Appendix 10-1

Turbine Delivery Route Report

Dernacart Wind Farm

Route Assessment

M6 (Kilbeggan) to Site

Route Selection and Assessment

14/05/2019

Exceptional Load Services Ltd, Ballymoyle, Arklow, Co Wicklow, Ireland

T: +353-402-31229. E. permits@wide-loads.com

Customer	**Statkraft** Building 4200 Cork Airport Business Park Cork Ireland. T12 D23C
Delivery address	Dernacart, Mountmellick, Co Laois.
Survey Date	14/05/2019
Survey Personnel	Edwin Sunderland, ELS John Webb, ELS
Load Dimensions	88 x 4.5 x 4.5 x 65t
Route Surveyed	M6 (J5) – N52 – Tullamore – N80 – to site
Route Distance	28km
Route Assesment Criteria	This route was surveyed and assessed on 14/05/2019 for transport of Wind Turbine Components from the National road network at Kilbeggan to WTG site at Baybridge, Mountmellick. Assessment based on moving a convoy of three loads overnight in a single movement.
Route Requirements	The route from Kilbeggan passes through three Local Authority areas and will require permits from each one (Westmeath, Offaly & Laois) Enabling works will be required at a number of points along the route.

Proposed Route

M6 (J5) – N52 – Tullamore – N80 – to site

Figure 1. Route Map

Proposed Route
M6 – R401

M6 (J5) – N52 – Tullamore – L2025 – N80 – to site

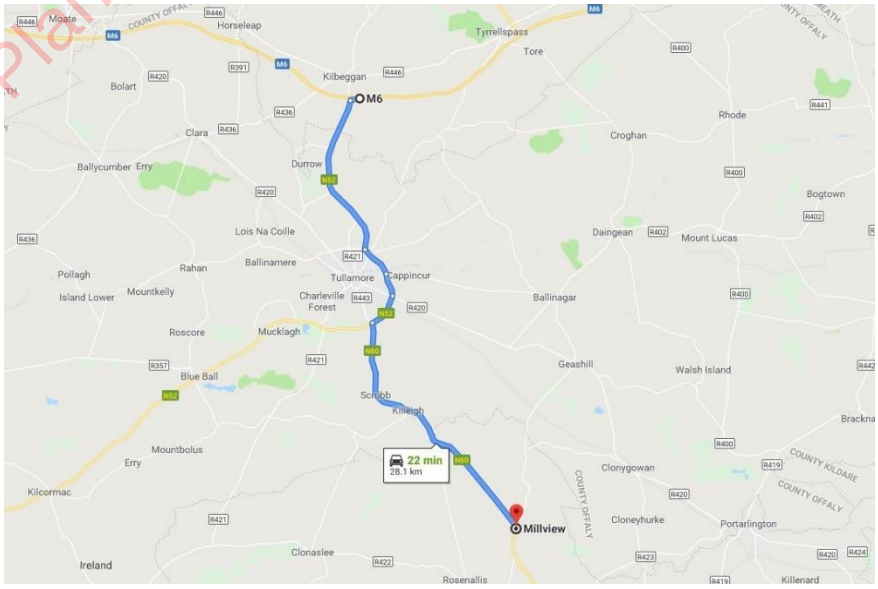


Figure 2 Surveyed Route Map

Area 1. M6 Exit (J5)

M6 – N52 South Roundabout

This roundabout will require a track cut through and over-sail area cleared of all street furniture

Figure 3.

Area 1.

M6 – N52 South Roundabout

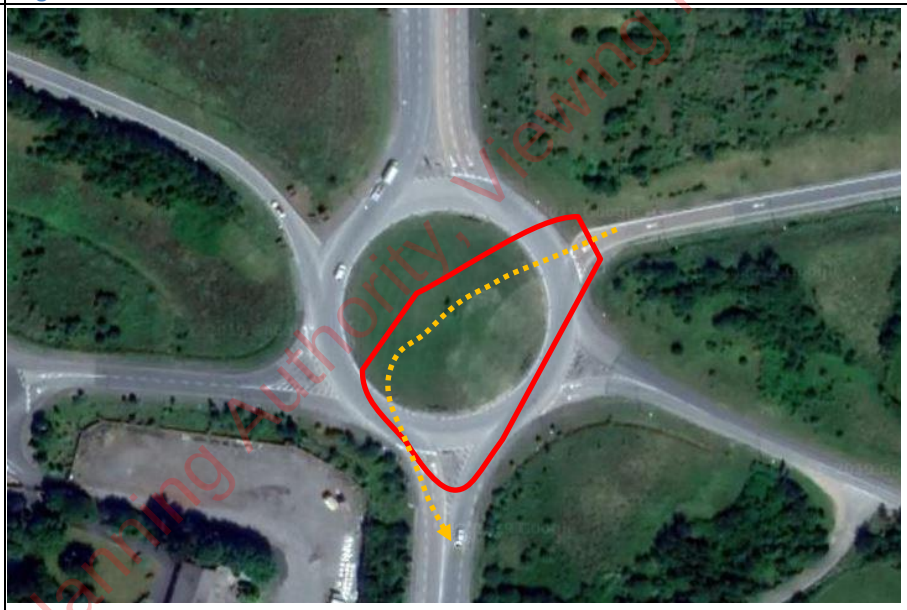


Figure 4. M6 – N52 Roundabout

Area 2. Ardan Roundabout

The proposed option for this roundabout is to build a track 5.5m wide through the centre. This will cause least disruption to regular traffic and will not require removal of any street lighting.

Street Furniture should be removed from roundabout entry and exit for each move.

Figure 5. Ardan Roundabout

Area 2. Ardan Roundabout

The proposed option for this roundabout is to build a track 5.5m wide through the centre. This will cause least disruption to regular traffic and will not require removal of any street lighting.

Street Furniture should be removed from roundabout entry and exit for each move.

Figure 6. Ardan Roundabout

Area 3. Cappincur Roundabout

Due to overall length of blades this roundabout is best negotiated by way of a straight through track.

A limited amount of Street Furniture should be removed from roundabout entry and exit for each move.

Figure 7.

Area 3. Cappincur Roundabout

A 'Grasscrete' or stoned loadbearing track, 5m wide through the centre island is recommended as it offers the safest, fastest and least disruptive method of getting through this junction. Street furniture removal is minimal and would not involve any street lighting

Figure 8. Cappancur Roundabout

Area 4. Cloncollig Roundabout

This roundabout has the same characteristics as the previous (Cappincur) and is best traversed on right side via a track through the centre island.

Figure 9.

Area 4. Cloncollig Roundabout

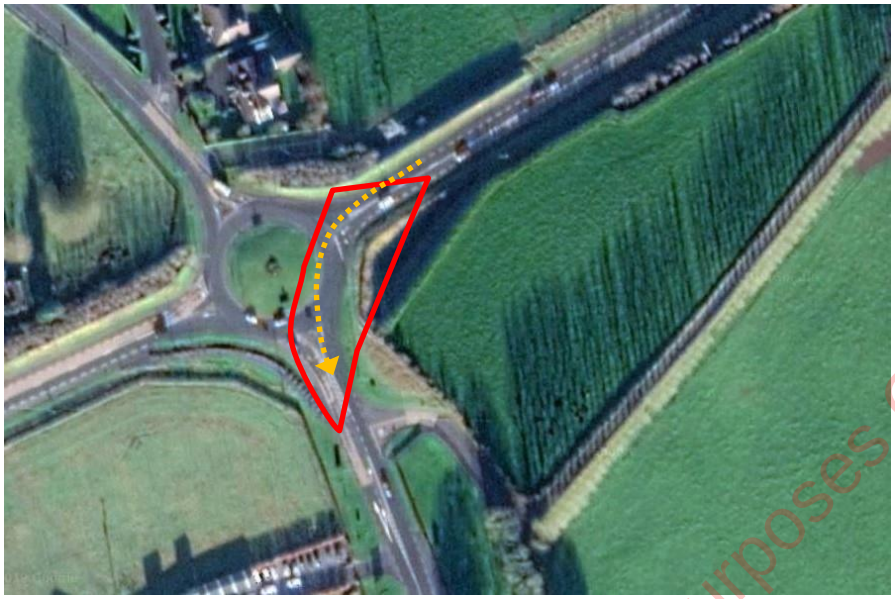
A 'Grasscrete' or stoned loadbearing track, 5m wide through the centre island is recommended as it offers the safest, fastest and least disruptive method of getting through this junction. Street furniture removal is minimal and would not involve any street lighting

Figure 10.

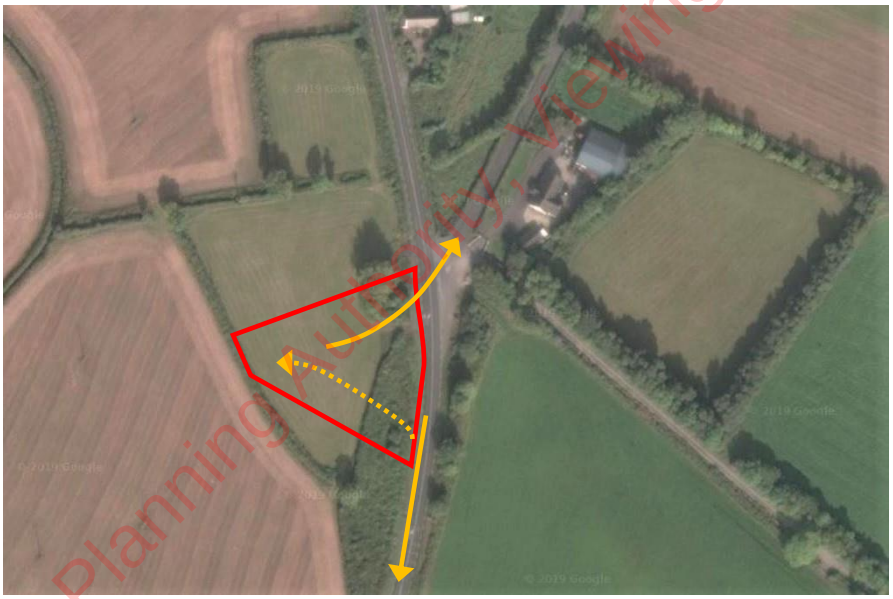
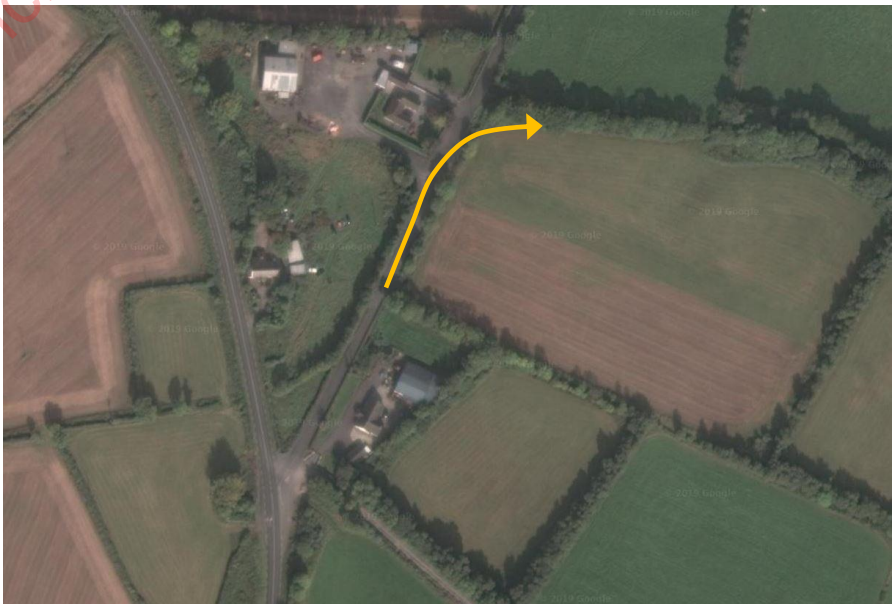
Area 5.0. Clonminch Roundabout. (Left onto N80)

This area should be cleared of all street furniture and fences for mid over-sail.

Figure 11.

Area 5.0. Clonminch Roundabout. **(Left onto N80)** Depending on available land on the inside of the curve a small load bearing section may be required on the centre island. All street furniture should be removed from both splitter islands.	 Figure 12.
Area 5.0. Clonminch Roundabout. **(Left onto N80)** This area should be cleared and made load bearing for truck headroom up to street lamp.	 Figure 13.

Area 6 N80. Right Curve This right curve will require oversail on the right. Hedge should be trimmed down to 1m over road level for 40m through point of bend. No load bearing required.	 Figure 14. N80. Right Curve.
Area 6 N80. Right Curve This right curve will require oversail on the right. Hedge should be trimmed down to 1m over road level for 40m through point of bend. No load bearing required.	 Figure 15

Area 7. N80 – L2092 Junction Loads will need to turn locally to gain access to the L2092.	 Figure 16. N80 – L2092 Junction
Area 7. N80 – L2092 Junction This area is required for turning loads to enter the L2092	 Figure 17. N80 – L2092 Junction
Area 8. Site Entrance Site entrance should be constructed in accordance with Turbine Suppliers specifications	 Figure 18. L2092 Site Entrance

Conclusions	This route if modified as per above report would be suitable for movement of wind turbine blades up to 84m and tower sections on Tower Clamp Adapters. A vegetation corridor of W5.50m x H5.00m is required. A trial run is essential *Edwin Sunderland* *12/07/2019*

Revision Record

Date	Author	Description
12/07/19	Edwin Sunderland	Report. (Rev 0)

Appendix 10-2

Consultation Responses

Bonneagar Iompair Éireann
Transport Infrastructure Ireland

Fehily Timoney & Company
The Grain Store
Singleton's Lane
Bagenalstown
Co. Carlow
R21 XA66

Dáta | Date	Ár dTag | Our Ref.	Bhur dTag | Your Ref.
30 July 2019	**TII19-106363**	**P1892**

Re: EIAR Scoping Request: Proposed wind energy development 'Dernacart Windfarm' in the townlands of Forest Upper and Forest Lower, Co. Laois on behalf Statkraft Ireland.

A chara,

Transport Infrastructure Ireland (TII) acknowledges receipt of your EIAR Scoping request in respect of the above proposed project, received 09 July 2019.

National Strategic Outcome 2 of the National Planning Framework includes the objective to maintain the strategic capacity and safety of the national roads network. It is also an investment priority of the National Development Plan, 2018 – 2027, to ensure that the extensive transport networks which have been greatly enhanced over the last two decades, are maintained to a high level to ensure quality levels of service, accessibility and connectivity to transport users.

The issuing of this correspondence is provided as best practice guidance only and does not prejudice TII's statutory right to make any observations, requests for further information, objections or appeals following the examination of any valid application referred.

The approach to be adopted by TII in making such submissions or comments will seek to uphold official policy and guidance as outlined in the Spatial Planning and National Roads Guidelines for Planning Authorities (2012). Regard should also be had to other relevant guidance available at www.TII.ie.

In this instance, the proposal is for a 9 no. turbine windfarm with ancillary works and an on-site electricity substation and an underground cable to connect the proposed development to either the existing Mountmellick 38kV substation located 7.1km from the wind farm site or to the proposed 110kV Bracklone substation which is located ca. 17.7 km from the site. A preliminary site layout is provided at figure 1.1 of the Scoping Report, the site area is not stated. The indicated site lies approximately just under 1 km east of the N80 and 2 km north-west of Mountmellick. Section 4.9.3 of the Scoping Report states that; *"Access to the site will be from this road* [N80] a*long a short distance of local road."*

Bonneagar Iompair Éireann
Ionad Gnó Gheata na Páirce
Sráid Gheata na Páirce
Baile Átha Cliath 8
Éire, D08 DK10

Transport Infrastructure Ireland
Parkgate Business Centre
Parkgate Street
Dublin 8
Ireland, D08 DK10

info@tii.ie
www.tii.ie
+353 (0)1 646 3600
+353 (0)1 646 3601

Official policy in relation to development involving access to national roads and development along national roads is set out in the DoECLG Spatial Planning and National Roads Guidelines for Planning Authorities (January, 2012). Section 2.5 of the Guidelines states that the policy of the planning authority will be to avoid the creation of any additional access point from new development or the generation of increased traffic from existing accesses to national roads to which speed limits greater than 60kph apply.

With respect to EIAR Scoping issues, the recommendations indicated below provide only general guidance for the preparation of EIAR, which may affect the national road network. The developer should have regard, *inter alia*, to the following;

1. As set down in the Spatial Planning and National Roads Guidelines, it is in the public interest that, in so far as is reasonably practicable, that the national road network continues to serve its intended strategic purpose. The EIAR should should identify the methods/techniques proposed for any works traversing/in proximity to the national road network in order to demonstrate that the development can proceed complementary to safeguarding the capacity, safety and operational efficiency of that network.

2. Consultations should be had with the relevant local authority/National Roads Design Office with regard to locations of existing and future national road schemes.

3. In relation to cabling and potential connection routing, the scheme promoter should note locations of existing and future national road schemes and develop proposals to safeguard proposed road schemes. In the context of existing national roads, alternatives to the provision of cabling along the national road network, such as alternative routing or the laying of cabling in private lands adjoining the national road, should be considered in the interests of safeguarding the investment in and the potential for future upgrade works to the national road network. The cable routing should avoid all impacts to existing TII infrastructure such as traffic counters, weather stations, etc. and works required to such infrastructure shall only be undertaken in consultation with and subject to the agreement of TII, any costs attributable shall be borne by the applicant/developer. The developer should also be aware that separate approvals may be required for works traversing the national road network.

4. Clearly identify haul routes proposed and fully assess the network to be traversed. Separate structure approvals/permits and other licences may be required in connection with the proposed haul route and all structures on the haul route should be checked by the applicant/developer to confirm their capacity to accommodate any abnormal load proposed.

5. Where appropriate, subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment (TTA) be carried out in accordance with relevant guidelines, noting traffic volumes attending the site and traffic routes to/from the site with reference to impacts on the national road network and junctions of lower category roads with national roads. TII's TTA Guidelines (2014) should be referred to in relation to proposed development with potential impacts on the national road network. The scheme promoter is also advised to have regard to Section 2.2 of the TII TTA Guidelines which addresses requirements for sub-threshold TTA.

6. TII Standards should be consulted to determine the requirement for Road Safety Audit (RSA) and Road Safety

Impact Assessment (RSIA).

7. Assessments and design and construction and maintenance standards and guidance are available at TII Publications that replaced the NRA Design Manual for Roads and Bridges (DMRB) and the NRA Manual of Contract Documents for Road Works (MCDRW).

8. The developer, in conducting Environmental Impact Assessment, should have regard to TII Environment Guidelines that deal with assessment and mitigation measures for varied environmental factors and occurrences. In particular;
   a. TII's Environmental Assessment and Construction Guidelines, including the *Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes* (National Roads Authority, 2006),
   b. The EIAR should consider the Environmental Noise Regulations 2006 (SI 140 of 2006) and, in particular, how the development will affect future action plans by the relevant competent authority. The developer may need to consider the incorporation of noise barriers to reduce noise impacts (see *Guidelines for the Treatment of Noise and Vibration in National Road Schemes* (1st Rev., National Roads Authority, 2004)).

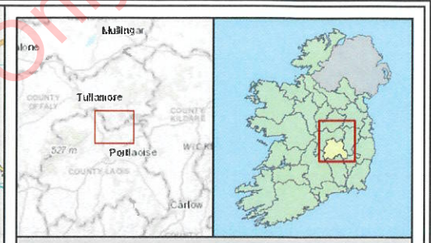
Notwithstanding, any of the above, the developer should be aware that this list is non-exhaustive, thus site and development specific issues should be addressed in accordance with best practice.

I hope that the above comments are of use in your EIAR preparation.

Yours sincerely,

Natasha Crudden
Regulatory & Administration Unit

Map Path: R:\Map Production\2018\P1892\Workspace\Drafts\P1892_GridRouteOptions_A3.mxd



Legend

- Proposed Turbines
- Bracklone Substation
- Proposed Site Boundary
- Proposed Access Tracks

Proposed Cable Route

- Bracklone 110kV Plan A
- Bracklone 110kV Plan B

Bracklone 110kV Substation

L-20978-0

L-20972-0

L-3157-0

L-3157-2

L-3159-2-0

L-3170-3-0

L-3157-2-0

L-7161-0

Road not shown on map road.

RAILWAY BRIDGE

BRIDGE

Figure Title	Grid Route Options
Figure No.	-
Project	Baybridge Wind Farm
Client	Statkraft
Scale	1:50,000
Page Size	A3
Revision	A
Date	11/06/2019

Consultants in Engineering and Environmental Sciences

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