



Dunneill Project – POE to Site Transport Feedback Report

Type of Project:	13 x V52 850kW 49m HH
Customer:	SSE Renewables
Transport Period:	15 th March – 15 th April 2010
Key Stakeholders:	Richard Farmer – PM for Vestas Lars Hansen – SM for Vestas Charles McFadyen – McFadyens Transport Co-ordinator
CC:	Lee Horton – Projects Director for Vestas Magnus Franck – Procurement Director for Vestas Matthew Gardner – Civil Engineer for Vestas Mark Hartley – QSE Manager for Vestas Bob Lowe – Vestas Transport Co-ordinator
Report compiled by:	Richard Farmer

AIM OF REPORT:

The Dunneill project consisted of 13 x V52 850kW turbines with a hub height of 49m. The project is located in the Dunneill Mountain Townlands of the Ox Mountain range and approx 3 miles to the southeast of the nearest town, Dromore West.

The job of transporting the WTG components from the Port of Entry to site was awarded to McFadyens Transport Ltd. The aim of this report is to assess the project during the transport phase and to highlight any areas of improvement. It will also highlight areas that worked well to ensure continuity when working on future projects.

EVALUATION REPORT:

Post Civil Works:

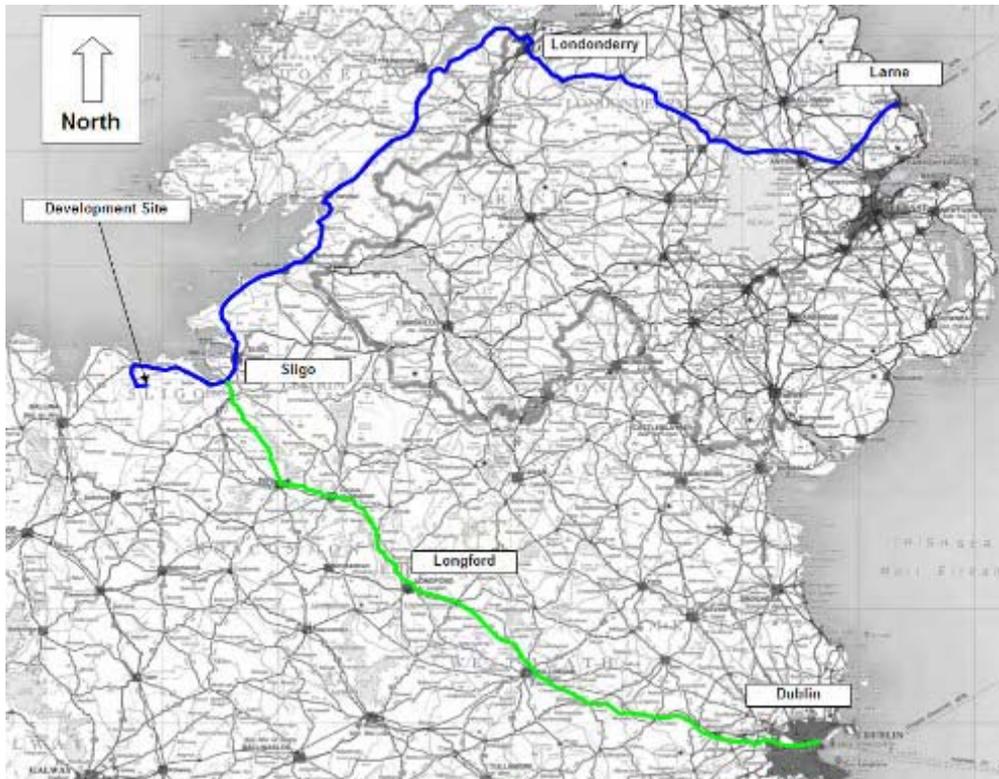
It was important for McFadyens to become involved at the earliest opportunity in order to assess the condition of the Windfarm infrastructure.

- On 29th May 2009 Charles McFadyen attended site along with Richard Farmer and Matthew Gardner of Vestas. The visit was at the request of SSE Renewables to assess the site infrastructure, as the Civil BOP was due to demobilise from the site as they had completed their works.
- The site assessment proved very beneficial. Charles gave his opinion on pinch points throughout the site and contributed to the assessment report submitted thereafter.

Documentation:

- Due to transport incidents at another SSE Renewables Windfarm, SSE turned their attention to the health and safety surrounding WTG transport and the documentation to precede any deliveries.
- Charles McFadyen proved a tremendous help in this area. He was very open to suggestions as to improve the documentation as well as the transport processes and procedures. He attended many meetings with Vestas and SSE to discuss the areas of improvement and his involvement reassured SSE that they were dealing with a competent transport contractor.
- Richard Fox was appointed by Charles as the Health and Safety Officer for McFadyens Transport. He re-wrote all McFadyens Transport method statements and risk assessments and made them specific for the Dunneill Windfarm project.

- WSP, who had already undertaken the route survey, were requested to compile a comprehensive Transport Management Plan (TMP) specifically for Dunneill with the support of McFadyens, Richard Fox and Vestas. SSE Renewables claimed they would not sign the contract until the TMP had been submitted and approved by SSE.



Two specific routes were undertaken

- Dublin Port to Dunneill – Nacelles, Blades, Nose Cones & Parts
 - Larned to Dunneill – Tower Sections
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- The team worked very well together and produced a TMP above and beyond what had been produced before.

Trial Run:

- In total three trial runs were carried out by McFadyens.
 1. 14th October 2009 - Dublin Port to the site.
 2. 14th December 2009 – Dublin Port to site
 3. 15th December 2009 – Larned to site
- The first trial run was carried out due to the close proximity to the then prospective contract signature and mobilisation date. It was carried out at short notice for this reason.

- Charles was instructed to treat the run as a virtual component and execute the TMP as if it were a real delivery. Richard Farmer attended the second trial run and was impressed with the professionalism of the team and their positive approach to their work. Richard was also accompanied by Richard Fox

Erection Phase:

- The first deliveries to site began one week before the start of the WTG erection on 15th March 2010 and consisted of blades (3 off), nacelle (1 off) & parts.
- SSE Renewables requested that they join Charles as part of the convoy in the very first delivery as they wanted to witness firsthand the transport practices as outlined within the TMP.
- Richard Fox accompanied SSE in their vehicle and this proved very beneficial as he answered any of their questions as well as providing a radio to listen in on the communication in the convoy.
- The first tower section deliveries began on 22nd March for 'just in time' delivery to site. Again SSE requested that they accompany the convoy from Larne to the site. Again they found no issues.
- The remaining deliveries to site took place efficiently, safely and according to plan.

Site Managers Comments: Lars Hansen

- Good working relationship with McFadyens which make it easy to plan and talk about change to the program. McFadyens are also very accommodating to various possibilities and are open about what costs extra and as well as what can be done for saving money. The only negative thing I can say is sometime McFadyens is too accommodating regarding roads and what he would expect to drive on. It's a good thing that he is working with us but we need to know if he has any concern so we can raise it with the customer and that we follow out guidelines from Vestas.
- H&S is good for all the drivers and good communication to Vestas before coming on site and when they are on site.

Project Managers Summary: Richard Farmer

- For future projects it would be worthwhile for McFadyens to investigate the use of Swept Path Analysis software, as currently it is the experience from Charles that is used to assess sites. Site infrastructures are not getting any less complicated and now a lot of Vestas customers expect to see Swept Path Analysis to help design their sites.
- Like Lars says above, it is important to ensure that the site roads are fit for use and that the transport vehicles are able to get comfortably around. Charles did provide numerous site reports to mitigate any pinchpoints, however Swept Path Analysis would also be an effective tool when reporting.
- It is also very important to check all components thoroughly before loading on the transport trailer and log any defects on the CMR. It may be worth all drivers having a digital camera to take a picture to accompany the CMR. The reason being the Flyrust on all blades was not logged on any CMR.
- All-in-all a very successful transport phase of the project with all parties, including SSE Renewables, very pleased with the performance of McFadyens Transport.