



Ministry
of Defence

Defence Infrastructure Organisation

Safeguarding Department
Statutory & Offshore

Defence Infrastructure Organisation
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Sutton Coldfield
West Midlands
B75 7RL

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E-mail: DIO-safeguarding-statutory@mod.uk
www.mod.uk/DIO

21 September 2017

Dalton Warner Davis LLP
21 Garlick Hill
London
EC4V 2AU

Your Reference: **2941E**
Our reference: 10035683

Dear

MOD Safeguarding – SITE OUTSIDE SAFEGUARDING AREA (SOSA)

Proposal: Variation of the Section 36 consent dated 3 November 2016, for the Keadby 2 Power Station Project (the 'Keadby 2 Project')

Location: Keadby Power Station Site, Trentside, Keadby, near Scunthorpe, North Lincolnshire.

Grid Ref: 482833, 411699

Thank you for consulting Defence Infrastructure Organisation (DIO) on the above proposed development. This application relates to a site outside of Ministry of Defence (MOD) statutory safeguarding areas. We can therefore confirm that the MOD has no safeguarding objections to this proposal.

In the interests of air safety, the MOD requests that the structure is fitted with aviation warning lighting. The mast should be fitted with a minimum intensity 25 candela omni directional flashing red light or equivalent infra-red light fitted at the highest practicable point of the structure.

Whilst we have no safeguarding objections to this application, the height of the development will necessitate that aeronautical charts and mapping records are amended. Defence Infrastructure Organisation (DIO) Safeguarding therefore requests that, as a condition of any planning permission granted, the developer must notify UK DVOF & Powerlines at the Defence Geographic Centre with the following information prior to development commencing:

- a. Precise location of development.
- b. Date of commencement of construction.

- c. Date of completion of construction.
- d. The height above ground level of the tallest structure.
- e. The maximum extension height of any construction equipment.
- f. Details of aviation warning lighting fitted to the structure(s)

This information can be sent by e-mail to the Defence Geographic Centre at: dvof@mod.uk, or post it to:

**D-UKDVOF & Power Lines
Geospatial Air Information Team
Defence Geographic Centre
DGIA
Elmwood Avenue
Feltham
Middlesex
TW13 7AH**

I trust this adequately explains our position on this matter, however should you have any questions please do not hesitate to contact me.

Yours sincerely

... t (Energy Development)

From: ...@highwaysengland.co.uk>
Sent: 27 September 2017 14:48
To:
Subject: RE: Keadby 2017 S36 Variation

Dear ...,

Highways England have no further comments from our previously response.

Kind Regards

Highways England | Lateral | 8 City Walk | Leeds | LS11 9AT
| **Mobile:** + 4
Web: <http://www.highways.gov.uk>

Application reference: CON/2017/1383

Case officer:
Telephone
Email: planning@northlincs.gov.uk

10 October 2017

The Secretary of State for Business, Energy and Industrial Strategy
c/o
Energy Infrastructure Planning
Level 3 Orchard 2
1 Victoria Street
London
SW1H 0ET



Civic Centre
Ashby Road
Scunthorpe
North Lincolnshire
DN16 1AB

Dear ,

Application under Section 36C of the Electricity Act 1989 (a Variation Application) to vary the consent granted on 4 November 2016 for the construction and operation of a combined cycle gas turbine generating station with an electrical output of up to 820 megawatts known as Keadby II Power Station

I refer to the above variation application on which North Lincolnshire Council (NLC) was consulted on 14 August 2017. NLC has the following comments to make:

Having considered the application details, including the submitted Environmental Impact Assessment, NLC would advise that subject to the suggested conditions, which are largely carried forward from the previous 2016 consent, the variation is unlikely to result in significant adverse environmental impacts.

Notwithstanding the above, the council's ecologist has suggested that suggested condition 34 should be amended to allow for the relocation of southern marsh orchids in accordance with a method statement to be agreed in writing with the local planning authority. This is because it is understood that it would not be possible to conserve the orchids in situ as the current location of the orchids is in an area that will become part of the power station structure.

I note that appropriate statutory consultees have also been consulted and I trust that their comments will also be taken into account in the determination of the variation application.

I trust that the content of this letter will be taken into account in the determination of the above variation application for Keadby II Power Station.

Yours Sincerely

(Energy Development)

From: @caa.co.uk>
Sent: 11 October 2017 15:48
To: (Energy Development)
Cc: @dwdllp.com
Subject: RE: Consultation on Keadby II Generating Station Section 36C Application

Thank you for your email.

Having reviewed the documents, it is noted that the proposed height of the Heat Recovery Steam Generator Building has increased from 44 metres to 52 metres. Based on the understanding that this is the only increase in the vertical extent of the proposed development, the CAA has no further comments to make.

Sorry for the delayed response.

Regards,

A
Airspace, AIM & Aerodromes
Civil Aviation Authority



Tel:

Follow us on Twitter: @UK_CAA

Please consider the environment. Think before printing this email.

Energy Infrastructure Planning

From:@naturalengland.org.uk>
Sent: 30 August 2017 11:29
To: Energy Infrastructure Planning
Subject: 2941E Keadby II Power Station Project Variation of Consent

Thank you for your consultation on the above. Natural England has previously advised that there are no habitats in the Humber Estuary Special Area of Conservation within 15km of the development that are sensitive to NO_x impacts. We agree with the conclusion of the Appropriate Assessment, that there is not likely to be an adverse effect on integrity of the site, and therefore have no objection to the proposed changes.

Kind regards

Yorkshire & Northern Lincolnshire Team
Natural England
Lateral
8 City Walk
Leeds
LS11 9AT

Office: (.....)
Mobile: (.....)

We are here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

In an effort to reduce Natural England's carbon footprint, I will, wherever possible, avoid travelling to meetings and attend via audio, video or web conferencing.

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From: [redacted]@metoffice.gov.uk] **On Behalf Of** metofficesafeguarding

Sent: 06 September 2017 16:57

To: ..

Subject: RE: Keadby 2 Power Station - Section 36 Variation 2017 - Consultation

Dear [redacted],

Thank you for consulting us on these changes. We have no objections to the application. This is in line with our response sent to you in May 2016, please see attached.

Kind regards

Met Office, FitzRoy Road, Exeter, Devon, EX1 3PB, United Kingdom

E-mail: metofficesafeguarding@metoffice.gov.uk

<http://www.metoffice.gov.uk/learning/library/publications/safeguarding>

From: s@hse.gov.uk [mailto: s@hse.gov.uk]

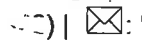
Sent: 20 September 2017 13:20

To: .1

Subject: RE: Keadby II S36 Variation 2017 - Comments to BEIS

We have no comments

Health & Safety Executive | 5N.3 Redgrave Court, Merton Road, Bootle L20 7HS



s@hse.gov.uk

Energy Infrastructure Planning

From: 1@HistoricEngland.org.uk>
Sent: 22 September 2017 13:15
To: ; Energy Infrastructure Planning
Subject: RE: Keadby II S36 Variation 2017 - Comments to BEIS

The Electricity Act 1989 -

Our Ref: PA00371347 (Their ref:2941E)

Site: KEADBY II COMBINED CYCLE GAS TURBINE GENERATING STATION

Dear [redacted] (cc BEIS)

Thank you for consulting us on the amendments / variations to this previously consented scheme.

We have not identified any new impacts upon the historic environment and thus have no further comments to make.

Yours sincerely

[redacted] (for HE)

Historic England
Windsor House
Cliftonville
Northampton
NN1 5BE



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(Energy Development)

From: @nats.co.uk>
Sent: 06 October 2017 09:39
To: : (Energy Development)
Cc: NATS Safeguarding
Subject: RE: Formal Consultation - Keadby Power Station, proposed variation of the Section 36 consent

Dear Sirs,

I can confirm that NATS's position remains unchanged from that previously communicated. As we operate no infrastructure within 30km of the site, NATS anticipates no impact and has no comments to make on the application.

Regards

NATS Safeguarding Office

NATS

D: ...
E: @nats.co.uk
4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
www.nats.co.uk/windfarms



Energy Infrastructure Planning

From: >@anglianwater.co.uk>
Sent: 28 September 2017 17:08
To: Energy Infrastructure Planning
Subject: Keadby II, Keadby, Trent Side, North Lincolnshire, DN17 3EF

Dear

Thank you for the opportunity to comment on the above application. Please find enclosed a response on behalf of Anglian Water. I would be grateful if you could confirm that you have received this response.

The application site appears to be located outside of Anglian Water's area of responsibility. In addition Anglian Water is not aware of any water or wastewater requirements made upon them for the above development. Therefore we have no comments relating to the principle of this development. In the event that this were to change we would wish to comment further on the above proposals.

Section 36 Consent and Deemed Planning Permission Variation

It is noted that a number of changes are proposed to the wording of the existing Section 36 consent approved by the Secretary of State in September 1993.

The original consent included a number of conditions including condition 36 which refers to the preparation of a foul and surface water drainage scheme.

The applicant has proposed that condition 36 should be amended to refer to the Environment Agency and North Lincolnshire Council. However no reference is made to relevant sewerage undertaker being asked to comment on the proposed schemes prior to them being discharged by North Lincolnshire Council.

Also reference is made to the 'rivers authority' in the final sentence of condition 36. It is assumed that this is a typographical error and it is intended to refer to the Environment Agency (formerly the Rivers Authority).

Should you have any queries relating to this response please let me know.

Regards,

Anglian Water Services Limited

Mobile: |
Thorpe Wood House, Thorpe Wood, Peterborough, PE3 6WT
www.anglianwater.co.uk

The information contained in this message is likely to be confidential and may be legally privileged. The dissemination, distribution, copying or disclosure of this message, or its contents, is strictly prohibited unless authorised by Anglian Water. It is intended only for the person named as addressee.

Anglian Water cannot accept any responsibility for the accuracy or completeness of

Submitted Electronically:
beiseip@beis.gov.uk

Land & Acquisitions

land.acquisitions@nationalgrid.com
Tel: -

www.nationalgrid.com

21/09/2017

Dear Sir/Madam

Application to vary Section 36 Consent (2017) for the Keadby II CCGT Generating Station granted on 10th September 1993

In relation to the application by SSE to vary the Section 36 consent for the Keadby II power station National Grid Gas Plc (NGG) and National Grid Electricity Transmissions Plc (NGET) ("National Grid") would like to make the following comments:

NGG Infrastructure within or in close proximity to the application boundary

NGG has the following gas transmission assets located within or in close proximity to the application redline boundary:

- Feeder Main 07 – Eastoft to Keadby (High Pressure Transmission Pipeline)
- Keadby AGI

NGET Infrastructure within or in close proximity to the application boundary

NGET has the following electricity transmission assets located within or in close proximity to the application redline boundary:

400kV overhead lines:

- 4TM – Keadby – West Burton
- ZDA – Cottam - Keadby
- KKP – Keadby – Keadby Power 1
- KKP – Keadby – Keadby Power 2

Substation:

- Keadby 400kV substation

Comments

National Grid is working with SSE to facilitate connections to the gas and electricity transmission networks.

National Grid does not object to the application and will continue to work with SSE to facilitate the gas and electricity connections and to ensure the protection of National Grid's apparatus.

Yours Faithfully

Energy Infrastructure Planning
Department for Business, Enterprise and
Industrial Strategy
Level 3 Orchard 2
1 Victoria Street
London
SW1H 0ET

Our ref: AN/2017/126048/01-L01
Your ref: 2941B
Date: 27 September 2017

Dear Mr

**Variation of Consent under Section 36 of The Electricity Act 1989 - increasing generation capacity from 820MW to 910MW and associated works
Keadby II Power Station Project, Keadby, North Lincolnshire, DN17 3EF**

We have received details of the above application to vary the Consent for the Keadby II Power Station Project from Dalton Warner Davis on 16 August 2017.

We have reviewed the Environmental Impact Assessment information submitted in support of the application and have no comments to make in respect of this. We have also reviewed the Carbon Capture Readiness information and we can advise that there are no foreseeable barriers to carbon capture with regards to space or technical feasibility – in respect of this we attach the assessment report provided by our National Permitting Service for your information.

Should you require any additional information, or wish to discuss these matters further, please do not hesitate to contact me on the number below.

Yours sincerely

Direct dial _____

Direct e-mail

1@environment-agency.gov.uk

**Consultation Response for Planning Inspector:
Carbon Capture Readiness**

Keadby 2 (CCGT) Power Station

910MWe Power Station

DPS consultation: AN/2017/126048

Summary of conclusions:

The Environment Agency considers that the Applicant has demonstrated "there are no foreseeable barriers" to carbon capture with regards to space or technical feasibility.

1.0 INTRODUCTION

The Government has determined no new power station at or over 300MWe will be consented unless it can be demonstrated to be carbon capture ready (CCR) and this should be assessed during the consenting process. To fulfil this requirement, the Department for Business, Energy and Industrial Strategy (BEIS) has consulted the Environment Agency on the carbon capture readiness of the Keadby 2 CCGT Project, as part of the overall determination of the application to vary the consent to construct and operate under section 36 of the Electricity Act 1989. We are a consultee to this process, but without any specific powers or duties.

The CCR requirements at application include demonstration that there is sufficient space, it is technically and economically feasible to retrofit the chosen technology and that transport and storage of CO₂ is feasible. Full details of these requirements are given in the DECC (2009) guidance. The Environment Agency is only able to comment on the *suitability of the space set aside on or near the site for carbon capture equipment and the technical feasibility of the retrofitting carbon capture equipment*. As explained in paragraph 94, of the DECC (2009) guidance, the Environment Agency is not the public body to comment on the technical aspects of the transport and storage of CO₂ off site, nor can it comment on the soundness of the economic feasibility of the CCS proposal.

Table 1 in the DECC (2009) guidance provides the approximate minimum land footprint for some types of carbon capture plant (CCP) based on a generating station with 500MWe capacity. The DECC (2009) guidance states that the Environment

Agency, in offering their advice will use this information together with other relevant information sources as a starting point in judging whether the amount of space allocated by Applicant is appropriate.

Since the publication of the DECC (2009) guidance, the minimum land footprint requirement has been reviewed by Nick Florin and Paul Fennell of Imperial College, London. Their findings were published in the Florin and Fennell (2010) report: Whilst the DECC did not updated the CCR guidance note to incorporate the findings Florin and Fennell (2010), the report was published by DECC on the GOV.UK website.

The role of the Environment Agency is to provide advice to the consenting authority as to whether the Applicant has demonstrated they propose to retain sufficient space to accommodate the carbon capture (CC) plant and equipment and that it is technically feasible to retrofit the CC technology selected. The CCR requirements are that 'there are no foreseeable barriers' to retrofit.

2.0 CCR Application Details

Name of proposed development	Keadby 2 (CCGT) Power Station
Operator/Applicant	Keadby Generation Limited.
Size	910We
Date of CCR Assessment Report	July 2017
Input fuel	Natural Gas
Likely capture technology declared	Post combustion scrubbing
Capture efficiency	90%

2.1 Space for Retrofit of CCR

Florin and Fennell (2010) concluded that in the case of post-combustion capture retrofit to combined cycled gas turbine (CCGT) plants, it is likely that the DECC (2009) guidance overestimates the size of capture plant required by at least 36%. In Table A1 of the Florin and Fennell (2010) report, the site dimensions for CO₂ capture and compression equipment for a 500 MWe CCGT power station with post-combustion capture is 24,000m². Consequently for a 910MWe power station we would expect 43,700m² of land to be allocated for CC plant and equipment.

The Applicant's CCR report calculates that the CCP and equipment, including allowance for vehicle and crane access, will fit into just 27,000 m². They have actually allocated a total of 45,000m² for the CCP and equipment which is sufficient space based on the Florin and Fennell (2010) report.

We conclude that the Applicant has demonstrated that they propose to retain sufficient space to accommodate the CCP and equipment.

2.2 Proposed CCP Technology

The Applicant proposes to take steam from the CCGT's to use for the solvent regeneration process on the CC plant. This is identified as best practice in the DECC CCR (2009) guidance as it is more efficient than using a standalone boiler to provide the steam.

We have reviewed the information provided by the Applicant and conclude that "there are no foreseeable barriers" to the technical feasibility of carbon capture retrofit as a result of the proposals set out by the Applicant.

3.0 CONCLUSIONS

Based on the information provided, we consider that for the CCGT plant "there are no foreseeable barriers" to carbon capture with regards to space or technical feasibility.

4.0 FURTHER INFORMATION

Further information or background to this response can be obtained from:

—
—

National Permitting Service
Environment Agency
Sapphire East
550 Streetsbrook Road
Solihull
B91 1QT

[@environment-agency.gov.uk](mailto:environment-agency.gov.uk)

September 2017

5.0 References

Department of Energy and Climate Change (DECC), Carbon Capture Readiness (CCR): A guidance note for Section 36 Electricity Act 1989 consent application, URN 09D/810, November 2009.

Florin, N. and Fennell, P., Assessment of the validity of "Approximate minimum land footprint for some types of CO2 capture plant" provided as a guide to the Environment Agency assessment of Carbon Capture Readiness in DECC's CCR Guide for Applications under Section 36 of the Electricity Act 1989, October 2010.