

2022 No. 1396

INFRASTRUCTURE PLANNING

The Keadby 3 (Carbon Capture Equipped Gas Fired Generating Station) Order 2022

Made - - - - - *7th December 2022*

Coming into force - - - - - *29th December 2022*

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The Secretary of State, having decided the application, has determined to make an order giving effect to the proposals comprised in the application on terms that in the opinion of the Secretary of State are not materially different from those proposed in the application.

Accordingly, the Secretary of State, in exercise of the powers conferred by sections 114, 115, 120 and 149A of the 2008 Act, makes the following Order—

PART 1

PRELIMINARY

Citation and commencement

1. This Order may be cited as the Keadby 3 (Carbon Capture Equipped Gas Fired Generating Station) Order 2022 and comes into force on 29th December 2022.

Interpretation

2.—(1) In this Order—

“the 1961 Act” means the Land Compensation Act 1961(a);

“the 1965 Act” means the Compulsory Purchase Act 1965(b);

“the 1980 Act” means the Highways Act 1980(c);

“the 1981 Act” means the Compulsory Purchase (Vesting Declarations) Act 1981(d);

“the 1990 Act” means the Town and Country Planning Act 1990(e);

“the 1991 Act” means the New Roads and Street Works Act 1991(f);

“the 2008 Act” means the Planning Act 2008(g);

“the 2009 Act” means the Marine and Coastal Access Act 2009(h);

“access and rights of way plans” means the plans of that name identified in Schedule 12 (documents and plans to be certified) and which are certified by the Secretary of State as the access and rights of way plans for the purposes of this Order;

“address” includes any number or address used for the purposes of electronic transmission;

“AOD” means above ordnance datum;

“AGL” means above ground level;

“apparatus” has the same meaning as in Part 3 of the 1991 Act except that it further includes pipelines (and parts of them), aerial markers, cathodic protection test posts, field boundary markers, transformer rectifier kiosks, electricity cables, telecommunications equipment and electricity cabinets;

“application guide” means the document of that name identified in the Schedule 12 (documents and plans to be certified) and which is certified by the Secretary of State as the application guide for the purposes of this Order;

“authorised development” means the development and associated development described in Schedule 1 (authorised development) which is development within the meaning of section 32 of the 2008 Act;

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- (a) 1961 c. 33.
 - (b) 1965 c. 56.
 - (c) 1980 c. 66.
 - (d) 1981 c. 66.
 - (e) 1990 c. 8.
 - (f) 1991 c. 22.
 - (g) 2008 c. 29.
 - (h) 2009 c. 23.

“book of reference” means the document of that name identified in the table in Schedule 12 (documents and plans to be certified) and which is certified by the Secretary of State as the book of reference for the purposes of this Order;

“building” includes any structure or erection or any part of a building, structure or erection;

“canal” means the Stainforth and Keadby Canal;

“Canal and River Trust” means the body of that name which is a company limited by guarantee (company no. 07807276) and a registered charity (charity commission No 146792) whose registered office is at First Floor, North Station House, 550 Elder Gate, Milton Keynes, MK9 1BB;

“carbon capture and compression plant” means the building and associated works comprised in Work No. 1C and Work No. 7 in Schedule 1 shown on the works plans and which are designed to capture, compress and export to the National Grid Carbon Gathering Network, a minimum rate of 90% of the carbon dioxide emissions of the generating station operating at full load;

“carriageway” has the same meaning as in the 1980 Act;

“combined heat and power assessment” means the document of that name identified in Schedule 12 (documents and plans to be certified) and which is certified by the Secretary of State as the combined heat and power assessment for the purposes of this Order;

“commence” means carry out a material operation, as defined in section 155 of the 2008 Act (which explains when development begins) comprised in or for the purposes of the authorised development other than the permitted preliminary works (except where stated to the contrary) and “commencement”, “commenced” and cognate expressions are to be construed accordingly;

“commercial use” means the export of electricity, and of captured compressed carbon dioxide emissions, from the authorised development on a commercial basis, following the completion of commissioning of the authorised development and the first occupation of the authorised development by the undertaker;

“commissioning” means the process of testing all systems and components of the authorised development (including the carbon capture and compression plant and systems and components which are not yet installed but the installation of which is near to completion) in order to verify that they function in accordance with the design objectives, specifications and operational requirements of the undertaker and “commission” and other cognate expressions, in relation to the authorised development are to be construed accordingly;

“compulsory acquisition notice” means a notice served in accordance with section 134 of the 2008 Act;

“construction working site” means a construction site associated with the works including hard standings, lay down and storage areas for materials, equipment, areas for spoil, areas for vehicle parking, areas for welfare facilities including offices, canteen and washroom facilities, workshop facilities temporary fencing or other means of enclosure and areas for other facilities required for construction purposes;

“deemed marine licence” means a licence as set out in Schedule 13 and deemed by article 39 to have been granted under Part 4 of the 2009 Act by virtue of section 149A of the 2008 Act;

“design principles” means the document of that name (being Appendix 1 of the design and access statement) identified in Schedule 12 (documents and plans to be certified) and which is certified by the Secretary of State as the design principles for the purposes of this Order;

“Electricity Act” means the Electricity Act 1989(a);

“electronic transmission” means a communication transmitted—

- (a) by means of an electronic communications network; or
- (b) by other means but while in electronic form;

(a) 1989 c. 29.

“main river” means a watercourse shown as such on the main river map for England and includes any structure or appliance for controlling or regulating the flow of water into or out of the channel which (a) is a structure or appliance situated in the channel or in any part of the bank of the channel; and (b) is not a structure or appliance vested in or controlled by an internal drainage board and “river” shall be construed accordingly;

“maintain” includes inspect, repair, adjust, alter, remove, refurbish, reconstruct, replace and improve any part of, but not remove, reconstruct or replace the whole of, the authorised development provided that any such activities do not give rise to any materially new or materially different environmental effects than those assessed in the environmental statement and “maintenance” and “maintaining” are to be construed accordingly;

“MMO” means the Marine Management Organisation;

“NGC” means National Grid Carbon Limited (Company Registration Number 03932833) whose registered office is at 1 to 3 Strand, London, WC2N 5EH;

“National Grid Carbon Gathering Network” means the proposed network of high pressure carbon dioxide pipelines to be developed by NGC to transport carbon dioxide from power and industrial carbon dioxide emitters to compression facilities for onwards geological storage;

“NGET” means National Grid Electricity Transmission plc (Company Registration Number 02366977) whose registered office is at 1 to 3 Strand, London, WC2N 5EH;

“NGG” means National Grid Gas plc (Company Registration Number 02366977) whose registered office is at 1 to 3 Strand, London WC2N 5EH;

“Northern Powergrid (Yorkshire) plc” means the company of the same name (Company Registration Number 04112320) whose registered office is at Lloyds Court, 78 Grey Street, Newcastle Upon Tyne, NE1 6AF;

“Order land” means the land delineated and marked as such on the land plans;

“Order limits” means the limits shown on the works plans within which the authorised development may be carried out;

“outline written scheme of investigation” means the document of that name identified in Schedule 12 (documents and plans to be certified) and which is certified by the Secretary of State as the outline written scheme of investigation for the purposes of this Order;

“owner”, in relation to land, has the same meaning as in section 7 of the Acquisition of Land Act 1981(a);

“permitted preliminary works” means all or any of—

- (a) environmental surveys, geotechnical surveys, intrusive archaeological surveys and other investigations for the purpose of assessing ground conditions, and removal of plant, structures and machinery;
- (b) above ground site preparation for temporary facilities for the use of contractors;
- (c) the provision of temporary means of enclosure and site security for construction;
- (d) the temporary display of site notices or advertisements;
- (e) site clearance (including vegetation removal);

“Pilfrey laydown plans” means the document of that name identified in the Schedule 12 (documents and plans to be certified) approved as part of the Pilfrey laydown planning permission and which is certified by the Secretary of State as the Pilfrey laydown plans for the purposes of this Order;

“Pilfrey laydown planning permission” means the conditional planning permission with North Lincolnshire Council reference PA/2018/1950, dated 23 November 2018, and any other variations thereto (which shall include for the avoidance of doubt any variations pursuant to Section 73 of the 1990 Act);

(a) 1981 c. 67. Section 7 was amended by the Planning and Compulsory Purchase Act 1991 (c. 34).

SCHEDULE 1

Article 2

AUTHORISED DEVELOPMENT

In the Borough of North Lincolnshire, a nationally significant infrastructure project as defined in sections 14(1)(a) and 15 of the 2008 Act and associated development, comprising—

Work No. 1 – a carbon capture enabled electricity generating station located on land at the Keadby Power Station site, west of Scunthorpe, gas fuelled, and with a gross output capacity of up to 910 megawatts (MWe) at ISO standard reference conditions comprising—

- (a) **Work No. 1A** – a combined cycle gas turbine plant, comprising—
 - (i) a combined cycle gas turbine;
 - (ii) a steam turbine;
 - (iii) gas turbine hall and steam turbine hall;
 - (iv) heat recovery steam generator;
 - (v) gas turbine air intake filters;
 - (vi) emissions stack;
 - (vii) transformers;
 - (viii) deaerator and feed water pump house buildings;
 - (ix) nitrogen oxide emissions control equipment and chemical storage;
 - (x) chemical sampling / dosing plants; and
 - (xi) continuous emissions monitoring system.
- (b) **Work No. 1B** – combined cycle gas turbine plant cooling infrastructure, comprising—
 - (i) hybrid cooling towers;
 - (ii) cooling water pumps, plant and buildings; and
 - (iii) cooling water dosing and sampling plant and buildings
- (c) **Work No. 1C** – carbon dioxide capture plant, comprising—
 - (i) flue gas pre-treatment plant, including cooling and scrubbing plant and flue gas blower;
 - (ii) carbon dioxide absorber unit(s) and associated stack(s);
 - (iii) carbon dioxide stripper and solvent regenerator;
 - (iv) ammonia emissions monitoring and control equipment and associated chemical storage;
 - (v) carbon dioxide conditioning and compression plant; and
 - (vi) ancillary equipment, including air compressors, pumps, heat exchangers, water treatment plant and pipework.
- (d) **Work No. 1D** – natural gas reception facility, comprising—
 - (i) above and below ground valves, flanges and pipework;
 - (ii) gas supply pipeline connection works;
 - (iii) gas receiving area;
 - (iv) gas de-compression equipment and maintenance building and pipeline internal gauge launcher;
 - (v) an above or below ground isolation valve;
 - (vi) gas vents;
 - (vii) gas metering, dehydration and pressure reduction equipment;

- (viii) instrumentation and electrical kiosk(s);
 - (ix) telemetry equipment kiosk(s); and
 - (x) standby generator sockets.
- (e) **Work No. 1E** - generating station supporting uses, comprising—
- (i) administration and control buildings;
 - (ii) raw water storage tank(s);
 - (iii) demineralised water treatment plant, including storage tanks; and
 - (iv) permanent plant laydown area(s) for operation and maintenance activities
- (f) In connection with and in addition to Work Nos. 1A, 1B, 1C, 1D and 1E—
- (i) administration and control buildings;
 - (ii) auxiliary plant, buildings, enclosures and structures;
 - (iii) auxiliary boiler;
 - (iv) emergency diesel generators and bunded diesel storage tank(s);
 - (v) chemical storage facilities;
 - (vi) demineralised water treatment plant, including storage tank;
 - (vii) firefighting equipment and building;
 - (viii) fire storage tank(s);
 - (ix) fire water retention basin;
 - (x) gatehouses;
 - (xi) mechanical, electrical, gas, telecommunications and water networks, pipework, pipe runs, cables, racks, infrastructure, instrumentation and utilities including connections between Work Nos 2, 3, 4, 5, 6, 7 and 8, and parts of Work Nos. 1A, 1B, 1C, 1D and 1E;
 - (xii) permanent plant laydown area(s) for operation and maintenance activities;
 - (xiii) waste water treatment facilities; and
 - (xiv) workshop and stores building.

and associated development within the meaning of section 115(2) of the 2008 Act in connection with the nationally significant infrastructure project referred to in Work No. 1, comprising—

Work No. 2 – a high pressure gas supply pipeline for the transport of natural gas to Work No. 1, comprising a high pressure steel pipeline of up to 800 millimetres (nominal bore) in diameter and approximately 0.3km in length, including cathodic protection posts and marker posts, running within the Keadby Power Station site between Work No. 1D and Work No. 2B, and above ground installation comprising—

- (a) **Work No. 2A** – a compound for National Grid Gas’s apparatus, comprising—
 - (i) an offtake connection from the National Transmission System;
 - (ii) above and below ground valves, flanges and pipework;
 - (iii) an above or below ground remotely operated valve;
 - (iv) an above or below ground remotely operated valve bypass;
 - (v) an above or below ground pressurisation bridle;
 - (vi) instrumentation and electrical kiosks;
 - (vii) pipeline inspection gauge receiving facility; and
 - (viii) telemetry equipment kiosks and communications equipment,
- (b) **Work No. 2B** – a compound for the undertaker’s apparatus, comprising—
 - (i) above and below ground valves, flanges and pipework;
 - (ii) an above or below ground isolation valve;

- (iii) an above or below ground pipeline inline gauge launching facility;
 - (iv) instrumentation and electrical kiosks; and
 - (v) telemetry equipment kiosks and communications equipment,
- (c) in connection with Work Nos. 2A and 2B, access works, vehicle parking, electrical and telecommunications connections, surface water drainage, security fencing and gates, and closed circuit television cameras and columns.

Work No. 3 – electrical connection works for the export and import of electricity to and from national electricity transmission networks and the import of electricity from district electricity transmission networks, comprising—

- (a) **Work No. 3A** – up to 400 kilovolt overground and/or underground electrical cables and control systems cables running from Work No. 1A to the existing National Grid Electricity Transmission substation located west of Chapel Lane, including works within the substation; and
- (b) **Work No. 3B** – up to 132 kilovolt underground electrical cables running from Work No. 1A to the existing Northern Powergrid 132kV substation located at Chapel Lane, including above ground infrastructure works within the substation.

Work No. 4 – water supply connection works to provide cooling and make-up water to Work No. 1, comprising either—

- (a) **Work No. 4A** – underground and/or overground water supply pipeline running between Work No. 1E and the canal including, as necessary, a temporary cofferdam structure, new, upgraded or replacement pipeline, plant, buildings, enclosures, intake structures screens and other structures, cable, temporary moorings, temporary repositioning of existing moorings, access works, vehicle parking, screening, lighting, and signage; or
- (b) **Work No. 4B** – works to the existing cooling water supply pipelines running between Works No. 1E and the existing intake structures within the River Trent, including, as necessary, a temporary cofferdam structure, new, upgraded or replacement pipelines, plant, enclosures, intake structures, cable placement of material, temporary moorings, installation and repositioning of existing hazard dolphins, access works, screening, lighting, and signage.

Work No. 5 – works to discharge used cooling water and treated wastewater comprising works to the existing cooling water discharge pipeline(s) running from Work No. 1B to the existing outfall structures within the River Trent including, as necessary new, upgraded or replacement pipelines, plant, enclosures, outfall structures and other structures and cable.

Work No. 6 – towns water connection to supply towns water to Work No.1 from the supply point east of Chapel Lane including works to the existing towns water pipelines, replacement and new pipelines, plant, enclosures and structures.

Work No. 7 – a high pressure carbon dioxide pipeline for the export of carbon dioxide from Work No. 1C to the National Grid Carbon Gathering Network and above ground carbon dioxide compression and export infrastructure on land at Keadby Power Station, comprising—

- (a) **Work No. 7A** – compressor station comprising deoxygenation, dehydration, and staged compression facilities, and outlet metering and electrical connection; and
- (b) **Work No. 7B** – National Grid above ground infrastructure compound, comprising export connection to the National Grid Carbon Gathering Network, above and below ground valves, flanges and pipework, above or below ground remotely operated valve, above or below ground remotely operated valve bypass, compression facilities, instrumentation and electrical kiosks, electrical connection, inlet metering and telemetry equipment kiosks and communications equipment;
- (c) in connection with Work Nos. 7A and 7B, access works, vehicle parking, electrical and telecommunications connections, surface water drainage, security fencing and gates, and closed circuit television cameras and columns.

Work No. 8 – new permanent accesses to Work Nos. 1, 2 and 7 comprising—

- (a) **Work No. 8A** – access route comprising the maintenance and improvement of an existing private track running between Work Nos. 1 and 2 including private bridge and the existing junction with the A18 nearby to the west of Pilfrey Farm, comprising surfacing works and signage, and creation of on and off-slips;
- (b) **Work No. 8B** – installation of laybys and gatehouse building nearby to the north of the junction with the A18, barriers, enclosures, drainage and lighting;
- (c) **Work No. 8C** - emergency access route comprising the installation of a bridge crossing of an existing drainage channel, the maintenance and improvement of an existing private track running between Work No. 1 and Chapel Lane, Keadby, surfacing and strengthening works, drainage, enclosures and lighting.

Work No. 9 – temporary construction and laydown areas and temporary and permanent accesses, comprising—

- (a) **Work No. 9A** – temporary construction and laydown areas comprising hard standing, earthworks and levelling, laydown and open storage areas, contractor compounds and construction staff welfare facilities, surface water drainage and gatehouse and weighbridge.
- (b) **Work No. 9B** – the maintenance and improvement of the existing private tracks connecting the existing junctions with the A18 to the west of Pilfrey Farm with Work No. 9A via two existing private bridge crossings of the Hatfield Waste Drain, including the replacement, widening, improvement and maintenance of the westernmost existing private bridge crossing, surfacing, drainage and strengthening works, barriers and enclosures.
- (c) **Work No. 9C** - temporary construction and laydown area in association with the replacement of the private bridge in Work No. 9B, comprising laydown and open storage areas, hard standing, and the placement of mobile cranes.

Work No. 10 – temporary haulage route and waterborne transport offloading facilities on land east of the Keadby Power Station site and at the River Trent comprising—

- (a) **Work No. 10A** – the maintenance and improvement of the existing temporary paved haulage route and ditch crossings and their subsequent removal;
- (b) **Work No. 10B** – the inspection and repair of the existing jetty, and temporary placement of mobile cranes including the temporary oversailing of crane arms above the River Trent; and
- (c) **Work No. 10C** – use of river bed of the River Trent for the mooring of vessels and craft at the waterborne transport offloading area at lower tide.

Work No. 11 – landscaping and planting and boundary treatment comprising—

- (a) **Works 11A** -soft landscaping including planting and biodiversity enhancement measures; and
- (b) **Works 11B** - security fencing, gates, boundary treatment and other means of enclosure;

In connection with and in addition to Works Nos. 1 to 11, further associated development including—

- (a) surface water drainage systems, storm water attenuation systems including storage basins, oil water separators, including channelling and culverting and works to existing drainage systems;
- (b) electrical, gas, potable water supply, foul water drainage and telecommunications infrastructure connections and works, and works to alter the position of such services and utilities connections;
- (c) hard standings and hard landscaping;
- (d) soft landscaping, including bunds, embankments and planting;

- (e) biodiversity enhancement measures;
- (f) fencing, gates, boundary treatment and means of enclosure;
- (g) external lighting, including lighting columns;
- (h) gatehouses and weighbridges;
- (i) closed circuit television cameras and columns and other security measures;
- (j) site establishment and preparation works, including site clearance (including vegetation removal, demolition of existing buildings and structures); earthworks (including soil stripping and storage and site levelling and formation of embankments) and excavations; the creation of temporary construction access points; the alteration of the position of services and utilities; and works for the protection of buildings and land;
- (k) temporary construction laydown areas and contractor facilities, including materials and plant storage and laydown areas; generators; concrete batching facilities; vehicle and cycle parking facilities; pedestrian and cycle routes and facilities; offices and staff welfare facilities; security fencing and gates; external lighting; roadways and haul routes; wheel wash facilities; and signage;
- (l) vehicle parking and cycle storage facilities;
- (m) accesses, roads and pedestrian and cycle routes;
- (n) tunnelling, boring and drilling works;
- (o) demolition;
- (p) temporary works associated with the maintenance of the authorised development including laydown for outages, contractor facilities, offices and staff welfare facilities; security fencing and gates; external lighting; wheel wash facilities; and signage;
- (q) and, to the extent that it does not form part of such works, further associated development comprising such other works (i) as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised development and (ii) which fall within the scope of the works assessed in the environmental statement.