

P/16/0557/DP/A

STUBBINGTON

NATIONAL GRID IFA2 LTD

AGENT: NATIONAL GRID

DETAILS PURSUANT TO CONDITIONS 10 (SCHEME OF EXTERNAL LIGHTING); 11 & 12 (AUDIBLE NOISE ASSESSMENT); 14 (RADIO FREQUENCY INTERFERENCE); 22 (CONSTRUCTION TRAFFIC MANAGEMENT PLAN) & 23 (CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN) OF HYBRID PLANNING PERMISSION P/16/0557/OA.

IFA 2 NATIONAL GRID LAND AT DAEDALUS AIRFIELD LEE-ON-THE SOLENT PO13 9YA

Report By

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Description of Proposal

For this application the Planning Committee is being asked to consider the relevant details submitted pursuant to conditions 10, 11, 12, 14, 22 and 23 of the Hybrid Planning Permission. These conditions are set out below in full.

Lighting following site completion

10. No development in relation to the Converter Station Development shall take place until a scheme of permanent external lighting has been submitted to and approved in writing by the local planning authority. The details shall include a layout plan with beam orientation and extent of light scatter and a schedule of the equipment design (luminaire type, mounting height, aiming angles and luminaire profiles). Development of the converter station buildings shall be carried out in accordance with the approved details.

REASON: To ensure lighting does not materially harm the area or impact upon highway and airport safety.

Noise from use of the buildings and the site

11. No development relating to the erection of the converter station buildings shall take place until details have been submitted to and approved by the local planning authority to demonstrate how the buildings will be designed and any external plant attenuated to control noise emissions including low frequency noise. The converter station buildings shall be constructed in accordance with the approved details.

REASON: To ensure that the use of the converter buildings does not cause any noise nuisance to nearby residential properties.

12. The rating level of noise emitted from the converter station buildings shall not exceed whichever is the greater of the existing background noise level or 30dB(A) when measured at the boundaries of any surrounding residential properties. The measurements and assessment of noise levels shall be made in accordance with BS 4142:2014.

REASON: To ensure that the use of the converter station buildings does not cause any noise nuisance to nearby residential properties.

Radio Frequency Interference

14. No development relating to the erection of the converter station buildings shall take place until details setting out how the converter station buildings will be designed and implemented to ensure that any electromagnetic disturbance arising from the use of the site does not prevent radio and telecommunications equipment or other equipment outside the site from operating as intended, has been submitted to and approved in writing by the local

planning authority. The development of the Converter Station Development shall not be carried out otherwise than in accordance with the approved details.

REASON: To prevent radio frequency interference to users of surrounding land and buildings.

Construction traffic management plan

22. No development in relation to the Converter Station Development shall take place until a construction traffic management plan has been submitted to and approved by the local planning authority in writing. The construction traffic management plan shall specify lorry routes, parking and turning provision to be made on site for construction vehicles and operatives' vehicles, measures to prevent mud from being deposited on the highway and a programme of construction. The development in relation to the Converter Station Development shall be carried out in accordance with the approved construction traffic management plan.

REASON: In the interests of highway safety.

Construction Environmental Management Plan

23. No development in relation to the Converter Station Development shall take place until a Construction Environmental Management Plan has been submitted to, and approved in writing by the local planning authority. The Construction Environmental Management Plan shall set out the strategy and detailed method statements in respect of the following:

- The steps and procedures that will be implemented to avoid or mitigate the impacts upon designated sites and protected species;
- Soil movement, methods of tracking soil movement and details for demonstrating soil will be suitable for use;
- The storage of materials and construction waste;
- The storage and dispensing of fuels;
- The storage and dispensing of chemicals;
- The storage and dispensing of oils
- The storage and dispensing of hazardous materials (including any hazardous soils);
- Site office/ welfare facilities
- The proposed method of working (this shall include details to monitor and prevent adverse impacts to surface water, groundwater and adverse impacts caused by noise, vibration, odours, dust and any airborne contaminants during development);
- The proposed phasing of the development;
- The proposed maintenance and aftercare of the site;
- The provision of road and wheel cleaning facilities

The carrying out of the Converter Station Development shall take place strictly in accordance with the Construction Environmental Management Plan approved pursuant to this condition unless any variation is first agreed in writing by the local planning authority.

REASON: In order to minimise the impact of the development upon nearby residents and businesses, users of the highway and the water environment.

Policies

The following policies apply to this application:

Approved Fareham Borough Core Strategy

CS4 - Green Infrastructure, Biodiversity and Geological Conservation

CS5 - Transport Strategy and Infrastructure

Development Sites and Policies

DSP2 - Environmental Impact

DSP3 - Impact on living conditions

Relevant Planning History

The following planning history is relevant:

P/16/0557/OA **Hybrid Planning application for an electrical interconnector with an approximate capacity of 1000 megawatts (MW) extending from Tourbe, Normandy (France) to Chilling, Hampshire.**

Outline planning permission is sought at Daedalus for:

- 1. The erection of converter station buildings (to a maximum height of 22 metres) with associated, vehicular accesses and roads, security fencing, landscaping and temporary construction compounds;**
- 2. Creation of public open space and associated facilities, grassland planting and tree planting.**

Full Planning permission is sought at Hill Head and Stubbington for:

- 3. Installation of cables between Mean Low Water Springs and the converter station in the north eastern corner of Daedalus Airfield.**

Full Planning Permission is sought at Chilling for:

- 4. The Installation of cables between the Mean Low Water Springs and the existing cable sealing end compound at Chilling Lane**

APPROVE

10/04/2017

Representations

Nine letters have been received (8 in objection and one in support). However a number of the issues raised cannot be taken into consideration. The issues are summarised as follows

NOISE:

-The assumptions in the modelling of noise, in particular a wind speed of 0-3 metres per second, seems to be unrealistic. Multiple wind speeds and various directions should have been explored, in particular southerly and westerly winds as these are the predominant directions around the site;

-During the operation of IFA2 the results of regular monitoring of noise levels should be available for the public to view;

CONSTRUCTION TRAFFIC MOVEMENTS:

-Councillor Woodward advised (at a residents meeting) that he was going to ask the applicants whether earth movements could be made via the Solent, but there's no mention of this in the document. If movements can't be made by sea a justification should be

provided as to why not.

-The construction traffic management plan proposes to use routes which are already overloaded with traffic;

-The proposed delivery times are during daytime working hours which is when the roads are at their most congested.

One letter has been received in support, but requests that materials for construction are brought in by sea to minimise disruption to traffic.

Planning Considerations - Key Issues

External Lighting (Condition 10)

The applicant has amended the external lighting plan to respond to the environmental health officer's comments regarding light spill. The plan now includes additional detail on lighting type, heights, light orientation and light spill details. The amended details are considered to be acceptable in addressing the requirements of condition 10 and detail that lights are all downward facing and the spill is confined the converter station site. There is no environmental health objection.

Noise from use of the buildings and the site (condition no's 11 and 12)

It was set out in the report to the Planning Committee for the hybrid planning permission that in order for there to be no adverse effects, the rating sound level (which is the specific sound level including penalties for tonality, as appropriate) at nearby receptors should not exceed the background noise level.

The typical quiet night-time background noise levels in the vicinity of the site at nearby noise sensitive receptors (the nearest dwellings to the north along Gosport Road), according to the applicant's Environmental Statement accompanying the hybrid application, were in the region of 30 - 35 dB.

During daytime periods the background noise level would increase (as a consequence of traffic and airport activity for example), while the noise generated by the Converter Station would remain relatively constant. The typical daytime background noise level towards the north of the site, in the vicinity of the nearest noise sensitive dwellings, is 48dB. As such, setting a limit in planning condition 12 which is based on quiet night-time noise levels (30dB) ensures that there is no effect during daytime periods.

It is noted that the detailed wording of condition 12 does not actually require the formal submission of, nor approval of details. It simply sets a standard to which the development cannot exceed. The submitted noise report seeks to provide the necessary details to properly address the requirements of condition 11 which is required to demonstrate how the buildings will be designed and any external plant attenuated to control noise emissions including low frequency noise. However, the submission includes commentary on how the buildings will be designed and noise attenuated using the BS 4142:2014 (the standard specified in condition 12) criteria hence the reference to both conditions 11 and 12 in the submitted details.

Specific noise mitigation measures have been designed for the proposed converter station. Examples are provided in the noise statement appendices to show how noise mitigation is incorporated into the design of the converter station.

The noise assessment lists all of the main sources of noise from the Converter Station

together with the frequency range of emission, type of noise, whether it is constant or intermittent and the level of reduction that can be achieved by mitigation measures.

The noise assessment confirms that the most prominent noise sources, which are mainly electrical circuit apparatus and equipment, will be located inside Station buildings or protected by audible noise enclosures. The mound at the northern and eastern edge of the converter plant (and therefore its mitigation effect) is included in the model, however the model does not include any mitigation that would be provided by proposed vegetation or soft landscaping, as this would take some time to mature and would therefore not be applicable in the early years of the station's operation. The model has also used noise calculations based on the operation of the station at its maximum level of active and reactive power to ensure that outputs from the model reflect a 'worst case scenario'. As part of the assessment, background noise levels measured from the nearest existing receptor locations have been used.

The noise assessment identifies the following noise limiting measures that will be used at the Daedalus Converter Station:

- The station layout has been strongly optimised to minimise the noise impact from the station at the sensitive noise receptor locations. The position of equipment within the site would be designed to direct noise away from the sensitive receptors for example the position of valve cooling and the shunt reactor is towards the south and the transformer coolers are towards the west so that they would be partially screened by other structures and facilities within the station;
- The converter tanks would be located within specially designed acoustic enclosures;
- Fans for converter transformer coolers would be of a low noise type;
- The shunt reactor tank would be located in an acoustic enclosure;
- The cooling fans would be of a low noise type and optimised for use in this station;
- Converter reactors would be located inside, within the reactor hall which would have heavy damping walls and roof;
- The AC filter components would be installed indoors, inside the AC halls with sufficient acoustic damping properties;
- DC equipment would be installed indoors, inside the DC halls with sufficient acoustic damping properties;
- All cooling and ventilation auxiliary equipment used for the Converter Station buildings would be acoustically optimized and noise production attenuated by means of low noise motors and fans.

As several of the above measures have been successfully used at other converter sites, their efficiency has been tested and confirmed.

The noise report contains a plan which maps the distribution of noise levels beyond the site so that the impact on sensitive noise receptors is clearly demonstrated. Furthermore, the noise report has a dedicated section related to tonality of noise. To fall within the definition of low frequency the noise would fall within the 25Hz to 125Hz octave bands. In this case the levels shown within the noise report do not show any significant tonal contribution to the emitted noise. The Environmental Health Consultation response makes specific reference to tonal noise not causing concern to nearby residents.

The noise report contains full details of the mitigation measures that would be employed to control noise (including low frequency noise) as required by condition no. 11 and the modelling contained within the report demonstrates that the mitigation measures would ensure that noise levels do not exceed 30dBA as required by condition no. 12.

The representation regarding wind speeds relevant to the noise modelling is noted. Wind direction would certainly impact on noise levels. When modelling noise, Environmental Health would request that consultants measuring noise do so with only light winds (no more

than five meters per second) blowing from a source to a receiver. This then typically represents favourable sound propagation for the movement of sound and helps model and measure a worst case scenario.

As wind speeds increase the actual noise would be masked by the turbulence and the noise from the wind itself and as such to measure higher wind speeds, as suggested by the representation, would not be appropriate.

The noise assessment has been scrutinised by environmental health who have confirmed that they are confident from the information submitted that the developer will be able to achieve the noise reduction contained within the assessment as required by condition no. 13 and as a result the development would not cause a problem to nearby residents.

With reference to the third party comment regarding noise monitoring being publically available once the converter station is operational condition 13 of the hybrid permission specifically requires the submission of a scheme for noise monitoring, noise survey methodology and reporting procedures. The approved sound monitoring scheme is to operate for twelve months from the first use of the converter station and the submission of the details pursuant to the condition would be publically available for inspection.

Radio Frequency Interference (condition no.14)

During the consideration of the hybrid planning application concern was expressed by residents and airport tenants that the converter station emissions could affect the use of radios on the airport and within aircraft and implications for telephony use in the vicinity of the site be that within the open space to the north, the airport to the west and / or the employment area and the enterprise zone to the south. As such condition 14 was imposed to require the application to submit details setting out how the converter station buildings will be designed and implemented to ensure that any electromagnetic disturbance arising from the use of the site does not prevent radio and telecommunications equipment or other equipment outside the site from operating as intended.

As was the case when considering technical details such as this at the hybrid planning application stage the Local Planning Authority has taken independent consultant advice from a specialist consultancy in the discipline of electromagnetic field safety. To ensure continuity throughout the project the same consultant that advised on the hybrid planning application has provided a peer review and commentary of the applicant's submission regarding the details submitted pursuant to condition 14.

The consultants advising the Local Planning Authority at the hybrid planning application stage suggested that the risk of radio frequency interference with the airports VHF Communication System was very low. It was recommended that aircraft re-establish contact with the control tower if they have passed within 300 metres of the converter station before progressing any further around the airport. The applicant also confirmed that a suitable distance-adjusted limit would be developed as the converter station design developed to establish if this distance could be reduced.

The details now submitted and reviewed by the Councils consultant reduced this distance, as a consequence of building layout and design, to 30m from the buildings. The 30m boundary from the Converter Station falls wholly within the Converter Station site such that there should be no impact on radio receivers outside of the converter station boundary.

The applicant's submission pursuant to condition 14 provides an analysis of predicted magnetic and electric fields now the detail of the building is known. The Consultants advising the Planning Authority are satisfied that the level of emission at the Converter Station boundary is compliant.

On the basis of the advice received from the consultant advising the Local Planning Authority the details submitted pursuant to condition 14 are considered to be acceptable.

Construction Traffic Management Plan (Condition 22).

Detail in the Construction Traffic Management Plan (CTMP) submitted by the applicant details that lorry routing would be from J11 of the M27 down Newgate Lane to the site. The site compound will operate a one-way system with traffic entering off Vulcan Way having entered Daedalus from the eastern access off Broom Way. Traffic will then leave the site turning left only out onto Broom Way via the newly constructed access.

Third party representations challenging the means of construction traffic management are noted - especially the point about delivery of large items of equipment by sea. It is noted that the CTMP does seek to have the four transformers delivered to the site by sea. The document submits that they will arrive into the U.K though the port at Southampton then be transferred to site via a barge. The barge will off-load to the slipway in Lee-on-the-Solent by the hovercraft museum. The transformers are then to be transported by lorry through Daedalus to the site if possible. Should the sea access be unavailable then the delivery would take place using the public road network.

The applicant also submits that to minimise the impact of deliveries on the local road network the movement of large vehicles or the receipt of large deliveries will be limited to times outside the peak highway usage hours.

The CTMP has been reviewed by the Transport Planner and there is no objection raised to its detail.

Construction Environmental Management Plan (Condition 23):

The detail submitted within the Construction Environmental Management Plan (CEMP) is broadly considered to be acceptable with no objections received from the environmental health officers or the Transport Planner regarding noise and vibration or the site set up and compound details. Some further detail is being prepared by the applicant to provide additional detail on the specific criteria related to soil management and movement to address comments from the Contaminated Land Officer. The applicant is preparing the necessary additional documents and these are due for submission in the week after committee, if not before. The details submitted address all other criteria in the condition satisfactorily. Subject to the formal submission of the additional details and their agreement with the Contaminated Land Officer the details pursuant to condition 23 are considered acceptable.

Conclusion

The details submitted pursuant to condition numbers 10, 11, 12, 14 and 22 have been assessed and are considered to be satisfactory. The majority of the details relating to condition no. 23 are also considered to be satisfactory, with the exception of criteria related to soil management and movement to address comments from the contaminated land officer. Subject to the receipt of satisfactory additional details it is therefore recommended that the details submitted pursuant to these conditions are approved.

Recommendation

Subject to the receipt of satisfactory additional details regarding the submission for condition 23 APPROVAL OF DETAILS pursuant to conditions 10, 11, 12, 14, 22, and 23 of hybrid planning permission P/16/0557/OA as submitted within application P/16/0557/DP/A.

1) The development is to be carried out in accordance with the finally amended and

approved plans and documents as follows:

Condition 10:

- Drawing 30000764-IDE-0034 Revision P5, "External Flood Lighting (For Fareham Borough Council Approval), prepared by Baker Hicks

Conditions 11 & 12:

- Document Titled "IFA2 Project - Daedalus Converter Station. Noise Assessment", dated October 2017, Job Number NT13444, prepared by Wardell Armstrong

Condition 14:

- Document Titled "Radio and Telecomms Interference and EMF Assessment", dated 27/06/2017, document number 1JNL568775, Revision C, prepared by ABB

Condition 22:

- Document Titled "Construction Traffic Management Plan (CTMP)", dated 29/09/2017, Revision E, document reference 1JNL570514, prepared by ABB.

Condition 23:

- Document titled "Construction Environmental Management Plan (CEMP)", project no: 4M1000, revision 03, dated 27/09/2017, prepared by ABB.

- Document Titled "Materials Management Plan (MMP), prepared by Morgan Sindall, dated 15/09/2017. [This document is appendix two to the CEMP but was submitted separately]

- Plus any additional or amended documents submitted

REASON: In the interests of an appropriate and comprehensive development

Background Papers

P/16/0557/DP/A