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Bwrdd Iechyd Prifysgol
Hywel Dda
University Health Board

Your Ref: DNS/3227364
Our Ref: B6AN2401

Swyddfeydd Corfforaethol, Adeilad
Ystwyth
Hafan Derwen, Parc Dewi Sant, Heol
Ffynnon Job
Caerfyrddin, Sir Gaerfyrddin, SA31 3BB

Corporate Offices, Ystwyth Building
Hafan Derwen, St Davids Park, Job's
Well Road, Carmarthen,
Carmarthenshire, SA31 3BB

19/10/2020

Rhys Rigby
The Planning Inspectorate
Crown Building
Cathays Park
Cardiff
CF10 3NQ

Dear Mr Rigby

Town and Country Planning Act 1990

The Developments of National Significance (Wales) Regulations 2016

The Developments of National Significance (Procedure) (Wales) Order 2016

Application by: Spring Dev 02 Ltd

Site Address: Land to the East of the A48 (Coordinates E257386, N209389) and Land to the South West of Tycroes (Coordinates E259219, N209551; & E259904, N209590),

We welcome the opportunity to comment on this planning application. We have consulted with our colleagues at the Environmental Public Health Service (delivered collaboratively through Public Health Wales' Health Protection Team and Public Health England's Centre for Radiation, Chemical and Environmental Hazards Wales).

This assessment is based on actual or potential health risks from environmental exposures to chemicals, noise and extreme environmental events such as flooding.

Proposed Development

The installation of a ground mounted Photo Voltaic (PV) solar farm development, including proposed cable route

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Cadeirydd / Chair
Miss Maria Battle

Prif Weithredwr/Chief Executive
Mr Steve Moore

Bwrdd Iechyd Prifysgol Hywel Dda yw enw gweithredol Bwrdd Iechyd Lleol Prifysgol Hywel Dda
Hywel Dda University Health Board is the operational name of Hywel Dda University Local Health Board

Mae Bwrdd Iechyd Prifysgol Hywel Dda yn amgylchedd di-fwg Hywel Dda University Health Board operates a smoke free environment

Overall Conclusion

We have no grounds for objection based upon the public health considerations contained within the application and provided the site is developed and operated in accordance with proposed management conditions.

Public Health Risk Assessment

The application process to date has decided that the development as proposed at 5 November 2019 would be unlikely to result in significant environmental effects. The applicant has therefore not needed to provide an environmental impact assessment (EIA). The applicant has provided a Construction Environmental Management Plan (CEMP) intended to mitigate construction phase impacts. These will need to be agreed by planning authority and implemented by the developer.

There appears to be no assessment of noise impacts from transformer or plant operation on any sensitive receptors. This would be advised if sensitive receptors are identified with any mitigation measures required implemented.

Finally, electricity generation and transmission infrastructure can sometimes lead to concerns regarding health effects from EMF (electromagnetic fields). **We append our response with the current Public Health England position on this, as adopted by Public Health Wales.**

We trust this will help with your overall decision and would be happy to review any additional information obtained by the Regulator in relation to these comments.

Yours sincerely

Ros Jervis

Director of Public Health

Public Health England NSIP Planning Statement on Electromagnetic fields

This statement is intended to support planning proposals involving electrical installations such as substations, underground cables and overhead lines. PHE advice on the health effects of power frequency electric and magnetic fields is available in the following link:

<https://www.gov.uk/government/collections/electromagnetic-fields#low-frequency-electric-and-magnetic-fields>

There is a potential health impact associated with exposure to the electric and magnetic fields produced around substations, power lines and cables. The following information provides a framework for considering the health impact, including the direct and indirect effects of exposure.

Policy Measures for the Electricity Industry

In 2004, the Government adopted the exposure guidelines published in 1998 by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) within the framework of the 1999 EU Council Recommendation on limiting exposure of the general public (1999/519/EC). In 2009, one additional precautionary policy was introduced relating to the optimum phasing of high-voltage power lines. The National Policy Statement for Electricity Network Infrastructure EN-5 confirms these policies, and the Department of Energy and Climate Change (DECC) has published two accompanying Codes of Practice, agreed between the Energy Network Association and the Government, which specify how the guideline compliance and the optimum phasing requirements are implemented:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48309/1255-code-practice-optimum-phasing-power-lines.pdf

A companion code of practice dealing with indirect effects of exposure to power frequency electric fields is also available:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224766/powerlines_vco_p_microshocks.pdf

Exposure Guidelines

PHE recommends the adoption in the UK of the EMF exposure guidelines published by the International Commission on Non-ionizing Radiation Protection (ICNIRP). Formal advice to this effect was published by one of PHE's predecessor organisations (NRPB) in 2004 based on an accompanying comprehensive review of the scientific evidence:-

<http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Absd1502/>

Updates to the ICNIRP guidelines for static fields have been issued in 2009 and for low frequency fields in 2010. However, the Government policy is that the ICNIRP guidelines are implemented in line with the terms of the 1999 EU Council Recommendation on limiting exposure of the general public (1999/519/EC):

Static magnetic fields

For static magnetic fields, the ICNIRP guidelines published in 2009 recommend that acute exposure of the general public should not exceed 400 mT (millitesla), for any part of the body, although the previously recommended value of 40 mT is the value used in the Council Recommendation. However, because of potential indirect adverse effects, ICNIRP recognises that practical policies need to be implemented to prevent inadvertent harmful exposure of people with implanted electronic medical devices and implants containing ferromagnetic materials, and injuries due to flying ferromagnetic objects, and these considerations can lead to much lower restrictions, such as 0.5 mT.

Power frequency electric and magnetic fields

At 50 Hz, the known direct effects include those of induced currents in the body on the central nervous system (CNS) and indirect effects include the risk of painful spark discharge on contact with metal objects exposed to the field. The ICNIRP guidelines published in 1998 give reference levels for public exposure to 50 Hz electric and magnetic fields, and these are respectively 5 kV m⁻¹ (kilovolts per metre) and 100 µT (microtesla). The reference level for magnetic fields changes to 200 µT in the revised (ICNIRP 2010) guidelines because of new basic restrictions based on induced electric fields inside the body, rather than induced current density. If people are not exposed to field strengths above these levels, direct effects on the CNS should be avoided and indirect effects such as the risk of painful spark discharge will be small. The reference levels are not in themselves limits but provide guidance for assessing compliance with the basic restrictions and reducing the risk of indirect effects.

Long term effects

There is concern about the possible effects of long-term exposure to electromagnetic fields, including possible carcinogenic effects at levels much lower than those given in the ICNIRP guidelines. In the NRPB advice issued in 2004, it was concluded that the studies that suggest health effects, including those concerning childhood leukaemia, could not be used to derive quantitative guidance on restricting exposure. However, the results of these studies represented uncertainty in the underlying evidence base, and taken together with people's concerns, provided a basis for providing an additional recommendation for Government to consider the need for further precautionary measures, particularly with respect to the exposure of children to power frequency magnetic fields.

The Stakeholder Advisory Group on ELF EMFs (SAGE)

SAGE was set up to explore the implications for implementing precautionary measures for extremely low frequency electric and magnetic fields (ELF EMFs), and to make practical recommendations to Government:

<http://www.emfs.info/policy/sage/>

SAGE published its First Interim Assessment in 2007, recommending various low cost measures aimed at reducing exposure. One of the recommendations was the introduction of optimal phasing of dual circuit high voltage power lines, which the Government supported in its response published in 2009. Government was also asked to consider the option to create corridors adjacent to high voltage power lines on health grounds; however, this was not supported as it was regarded to be disproportionate given the evidence base on the potential health risks arising from exposure. The full Government response to SAGE's First Interim Assessment is available here:

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107124

SAGE also called for more information to be made available to the public on the possible health consequences of power frequency electric and magnetic fields, and the Health Protection Agency developed new web material, which is available here:

<http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Topics/Radiation/UnderstandingRadiation/UnderstandingRadiationTopics/ElectromagneticFields/ElectricAndMagneticFields/>