

# M74 West Renewable Energy Park

Environmental Impact Assessment Report

Volume 3a: Figures

September 2024





Volume 3a: Figures – Table of Contents

|                   |  |                   |  |
|-------------------|--|-------------------|--|
| <b>Chapter 1:</b> | <b>Introduction</b>  | <b>Chapter 5:</b> | <b>Cultural Heritage</b>   |
| Figure 1.1:       | Site Location  | Figure 5.1:       | Cultural Heritage: Inner Study Area;   |
|                   |  | Figure 5.2:       | Cultural Heritage: Outer Study Area, Tip Height ZTV;   |
|                   |  | Figure 5.3:       | Cultural Heritage; Outer Study Area, Solar Array ZTV; and  |
|                   |  | Figure 5.4:       | Cultural Heritage: Cumulative Developments.  |
| <b>Chapter 2:</b> | <b>Description Proposed Development</b>  | <b>Chapter 6:</b> | <b>Ecology</b>   |
| Figure 2.1:       | Site Layout;   | Figure 6.1:       | Site Location and Ecological Designated Sites and Ancient Woodland within 5 km;                            |
| Figure 2.2:       | Typical Wind Turbine Elevations;   | Figure 6.2:       | Carbon and Peatland Map 2016 within 500 m;   |
| Figure 2.3:       | Typical Turbine Foundations and Crane Hardstanding;  | Figure 6.3:       | National Vegetation Classification Survey Area and Survey Results;   |
| Figure 2.4:       | Typical Access Track Detail ;  | Figure 6.4:       | Potential Groundwater Dependent Terrestrial Ecosystems (GWDTEs) Survey Area and Survey Results;            |
| Figure 2.5:       | Typical Substation and Compound Layout;  | Figure 6.5:       | Protected Species Survey Area and Survey Results;  |
| Figure 2.6:       | Typical Cable Trench Section;  | Figure 6.5C:      | <i>Protected Species Survey Area and Survey Results – Confidential;</i>                                    |
| Figure 2.7:       | Typical Temporary Construction Compound Layout;  | Figure 6.6:       | Bat Survey Area, Anabat Locations and Preliminary Bat Roost Assessment Results;                            |
| Figure 2.8:       | Battery Storage Layout;  | Figure 6.7:       | Seasonal Bat Site Activity 2023 - Common Pipistrelle;  |
| Figure 2.9:       | Typical Battery Detail;  | Figure 6.8        | Seasonal Bat Site Activity 2023 - Soprano Pipistrelle;   |
| Figure 2.10:      | Typical PCS Elevations;  | Figure 6.9:       | Seasonal Bat Site Activity 2023 – Nyctalus spp;  |
| Figure 2.11:      | Typical CCTV and Fencing Layout; and   | Figure 6.10:      | Electrofishing Locations and Survey Results; and   |
| Figure 2.12:      | Typical Solar PV Equipment and Materials Detail.   | Figure 6.11:      | Proposed Outline Biodiversity Enhancement and Management Plan Area.  |
| <b>Chapter 3:</b> | <b>Design Evolution and Alternatives</b>   | <b>Chapter 7:</b> | <b>Ornithology</b>   |
| Figure 3.1:       | Turbine Design Iteration;  | Figure 7.1:       | Site and Ornithological Study Areas;   |
| Figure 3.2:       | Solar Design Iteration; and  | Figure 7.2:       | Vantage Point (VP) and Viewshed Coverage: 2022/2023 Non-breeding season (September 2022 to February 2023); |
| Figure 3.3:       | Environmental Constraints.   | Figure 7.3:       | Vantage Point (VP) and Viewshed Coverage: 2023 breeding season (March to August 2023).                     |
| <b>Chapter 4:</b> | <b>LVIA</b>  | Figure 7.4:       | Ornithological Designated Sites within 20 km;  |
| Figure 4.1:       | LVIA Study Area;   | Figure 7.5:       | Flight Activity: Goshawk, Merlin, Osprey and Peregrine Falcon;   |
| Figure 4.2:       | Zone of Theoretical Visibility, Turbine Tips at 1:3000,000 scale;                                      | Figure 7.6:       | Flight Activity: Red kite and Short-eared Owl;   |
| Figure 4.3:       | Zone of Theoretical Visibility, Turbine Tips at 1:100,000 scale;                                       | Figure 7.7:       | Flight Activity: Curlew, Golden Plover and Lapwing;  |
| Figure 4.4:       | Zone of Theoretical Visibility, Turbine Hubs at 1:300,000 scale;                                       | Figure 7.8:       | Flight Activity: Greylag Goose, Herring Gull and Pink-Footed Goose;  |
| Figure 4.5        | Zone of Theoretical Visibility with LCTs;  | Figure 7.9:       | Raptor and Short-eared Owl Activity (September 2022 to August 2023);                                       |
| Figure 4.6:       | Zone of Theoretical Visibility and Proposed Viewpoints;  | Figure 7.10:      | Breeding Wader Registrations (2023); and   |
| Figure 4.7:       | Zone Theoretical Visibility and Visual Receptors within 5 km;  | Figure 7.11:      | Goose Activity (September 2022 to August 2023).  |
| Figure 4.8:       | Zone of Theoretical Visibility and Visual Receptors within 25 km;                                      |                   |  |
| Figure 4.9a:      | Cumulative within 25 km (as of 30/05/2024);  |                   |  |
| Figure 4.9b:      | Cumulative within 25 km List;  |                   |  |
| Figure 4.10:      | Zone of Theoretical Visibility with Operational and Under Construction Schemes;                        |                   |  |
| Figure 4.11:      | Cumulative ZTV, Selected Consented Schemes and Proposed Developments: Priestgill;                      |                   |  |
| Figure 4.12:      | Cumulative ZTV, Selected Application Schemes and Proposed Development: Boddinglee and Little Gala; and |                   |  |
| Figure 4.13:      | Zone of Theoretical Visibility and Designated Landscapes.  |                   |  |

|                    |  |
|--------------------|--|
| <b>Chapter 8:</b>  | <b>Hydrology, Hydrogeology, Geology and Soils</b>  |
| Figure 8.1:        | Surface Water Features;  |
| Figure 8.2:        | Drinking Water Protected Areas Water Resources;  |
| Figure 8.3:        | Superficial Geology;   |
| Figure 8.4:        | Bedrock Geology;   |
| Figure 8.5:        | Hydrogeology;  |
| Figure 8.6:        | SNH Carbon Peatland Mapping (2016);  |
| Figure 8.7:        | Outline Peat Depth Plan; and   |
| Figure 8.8:        | Habitats with the Potential to be Groundwater Dependent Terrestrial Ecosystems - National Vegetation Classification. |
| <br>               |  |
| <b>Chapter 9:</b>  | <b>Traffic and Transport</b>   |
| N/A                |  |
| <br>               |  |
| <b>Chapter 10:</b> | <b>Noise</b>   |
| Figure 10.1:       | Construction Noise Assessment Locations;   |
| Figure 10.2:       | Operational Noise Assessment and Noise Monitoring Locations;   |
| Figure 10.3:       | Cumulative Wind Turbine Locations; and   |
| Figure 10.4:       | BESS, Substation and Solar Array Noise Assessment Locations.   |
| <br>               |  |
| <b>Chapter 11:</b> | <b>Aviation</b>  |
| N/A                |  |
| <br>               |  |
| <b>Chapter 12:</b> | <b>Shadow Flicker</b>  |
| Figure 12.1:       | Shadow Flicker Study Area and Receptors.   |
| <br>               |  |
| <b>Chapter 13:</b> | <b>Schedule of Environmental Mitigation</b>  |
| N/A                |  |