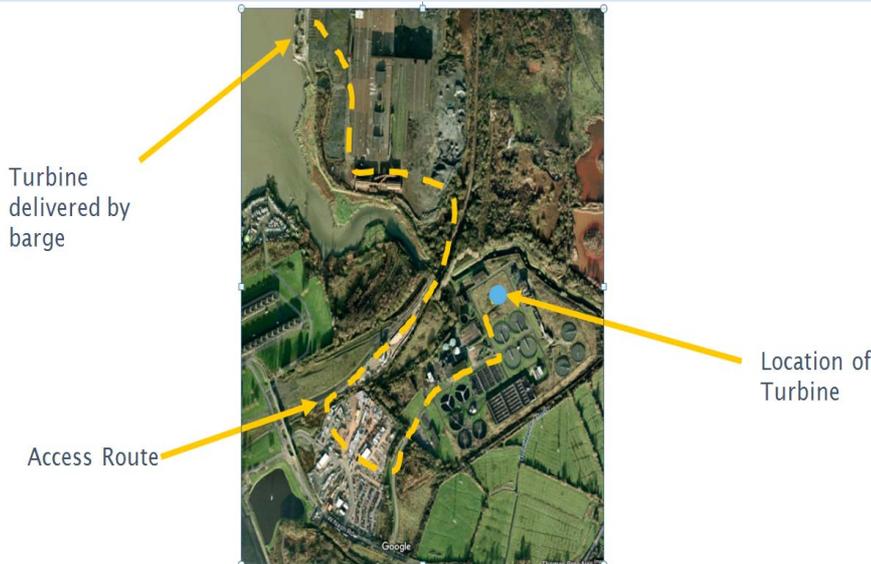
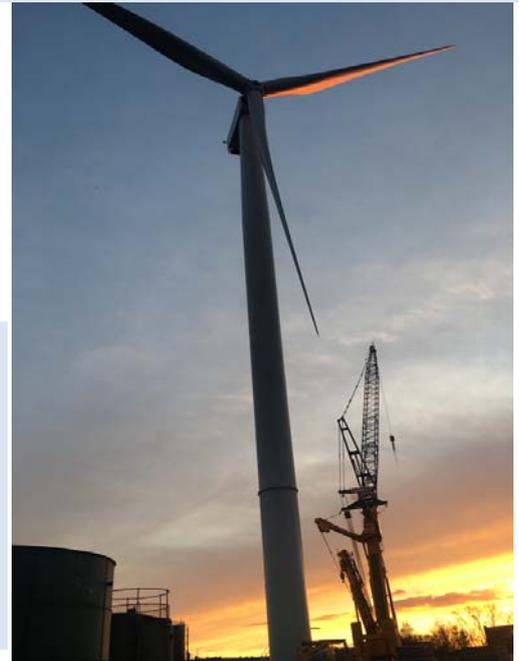


Nash WTG

Overview:

Site Location:	Nash WwTW, Newport
Client:	Skanska
Contract Value:	£1.27m+
Project Duration:	30 Weeks

As part of DCWW's strategy to reduce their carbon footprint and maximise their estate to produce electricity to power their assets, they decided to install a large 130m tall 2.5mW wind turbine on site at Nash WwTW. Skanska was selected as PC with Lewis Civil Engineering carrying out all of the civils package to enable the delivery, transportation and erection of the turbine, followed by the removal of the access road through the Power Station and Steel Works



- The access through Liberty Steel & SIMEC Power station required considerable upgrade & modification to accept the 50m long transport wagons.
- There was a requirement to cross two Reen's which were both heavily protected by environmental constraints, Lewis's carried out the NRW license application on behalf of Skanska & work closely with the NRW to agree a suitable construction & reinstatement plan.
- Within the works the existing assets were also considered to be at risk by the design team, Lewis's overcome this by installing almost 1000m² concrete road surface.

Lewis's worked day and night to get the site ready for the piling works initially, we then worked hand in hand with the piling contractor to ensure the timely completion of the piling works.

From here we again prepared the site to allow us to complete the FRC work on the wind turbine base, which consisted of around 60t of reinforcement and 400m³ of concrete.

With the FRC completed Lewis's then focused on the access road for the turbine delivery placing over 14000t of recycled aggregate to form the access road.



Nash WTG



In the adjacent photo we can see the site team working on part of the concrete access road , over 300 sheets of A393 mesh were placed & tied , screed rails installed and almost 300m3 of RC40/50 concrete place to protect existing assets , one engineering difficulty we had to overcome was in the main access road through site we needed to cast 2 protection slabs , but in order to do this we had to close the road to vehicles , we employed a rapid set mix which was designed jointly between ourselves and the concrete supplier under the P450 description , this concrete cured sufficiently to allow tankers to safely run on it some 24hours later.

Lewis's completed their works ahead of schedule but the next few days looked like it had the potential to scupper the operation , the docks where the turbine was being stored the crane broke down part way through loading the turbine components , this meant the ship missed the tide for the delivery slot . When the components arrived the heaviest component had been loaded on to the port side of the ship , but the ship arrived with the starboard side of the ship closest to the quay . This resulted in the bulk of the components being unloaded , then waiting for the high tide so that ship could be repositioned to gain access to the remain components .

Despite these delays the turbine was erected , energised and commissioned before the all important G59 deadline with almost a week to spare!



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