Department of Energy & Climate Change

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Dear Caroline,

Thank you for your letter dated 16 March to Amber Rudd, on behalf of a number of your constituents, about their objections to building an IFA2 interconnector at Daedalus. I am replying as this matter falls within my portfolio.

We need smart, interconnected, efficient and reliable networks that can connect new forms of electricity generation and support new sources of demand. This will facilitate the transition to a low carbon future and ensure security of supply.

We currently have 4GW of interconnection with other countries. Government is committed to increasing electricity interconnection with projects that support our energy objectives and which further unlock EU internal market benefits.

My officials have been liaising with National Grid who are undertaking a study looking at the compatibility of the Daedalus site. Please see the response to our enquiry regarding possible electromagnetic interference to aircraft equipment from National Grid below:

"As you know, we have been developing IFA2 for many years now in the Hampshire and Solent region and the key aspect to making this project a success has been finding available and suitable land in the area proximate to the point of connection on the grid at Chilling. We have tried to make numerous locations work, and we are now in a position where the site we are proposing to take forward at Daedalus airfield is the best available site.

Our preference is always to develop projects with the support of stakeholders and in particular with willing landowners. In December 2015, we reached agreement in principle with the Daedalus airfield landowner (which is Fareham Borough Council) for a long term lease to site a converter building on Daedalus and to route cables from a landfall at Monks Hill beach across the airfield to the converter station. We have assessed this and believe it is feasible. We have accordingly undertaken public consultations on this basis in advance of making a planning application, and indeed we have engaged the supply chain to be in a position to appoint contractors to deliver the interconnector subsequent to planning permission. Our goal is to have the interconnector operational by 2020.

However, this agreement in principle from the landowner of Daedalus is conditional upon us satisfying the landowner and the airfield manager that there will be no adverse impact from the IFA2 interconnector on the airfield, its users or the Enterprise Zone.

The Daedalus airfield is managed by Regional and City Airports Management plc, and we have engaged with them as the CAA Aerodrome Licence Holder over many months.

We have also undertaken two rounds of public consultation, one in December 2015 and one in March 2016. Subsequent to the first round we understood that some airfield users had concerns about the potential impact of the interconnector infrastructure on airfield use. In the main, these concerns included the impact of buildings on wind flow quality at the airfield and the impact that magnetic fields generated by the IFA2 equipment might have on compasses and aircraft and airfield systems. We have taken forward our own investigations to establish the extent of these issues. We will use this information to support our environmental impact assessment of the proposal in an Environmental Statement that will accompany a forthcoming planning application, and this will be available in the public domain for purposes of statutory consultation.

Importantly, as we have to demonstrate to the satisfaction of the Daedalus landowner (Fareham Borough Council), and implicitly the airfield users, that the IFA2 interconnector will not adversely affect airfield use or the Enterprise Zone, both now and in the future, we have also agreed to take forward an independent assessment of impacts, and we are currently in the procurement process to be able to appoint a consultant to carry out these assessments for the landowner.

We have also been engaging directly with existing tenants on the Daedalus airfield because we are aware of particular concerns from an aircraft equipment installation maintenance business on the airfield about the potential impact of magnetic fields on sensitive aircraft equipment. We have provided magnetic field calculations to those businesses to help our mutual understanding, and we continue to have meeting with them to explore whether this is an issue or not. The concerns can be categorised as: (1) Impact of magnetic fields from DC cables on the location of a suitable compass base for aircraft compass testing on Daedalus; (2) Impact of magnetic fields from cables on electronic equipment on aircraft; (3) Impact of magnetic fields from cables on electronic equipment in hangars. We believe that, as a result of the constructive dialogue we are undertaking with this business, that (3) is no longer a concern and that (2) should not be a concern subject to validation by the relevant teams in the Ministry of Defence. A plan is being put in place by the aircraft equipment installation and maintenance business to take this aspect forward, and we will be involved in that validation process.

The outstanding concern is the impact of magnetic fields from DC cables on the location of a suitable Compass Base for compass testing on Daedalus. The Civil Aviation Authority CAP 562 Leaflet 34-10 for Compass Base Surveying refers. We understand that one of the existing businesses requires a Class 2 compass base for their business needs, which means that the maximum permissible compass deviation anywhere within the compass base location must be ± 0·25°. From our initial calculations, if the compass base was within a distance of approximately 15metres of the DC cables, the static magnetic field from the DC cables would interact with the earth's magnetic field to cause compass deviations that would be in excess of this limit. As we understand that there is no formally designated compass base on Daedalus, this is an issue that we are taking forward with the

airfield manager to establish how the business needs for a compass base are planned to be delivered on Daedalus.

We fully understand the concerns of local businesses and members of the public. National Grid is committed to furthering the understanding of electric and magnetic fields (EMFs) and to always follow and comply with the guidelines for exposure to electric and magnetic fields. Exposure limits for EMFs in the UK are set by the Government on advice from Public Health England, and the electricity industry strictly adheres to these limits. The exposure limits for both DC and AC cables originate from the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines, published in 1994 and 1998 respectively. The ICNIRP permitted public exposure level for a magnetic field generated by AC electricity is 360 microteslas. For magnetic fields generated by DC electricity the permitted public exposure limit is 40,000 microteslas.

In our recent public consultation material for IFA2 we demonstrated that, from our initial calculations, at all points magnetic fields emitted from the various components of IFA2 will comply with the exposure limits set to protect the public.

National Grid relies on robust compliance with the independently recommended public exposure references to help to provide public reassurance. However, we recognise there is concern about magnetic fields. We are therefore committed to continuing to provide the local community with information on magnetic fields, and to validate all calculations through future measurement and monitoring. We do also recommend that stakeholders visit the website www.emfs.info for further information on EMFs."

We hope you find this useful and that the National Grid's proactive approach to stakeholder management means that the issues raised between you and your constituents are satisfactorily resolved.

Best wishes

Andrea

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