Chapter 1: Introduction

Kirknewton Solar & BESS EIA Report

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Table of Contents

Supporting Figures (EIA Report Volume II)

Acronyms and Abbreviations

BESS	Battery Energy Storage System
EIA	Environmental Impact Assessment
ha	Hectares
LDP1	Local Development Plan 1
LDP2	Local Development Plan 2
m	Metres
MW	Megawatts
NPF4	National Planning Framework 4
NTS	Non-Technical Summary
ORIT	Octopus Renewable Infrastructure Trust
PCS	Power Conversion System
PV	Photovoltaic
WLC	West Lothian Council

1.0 Introduction

1.1 Background

1.1.1 Trio Power Limited (hereafter referred to as 'the Applicant') is applying to West Lothian Council (WLC) under the terms of the Town and Country Planning (Scotland) Act 1997[1] to install and operate a Solar Photovoltaic (PV) array and Battery Energy Storage System (BESS) (the 'Proposed Development'), at a site near Kirknewton in West Lothian (the Site).

1.1.2 The application is supported by this Environmental Impact Assessment (EIA) Report as required by The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) (the 'EIA Regulations')[2]. This EIA Report has been prepared to assess the environmental impacts of the Proposed Development and accompanies the planning application submitted to WLC.

1.1.3 This chapter provides an introduction to the Proposed Development and the background to this application, as well as providing an overview of the purpose of the EIA Report, its structure and the EIA project team.

1.1.4 This chapter is supported by the following figures, which are presented in EIA Report, Volume II:

- **Figure 1.1** – Site Location
- **Figure 1.2** – Proposed Development Layout

1.2 Site and Proposed Development Description

Site Description

1.2.1 The Proposed Development is located approximately 1.5 km south of the village of Kirknewton on Leyden Road, East Calder, wholly within the West Lothian Council area. The Site is centred on British National Grid NT 10783 65217. The total area of the Site is approximately 76 hectares (ha) (refer to **Figure 1.1**).

1.2.2 The Site is located on two parcels of land bisected by Leyden Road and is currently used for arable farming and sheep grazing. The Site is bordered by trees except to the west where it is more open. Overhead electricity cables run through the western land parcel and a Scottish Water underground pipeline runs west to east through both land parcels. These have been appropriately accounted for in the design and layout of the Proposed Development.

[1] Scottish Government (1997). Town and Country Planning (Scotland) Act 1997. Available at: https://www.legislation.gov.uk/ukpga/1997/8/contents

[2] Scottish Government (1997). The Town and Country Planning (EIA) (Scotland) Regulations 2017. Available at: https://www.legislation.gov.uk/ssi/2017/102/contents

Overview of Proposed Development

1.2.3 The Proposed Development will comprise a ground-mounted solar PV array with an export capacity of 40 megawatts (MW) and a Battery Energy Storage System (BESS) with a 9 MW export capacity along with associated. The panels will have a maximum height of 2.7 metres (m) above ground level. It is proposed that the solar array will operate for up to 40 years. The Site will be fully restored to agricultural use after a decommissioning process.

1.2.4 The BESS will store excess electricity generated by the solar PV array during periods of low demand or high generation and release it during periods of high demand or low generation. This system will enhance the reliability and efficiency of the renewable energy supply. The BESS will consist of battery units housed in containers, inverters, transformers, and associated infrastructure. The BESS will be designed to operate for the same duration as the solar PV array and will be decommissioned and removed at the end of the project's life.

1.2.5 The annual output of the Proposed Development is estimated at 43.3 Gigawatt hours (GWh) per year, which would provide enough electricity to power approximately 12,500 average Scottish households. The Proposed Development would contribute towards international and national targets for the generation of renewable energy and reduction in greenhouse gas emissions.

1.2.6 The BESS will be contained in a compound within the eastern land parcel (refer to **Figure 1.2**). The compound will comprise approximately 0.11 ha of land and consist of BESS containers, Power Conversion System (PCS) units and substations.

1.2.7 The associated infrastructure will include pole-mounted CCTV cameras, a temporary construction compound, perimeter security fencing, underground cabling, firewater tanks, access tracks, and landscaping.

1.2.8 The precise grid connection route to Currie Substation, approximately 8 km to the east, would be subject to a separate design and consenting process.

1.3 The Applicant

1.3.1 Trio Power Limited is a company owned by Octopus Renewable Infrastructure Trust (ORIT) and managed by BLC Energy Limited.

1.3.2 BLC Energy was set up in Scotland in 2022 to develop solar and BESS projects throughout the UK. The three partners have over 60 years' combined experience in developing renewable energy projects and have previously secured planning consent for three solar projects in Scotland.

1.3.3 BLC Energy are based in Perthshire and are currently developing eleven solar and BESS projects throughout the UK, including five in Scotland. Further information on BLC Energy can be found on the company website at www.blcenergy.com.

1.3.4 In 2023, BLC Energy entered into a development services agreement with Octopus Energy Generation (via ORIT) on an exclusive basis. Trio Power Limited was set up as the development company and is wholly owned by ORIT and managed by BLC Energy. BLC Energy are developing the Site on behalf of the Applicant, Trio Power Limited.

1.3.5 ORIT is an Impact Fund with a core objective to accelerate the transition to net zero through its investments, building and operating a diversified portfolio of Renewable Energy Assets. ORIT is managed by Octopus Energy Generation.

1.3.6 Octopus Energy Generation are one of Europe's largest investors in renewables, operating around £4 billion of green energy generation across seven countries. Octopus Energy Generation operate solar and wind projects across the UK.

1.3.7 Further information on Octopus Energy Generation and Octopus Renewable Infrastructure Trust can be found on its company website at:

- https://www.octopusenergygeneration.com; and
- https://www.octopusrenewablesinfrastructure.com.

1.4 Renewable Energy & Planning Policy

1.4.1 A separate Planning Statement has been provided which contains a detailed appraisal of the Proposed Development against the relevant statutory Development Plan policies, national planning and energy policy and other material considerations. The statutory Development Plan is made up of National Planning Framework 4 (NPF4) and the West Lothian Council's Local Development Plan (LDP1 and LDP2).

1.4.2 In recent years, United Kingdom and Scottish Government policies have focused on concerns about climate change. Each tier of Government has developed targets, policies and actions to achieve targets to deal with the climate crisis and generate more renewable energy and electricity.

1.4.3 The UK Government retains responsibility for the overall direction of energy policy, although some elements are devolved to the Scottish Government. The UK Government has published a series of policy documents setting out how targets can be achieved. Solar PV and battery storage are important technologies to achieve these various goals.

1.4.4 The Scottish Government has published a number of policy documents and has set its own targets. The most relevant policy, legislative documents and more recent policy statements published by the Scottish Government include:

- The Scottish Energy Strategy (December 2017);
- The Scottish Government's declaration of a Climate Emergency (April 2019);
- The Scottish Climate Change Plan Update (2020);
- The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 and the legally binding net zero target for 2045 and interim targets for 2030 and 2040;
- The Draft Energy Strategy and Just Transition Plan (January 2023); and
- The Scottish Government's 'Programme for Government 2025-26' (May 2025).

1.4.5 The Proposed Development is for the generation of electricity from renewable energy sources and comes as a direct response to national planning and energy policy objectives.

1.4.6 The Proposed Development would make a significant contribution to the attainment of emissions reduction, renewable energy and electricity targets at both the Scottish and UK levels. Detailed reference to the renewable energy policy framework is provided in the Planning Statement.

1.5 Purpose of the EIA Report

1.5.1 SLR Consulting has been commissioned by the Applicant to coordinate the EIA process for the Proposed Development in accordance with the EIA Regulations. The EIA process is the systematic process of identifying, predicting and evaluating the environmental impacts of a proposed development. The EIA process is reported in this EIA Report, which identifies the methodologies used to assess the environmental effects predicted to result from the construction, operation and decommissioning of the Proposed Development. Where appropriate, it also sets out mitigation measures designed to prevent, reduce or offset potential significant adverse environmental impacts. An assessment of residual effects, those expected to remain following implementation of mitigation measures, is also presented.

1.5.2 The main findings and conclusions of this EIA Report are summarised in a Non-Technical Summary (NTS), as required by the EIA Regulations. The NTS, provided as a standalone document, summarises the key findings of the EIA in easily accessible, non-technical language, ensuring everyone with an interest in the project can understand and access information on its predicted environmental effects.

1.6 Structure of the EIA Report

1.6.1 The EIA Report is split into five volumes, with Volume I of the EIA Report (this document) structured as follows:

- Chapter 1 provides an introduction to the EIA Report and its authors.
- Chapter 2 describes the methodology of the EIA process including the scope of the process, justification for topics scoped out of the EIA and details of the Public Consultation process.
- Chapter 3 provides a description of the design iteration process, detailing how the Proposed Development evolved through the course of the assessment process, taking into account technical advice and public consultation feedback and the elimination of alternative development options.
- Chapter 4 provides a description of the existing Site, details of the Proposed Development, the construction, operation and maintenance processes, decommissioning process, need for the development and carbon considerations.
- Chapter 5 assesses the effects on landscape and visual amenity.
- Chapter 6 assesses the effects on ecology and ornithology.
- Chapter 7 is the Schedule of Environmental Commitments, which summarises all of the mitigation measures presented in this EIA Report and provides summary tables of all predicted residual and cumulative effects.

1.6.2 Volume II contains the figures that inform the EIA Report.

1.6.3 Volume III contains supporting information and technical appendices.

1.6.4 Volume IV contains confidential technical appendices.

1.7 Assessment Team

1.7.1 The assessment was undertaken by SLR Consulting's environmental teams, supported by external consultants. **Table 1.1** outlines the key members of the EIA team and their experience.

1.7.2 SLR has provided over 30 years of expert advice to help deliver environmental and advisory solutions. Operating from over 100 offices with approximately 3,500 staff across Europe, Asia, Americas, Africa and Australasia, SLR offers significant experience in delivery of environmental planning and technical assessment for a range of renewable energy developments.

Table 1.1: EIA Project Team

Consultant	Input to the EIA	Experience
Gavin Spowage SLR Consulting	EIA Project Director	BSc (Hons) Environmental and Management Sciences & MSc Environmental Management, PISEP 20 years' experience in environmental consultancy
Sophia Cockell SLR Consulting	EIA Project Manager	BA Geography & MSc Environment and Development 3 years' experience in environmental consultancy
Joanne Kerr SLR Consulting	EIA Assistant Project Manager	MA (Hons) Geography & MSc Environmental Management, GradISEP 9 months' experience in environmental consultancy
Deirdre Thom David Bell Planning	Planning and Energy Policy	BA Geography and English & MSc Urban and Regional Planning, MRTPI 14 years' experience of planning and development in the private sector
Isabel Romero SLR Consulting	Solar and BESS Design	MEng MSc AMEI 6 years' experience in environmental consultancy
Chris Lockett TGP Landscape Architects	Landscape and Visual Impact Assessment	BA Landscape Architecture, LI Chartered 22 years' experience as a Landscape Architect
Kristie Watkins-Bourne SLR Consulting	Ecology	BSc Geography & Environmental Science MSc 6 years' experience in ecological consultancy
Daniel Piec SLR Consulting	Ornithology	MSc Biology 20+ years' experience in conservation and ecology
Elise Christensen SLR Consulting	Cultural Heritage and Archaeology	MA (Hons), FSA Scot, ACIfA 4 years' experience in environmental consultancy
Robert Walker SLR Consulting	Hydrology, Geology and Hydrogeology	MSc, BEng, C.WEM, CIWEM 15+ years' experience in environmental consultancy

Consultant	Input to the EIA	Experience
Katy Rainford SLR Consulting	Hydrology, Geology and Hydrogeology	BSc (Hons), FGS, MCIWEM 7+ years' experience in environmental consultancy
Alexa Hay SLR Consulting	Hydrology, Geology and Hydrogeology	BSc Ecological and Environmental Sciences, MSc Environmental Engineering, MCIWEM 3 years' experience in environmental consultancy
Iain Lamb SLR Consulting	Site Access and Transport	BEng (Hons) 25+ years' experience in environmental consulting
Dean Curtis SLR Consulting	Noise Assessment	BSc (Hons) Environmental Studies and Geography, PG Dip Acoustics and Noise Control, Certificate of Competence in Environmental Noise Measurement 18 years' experience in acoustics

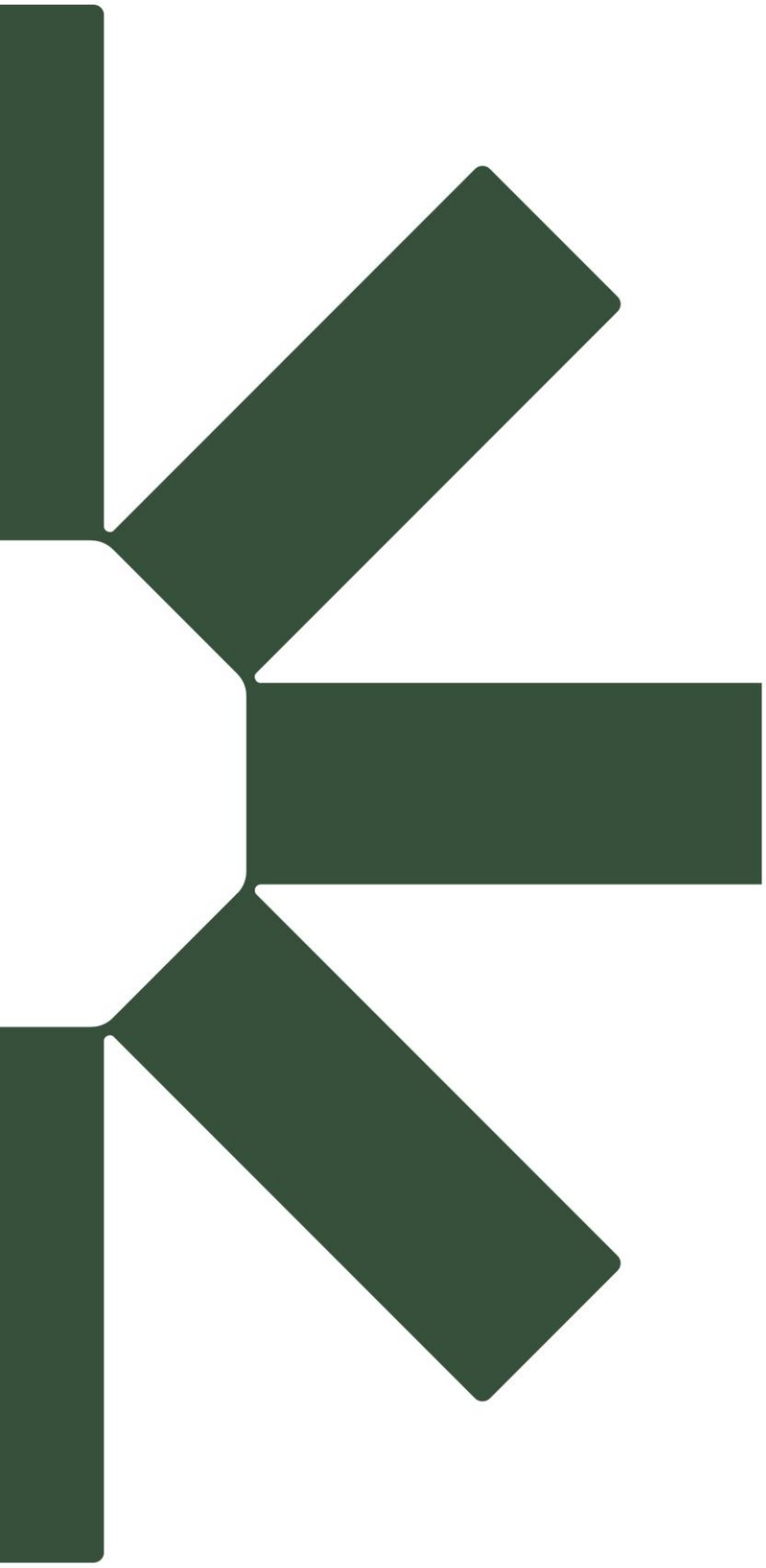
1.8 Availability of the EIA Report

1.8.1 Electronic copies of the EIA Report, including all figures, appendices and accompanying documents are available to view on the project website: https://www.blcenergy.com/projects/kirknewton/

1.8.2 Electronic copies of the EIA Report can also be accessed on the West Lothian Councils online portal, https://www.westlothian.gov.uk/view-planning-applications

1.9 Representations to the Application

1.9.1 Any representations to the Town and Country Planning Application should be made directly to West Lothian Council at planning@westlothian.gov.uk.



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