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21 December 2017

ELECTRICITY ACT 1989

ELECTRICITY GENERATING STATIONS (VARIATION OF CONSENTS) (ENGLAND AND WALES) REGULATIONS 2013 (AS AMENDED)

KEADBY II POWER STATION PROJECT, KEADBY POWER STATION SITE, TRENTSIDE, KEADBY, NEAR SCUNTHORPE, NORTH LINCOLNSHIRE,

I. THE APPLICATION

1.1. I am directed by the Secretary of State for Business, Energy and Industrial Strategy (“the Secretary of State”) to refer to the application dated 25 July 2017 (“the Application”) on behalf of Keadby Development Limited (“the Company”) to vary the consent of the Secretary of State under section 36 of the Electricity Act 1989 (“the Act”) dated 10 September 1993, as varied on 3 November 2016 under section 36C of the Act (“section 36 consent”) to construct and operate the Keadby II combined cycle gas turbine (“CCGT”) generating station at Trentside, Keadby, North Lincolnshire. It also seeks to vary a direction under section 90(2ZA) of the Town and Country Planning Act 1990 (“section 90 direction”) that planning permission for the Development be deemed to be granted.

1.2. The variation being requested (“section 36C variation”) is to increase the electrical capacity from 820MW to 910MW. The Company’s reason for this increase is that recent advances in the design of CCGT have resulted in the availability of more efficient CCGT units, which offer both economic and environmental benefits. They also consider the increase in capacity allows deployment of the latest CCGT units and provides sufficient flexibility to accommodate future improvements in CCGT technology. In addition to the increase electrical capacity, the following key design changes are sought:

- Alteration in some of the dimensions of main structure of the Development and change in location of some buildings within the site boundary;
- changes to the appearance of the gas turbine hall and steam turbine hall, which would now be clad steel down to ground level;
- the removal of 'supplementary firing' from the varied consent, as the Development would not use supplementary firing as part of the power generation process;
- a longer commissioning phase for the Development, increasing from 26 weeks to 12 months; and
- a higher number of Abnormal Indivisible Loads ("AILs") accessing the site would be required during the construction phase (although the number of AILs routed through the village of Ealand would remain the same with other AILs taking an alternative route to be agreed on a case by case basis with the local highways authority(ies));

1.3. The Development would comprise:

- (a) a CCGT generating station of up to 910MW consisting of:
- i) an industrial gas turbine with associated boilers and single exhaust stack;
 - ii) a steam turbine;
 - i) a heat recovery steam generator;
 - ii) associated buildings;
 - iii) control room and administrative block;
 - iv) hybrid cooling towers;
 - v) water treatment plant; and
 - vi) cooling water abstraction and discharge pipework.
- (b) ancillary buildings, enclosures, plant, equipment and machinery;
- (c) an access road; and
- (d) the necessary civil engineering works.

1.4. The Application for the section 36C variation was published in accordance with the Electricity Generating Stations (Variation of Consent) (England and Wales) Regulations 2013 ("the Variation Regulations") and served on North Lincolnshire Council ("the relevant planning authority").

1.5. In accordance with the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000 ("the EIA Regulations"), which apply to the variation of a consent by virtue of regulation 7 of the Variation Regulations, the documents titled "Environmental Impact Assessment Report" dated 24 July 2017 were submitted with the Application. The documents describe the Development and

update the analysis of the environmental effects set out in the Environmental Statement provided in support of the 2016 variation application (the Environmental Statement and Environmental Impact Assessment Report are hereinafter collectively referred to as “the updated Environmental Statement”).

1.6. In accordance with the EIA Regulations, the updated Environmental Statement was advertised and placed in the public domain to give people an opportunity to comment.

II. SECRETARY OF STATE’S CONSIDERATION OF THE REVISED PLANNING CONDITIONS

2.1. The Secretary of State has considered the revised planning conditions. The Secretary of State agrees they are suitable for inclusion in a section 90 direction which the Secretary of State may give, subject to the modifications noted below and the minor drafting variations as set out in the Explanatory Memorandum which accompanies the revised consent and planning conditions.

III. SECRETARY OF STATE’S DECISION ON THE HOLDING OF A PUBLIC INQUIRY

3.1. Regulation 8 of the Variation Regulations gives the Secretary of State discretion to hold a public inquiry into a variation application. In considering whether to hold a public inquiry, the Secretary of State must consider any representations which have been made to the Secretary of State by a relevant planning authority or any other person where those representations are not withdrawn and all other material considerations.

3.2. No objections were received by the Secretary of State to the proposed variation from the relevant planning authority or any other person. However, the Secretary of State has given consideration to the representations received from BEIS consultees and others consulted by the Company, including the relevant planning authority, Natural England, the Environment Agency, Ministry of Defence England and Anglian Water and taken account of their comments in the varied planning conditions.

Conclusion

3.3. The Secretary of State has considered the views of the relevant planning authority and consultees and all other material considerations. The Secretary of State considers there is nothing further that needs examining and that it would not be appropriate to cause a public inquiry to be held into the section 36C application.

IV. SECRETARY OF STATE’S CONSIDERATION OF THE ENVIRONMENTAL INFORMATION

4.1. Regulation 3 of the 2000 Regulations as applied by regulation 7 of the Variation Regulations prohibits the Secretary of State from granting a variation of a

section 36 consent unless the Secretary of State has first taken into consideration the environmental information, as defined in the EIA Regulations.

4.2. The Secretary of State is satisfied that the updated Environmental Statement is sufficient to allow him to make a determination on the Application and that the Company has followed the applicable procedures in the EIA Regulations.

4.3. The Secretary of State has considered the environmental information; in addition to the updated Environmental Statement, the Secretary of State has considered the comments made by the relevant planning authority, those designated as statutory consultees under regulation 2 of the EIA Regulations and other consultees.

4.4. Taking into account the extent to which any environmental effects will be modified and mitigated by measures the Company has agreed to take or will be required to take either under the conditions attached to the variation to section 36 consent or the planning conditions or by regulatory authorities including Natural England and the Environment Agency, the Secretary of State considers that any remaining adverse environmental effects will not be such that it would be appropriate to refuse the variation to the section 36 consent for the Development or the deemed planning permission.

4.5. The Secretary of State also has regard, in accordance with section 40 of the Natural and Rural Communities Act 2006, to the purpose of conserving biodiversity, and considers that the matters specified in paragraph 1(2) of Schedule 9 to the Electricity Act 1989 have been adequately addressed by means of the Environmental Statement.

V. SECRETARY OF STATE'S CONSIDERATION OF POSSIBLE EFFECTS ON DESIGNATED SITES

A) Habitats Regulations Assessment

5.1. The Conservation of Habitats and Species Regulations 2010 (“the Habitats Regulations”) require the Secretary of State to consider whether the proposed Development would be likely to have a significant effect on a European Site, as defined in the Habitats Regulations and if so, to undertake an Appropriate Assessment (“AA”) of the implications for the European Site in view of its conservation objectives. In the absence of imperative reasons of overriding public interest, consent may only be granted if it can be shown that the development will not have an adverse effect on the integrity of the European Site (regulations 61(5) and 62). Regulation 61(6) provides that when considering whether the proposed development will adversely affect the integrity of a European Site, the competent authority can take into account measures proposed to mitigate such impacts.

5.2. The Convention on Wetlands of International Importance 1972 (“the Ramsar Convention”), which provides for the listing of wetlands of international importance (“Ramsar sites”) is also of relevance. United Kingdom Government policy is to afford Ramsar sites in the United Kingdom the same protection as afforded to European sites.

5.3. The Development site is in close proximity to the Humber Estuary Special Protection Area (“SPA”) and Special Area of Conservation (“SAC”) which is a European site. The site is also listed as the Humber Estuary Ramsar site.

5.4. In respect of the 2016 variation application, the Secretary of State previously concluded that an Appropriate Assessment pursuant to regulation 61 of the Habitats Regulations was necessary because Likely Significant Effects (“LSE”) cannot be excluded from the Humber Estuary SAC and Ramsar site. A likely significant effect was ruled out for all other European sites.

5.5. The Company had identified LSEs due to the effect of air emissions on the Humber Estuary SAC qualifying habitat, *Salicornia* and other annuals colonising mud and sand. These LSEs were identified because modelling undertaken by the Applicant had demonstrated that nitrous oxide and nutrient nitrogen deposition would occur in at least one location within the Humber Estuary and Ramsar at a significant level. The Applicant had also identified that this LSE could not be excluded in-combination with other projects.

5.6. The Company submitted information to inform the AA which concluded that the modelled emissions were not predicted to result in a change to the extent, distribution, structure or function of the Humber Estuary SAC and Ramsar habitats either alone or in-combination with other plans or projects. Natural England agreed that the Development would not have an adverse effect on site integrity, either alone or in-combination.

5.7. The Secretary of State noted the advice of Natural England and, in undertaking the AA, concluded that there would be no adverse effect on the Humber Estuary SAC *Salicornia* and other annuals colonising mud and sand feature from the Development alone and in-combination with other plans and projects. The Secretary of State also concluded this was the case for the corresponding sub-features of the Ramsar designation.

5.8 The Applicant has provided updated modelling to support the variation application. The Secretary of State notes from this assessment that the only potentially different effects caused by the design changes in the variation application compared to the 2016 consented development that have the potential to affect a European site are those in relation to changes to emissions to air. The Secretary of State has considered this information, which sets out the changes in emissions and provides an update to the in-combination assessment to account for changes to relevant plans and projects since the previous consent was approved in 2016. The information shows that the predicted pollutant levels and loads at Humber Estuary SAC and Ramsar site are slightly higher for the Variation Application than those for the Consented Development. No objections were received on the content of this document and taking this into consideration, the Secretary of State is satisfied that the content and scope of the assessment is appropriate.

5.9 The Secretary of State considers that there remains potential for a likely significant effect on the Humber Estuary SAC and Ramsar from nutrient nitrogen deposition and nitrous oxide emissions as the emissions from the variation application are greater than from the consented project.

5.10 It is for the Secretary of State, as competent authority, to complete an Appropriate Assessment. The Secretary of State has therefore considered the information provided by the applicant and advice from interested parties as well as other relevant documentation to determine whether adverse effects from nitrogen deposition and nitrogen oxide emissions on the integrity of the site can be excluded. This constitutes the Secretary of State's Appropriate Assessment.

Nutrient nitrogen deposition

5.11 The Applicant concluded for the 2016 variation application that given the existing background levels of nutrient nitrogen, the process contribution from the Development alone and in combination would not result in a change to the extent, distribution, structure or function of the habitats present which comprise relatively robust upper saltmarsh reed, rush and grass communities, and would not lead to an adverse effect on site integrity alone or in combination with other projects. In an email to the Secretary of State on 17th October 2016, Natural England stated its agreement with the conclusion. The Habitats Regulations Assessment for the consented development concluded that adverse effects on integrity can be ruled out.

5.12 Despite an increase in nitrogen deposition of 0.0373kgN/ha/yr for the variation project alone (0.1740 kgN/ha/yr) compared to the consented project alone (0.1367 kgN/ha/yr), and given the level of background deposition at the Humber Estuary SAC/Ramsar site (24.08 kgN/ha/yr), both the alone and in-combination total remains within the minimum (20kgN/ha/yr) and maximum (30kgN/ha/yr) critical load range for the Humber Estuary SAC. Natural England's response to the consultation on 30 August 2017 states that there are no habitats in the Humber Estuary SAC within 15km of the development that are sensitive to NO_x impacts, that there is not likely to be an adverse effect on the integrity of the site and that NE has no objection to the proposed changes.

5.13 The Secretary of State places weight on the advice of Natural England and concludes that adverse effects on the integrity of the Humber Estuary SAC/Ramsar from the effects of nitrogen deposition can be excluded, both for the project alone and in-combination.

NO_x emissions

5.14 The habitats and species which are likely to be affected in the Humber SAC and Ramsar site by increased in long and short term NO_x levels are:

- Atlantic salt meadows;
- coastal lagoons (at Blacktoft Sands);
- estuaries;
- mudflats and sandflats not covered by seawater at low tide;
- sandbanks which are slightly covered by sea water all the time;
- river lamprey (*Lampetra fluviatilis*) and
- sea lamprey (*Petromyzon marinus*).

5.15 The Applicant's analysis to support the variation application concludes that the features which are likely to be affected by the NOx emissions are either not sensitive to NOx, or are ones which are influenced more by water based nitrogen loadings as they comprise water habitats, or intertidal habitats which are subject to regular tidal inundation and flushing. The Applicant states that the findings of their assessment show that the variation application has no greater effect than the consented development and concludes that adverse effects on the integrity of the Humber SAC and Ramsar site can be ruled out, both from the effects of project alone, and in-combination with other projects. Natural England's response to the consultation on 30 August 2017 states that there are no habitats in the Humber Estuary SAC within 15km of the development that are sensitive to NOx impacts, that there is not likely to be an adverse effect on the integrity of the site and that NE has no objection to the proposed changes.

5.16 The Secretary of State places weight on the advice of Natural England and concludes that adverse effects on the integrity of Humber Estuary SAC/Ramsar site from the effects of NOx emissions can be excluded for both the project alone and in-combination.

B) Effects on other protected Sites

5.17. The Secretary of State notes that potential increases of nitrous oxide on the Humber Estuary Site of Special Scientific Interest ("SSSI") are predicted by the Company to have effects that are not significant as the ecological receptors present within the estuary are either not sensitive to NOx, or those that are largely water based/inundated by the tide and the main contributions to any effects are likely to be from water based nutrient loading rather than airborne nitrogen. The Company considers the habitat type and species affected also mean that the potentially significant contributions of deposited nitrogen will also have effects that are not significant. Natural England has also raised no objections and requested no new conditions in respect of the SSSIs. The Secretary of State is satisfied that the proposed Development being carried out in strict accordance with the details of the Application, as submitted, will not damage or destroy the interest features for which these sites have been notified.

VI. SECRETARY OF STATE'S CONSIDERATION OF ISSUES RAISED DURING CONSULTATION

6.1. The Secretary of State notes that representations in response to the consultation on the variation application were received from: North Lincolnshire Council, Natural England (see section V above; Historic England; Ministry of Defence ("MOD"); National Air Traffic Service ("NATS"); Civil Aviation Authority ("CAA"); Highways England; Environment Agency ("EA"); Metrological Office ("Met Office"); National Grid; Anglian Water; and the Health and Safety Executive ("HSE").

Relevant Planning Authority

6.2. North Lincolnshire Council, the relevant planning authority for the variation application, has confirmed that it has no objection to the Development. Subject to the proposed conditions, it considers the variation is unlikely to result in significant adverse environmental impacts. However, its ecologist suggested that planning Condition (34) covering the preservation onsite of south marsh orchids be revised to require them to be relocated because it would not be possible to conserve them in situ as they are located in an area that would become part of the power station structure. Accordingly, the Secretary of State has revised Condition (34) to address the ecologist's concerns. The relocation scheme for south marsh orchids to be provided by the Company prior to the commencement of the Development requires approval in writing by the relevant planning authority in consultation with Natural England.

MOD

6.3. MOD raised no objections subject to there being Defence Geographic Centre aviation notification in the deemed planning permission. However, the Secretary of State notes that such a condition already exists in the 2016 Consent (Condition (76)) and no variation is sought in respect of that condition. The Secretary of State is satisfied therefore that the MOD's aviation safety interests have been addressed.

National Grid

6.4. National Grid has highlighted its gas and electricity apparatus in the locality, but does not object to the application. The Secretary of State notes National Grid is working with the Company to facilitate the proposed development's gas and electricity connections and to ensure its apparatus is protected.

Anglian Water

6.5. Anglian Water has confirmed that the application site is located in an area that appears to be outside its area of responsibility, is not aware of any water or waste water requirements made upon them from the proposed development and also has no comments on the principle of the proposed development. However, it has suggested that the relevant sewerage undertaker should also be consulted on planning Condition (36) which relates to the preparation of a foul and surface water drainage scheme. However, the Secretary of State notes that it is Condition 35 that requires submission, consultation and approval of the scheme and has therefore revised that condition accordingly.

EA

6.6. The EA raised no objection and considered the Applicant has demonstrated "there are no foreseeable barriers" to carbon capture with regards to space or technical feasibility".

Other representations

6.7. Representations were received from Highways England, HSE, Met Office and NATS that raised no objections or substantive comments on the variation application.

6.8. No representations were received from members of the public.

VII. SECRETARY OF STATE'S CONSIDERATION OF THE REQUEST TO VARY THE CONSENT

7.1. The Secretary of State notes that the Company has requested that the original consent as varied should be further varied to allow for the construction and operation of a CCGT generating station of up to 910MW with other key changes identified in paragraph 1.2 above.

7.2. The Secretary of State is satisfied that the change in capacity and other proposed changes are appropriate variations and the varied Development will not differ from the generating station to which the current consent referred to the extent that this could be considered a new project. The Secretary of State considers that any difference in construction, operation or likely environmental effects would not be such as to require authorisation by a new consent.

VIII. SECRETARY OF STATE'S CONSIDERATION OF CARBON CAPTURE READINESS ("CCR")

8.1. The Secretary of State notes that the section 36 consent includes conditions relating to CCR which were modelled on those contained in Annex G of "Carbon Capture Readiness (CCR): a guidance note for section 36 Electricity Act 1989 consent applications" ("CCR Guidance", which sets out the factors that need to be considered in making an assessment about CCR.

8.2. As part of their application for section 36 consent, applicants are required to demonstrate the following (and the Secretary of State considers such demonstration equally relevant to a variation application):

- that sufficient space is available on or near to the site to accommodate carbon capture equipment in the future;
- the technical feasibility of retrofitting their chosen carbon capture technology;
- that a suitable area of deep geological storage offshore exists for the storage of captured CO₂ from the proposed generating station;
- the technical feasibility of transporting the captured CO₂ to the proposed storage area; and
- the likelihood that it will be economically feasible within the generating station's lifetime, to link it to a full Carbon Capture and Storage ("CCS") chain, covering retrofitting of capture equipment, transport and storage.

8.3. The Secretary of State notes that the Environment Agency has confirmed that sufficient space is available to house the necessary carbon capture and storage infrastructure. The Environment Agency has also indicated that it accepts the technical feasibility of retro-fitting the infrastructure should the need arise to do so.

8.4. The Company has indicated in its July 2017 CCR Report its intention that CO₂ produced by the proposed development would be transported by the proposed National Grid Yorkshire and Humber Carbon Capture and Storage Cross Country Pipeline to Barmston, south of Bridlington. An offshore pipeline would then transport the CO₂ a further 60 miles to a storage facility in a saline aquifer in Block 5/42 within a Bunter Sandstone formation in the Southern North Sea. As consent for the National Grid pipeline application was refused by the Secretary of State on 11 January 2017 this is no longer an option. However, the Secretary of State also notes that the Company considers that in the event of the National Grid pipeline not going ahead a similar route is likely to be the most feasible option. An alternative saline aquifer, 2/48 could also be used. In the circumstances, the Secretary of State has no reason to consider that it would not be technically feasible to use an alternative pipeline and also that a suitable storage option does not exist for the CO₂ produced and captured during the operation of the proposed development.

8.5. In determining the previous variation application, the Secretary of State considered that these approaches were acceptable and no information has subsequently been received which causes the Secretary of State to consider the matter differently in relation to the current variation application.

8.6. The decision on the previous variation application considered that the economic assessment produced by the Company was in accordance with the requirements of the CCR Guidance insofar as it demonstrated that the fitting of carbon capture equipment would be potentially viable over the lifetime of the proposed Development. The Company has submitted economic feasibility analysis, adapting the methodology used in the 2016 variation application, scaled to reflect the additional generating capacity sought in the current variation application. Whilst the Company's estimated load factor is considered to be too high by the Department's economists, the Secretary of State considers other assumptions are reasonable and is satisfied that the variation application would still pass the economic feasibility test with a more realistic load factor (i.e. an estimated load factor of 67% would result in a carbon price still within carbon price scenarios).

Conclusion on CCR

8.7. The Secretary of State has considered the information provided by the Company and the comments of consultees both within and outside the Department for Business, Energy and Industrial Strategy. The Secretary of State notes that the consultees accept the proposals put forward by the Company and concludes, therefore, that there are no technical or economic obstacles to the grant of the requested variation in relation to CCR.

IX. SECRETARY OF STATE'S CONSIDERATION OF COMBINED HEAT AND POWER

9.1. The Secretary of State notes that the deemed planning permission direction already includes requirements for combined heat and power ("CHP"). The Secretary of State considers that the CHP condition (Condition 63) remains appropriate and should be retained in the varied section 36C consent.

X. EQUALITY ACT 2010

10.1. The Equality Act 2010 requires public authorities to have due regard in the exercise of their functions to:

- (a) the elimination of unlawful discrimination, harassment and victimisation and any other conduct prohibited under the Act;
- (b) the advancement of equality of opportunity between people who share a protected characteristic and those who do not; and
- (c) the fostering of good relations between people who share a protected characteristic and those who do not.

10.2. The Secretary of State has considered the potential impacts of granting or refusing the Section 36C variation application in the context of the general equality duty and has concluded that it is not likely to result in any significant differential impacts on people sharing any of the protected characteristics.

10.3. The Secretary of State does not, therefore, consider that either the grant or refusal of the variation application is likely to result in a substantial impact on equality of opportunity or relations between those who share a protected characteristic and others or unlawfully discriminate against any particular protected characteristics.

XI. OTHER MATTERS

11.1. The Secretary of State has also considered policies on the need for and development of new electricity generating infrastructure, as set out in the *Overarching National Policy Statement for Energy (EN-1)* and the *National Policy Statement for Fossil Fuel Electricity Generating Infrastructure (EN-2)* in determining this Section 36C variation application. The Secretary of State considers that the variation application is consistent with the policies set out in the National Policy Statements (EN-1 and EN-2).

Environmental Permit

11.2. The Secretary of State is aware that the varied Development would require an Environmental Permit from the Environment Agency before it could operate. The Secretary of State notes that the Environment Agency has indicated that, on the basis of the information available to it, it does not foresee any barriers to a permit being issued for the operation of the Development.

XII. SECRETARY OF STATE'S DECISION ON THE VARIATION APPLICATION

12.1. The Secretary of State, having regard to the matters specified above, has decided to make a further variation to the section 36 consent for the Development pursuant to section 36C of the Electricity Act 1989. The section 36 consent as varied is annexed to the variation decision and subject to the conditions set out in the varied consent.

12.2. The Secretary of State also believes the planning conditions as revised form a sufficient basis on which the varied Development might proceed. He notes in particular that the increase in the number AILs accessing the site during the construction phase would need to be agreed by the Council under Condition (66), which was included in the 2016 variation. The Secretary of State has therefore has decided to issue a section 90(2ZA) direction to vary the planning permission on the basis of the conditions specified in the annex to that direction.

12.3. Following consultation on the proposed development, the Secretary of State has also revised Condition (34) to require the applicant to submit prior to the commencement of the Development a scheme for relocation of established colonies of southern marsh orchid (*Dactylorhiza praetermissa*). The drainage scheme to be agreed under Condition (35) also now requires consultation with the relevant sewerage undertaker.

12.4. I accordingly enclose the Secretary of State's variation of consent under section 36C of the Electricity Act 1989 and a direction under section 90(2ZA) of the Town and Country Planning Act 1990.

XIII. GENERAL GUIDANCE

13.1. The validity of the Secretary of State's decision may be challenged by making an application to the High Court for leave to seek a judicial review. Such application must be made as soon as possible. Parties seeking further information as to how to proceed should seek independent legal advice from a solicitor or legal adviser, or alternatively may contact the Administrative Court at the Royal Courts of Justice, Strand, London WC2 2LL (General Enquiries 020 7947 6025/6655).

13.2. This decision does not convey any approval or consent or waiver that may be required under any enactment, by-law, order or regulation other than section 36 and 36C of, and Schedule 8 to, the Electricity Act 1989 and section 90 of the Town and Country Planning Act 1990.

Yours sincerely

Gareth Leigh
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