

# FAREHAM

## BOROUGH COUNCIL

### Report to the Executive for Decision 04 December 2017

<b>Portfolio:</b>	Policy and Resources
<b>Subject:</b>	<b>IFA2 Technical Feasibility Update</b>
<b>Report of:</b>	Director of Finance and Resources
<b>Strategy/Policy:</b>	Corporate Strategy
<b>Corporate Objective:</b>	To Maintain and Extend Prosperity

**Purpose:**

To present the outcome of technical assessments in relation to the National Grid IFA2 development, and to consider whether the development should proceed to the next stage.

**Executive summary:**

In December 2015, the Executive resolved to agree terms for the lease of land at Daedalus to National Grid, to enable the construction of the IFA2 Interconnector. An update was further considered in April 2017, which identified the measures that were being put in place to provide assurance that the Interconnector development would be compatible with the wider uses at the Airport, and the Council's Vision for Daedalus.

Over the course of 2017, a range of independent technical assessments and tests have been undertaken to provide the necessary assurance to the Council, and to help inform National Grid's proposals as the detailed design and construction methods are developed. These studies focussed on a wide range of potential impacts including the impact of electromagnetic fields (EMF's) and Radio Frequency Interference (RFI's) emanating from the building and cables, and the potential commercial impact of the IFA2 for prospective businesses wishing to locate on the Enterprise Zone.

To support the Technical Assessments, a range of detailed reviews were commissioned by National Grid, and "real world" field tests were carried out to validate to results of the assessments.

The Assessments have been completed and the key reports from Arcadis and LSH are appended to this report. In summary, both reports provide sufficient assurance to the Council, that IFA2 would not be detrimental in technical or commercial terms to the wider Airport uses and the Council's Vision for Daedalus, provided that certain mitigating measures are put in place, and further detailed design work is carried out.



To this end, while the Airport Condition (within the land agreement between the council and National Grid), has largely been satisfied, the Council will want to be assured that appropriate mitigations are put in place, tests are undertaken to ensure that they perform as expected and that the detailed design work does not undermine the assurance achieved to date.

To do this, it is proposed that the Airport Condition is recognised as satisfied sufficiently to allow National Grid to proceed to the next stage and be able to enter into a Construction Lease with the Council. The lease will, however, be revised to carry the remaining obligations into the construction phase, enabling the Council to oversee progress and impose changes where they are necessary to mitigate against impacts on the Airport and the wider Daedalus site.

**Recommendation:**

It is recommended that the Executive;

- a) notes the progress made in relation to the technical assessment and design of the IFA2 project, and the conclusions of the independent technical assessments undertaken;
- b) agrees in principle that the necessary technical assurance has been obtained to enable National Grid to proceed to the next stage of construction, provided that extended arrangements are put in place to provide ongoing safeguards to the Council during and following the construction stage;
- c) confirms that the Option can be exercised by National Grid, once legally binding amendments to the legal documentation are in place and the construction lease granted, to enable IFA2 to proceed to the construction stage in accordance with the target programme; and
- d) delegates authority to the Director of Finance and Resources, following consultation with the Executive Leader, to conclude the revisions to the legal documentation;

**Reason:**

To enable the IFA2 development to proceed to the construction stage and secure all necessary assurances on the technical compatibility of the development.

**Cost of proposals:**

There are no new financial implications arising from the report.



**Appendices:**

A: Arcadis report Part 1 “Interim Safety Justification Report for the IFA2 Interconnector on the Solent Airport, Daedalus”

Arcadis report Part 2 “Hazard Log Report for the IFA2 Interconnector at Solent Airport”

Arcadis report Part 3 “Technical Assessment Report for the IFA2 Interconnector at Solent Airport”

B: List of Key Supporting Documents to the technical studies

C: Lambert Smith Hampton report “Proposed IFA2 Facility Daedalus: Occupier Impact Assessment”

D: IFA2 Summary Delivery Programme

E: Draft Deed of Variation (CONFIDENTIAL)

**Background papers:**

File of correspondence and technical reports

**Reference papers:**

[Report to the Executive 7<sup>th</sup> December 2015 – Disposal of Land at Daedalus](#)

[Report to the Executive 3<sup>rd</sup> April 2017 – National Grid IFA2 Project Update](#)



# FAREHAM

## BOROUGH COUNCIL

### Executive Briefing Paper

<b>Date:</b>	04 December 2017
<b>Subject:</b>	IFA2 Technical Feasibility Update
<b>Briefing by:</b>	Director of Finance and Resources
<b>Portfolio:</b>	Policy and Resources

#### INTRODUCTION

1. At its meeting in December 2015, the Executive considered proposals for the lease of land at Daedalus to National Grid, to enable the construction of the IFA2 Interconnector.
2. Having considered the proposal and resolved to approve draft heads of terms for the land agreements, the Executive delegated authority to the Director of Finance and Resources in consultation with the Executive Member for Policy and Resources to agree the detailed terms. It further resolved to reinvest the proceeds of the disposal of land into the delivery of actions that support the Vision for Daedalus, including the airport, the business parks and the open space.
3. A further report was considered by the Executive in April 2017, which provided an update on progress with the land agreements, including the steps that were put in place to provide assurance that the Interconnector use was compatible with the wider uses and vision for Daedalus.
4. This report provides details of the outcome of the work undertaken to date, and proposals to enable the project to proceed to the next stage of construction.

#### PROGRESS OF THE PROJECT

5. At its meeting in April 2017, the Executive resolved to:
  - (a) note the progress with the IFA2 project, including the conclusion of the detailed land agreement documents; and
  - (b) endorse the scope of work for two technical studies.
6. In accordance with the terms of the land agreement, the two technical studies were procured with a duty of care to both the Borough Council and to National Grid, ensuring that they were conducted objectively and without preferential bias towards one party or another.



7. Arcadis were engaged to undertake a “Technical Assessment of the Co-Existence of the IFA2 Electricity Interconnector and Daedalus Airfield Operations (Future Airport Development)”, and the scope of work published in April 2017 can be found at <http://modern.gov.fareham.gov.uk/documents/s18432/Appendix%20A.pdf>).
8. Lambert Smith Hampton were engaged to “Provide a Market Compatibility Assessment and Occupier Consultation on the Proposed IFA2 Enterprise Zone Development”, and the scope of work published in April 2017 can be found at <http://modern.gov.fareham.gov.uk/documents/s18433/Appendix%20B.pdf>).
9. Since April, National Grid has also carried out further site investigations and detailed design work for both the Converter Station and the cables, in accordance with the outline planning consent that was granted in January 2017 for the converter buildings and mitigating open space, and detailed consent for the cabling. This has enabled National Grid to submit further planning applications for the detailed design of the Converter station and Open Space, and this was approved by the Planning Committee on 17<sup>th</sup> November 2017.

## **TECHNICAL ASSESSMENTS**

10. The purpose of the technical assessment undertaken by Arcadis was to provide the Council as landowner with assurance over the compatibility of IFA2 with the broader uses at Daedalus. This report was completed in November 2017 and is attached as Appendix A. In order to fulfil the scope of work, Arcadis drew from the conclusions of a host of supplementary assessments into specific areas, and the suite of supporting documents is set out in Appendix B of this report.
11. The report is in three main parts;
  - i. Interim Safety Justification Report. This details the body of evidence that, once complete, will provide a demonstrable argument that IFA2 is adequately safe. It is referred to as ‘Interim’ because it requires ongoing monitoring and the resolution of conditions on the airfield. It concludes: “the current state of the evidence available provides a high level of confidence that potential safety risks posed by IFA2 should not adversely impact the airport’s current operations or the known planned developments.”
  - ii. Hazard Log Report. This shows how potential hazards have been identified and addressed. It is an evolving document that records hazards which have been identified to date, and will be updated during commissioning and testing. The log identifies 28 possible hazards. 12 of these have already been addressed. The log details what needs to be done to address the remaining possible hazards. This includes firm actions for each. As a result, it concludes: “the safety effect of IFA2 on Solent Airport’s operations can be successfully managed.”
  - iii. Technical Assessment Report. This report considers the possible affects that the Interconnector may have on the Airport’s operations and development plans, and is a supporting document to the Safety Justification report. It builds on initial work prepared by Arcadis in support of the IFA2 outline planning application and concludes that correct management will ensure that IFA2 does not increase risks in any of the areas assessed.
12. In summary, the Arcadis report indicates that there are no hazards identified to date, which would lead to incompatibility between IFA2 and both existing and planned future



airport developments, subject to mitigation measures and testing to be carried out before, during and post-construction. Where mitigation measures are required, these are being recorded formally in a “Hazard Log and Schedule”, to ensure they are tracked throughout the project. Inevitably, this is an evolving document which will be updated as work progresses.

13. In addition to the independent assessment by Arcadis, National Grid agreed to carry out a series of “real-world” validation tests, to simulate the proposed cable installations for IFA2, with the purpose of being able to validate the desk-top assessment of EMF and RFI effects, particularly in relation to aircraft moving in the vicinity of the cables. The tests included measurements taken at existing Interconnector sites, at the cable contractor lab site and concluding with a cable installed at Daedalus for a variety of aircraft to pass over. The results of these trials can be found in Appendix C.
14. The commercial assessment carried out by Lambert Smith Hampton was to consider whether the IFA2 facility is likely to have any detrimental impact on the commercial viability of the Faraday and Swordfish business parks. This report is shown in Appendix C and also indicates that potential businesses are unlikely to be deterred from relocating to Daedalus, solely due to the presence of the IFA2 development.
15. In overall terms, the outcome of the technical work is positive, and provides a good basis of assurance on which the Council can consider allowing the project to progress to the next stage of delivery. As stated above, however, there are a number of areas where further detailed design is required and where mitigation measures are needed in order to satisfy the Council. While these should not delay the progression of the IFA2 project, they are of sufficient importance that the Council would need to be reassured that all necessary measures have been put in place prior to full operation of the facility.
16. In order to formalise this arrangement, a legal agreement will be entered into, which updates the existing land agreements as explained below.

## **LAND AGREEMENTS**

17. There are four documents in the suite that make up the land agreement with National Grid. These are:

- a) The Option Agreement, which gives National Grid an option to secure the land where the converter station is proposed to be built, and the land where the cables would be installed.

The Option sets out several pre-conditions that must be satisfied before the Option can be exercised. These requirements are captured in an “Airport Condition” which is intended to ensure that the development can co-exist with the Airport and surrounding business parks as outlined in the Council’s Vision for Daedalus. The Option also includes covenants on both parties during the Option term and the commercial arrangements for the land agreement.

- b) A construction lease, which is granted to National Grid if it has satisfied the pre-conditions in the Option Agreement and chooses to exercise their option. This sets out the rights and restrictions for National Grid during the construction of the project.



- c) A converter station lease, which is granted when the project has been completed and which sets out the rights and restrictions on the National Grid during the operational period, as well as the arrangements at the end of the operational life of the converter.
- d) A Deed of Easement, which is similar to the converter lease but grants specific rights and restrictions over the cable operations.

## **PROPOSED AMENDMENTS TO THE AIRPORT CONDITION**

- 18. The Airport Condition included in the Option agreement requires both the Council and IFA2 to jointly procure the specialist technical studies to assess whether the proposed cable installation and converter station development has any negative impact on the operation of the airport, both now and as envisaged in the future, or on the delivery of the Council's vision for Daedalus. It also requires National Grid IFA2 to provide the Council with construction methodologies and specifications which demonstrate how the development will meet the safeguarding requirements in both its design and during construction. The process of monitoring performance against the Airport Condition is through a joint Technical Working Group.
- 19. Both parties are required to have regard to the conclusions and recommendations of the studies.
- 20. The operation of the Airport Condition in the document anticipates that it will be capable of satisfaction ahead of Start on Site. To date, the studies and tests carried out have identified a requirement for ongoing testing/additional assessments and monitoring that post-dates Start on Site. This can only be carried after the development is complete, and in some cases once the facility becomes operational. The purpose of these tests is to check that actual performance of IFA2 concurs with the findings of the technical studies.
- 21. The Airport Condition also anticipates that all details of the Construction Methodology and Specification will be available ahead of start on site. As the construction contracts are being let on a design and build basis, some of the details of the design will not be finalised until initial works have been carried out.
- 22. The findings of the technical studies and the ongoing development of the detailed design and construction methods means that this is not possible for the airport condition to be fully addressed before the development proceeds. Officers are, however, satisfied that all the findings of the technical studies and work IFA 2 and their contractors have done to date indicate that impacts can be mitigated satisfactorily. This provides sufficient certainty for the Council to allow the development to proceed to the next stage, provided that the Council is able to impose additional safeguards to secure the original requirements of the airport condition in full.
- 23. By proceeding on this basis, National Grid has agreed to carry out all mitigations and measures within the Hazard Log and Schedule, and will be obliged to do so, to the Council's satisfaction. National Grid also agree to maintain the Technical Working Group until such time as all testing and mitigation has been finalised. If, in the unlikely event that satisfactory mitigations cannot be put in place, National Grid would be in breach of the lease and unable to operate the IFA2 Interconnector.



## **WAY FORWARD**

24. If the Executive agree to the proposed way forward, the safeguarding obligations in the Option Agreement will be extended into the Construction Lease. This would allow the project to proceed in line with National Grid's delivery programme, whilst also ensuring that the Council is in a position to oversee and approve any ongoing technical details that are still being finalised, and record any new legal obligations that may be required to protect the Council's land.
25. The draft document is attached as Appendix E.

## **FINANCIAL IMPLICATIONS**

26. Upon entering into the Construction Lease, National Grid is due to pay to the Council an initial lease premium. It was resolved by the Executive in December 2015 that any proceeds from the disposal of land are to be reinvested into the delivery of actions that support the Vision for Daedalus, including the airport, the business parks and the open space.
27. Funding was also previously secured to cover costs associated with Council supporting the Technical Working Group. As a result of the Council's continuing input being required throughout the project, additional financial support is being sought from National Grid to cover the Council's reasonable costs.

## **CONCLUSIONS**

28. The technical studies relating to the proposed development have been completed, and indicate that there will be no material impact on the operation of the airport or the vision for Daedalus.
29. The Construction Methodology and Specification is being developed, and reflects the operational requirements of the airport and mitigation measures identified by the technical studies. This development will continue in full liaison with FBC officers, advisers and the Airport Manager through the Technical Working Group.
30. The Airport Condition cannot however be fully satisfied until the tests and ongoing monitoring requirements identified in the technical studies have been completed.
31. Given the comfort that has been provided by the comprehensive technical work done to date, this report recommends that the IFA2 is able to proceed to the next stage, subject to extended arrangements are secured to provide ongoing safeguards to the Council during and following the construction stage.

Enquiries: For further information on this report please contact Andrew Wannell (Ext 4620)