Case Study

Tenax LBO 330

The Stags Holt Wind Farm

Location:
Stags Holt Windfarm
Cambridgeshire

Project Description:
Access Road and Crane Pads

Client:
Eon Energy

Contractor:
Bam Nuttall

Merchant:
Frazer

The Stags Holt windcluster project is an 18MW wind energy project at Stags Holt near March in Cambridgeshire. The nine-turbine project can supply the electricity needs of approximately 9500 homes.

The Stags Holt windcluster is expected to have an operational life of approximately 25 years. After this time, the development will be decommissioned in order to return the site to its former use as arable land. The construction of the windcluster needed to be completed within a period of approximately 30 weeks.

The 80m diameter wind turbine blades at Stags Holt are mounted on 59m high towers. Each turbine can be accessed by approximately 8km of internal access tracks that is approximately 5 metres wide, with areas of hardstanding adjacent to each turbine for use by cranes during construction.

The tracks and hardstanding areas, which mainly utilise soft existing farm tracks, needed reinforcing so that they were able to withstand the loads generated by the cranes during the commissioning and decommissioning of the turbines.

Geosynthetics Limited worked together with the Tenax Geosynthetics Technical Office to produce the designs for the site access roads. These incorporated the use of two layers of lime cement stabilisation followed by the installation of a 200mm of Type 1 road stone reinforced by a single layer of TENAX LBO 330 bi-oriented geogrid.

The designs ensured:

- The site access road would be strong enough to withstand loadings of the wind turbines and heavy vehicle usage for the duration of the site (25 years)
- A reduction in costs of fill material required (up to 40%)
- A reduction on the environmental impact of construction traffic that would be mitigated due to the reduced quantities of aggregate required

Geosynthetics
Engineered Solutions
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Rhyno®
Woven Geotextile

Interlock
Extruded HDPE Geogrids

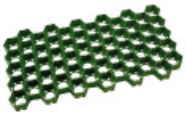
Golpla Pregrown
Ready To Lay Paving System

Landlok
Turf Reinforcement Mat

Nicospan
Erosion Control

Geomembrane
Impermeable Membrane

Golpla
Grass & Gravel Paving System

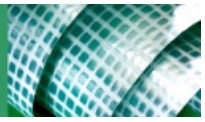


DuoDrain
Composite Drainage Product

RockBox
Gabion Mattresses

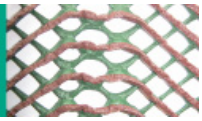
2 in1
Landscaping Fabric

Gas Membrane
Radon, CO2, Methane,
Hydrocarbon Control



Alert
Contamination Indicator

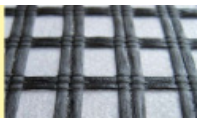
Turfmesh
Grass Reinforcement



Trinter
Erosion Control Mat

Tenax
Soil Reinforcement Solutions

GeoGlas
Asphalt Reinforcment



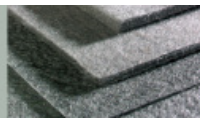
Cellweb
Tree Root Protection

Flexitex
Textile Shuttering

Bentotex GCL
Geosynthetic Clay Liner

Envirogrid
Cellular Confinement Grid

Fibertex
Non Woven Geotextile

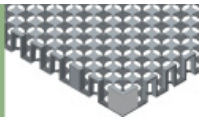


Telegrid
Woven Polyester Geogrid

Ekotex
Non Woven Geotextile

East Coast
Biodegradable
Erosion Control

RoofCell
Sub Surface Drainage
And Water Storage

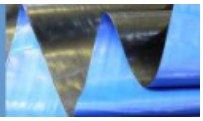


Geosynthetics
Engineered Solutions

Televev
High Strength
Woven Geotextile

T-Block
Modular Retaining System

RootBlock
Root Barrier



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