Great North Road Solar and Biodiversity Park

Environmental Statement

Volume 2 – Chapters

Chapter 1 – Introduction

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Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, APFP Regulation 5(2)(a)

Contents

1.1 INTRODUCTION

1 This Environmental Statement (ES) has been prepared on behalf of Elements Green Trent Ltd ('the Applicant') in relation to an application ('the Application') to be made to the Secretary of State (SoS) for the Department for Energy Security & Net Zero (DESNZ), under Section 37 of the Planning Act 2008.

2 The Application is for a Development Consent Order (DCO) for the construction, operation and maintenance, and decommissioning of Great North Road Solar and Biodiversity Park (GNR), a proposed solar photovoltaic (PV) electricity generating facility and electrical storage facility with a total capacity exceeding 50 megawatts (MW) and an export connection to the National Grid (hereafter referred to as "the Development"). Therefore, the Development is classified as a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008. An Environmental Impact Assessment (EIA) is required to be undertaken for the Development and as such The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) apply.

3 The Development would be located to the northwest of Newark, in Newark and Sherwood district, Nottinghamshire, East Midlands. The Development would be within an area bound by the Order Limits. The Order Limits are to the west of the A1, north of the A617, east of Eakring, and south of Egmanton, occupying two main areas to the north and north-west of Staythorpe. The Order Limits are shown on Figure 1.1: Development Location [EN010162/APP/6.3.1.1].

4 In summary, the Development will comprise an array of solar PV modules, energy storage and associated development infrastructure, together with biodiversity enhancements including 64,500 trees and 50 km of new hedgerow. A description of the physical characteristics of the whole Development and the land-use requirements during the construction and operational phases is given in ES Chapter 5, Development Description [EN010162/APP/6.2.5).

5 This chapter outlines the purpose and structure of the ES and provides an overview of the Applicant.

6 This chapter is supported by the following figure provided in Volume 3 [EN010162/APP/6.3):

- Figure 1.1 Development Location [EN010162/APP/6.3.1.1].

7 A glossary of terms is provided in ES Chapter 20 [EN010162/APP/6.2.20].

1.2 THE PURPOSE OF THE ES

8 This ES has been produced to document the outcome of the EIA process, as required by the EIA Regulations.

9 The purpose of the ES is to provide the information set out in Schedule 4 of the EIA Regulations, which are summarised as follows, with reference to where the information may be found in this ES:

Table 1.1: Location within this ES of Information Required by the EIA Regulations

Required Information	Location in ES
A description of the Development	Chapter 5, Development Description [EN010162/APP/6.2.5]
A description of the reasonable alternatives studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects	Chapter 4, Alternatives, [EN010162/APP/6.2.4]
A description of the relevant aspects of the current state of the environment (baseline scenario)	Chapters 7-19 [EN010162/APP/6.2.7-6.2.19
A description of the factors likely to be significantly affected by the development:	
• Population	Chapters 7, 12, 13, 14, 16 and 19 [EN010162/APP/6.2.7, 6.2.12, 6.2.13, 6.2.14, 6.2.16 and 6.2.19]
• Human health	Chapter 16, Miscellaneous Issues [EN010162/APP/6.2.16], Section 16.4
• Biodiversity	Chapter 8, Ecology and Biodiversity [EN010162/APP/6.2.8]
• Land	Chapters 10, Ground Conditions and Land Contamination, and 17, Agricultural Land [EN010162/APP/6.2.10 and 6.2.17]
• Soil	Chapters 10, Ground Conditions and Land Contamination, and 17, Agricultural Land [EN010162/APP/6.2.10 and 6.2.17]
• Water	Chapter 9, Water Resources [EN010162/APP/6.2.9]
• Air	Chapter 16, Miscellaneous Issues [EN010162/APP/6.2.16]
• Climate	Chapter 15, Climate Change [EN010162/APP/6.2.15]
• Material assets	Chapter 16, Miscellaneous Issues [EN010162/APP/6.2.16]
• Cultural heritage	Chapter 11, Cultural Heritage and Archaeology [EN010162/APP/6.2.11]
• Landscape	Chapter 7, Landscape and Visual [EN010162/APP/6.2.7]

Required Information	Location in ES
A description of the likely significant effects of the development on the environment	Chapters 7-19 [EN010162/APP/6.2.7-6.2.19]

10 The description of the likely significant effects on the factors specified above cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the Development.

11 The methodology used to define and assess the significance of the environmental impacts is described in Chapter 2, Environmental Impact Assessment [EN010162/APP/6.2.2]) and in Chapters (7 to 19, [EN010162/APP/6.2.7 to 6.2.19]).

1.3 THE STRUCTURE OF THE ES

12 The ES consists of four volumes:

- Volume 1: Non-Technical Summary [EN010162/APP/6.1]);
- Volume 2: Chapters [EN010162/APP/6.2]);
- Volume 3: Figures [EN010162/APP/6.3]); and
- Volume 4: Technical Appendices [EN010162/APP/6.4]).

13 Each volume has a contents page assisting navigation to the relevant parts. The numbering is designed to be consistent: for example, chapter 7 has figures numbered 7.1-7.11, and technical appendices labelled TA7.1-TA7.6, with the figures in the technical appendices being numbered TA7.7.1.

1.4 STATEMENT OF COMPETENCE

14 In line with Regulation 14(4) of the EIA Regulations, the ES and all technical assessments have been undertaken by suitably qualified 'competent experts' within the project team. Details of their relevant expertise are set out in Table 1.2.

1.5 THE APPLICANT

15 The applicant is Elements Green Trent Ltd, a wholly owned subsidiary of Elements Green Ltd.

Elements Green is a UK-based solar and BESS developer with a more than 14-year track record. Elements Green is an established OECD greenfield developer, focused on its core markets, UK, Italy, Germany, and Australia. Elements Green has full development, procurement and operational capabilities of assets within its portfolio. Elements Green has a greenfield development team across each region with capabilities across the value chain from origination though to construction, connection and operation. Elements Green manages a development pipeline in excess of 12 GigaWatts (GW), rapidly establishing a global footprint and a strong reputation for being at the forefront of technological and commercial evolution within the renewable energy sector.

Table 1.2: Competence of lead authors in each ES topic

Topic	Qualifications	Years of relevant experience	Comments
Environmental Impact Assessment co-ordination, introductory chapters, climate change, miscellaneous issues, recreation and "interrelationships"	BSc, PhD, MSc, IEMA Registered EIA Practitioner.	20	The EIA overall lead is an EIA project co-ordinator specialising in UK-based renewable energy development projects, and in particular on-shore wind and on-shore solar projects. They provided expert witness services on a range of topics at the co-joined Harburnhead Windfarm public inquiry, and were the project director, also providing expert witness services on air quality, for the Cleve Hill Solar Park DCO NSIP project.
Landscape and Visual Impact Assessment	BSc. Hons, MA, CMLI	23	The Landscape and Visual technical lead specialises in landscape architecture including LVIA for a wide variety of developments within the UK. DCO NSIP projects include Sizewell C, Byers Gill solar, Hornsea 3, Lower Thames Crossing and A1 dualling in Northumberland among others. They are currently interim chair of the GLVIA3 panel which is responsible for LVIA guidance and best practice on behalf of the Landscape Institute.
Ecology and Biodiversity	BSc, MRes, PhD, MCIEEM, CEnv	21	The Ecology and Biodiversity technical lead specialises in ecological impact assessments for large-scale renewable energy developments. Their experience includes some of the largest onshore wind farm and solar photovoltaic developments in the UK, as well as numerous smaller renewable energy projects, and they have supported major infrastructure developments in other sectors including rail, road, housing and industrial. Their experience also includes managing and undertaking baseline studies for a wide range of species and habitats and undertaking Habitats Regulations Assessments for a variety of

Topic	Qualifications	Years of relevant experience	Comments
			projects and designated sites. They have provided expert witness at public inquiry and planning appeal.
Hydrology, Hydrogeology and Flood Risk	BSc, MCIWEM, C.WEM	18	The Hydrology technical lead is a chartered member of the Chartered Institution of Water and Environmental Management and has over 17 years' experience in the assessment of renewable energy developments. This experience has led to a particular focus on the consentability of large-scale solar farms in areas of flood risk, including Flood Risk Assessments, Drainage Strategies and EIA hydrological assessment. This has included key roles in DCO schemes across the UK including: Cleve Hill Solar Farm, Kent; Longfield Solar Farm, Essex and Mallard Pass Solar Farm, Lincolnshire.
Contaminated Land	BSc, FGS	30	The Land Contamination technical lead specialises in the planning, implementation and reporting of geo-environmental site investigations, risk assessments and remediation strategies and verification work. They have operated as a consultant providing advice on land contamination issues, resolution of planning conditions and permit surrender for a wide range of developments from the highways, residential, commercial/industrial and energy sectors. They have worked on a broad range of development and infrastructure projects of varying scales and complexity, including Nationally Significant Infrastructure Projects (NSIPs). Recent project NSIP experience includes; Botley West Solar Farm - Technical lead on ground conditions and land contamination for a proposed solar farm in Oxfordshire; Xlinks Alverdiscott - Technical lead on geology, hydrogeology and ground conditions for the onshore element of the Xlinks Morocco-UK Power Project in North Devon.

Topic	Qualifications	Years of relevant experience	Comments
Cultural Heritage and Archaeology	BA, MIfA	35	The Cultural Heritage and Archaeology lead has some 35 years' experience in the heritage sector, and over 25 in heritage consultancy. They have extensive experience with renewable projects (including solar) across the UK, and are experienced in undertaking heritage assessment for a range of development types, including large scale nationally significant infrastructure affecting the most sensitive heritage designations. They have particular experience in the assessment of effects on heritage significance from changes to Setting. They have contributed to/authored many Environmental Statement chapters, either as lead author or as Technical Lead with responsibility for technical content, compliance and quality. They have provided expert witness including at examination and public inquiry. They were the technical lead for the consented Cleve Hill Solar Park, and more recently have worked on the Byers Gill Solar Farm (in application). Other relevant experience (involving DCO applications and examination) includes the consented West Midland Interchange and the Awel Y Mor offshore wind farm.
Noise	BSc, MIOA, PGDIP (Acoustics and Noise Control)	15	The Noise and Vibration technical lead is a full member of the Institute of Acoustics and has over 15 years' experience in the assessment of noise and vibration from a wide range of developments. In particular, they have led over 75 noise assessments for solar and BESS developments and undertaken all aspects of the noise and vibration assessment for Cleve Hill Solar Park, the first solar development delivered by DCO. They have extensive experience working in all aspects of environmental noise assessment, including scoping and consultation, baseline surveys, noise modelling, reporting and condition discharging.

Topic	Qualifications	Years of relevant experience	Comments
Socio-Economics and Tourism	BSc, MRTPI. MIED	20	The Socio-economics technical lead is a Chartered Town Planner (Member of Royal Town Planning Institute) and Economic Development professional (Member of Institute of Economic Development) with a wealth of experience advising on the social and economic impacts arising from large scale strategic development projects both in the private and public sector. They have considerable experience in advising on the socio-economic impact of large-scale renewable energy projects and nationally important infrastructure projects within the UK context. Recent project experience includes: • Socio-economic and tourism impact assessment and EIA chapter for a 1,300Ha 840MW Solar Farm DCO project in Oxfordshire; • Socio-economic and tourism impact assessment for a variety of Welsh Wind Farm projects submitted via the Development of National Significance process; • Socio-economic, employment and education impact assessment and EIA chapter for 1,350 dwelling scheme with new primary school and local centre in Stroud; and • Socio-economic and tourism impact assessment and EIA chapter for Breakwater and Ferry Improvements at a number of small islands within the Inner Hebrides in Scotland.
Traffic and Access	BEng, CMIHT	30	The traffic and access expert specialises in assessing the transport-related impacts of developments in the UK and has prepared numerous transport ES chapters for a range of developments. Recent project experience includes an International Advanced Manufacturing Park in Sunderland and South Tyneside, Gigafactories in Sunderland and Humber International Enterprise Park in Hull.

Topic	Qualifications	Years of relevant experience	Comments
Glint and Glare	PGDip, MIOA, AIEMA	15	The glint and glare specialist has led the assessment of glint and glare impacts for approximately 50 solar developments in the UK, including both roof and ground-mounted solar PV developments, many of which being located in particularly sensitive environments such as in close proximity to major transport routes, international airports and military aerodromes. Examples include Allington Energy Park (Hampshire), Swallet Solar Farm (Wiltshire), Cheadle College (Greater Manchester), Edenbridge WTW (Kent) and Wymeswold Solar Farm (Leicestershire). They have also provided technical review of 3rd party glint and glare assessments, on behalf of renewable energy developers.
Agricultural Land	BSc(Hons), MRICS, FBIAC	37	The Land Use and Soils technical lead is a Chartered Surveyor with extensive experience in assessing the effects of development on agricultural land, and the practical and policy implications of development. The land quality has been assessed by a team of Agricultural Land Classification (ALC) surveyors who meet the British Society of Soil Science (BSSS) ALC standards. The technical lead has worked on, and is currently working on, numerous solar farm proposals including: Mallard Pass Solar Project, Gate Burton Energy Park, Tween Bridge Solar Farm, Helios Renewable Energy Project, Oaklands Farm Solar Park, Heckington Fen Solar Park, Maen Hir Solar and Energy Storage Project.