



Environmental Impact Assessment Report

Lairdmannoch Energy Park

Volume 4: Figures

Lairdmannoch Energy Park Limited

wind2

May 2025



Contents

Chapter 1 Introduction Figures

Figure 1-1 Site Location

Figure 1-2 Site Layout

Figure 1-3 Site Context

Figure 1-4 Cumulative Sites to 15km

Chapter 2 EIA Approach and Methodology Figures

None

Chapter 3 Description of Development Figures

Figure 3-1 Detailed Site Layout

Figure 3-2a Design Evolution – Wind Development

Figure 3-2b Design Evolution – Solar Development

Figure 3-3 Indicative Turbine

Figure 3-4 Indicative Turbine Foundation

Figure 3-5 Indicative Turbine Hardstanding

Figure 3-6 Indicative Construction Compound

Figure 3-7 Indicative Solar Panel Elevations

Figure 3-8 Indicative Solar Power Station

Figure 3-9 Indicative Solar Switching and Breaking Station

Figure 3-10 Indicative Solar Site Fencing

Figure 3-11 Indicative Substation and BESS Layout

Figure 3-12 Indicative Access Track and Cable Trench

Figure 3-13 Indicative Watercourse Crossings

Chapter 4 Planning and Energy Policy Figures

None

Chapter 5 Landscape & Visual Impact Assessment Figures

Figure 5-1 Proposed Development Location within local landscape context - 10km

Figure 5-2 Topography – 10km

Figure 5-3 A1 format ZTV WF only with viewpoints and national landscape-related designations up to 45km radius - bare ground

Figure 5-4 Landscape Planning Designations with bare ground blade tip ZTV - detailed study area- 15km

Contents

Figure 5-5 Local Landscape Character with bare ground blade tip ZTVs - detailed study area - 15km

Figure 5-6 Visual Receptor Locations (including recreational and routeway) with bare ground blade tip ZTV - detailed study area - 15km

Figure 5-7 Visual Receptor Locations (including recreational and routeway) with screened blade tip ZTV - detailed study area-15km

Figure 5-8 Night-Time (Aviation Lighting) Hub-Height bare ground with VPs, bare ground ZTV - 20km

Figure 5-9 Access Route ZTV bare ground with VPs

Figure 5-10 Access Route ZTV screened with VPs

Figure 5-11 Reduced study area ZTV for Solar Farm with viewpoints - bare ground - 5km

Figure 5-12 Outline Solar Farm Landscape Mitigation Plan (North Array)

Figure 5-13 Cumulative Baseline 30km – incl. detailed cumulative study area, 20km

Figure VPs:

Viewpoint 01 - A762 Lairdmannoch Bridge

Viewpoint 02 - A762 Kirkconnel

Viewpoint 03 - Neilsons Monument

Viewpoint 04 - Loch Mannocho core path

Viewpoint 05 - Glengap

Viewpoint 06 - West of Loch Whinyeon

Viewpoint 07 - Minor road between Gatehouse and Laurieston near Darngarroch Bridge

Viewpoint 08 - Laurieston

Viewpoint 09 - A75 SW of Castle Douglas

Viewpoint 10 - Underwood

Viewpoint 11 - A75 West of Twynholm

Viewpoint 12 - Millennium Monument

Viewpoint 13 - B796 near Upper Rusko

Viewpoint 14 - Airie Hill

Viewpoint 15 - Parton Viewing Point

Viewpoint 16 - Cross Michael

Viewpoint 17 - Threave Castle

Viewpoint 18 - Castle Douglas

Viewpoint 19 - Screel Hill

Contents

Viewpoint 20 - Kirkcudbright
Viewpoint 21 - Mossyard Bay
Viewpoint 22 - Mill Knock
Viewpoint 23 - Cairnharrow
Viewpoint 24 - Cairnsmore of Fleet
Viewpoint 25 - B796 North of Gatehouse of Fleet

Chapter 6 Ecology Figures

Figure 6-1 Statutory Nature Conservation Designations
Figure 6-2 Non-Statutory Nature Conservation Designations
Figure 6-3 Extended Phase 1
Figure 6-4 NVC
Figure 6-5 Protected Species
Figure 6-6 Bat (Static Locations from 2023 & 2024)
Figure 6-8 Priority Peatland Loss and Restoration
Figure 6-9 HMP Enhancement Areas

Chapter 7 Ornithology Figures

Figure 7-1-1 Vantage Point and Viewsheds
Figure 7-1-2 Ornithology Survey Areas 2019-2023
Figure 7-1-3 Designated Ornithology Sites within 20km
Figure 7-1-4a Vantage Point Results Red Kites September 2020 to August 2021
Figure 7-1-4b Vantage Point Results Red Kites September 2019 to August 2020
Figure 7-1-4c Vantage Point Results Raptors and Grouse 2019 to 2021
Figure 7-1-4d Vantage Point Results Wetland Birds 2019 to 2021
Figure 7-1-6a Breeding Bird Results 2020 Numerous Species
Figure 7-1-6b Breeding Bird Results 2020 Less Numerous Species
Figure 7-1-7a Breeding Bird Results 2021 Numerous Species
Figure 7-1-7b Breeding Bird Results 2021 Less Numerous Species
Figure 7-1-8a Breeding Bird Results 2023 Numerous Species
Figure 7-1-8b Breeding Bird Results 2023 Less Numerous Species

Contents

Chapter 8 Hydrology, Hydrogeology, Peat and Soils Figures

Figure 8-1a Local Hydrology (Small Scale)

Figure 8-1b Local Hydrology (Large Scale)

Figure 8-2 Soils

Figure 8-3 Superficial Geology

Figure 8-4 Peatland Classification

Figure 8-5 Bedrock Geology

Figure 8-6 Regional Hydrogeology

Figure 8-7 Aquifer Classification and Groundwater Vulnerability

Figure 8-8a Areas of Potential Groundwater Dependent Terrestrial Ecosystems (Small Scale)

Figure 8-8b Areas of Potential Groundwater Dependent Terrestrial Ecosystems (Large Scale)

Chapter 9 Noise

Figure 9-1 Solar Contours

Figure 9-2 Predicted Operational Noise Contours

Chapter 10 Cultural Heritage Figures

Figure 10-1 Loch Mannoch, Cairn (SM1033; Asset 1)

Figure 10-2 Loch Mannoch, Stone Circle (SM1033; Asset 1)

Figure 10-3 Dam Overlooking (SM1033; Asset 1)

Figure 10-4 Loch Mannoch, eastern Loch Shore

Figure 10-5 Bargatton Farm, Cairn 610m South of (SM1002; Asset 3)

Figure 10-6 Cairntosh Hill, Cairn (SM1033; Asset 128)

Figure 10-7 Craig Hill, Fort, Laurieston (SM2891; Asset 5)

Figure 10-8 Edgarton Mote, Fort 690m SW of Camelon Bridge (SM1119; Asset 2)

Figure 10-9 Rusco Tower (LB3299; Asset 38)

Figure 10-10 Anworth Old Churchyard (LB3309; Asset 30 of 55)

Figure 10-11 Cally (GDL79; Centred Asset 37)

Figure 10-12 Kirkconnel Farmhouse and Steading (LB17188; Asset 62)

Figure 10-13 Gatehouse of Fleet Conservation Area (Centred Asset 139)

Figure 10-14 Heritage Assets within the Site (East)

Figure 10-15 Heritage Assets within the Site (Centre)

Contents

Figure 10-16 Heritage Assets within the Site (West)

Figure 10-17 Heritage Assets within the Site (Access Track)

Figure 10-18 Heritage Assets within the 1km Study Area

Figure 10-19 Nationally Important Heritage Assets within 5km Study Area – Wind Development

Figure 10-20 Nationally Important Heritage Assets within 2km and 5km Study Areas – Solar Development

Figure 10-21 Nationally Important Heritage Assets within 10km Study Areas – Wind Development

Figure 10-22 Nationally Important Heritage Assets within 10km Study Areas – Solar Development

Figure 10-23 Roys Military Map of Scotland 1747-52

Figure 10-24 Extract from the Ordnance Survey Map 1852

Chapter 11 Transport and Access Figures

Figure 11-1 Study Area

Figure 11-2 Traffic Counters

Figure 11-3 Abnormal Loads Route

Chapter 12 Socio-economic, Tourism and Recreation Figures

None

Chapter 13 Climate Change and Carbon Balance Figures

None

Chapter 14 Other Considerations Figures

Figure 14-1 Aviation Constraints

Chapter 15 Schedule of Mitigation Figures

None

Chapter 16 Summary of Predicted Residual Effects Figures

None