



Mullingar 110 kV Project

Constraints and Route Corridor Report Appendix 1 - Constraints and Route Corridor Figures

October 2010

Phase 2 Reports
Executive Summary
Constraints and Route Corridor Report
Appendix 1 - Constraints and Route Corridor Figures
Appendix 2 - Detailed Environmental Reports

Mullingar 110 kV Project

Constraints and Route Corridor Report

Appendix 1 Constraints and Route Corridor Figures


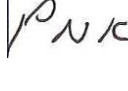

October 2010

Notice

This report was produced by *Atkins* for *EirGrid* for the specific purpose of *Constraints and Route Corridor Report*.

This report may not be used by any person other than *EirGrid* without *EirGrid's* express permission. In any event, *Atkins* accepts no liability for any costs, liabilities or losses arising as a result of the use of or reliance upon the contents of this report by any person other than *EirGrid*.

Document History

JOB NUMBER: 2885			DOCUMENT REF: 2885DG02 Appendix 1			
Revision	Purpose Description	Originated	Checked	Reviewed	Authorised	Date
2	Revised Report Template following consultation with EirGrid	NR NR	BOC 	PNK 	KB 	27/10/2010
	Part 3 Restructure of Report in line with EirGrid Road Plan Report	NR	BOC	PK	KB	16/09/2010

Contents

List of Figures

Figure 1	Location of the Study Area
Figure 2	Engineering and Environmental Constraints
Figure 3	Overhead Line Route Corridors
Figure 4	Underground Cabling Route Corridors
Figure 5	Typical 110 kV Single Circuit Line- Cable Interface Tower
Figure 6	Typical 110 kV Single Circuit Line – 12m Tower
Figure 7	Typical 110 kV Single Circuit Horizontal ‘H’ Timber Pole
Figure 8	Typical 110 kV Double Circuit Shieldwire Suspension Tower
Figure 9	Typical 110 kV Double Circuit Shieldwire 60° Strain Tower
Figure 10	Soil and Geology
Figure 11	Lough Ennell Objectives
Figure 12	Lough Owel Objectives
Figure 13	Natura 2000 Sites within the Study Area
Figure 14	Typical Directional Drilling Section
Figure 15	Option 1 Line Entry into Mullingar 110 kV Transmission Station
Figure 16	Option 2 Line Entry into Mullingar 110 kV Transmission Station
Figure 17	Option 3 Line Entry into Mullingar 110 kV Transmission Station
Figure 18	Option 4 Line Entry into Mullingar 110 kV Transmission Station
Figure 19	Option 1 Line Entry into Kinnegad 110 kV Transmission Station
Figure 20	Option 1 Line Entry into Derryron 110 kV Transmission Station
Figure 21	Landscape Character Areas and Sensitivity Ratings for Overhead Line Route Corridors
Figure 22	Landscape and Visual Constraints and Scenic Viewsheds for Overhead Line Route Corridors
Figure 23	Landscape Sensitivity Hotspots for Overhead Line Route Corridors
Figure 24	Designated Sites & Key Ecological Sites for Overhead Line Route Corridors
Figure 25	Ecological Plate Locations for Overhead Line Route Corridors
Figure 26	Cultural Heritage Constraints for Overhead Line Route Corridors
Figure 27	Cultural Heritage Potential Impacts upon Setting from Overhead Line Route Corridors
Figure 28	Landscape Character Areas and Sensitivity Rating for Underground Cable Route Corridors
Figure 29	Landscape and Visual Constraints and Scenic Viewsheds for Underground Cable Route Corridors
Figure 30	Landscape Sensitivity Hotspots for Underground Cable Route Corridors
Figure 31	Designated Sites & Key Ecological Sites for Underground Cable Route Corridors
Figure 32	Ecological Plate Locations for Underground Cable Route Corridors
Figure 33	Cultural Heritage Constraints for Underground Cable Route Corridors
Figure 34	Properties and Schools in Overhead Line Route Corridors
Figure 35	Properties and Schools in Underground Cable Route Corridors
Figure 36	Emerging Preferred Route Corridors

List of Appendices

Appendix 1- Constraints and Route Corridor Figures

Appendix 2- Detailed Environmental Study Reports



Atkins is one of the world's leading providers of professional, technology based consultancy services. With over 15,600 staff worldwide, Atkins has expanded in recent years from its historical base in traditional engineering into related technological consultancy services. In Ireland, Atkins can deliver the full range of services to clients in both the public and private sector.

Our clients are varied and include governments, local and regional authorities, funding agencies and commercial and industrial enterprises. We help our clients to realise their objectives by developing and delivering practical solutions, adding value to their businesses through the application of our experience, innovative thinking and state-of-the-art technology.

Atkins in Ireland is an integral part of WS Atkins plc and employs over 115 staff at its offices in Dublin, Cork, Galway. In addition, it is able to draw on the expertise of other Atkins divisions in the UK to provide appropriate staff on a project by project basis.

Atkins in Ireland provides a wide range of engineering, architectural, technical support and management services in the following key areas:-

- Roads (Highways & Bridges)
- Transportation & Planning Services
- Rail
- Water
- Architecture & Design
- Engineering
- Environment & Landscape
- Cost Management and Quantity Surveying

Atkins House
150-155 Airside Business Park
Swords, Co Dublin
Telephone +353 1 890 9000
Fax +353 1 890 9001

Unit 2B
2200 Cork Airport Business Park
Cork
Telephone +353 21 4290300
Fax +353 21 4290360

2nd Floor
Technology House
Parkmore Technology Park, Galway
Telephone +353 91 786050
Fax +353 91 779830

www.atkinsireland.ie
email: info.ie@atkinglobal.com