Fosse Green Energy

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EN010154

7.4 Proposed Development Parameters (Clean)

VOLUME

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Fosse Green Energy

Development Consent Order 202[ ]

7.4 Proposed Development Parameters

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Rev 4	12 May 2026	Deadline 5A

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1. Introduction

1.1.1 This Proposed Development Parameters (PDP) document relates to an application made by Fosse Green Energy (the “Applicant”) to the Secretary of State via the Planning Inspectorate (the “Inspectorate”) under the Planning Act 2008 (‘PA 2008’) for a Development Consent Order (DCO). If made, the DCO would grant consent for Fosse Green Energy (hereafter referred to as the "Proposed Development").

1.1.2 The PDP document provides the guiding parameters for the detailed design of the Proposed Development and is secured in Schedule 2, requirement 6 (detailed design approval) of the **Draft Development Consent Order [EN010154/APP/3.1]**. When the detailed design for the Proposed Development is submitted for approval to the relevant planning authorities, those details must be in accordance with the development parameters set out in this PDP document.

1.1.3 Securing the detailed design post-consent is necessary to achieve technological and design flexibility for the Proposed Development because solar photovoltaic (PV) and Battery Energy Storage Systems (BESS) technologies are rapidly evolving. The Proposed Development seeks to allow provision in the DCO for the technological innovation and improvements that may be realised at the time of procurement and construction, in order to ensure that the Proposed Development can be constructed taking advantage of innovation and cost efficiencies.

1.1.4 That necessary flexibility has been facilitated by the adoption of the ‘Rochdale Envelope’ approach in the Environmental Statement (ES) which is explained in **Chapter 3: The Proposed Development** of the ES **[EN010154/APP/6.1]**. The Rochdale Envelope approach ensures the maximum parameters and realistic worst case has been assessed. The Rochdale Envelope used as the basis of the Environmental Impact Assessment presented in the ES is defined by the parameters set out in this document. Therefore, by requiring that the detailed design of the Proposed Development must be in accordance with the development parameters, there can be confidence that the environmental effects will be the same as or no worse than those assessed and reported in the ES.

1.2 Development Parameters

1.2.1 The Proposed Development is described in **Schedule 1 of the Draft Development Consent Order [EN010154/APP/3.1]** where the different components of the Proposed Development are divided into works which correspond with the works number areas shown on the **Works Plans [EN010154/APP/2.2]**. For the purposes of the Environmental Impact Assessment (EIA), the Proposed Development is described in **Chapter 3: The Proposed Development** of the ES **[EN010154/APP/6.1]**

1.2.2 The envelope is controlled by the **Works Plans [EN010154/APP/2.2]** and the parameters set out in Table1-1~~Table1-1~~ below. In addition to the parameters set out in this table, a Design Vision and Design Principles have also been established for the Proposed Development, as set out in the **Design Approach Document (DAD) [EN010154/APP/7.3]**, and a Green Infrastructure Strategy has been developed, as set out in the **Framework Landscape and Ecological Management Plan (LEMP) [EN010154/APP/7.15]**. Design Commitments, set out in the **DAD [EN010154/APP/7.3],** and the **Framework LEMP [EN01054/APP/7.15]** are secured in Requirements 6 and 8 of the **Draft DCO [EN010154/APP/3.1]**.

1.2.3 The Design Commitments have been developed to support the practical application of the Design Principles at detailed design. Design Commitments are needed to secure elements of the design which are not covered by other control documents.

1.2.4 Construction activities will be subject to the controls included in detailed management plans. The detailed management plans will need to be submitted to and approved by the relevant planning authority prior to the commencement of development in accordance with the requirements in Schedule 2 to the **Draft Development Consent Order [EN010154/APP/3.1]** and for the Proposed Development to be implemented in accordance with the approved details. The detailed management plans will comprise:

a. Construction Environmental Management Plan (CEMP) which will need to be substantially in accordance with the **Framework CEMP [EN/010154/APP/7.7]**.

b. Construction Traffic Management Plan (CTMP) which will need to be substantially in accordance with the **Framework CTMP [EN010154/APP/7.18]**.

c. Public Rights of Way (PRoW) Management Plan which will need to be substantially in accordance with the **Framework PRoW Management Plan [EN010154/APP/7.14].**

d. Soil Management Plan (SMP) which will need to be substantially in accordance with the **Framework SMP [EN010154/APP/7.10]**.

e. Battery Safety Management Plan (BSMP) which will need to be substantially in accordance with the **Framework BSMP [EN010154/APP/7.17]**.

1.2.5 The operation of the Proposed Development will be subject to the controls included in the:

a. Operational Environmental Management Plan (OEMP), which will need to be substantially in accordance with the **Framework OEMP [EN010154/APP/7.8]**;

b. Landscape and Ecological Management Plan (LEMP) which will need to be substantially in accordance with the **Framework LEMP [EN010154/APP/7.15];**

c. Surface Water Drainage Scheme which will need to be substantially in accordance with the Outline Surface Water Drainage Strategy (refer to **Appendix 9-D** of the **ES [EN010154/APP/6.3]**);

d. **Works Plan [EN010154/APP/2.2]**;

e. **Streets, Rights of Way and Access Plans [EN010154/APP/2.3]**; and

f. Battery Safety Management Plan which will need to be substantially in accordance with the **Framework BSMP [EN010154/APP/7.17]**.

1.2.6 Decommissioning activities will be subject to the controls included in the Decommissioning Environmental Management Plan (DEMP). This will be secured by Requirement 20 of the **Draft Development Consent Order [EN010154/APP/3.1]**, which sets out when the DEMP must be submitted to and approved by the relevant planning authority and confirms that it must be substantially in accordance with the **Framework DEMP [EN010154/APP/7.9]**.

1.2.7 These documents and plans are secured by the requirements in Schedule 2 to the **Draft Development Consent Order [EN010154/APP/3.1]**. The controls in these framework documents and plans are therefore not duplicated in this PDP.

Table1-1 Proposed Development Parameters

Element of the Proposed Development	Parameters Type	Development Parameter
Work No. 1— a ground mounted solar photovoltaic generating station with a gross electrical output capacity of over 50 megawatts including— a. PV modules fitted to mounting structures; b. solar stations and ancillary equipment; c. monitoring and control systems housed within the containers or enclosures comprised in Work No. 1 or located separately in its own container or enclosure; d. acoustic fencing; e. electrical cables; and associated development within the meaning of section 115(2) of the 2008 Act including Work No. 2 – 9		
PV Tables and Mounting Structures	Location	The Solar PV Array Works Area will be located as shown as Work No. 1 on the **Works Plans [EN010154/APP/2.2].**
	Scale	The maximum height of the highest part of the PV Modules will be 3.5m above ground level (AGL) (existing levels).
	Scale	The minimum height of the lowest part of the PV Panels will be 0.8m AGL (existing levels)
	Scale	The minimum pitch (measured front of one row to front of next row) between consecutive rows of PV Tables will be: • 8.25m for Fixed South Facing • 4m for Single Axis Tracker

Element of the Proposed Development	Parameters Type	Development Parameter
	Scale	The minimum spacing gap between consecutive rows of PV Tables will be 2m for the Fixed South Facing arrays and 2m for the Single Axis Tracker arrays.
	Design	Fixed South Facing PV Modules will face south and be positioned on the PV Tables at an angle of between 5 and 45 degrees from the horizontal.
	Design	Single Axis Tracker PV Modules will be positioned PV mounting system that can rotate between 60 degrees from the horizontal (facing east in the morning) and up to 60 degrees from the horizontal (facing west in the evening).
	Design	The maximum depth of the Mounting Structure piles will be 2m for the Fixed South Facing arrays and 4m for the Single Axis Tracker arrays subject to ground conditions. In archaeologically sensitive areas or areas of poor ground conditions solar PV panels may be mounted on concrete blocks, subject to further archaeological investigation and agreement with the relevant stakeholders.
	Design	The PV Modules will have an anti-reflective coating.

Element of the Proposed Development	Parameters Type	Development Parameter
	Design	The modules will be black, grey or blue in colour with a silver or black aluminium frame
	Design	Solar modules will be PFAS (per-and poly fluoroalkyl substances) free
Solar Stations	Location	Solar Stations will be located within Work No.1 but outside of Flood Zone 2.
	Design	Solar Stations consist of inverters, transformers, switchgear and control equipment.
	Colour Solar Station Equipment	Externally finished in a colour in keeping with the prevailing surrounding environment, often with a grey or green painted finish
	Indicative dimensions	The Solar Stations as described above will be located within the Solar Station Compounds measuring approximately 33m x 27m (0.09ha) to allow for appropriate spacing between components to comply with requirements of the local fire service.
	Design	Foundations for the Solar Stations will comprise reinforced concrete footings or slab of no more than 1m below existing ground level or if a pile foundation is required this will have a maximum depth of 3m.
	Design	Where gas insulated SF6 based options may be required for the 33kV switchgear and transformers at the Solar Stations, this

Element of the Proposed Development	Parameters Type	Development Parameter
		decision will be communicated to the Council as part of the detailed design.
Transformers	Indicative dimensions of transformers	The footprint of the transformers will be up to 12.5m x 2.5m and 3m in height.
Inverters	Indicative dimensions of inverters	For central inverters the maximum parameters will be 6m by 2.5m and up to 3m in height. For string inverters, the maximum parameters will be 1.5m length by 0.5m width by 1m in height. For the fixed south facing arrangement these are small enough to be mounted underneath the panels. For the single axis tracker arrangement these would be fitted on a parallel structure behind the panels.
Switchgear	Type of switchgear	The switchgear may be an individual standalone unit within its own enclosure or may be pre-assembled with transformers and inverters to form a single contained unit.
Work No. 2- Centralised BESS Compound – to store energy generated by the solar panels including— f. battery energy storage system; g. a structure protecting the battery energy storage system comprised in Work No. 2(a) and ancillary equipment, being either one container or multiple containers joined to each other, mounted on a reinforced concrete foundation slab or concrete piling; h. heating, ventilation and air conditioning (HVAC) or liquid cooling systems either housed within the containers comprised in Work No. 2(b) attached to the side or top of each of the containers, or located separate from but near to each of the containers;		

Element of the Proposed Development	Parameters Type	Development Parameter
i. conversion units including inverters, transformers, switchgear and energy management system; j. battery stations; k. monitoring and control systems housed within a container with the HVAC or liquid cooling systems in Work No. 2(c) or located separately in its own container or control room; l. electrical cables including electrical cables connecting to Work No. 1 and Work No. 4; m. fire safety infrastructure comprising fire suppression system; n. a water storage structure for the purposes of firefighting comprising fire water tanks and fire water containment; and o. fencing.		
	Location	Centralised BESS compound will be within area marked as Work No. 2 on the **Works Plans [EN010154/APP/2.2].**
	Scale	The batteries will be housed within enclosures, each measuring a maximum of 6.5m x 2.5m (w x d) and up to 3.5m AGL, with a minimum spacing of 0.1m beneath the enclosure and hardstanding.
	Scale	A control building will be located within the BESS compound, up to 4.5m tall with a footprint of up 12.5m x 2.5m.
	Design	Concrete base or monolith plinth. Maximum depth of 1m.

Element of the Proposed Development	Parameters Type	Development Parameter
		Depending on ground conditions, a pile foundation may be required with a maximum depth of 3m.
	Design	The BESS will be a muted colour, sympathetic to the surrounding environment.
	Design	Fencing will comprise a palisade style fence up to 2.5m above ground level, painted in a muted colour sympathetic to the surrounding environment.
Work No. 3 Distributed BESS System including — a. battery energy storage system; b. a structure protecting the battery energy storage system comprised in Work No. 3(a) and ancillary equipment, being either one container or cabinet or multiple containers or cabinets laid on a concrete slab or raft foundation located alongside Work No. 1. c. heating, ventilation and air conditioning (HVAC) or liquid cooling systems either housed within the containers or cabinets comprised in Work No. 3(b), attached to the side or top of each of the containers, or located separate from but near to each of the containers; d. monitoring and control systems housed within the containers with the HVAC or liquid cooling systems in Work No. 3(c) or located separately in its own container or control room; e. battery management system to monitor and control the stage of charge, temperature, and the overall health of the batteries; f. DC/DC converter; g. fire safety infrastructure, mitigation and control measures including:		

Element of the Proposed Development	Parameters Type	Development Parameter
i. fire service access, ii. fire compartmentation measures, iii. water storage tanks and hydrants, iv. impermeable membrane surrounding Work No. 3(b) which directs fire water to a swale for containment and a sump and drain valve to allow the extraction of contaminated fire water, v. hard standing to accommodate emergency vehicles, vi. parking spaces; h. electrical cables connecting to Work No. 1 and Work No. 4; and i. fencing.		
	Optionality	The proposed development will include either a centralised BESS or a distributed BESS (Work No. 2 or Work No. 3).
	Location	Distributed BESS compounds will be within the area marked as Work No. 3 on the **Works Plans [EN010154/APP/2.2].**
	Scale	The batteries will be housed within enclosures, each measuring a maximum of 6.5m x 2.5m (l x w) and up to 3.5m AGL, with a minimum spacing of 0.1m beneath the enclosure and hardstanding.
	Scale	The decentralised BESS will be co-located alongside the Solar Stations from Work No. 1.

Element of the Proposed Development	Parameters Type	Development Parameter
		When BESS units will be co-located next to the Solar Stations, they will share a common compound, each of which will be approximately 33m by 27m (0.09ha) in footprint.
	Design	The BESS foundation design will comprise reinforced concrete footings of no more than 1m below existing ground level. If a pile foundation is required, this will be no deeper than 3m
	Design	The BESS containers or enclosures will be a muted colour, sympathetic to the surrounding environment.
	Design	Fencing will comprise a palisade style fence up to 2.5m above ground level, painted in a muted colour sympathetic to the surrounding environment.
Work No. 4 – works in connection with the onsite substation including— a. substation, transformers, 400kV air insulated switchgear, switch room buildings and ancillary equipment including reactive power units; b. control building housing offices, storage, welfare facilities, parking areas and access; c. workshop, store and ancillary structures; d. monitoring and control systems for this Work No., Work No. 1 and, Work No. 2 or Work No.3, housed within the control building in Work No. 4(b) or located separately in their own containers or control rooms; e. harmonic filters; and		

Element of the Proposed Development	Parameters Type	Development Parameter
f. fencing.		
Onsite Substation	Scale	The maximum height of the electrical infrastructure within the Onsite Substation will be 13.5m AGL.
	Scale	The maximum footprint of the Onsite Substation compound will 155m x 105m or 1.63ha
	Scale	The ancillary structures would include a warehouse and storage building with a maximum footprint of 36m by 15m and a height of 7.2m, and a control building, which would be up to 20m x 20m in plan, and up to 6m in height.
	Scale	The Onsite Substation will be up to 13.5m AGL in height.
	Design	The concrete foundation depth will be a maximum of 3m BGL. This will require confirmation at the detailed design stage.
	Design	Fencing will comprise a palisade style fence up to 2.5m above ground level, painted in a muted colour sympathetic to the surrounding environment.
	Design	Buildings and containers will be muted in colour, sympathetic to surroundings.

Element of the Proposed Development	Parameters Type	Development Parameter
Work No. 5A – works to lay high voltage electrical cables, access and temporary construction laydown areas for the electrical cables, to connect to the National Grid Navenby substation including– a. works to lay electrical cables including one 400 kiloV cable connecting Work No. 4 to the National Grid Navenby substation; and b. laying down of internal access tracks, ramps, means of access, footways, including the laying and construction of drainage infrastructure, signage and information boards; c. temporary construction compounds for construction and material storage of equipment for Work No. 5A(a), (b), (d) and (e); d. joint bays, link boxes, cable ducts, cable protection, joint protection, manholes; e. marker posts, underground cable marker, tiles and tape, communications chambers, fibre optic cables and lighting and other works associated with cable laying; and f. tunnelling, boring and drilling works. **Work No. 5B** – HV connection works to the National Grid Navenby substation to facilitate connection of the authorised development to the National Grid Navenby substation a. busbars and connectors to connect to the busbar disconnectors at the National Grid Navenby substation; b. a 400kV 3 phase circuit braker for control and protection of the outgoing circuit serving the authorised development; c. a 3 phase set of current transformers for protection of the outgoing 400kV feeder circuit and the overlap with the National Grid system; d. a 3 phase high accuracy metering current and voltage transformer assembly for commercial metering of the connection; e. a 3 phase 400kV line disconnector/earth switch for isolation and earthing of the outgoing 400kV feeder circuit;		

Element of the Proposed Development	Parameters Type	Development Parameter
f. a 3 phase set of 400kV high voltage cable sealing ends and cables connecting the National Grid Navenby substation with Work No. 5A; and g. protection and control works in the relay room or erection of a new building to house protection and control works apparatus if required.		
Grid Connection Cables	Design	The 400kV cable will be underground and the trench will be up to 3m deep. The 400kV cables will have a minimum separation distance of 500mm.
	Design	A minimum soil cover of 0.9m will be maintained in areas of farmland to allow for continued farming of the land.
	Design	The Grid Connection Cable Route trench(es) will be up to a combined width of 10m.
	Design	Electrical cables will be installed beneath the River Brant using a trenchless crossing technique at least 5m below the watercourse bed. Trenching will maintain a minimum 10m buffer from the watercourse to avoid
	Design	Trenchless crossing techniques may be used in other areas to cross utility assets if required.
	Design	The design of the crossing will be in accordance with the AC Modelling Study and associated drawings [**EN010154/EXAM/9.28**] or otherwise agreed with the asset owner.

Element of the Proposed Development	Parameters Type	Development Parameter
	Design	When crossing Finaline the cables will pass under the pipeline with a minimum separation of 600mm.
	Design	When crossing Finaline the crossing will be performed with a crossing angle of 90 degrees. This alignment will be maintained for 5m either side of the pipeline.
	Design	Joint bays will not be located within 100m of Finaline.
	Design	Cable crossing Finaline should be in trefoil unless otherwise agreed with asset owner during detailed design approval.
	Design	Design detail for the crossing of Finaline to be agreed with asset owner during detailed design. Please note the protective provisions agreed with the asset owner within the DCO.
Jointing Bays	Location and Dimensions	Jointing bays will be required up to 1,000m apart to join sections of cable together. The dimensions of the jointing bay would be up to 21m in length by 3m in width by 2.5m in depth. A link box pit of up to 2m in length by 2m in width would also be required situated within a few metres of the jointing bay.
	Design	The working width during construction would be 30m to 40m wide working area for the purposes of construction with a small number

Element of the Proposed Development	Parameters Type	Development Parameter
		of wider areas up to 60m width for example at the location of any required HDD entry and exit pits.
	Design	Installation of the 400kV cables beneath drains and minor watercourses will be via trenchless crossings, to a depth of at least 2m below the bed of each watercourse, avoiding disturbance within 10m from the water edge.
Work No. 6 – works to lay electrical cables up to 33kV connecting Work No. 1 to Work No. 2 or Work No. 3 and Work No. 4 . a. Works to lay electrical and data cables including up to 33kV cables between Work No. 1 and, Work No. 2 or Work No. 3, to Work No. 4. b. joint bays, link boxes, cable ducts, cable protection, joint protection, manholes; c. marker posts, underground cable marker, tiles and tape, communications chambers, fibre optic cables and lighting and other works associated with cable laying; and d. tunnelling, boring and drilling works including temporary compounds for the tunnelling, boring or drilling works.		
	Indicative cable trench dimensions	Maximum dimensions: 0.8–1.2m depth, and 1.2–5m wide depending on the number of cables within the trench. (except where other separation is required to avoid existing services, or where trenches converge at connections) For trenchless crossings, a minimum 2m depth under watercourses subject to design and ground conditions. The minimum depth beneath the A46 is dependent on the road makeup and will align with the minimum depth required by the asset owner.

Element of the Proposed Development	Parameters Type	Development Parameter
	Design	Electrical cables will be installed beneath the River Witham using a trenchless crossing technique at least 5m below the watercourse bed. Trenching will maintain a minimum 10m buffer from the watercourse to avoid trenching or disturbance of the watercourse bed and banks.
Work No. 7 – temporary construction and decommissioning compounds and laydown areas including— a. areas of hardstanding; b. HGV, vehicle and cycle parking; c. site and welfare offices, canteens and workshops; d. area to store materials and equipment; e. storage and waste skips; f. area for download and turning; g. security infrastructure, including cameras, perimeter fencing and lighting; h. safety infrastructure to warn and manage traffic when crossing roads or other obstacles; i. site drainage and waste management infrastructure (including sewerage); and j. electricity, water, wastewater and telecommunications connections.		
Construction compounds	Location	The construction compounds will be no greater than shown in Works No. 7 on the **Works Plans [EN010154/APP/2.2].**
Work No 8A – works to facilitate access to Work Nos. 1 to 7 including—		

Element of the Proposed Development	Parameters Type	Development Parameter
a. creation of accesses from the public highway (including three emergency accesses); b. works to alter the layout of any street or highway; c. works to private roads; d. creation of visibility splays; e. removal of vegetation; f. works to widen and surface the streets; and g. making and maintaining passing places. **Work No. 8B – ancillary works to facilitate access including—** a. removal of vegetation; b. relocation, removal or provision of new road traffic signs, signals, street lighting, road restraints and carriageway lane markings; c. works to private roads; d. works to facilitate traffic management and to deliver information relating to the authorised development; and e. works to place, alter, remove or maintain street furniture or apparatus (including statutory undertakers' apparatus) in, under or above a street, including mains, sewers, drains, pipes, cables, cofferdams, lights, fencing and other boundary treatments.		
	Location	The extent of highway works will be no greater than shown on Work No. 8A on the **Works Plans [EN010154/APP/2.2]** and the Streets, Rights of Way and Access Plans **[EN010154/APP/2.3]**.

Element of the Proposed Development	Parameters Type	Development Parameter
	Location	The extent of ancillary access works will be no greater than shown on Work No. 8B on the **Works Plans [EN010154/APP/2.2]**
Work No. 9— works to create, enhance and maintain green infrastructure and environmental mitigation, including— a. landscape and biodiversity mitigation and enhancement areas; b. habitat creation and management, including earthworks, landscaping, means of enclosure, and the laying and construction of drainage infrastructure; c. laying down of permissive paths, signage and information boards; d. improvements to existing and laying down of new or diverted public rights of way or permissive paths, signage and information boards; and e. screening.		
	Location	The Green Infrastructure measures are set out within the FLEMP **[EN010154/APP/7.15]**, with spatial extents shown on the Green Infrastructure Strategy Plans incorporated within the FLEMP **[EN010154/APP/7.15]**.
Other Items not restricted to individual Works Areas		
Fencing	Scale	The fencing will be a 'stock proof fence' (i.e., wooden posts and metal wire mesh) and will be up to 2m in height except where palisade fencing will be installed around the BESS compounds and Onsite Substation
	Scale	Fence Post Height will be up to 2.5m in height.

Element of the Proposed Development	Parameters Type	Development Parameter
	Scale	Palisade fencing will be up to 2.5m in height and only utilised around the perimeter of the BESS compounds (Work No. 2 and 3), and the Onsite Substation (Work No. 4).
CCTV	Scale	Camera Height will be up to 3.5m
Fencing/CCTV Poles	Scale	The depth of poles shall not be greater than the maximum depth of the Mounting Structure piles.