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Interconnectors and the Precautionary Principle

Introduction

The precautionary principle is applied in situations where there is scientific uncertainty as to the risk of irreversible harm to the environment, which includes human being, animal and plant health.

According to the SAGE Report¹ (produced by the Stakeholder Advisory Group² on ELF and EMFs³, there is no internationally accepted single definition of the precautionary principle and international agreement or treaties all adopt different formulations of the “precautionary principle” to reflect their particular circumstances.

The precautionary principle is used in practice by the Northern Ireland Planning Service in Planning Policy Statement 1 (PPS1): *General Principles*:⁴

“In formulating policies and plans and in determining planning applications the Department will be guided by the precautionary principle that, where there are significant risks of damage to the environment, its protection will generally be paramount, unless there are imperative reasons of overriding public interest”

¹ Full title: Stakeholder Advisory Group on ELF and EMFs (SAGE) Precautionary approaches to ELF and EMFs (2007)
<http://www.rkpartnership.co.uk/sage/Public/SAGE%20first%20interim%20assessment.pdf>

² The remit of SAGE is to provide advice to Government. It is for Government to take decisions on policy relating to EMFs and health, based on this advice and whatever other inputs it deems necessary.

³ Extremely Low Frequency Electric and Magnetic Fields.

⁴ DOE, PPS1: General Principles

This paper will examine the consideration of the precautionary principle in the planning and location of electric cabling/wires in England and Scotland.

UK policy on the precautionary principle

According to a paper produced by Powerwatch⁵, titled: Legal Considerations for EMFs and the Precautionary Approach⁶:

- The Government set out its commitment to the use of the precautionary principle in its 1999 White Paper on “sustainable development”, with reference to Article 5 of the 1992 Rio Declaration on Environment and Development.
- Although EU law provides for member states to adopt a precautionary approach in environmental matters, it was decided in the English Courts that it was not mandatory to do so.
- In the case *R versus Secretary for Trade and Industry ex parte Duddridge* (1995), the court of Appeal held that the Secretary of State was not obliged to adopt a precautionary principle for national policies under Article 130r (now Article 174) of the EU Treaty unless required by an EU directive

The precautionary approach and planning

According to Powerwatch⁷, currently councils wanting to adopt a precautionary approach to powerlines in their areas can do so by adopting a policy in the local development framework, but have no authority to do so. Should the Government introduce legislation, it would:

- give local planning authorities the authority to adopt such policies; and
- also allow LPAs to refuse individual planning applications near existing powerlines.

When local planning authorities are compiling their local development framework, it is not possible to adopt precautionary policies in respect of overhead powerlines, and restrict future development near to existing overhead powerlines because of the health risk, although it may be possible to do so using “visual amenity⁸” grounds.

There have been a number of attempts by local planning authorities to introduce a precautionary approach, but due to objections at the draft stage of the plan by National Grid and/or other electricity companies/developers, they have had to modify their plans.

⁵ **Powerwatch** is a small non-profit independent organisation with a central role in the UK Electromagnetic Field and Microwave Radiation health debate. They work closely with decision-makers in government and business, and with other like-minded groups, promoting policies for a safer environment. www.powerwatch.org.uk

⁶ http://www.powerwatch.org.uk/news/20070713_emf_legal_considerations.pdf

⁷ Powerwatch, *Legal Considerations for EMFs and the Precautionary Approach* (2007)
http://www.powerwatch.org.uk/news/20070713_emf_legal_considerations.pdf

⁸ Amenity being “A feature that increases attractiveness or value, especially of a piece of land or a geographic location”

Examples of attempts to introduce a precautionary approach⁹

Unsuccessful

Torbay Unitary Council:

At the Local Plan Inquiry in 2001-2002, objections were made against Torbay Unitary Council's policy to restrict development under overhead powerlines for health reasons.

Those who objected to the policy (total of 4) were:

- National Grid;
- SWEB (now EDF electricity company);
- the Government Office for South West; and
- a major regional house builder.

Those who were in favour of the policy were Friends of the Earth, who argued that restrictions on development in the policy should be extended further to up to 100m from powerlines.

In response to the Inspector's Report of Inquiry into objections to the Local Plan, the precautionary element towards powerlines and high voltage powerlines was removed.

Successful

Wyre Borough Council managed to adopt a precautionary approach in its local plan under its High Voltage Powerlines Policy (COMM5)¹⁰:

"Proposals for development which is intended to be occupied on a regular and frequent basis and is located directly under high voltage powerlines will be refused planning permission. Proposals for development in the vicinity of high voltage powerlines will be approved provided there would be no detrimental effects on the safety of future occupants of the development."

Applications for planning permission

When local planning authorities (LPA) make planning decisions, they do not take into account any potential health risk from existing overhead powerlines near to the proposed development. In addition, the LPA can not refuse a planning application for development near to powerlines on the grounds of the potential health risk.

Under s90 (2) of the Town and Country Planning Act 1990, powerlines which have been granted consent by the Secretary of State under s37 of the Electricity Act 1989, are to have been granted planning permission and therefore have "permitted development rights".

Need for legal framework to provide for precautionary approach

There are EMF limits to which all electricity generation, transmission and distribution licence holders in the UK have to adhere to, for example:

⁹ Examples taken from the Powerwatch paper: *Legal Considerations for EMFs and the Precautionary Approach* (2007)

¹⁰ http://www.wyrebc.gov.uk/Council_Services/Planning_Services/Planning_Policy_and_Conservation/Wyre's_Development_Plan/Local_Plan_Review/Chapter_10_-_Community_And_Infrastructure_Services.asp

The East- West Interconnector

Plans have been made to construct an electricity link between the electricity grids of Ireland and Britain, called the East-West Interconnector. Connection will be built between Rush North Beach, Co. Dublin in Ireland, and Barkby Beach, North Wales in Britain.

An Bord Pleanála granted full planning permission to EirGrid in September 2009, with construction to commence mid 2010.

Information on the interconnector can be accessed by visiting:
<http://www.eirgridprojects.com/projects/east-westinterconnector/>

The website also states the commitment of the project to the protection of health and the environment by complying with the most up-to-date international and EU exposure guidelines, published by the International Commission for Non-Ionising Radiation Protection (ICNIRP)¹¹.

However, not only do these exposure guidelines not have any precautionary element, the limits are set so high as to not allow for any precautionary approach to the general public to any potential risk from ELF and EMFs.¹²

Gaps in Planning:

- In many cases, powerlines do not need planning permission
- LPAs do not have the authority to consider a precautionary approach to EMFs from powerlines in planning applications or preparing local development frameworks.
- Decision makers for planning applications do not consider the cocktail effect of EMFs combining with other polluting emissions from industry and other activities generating airborne pollutant.
- Environmental Impact Assessments are not required to consider these effects¹³.

The Case in Scotland

Scottish Ministers, under the 1989 Electricity Act, have the powers to make decisions on overhead power lines and associated infrastructure. In 2007 the Scottish Government was asked about this issue, as detailed in the Parliamentary Question below. Scottish Parliament Research verified that the case is still the same as 2007:

S3W-2339 – Ms. M Scanlon MSP (Highlands and Islands) (Con): To ask the Scottish Executive what the recommended distance is between electricity pylons and homes or schools.

According to Ms. N Sturgeon MSP:

The operators of overhead power lines are required to maintain safe conditions in compliance with the Electricity Safety, Quality and Continuity (Amendment) Regulations 2006. Provisions for ensuring the necessary clearances from overhead conductors are in Electricity Supply Industry's Standard 43-8, "Overhead Line Clearances". The necessary

¹¹ The Guidance referred to above is also hosted by the Energy Networks Association, and the abstract and opportunity to order are available [here](#) (click on Guest Login).

¹² Powerwatch, *Legal Considerations for EMFs and the Precautionary Approach* (2007)
http://www.powerwatch.org.uk/news/20070713_emf_legal_considerations.pdf

¹³ Ibid

clearance at a specific location will depend on several factors, including local structures, and the construction, design and operating voltage of the line. There are no similar regulatory controls pertaining to distance for exposures to electric and magnetic fields, but operators must ensure that exposures for members of the public do not exceed the guidelines of the International Commission on Non-Ionising Radiation Protection¹⁴.

As set out in a further Parliamentary Question, the Scottish Government has considered guidance in relation to health impacts of overhead wires:

S3W-6347 – Ms. M Scanlon MSP (Highlands and Islands) (Con) (Date Lodged Wednesday, November 14, 2007): To ask the Scottish Executive what action it is taking to review planning guidance in relation to building new homes near high voltage overhead transmission lines.

Answered by MR. S Stevenson MSP (Monday, November 26, 2007):

The Stakeholder Advisory Group on Extremely Low Frequency Electromagnetic Fields (SAGE) published their *First Interim Assessment: Power Lines and Property, Wiring in Homes and Electrical Equipment in Homes* on 27 April 2007. The report of the Cross Party Inquiry into Childhood Leukaemia and Extremely Low Frequency Electric and Magnetic Fields was published in July of 2007. Both of these reports include consideration of how planning guidance might be used to control development near high voltage overhead powerlines. The Scottish Government will consider the content of these reports, including implications for planning guidance, in close liaison with colleagues in relevant UK Government Departments and devolved administrations.

Following this answer, the Scottish Government responded to the Stakeholder Advisory Group on extremely low frequency electric and magnetic fields (SAGE) recommendations. The [Scottish Government response](#)¹⁵ included specific reference to the following SAGE recommendations:

1. Stop building any new buildings for residential use and some other uses including schools within specified distances (SAGE suggested 60 metres as an example) of overhead power lines, and stop building new overhead power lines within the same specified distances of existing such buildings.
2. SAGE acknowledged that the main costs of this option arise from the effects on land and property values and urged the Government to make a clear decision on whether to implement this option or not. This option was not supported by SAGE's own cost benefit analysis.
3. SAGE thought that taking action in relation to existing situations i.e. power lines near housing and schools, would be more complex and more expensive and suggested that initially Government should take a decision as to whether to act in relation to new construction.
4. That electricity companies be encouraged to choose optimal phasing (usually transposed phasing) for all new lines, and also be encouraged to convert existing lines where possible and justifiable.

¹⁴ Refer to footnote 7 above

¹⁵ <http://www.scotland.gov.uk/Publications/2009/10/16103956/2>

Scottish Government response to

Recommendations 1-3:

- The Government considers this option to be disproportionate in light of the evidence base on the potential health risks arising from exposure from ELF/ EMF and has no plans to take forward this action.
- The SAGE proposal is a high cost option that is not supported by its own cost benefit analysis nor supported by the HPA (Health Protection Agency).
- The HPA advises that the EMF association with childhood leukaemia is weak and unproven and supports no cost/low cost options to reduce EMF exposure. This position is also in line with the WHO (World Health Organisation) recommendation to explore low-cost ways of reducing exposure to ELFEMF.
- The Government does recognise that work is needed to ensure that new building developments, and the siting of new power lines take proper account of the 1998 ICNIRP (International Commission for Non-Ionising Radiation Protection (footnote 11)) exposure levels. The EU Recommendation and will work proactively with the electricity industry and local authorities, to explore the incorporation of the international standards formally into the planning system.
- The Government recommends that the electricity industry takes appropriate action to identify any homes and schools that do not currently meet the ICNIRP requirements because of the proximity of high voltage power lines, and addresses the need for remedial actions to ensure that exposures do not exceed the relevant ICNIRP guidelines.

Recommendation 4:

- The Government agrees with the SAGE recommendation 4, and urges industry to optimal phase overhead lines wherever possible and reasonable. They will proactively work with industry to consider how best to take this forward. This might include developing a voluntary code of practice on phasing for voltages of 132kV and above.

Development near to power lines

According to the Scottish Government Response¹⁶ the four UK administrations will consider jointly how to provide clarity to developers, Local Planning Authorities (LPAs) and the public on how development near to power lines should be treated in terms of EMF issues. In particular, this will consider how ICNIRP guidelines might be taken into account in the planning system. These considerations might or might not result in a common approach for devolved planning issues.

The most recent high profile case regarding the development of new (and replacement) high voltage cables is the proposal for cables from Beauly, near Inverness, to Denny, near Stirling. This has been subject to a [Public Inquiry](#)¹⁷ and has been approved by Scottish Ministers, subject to some conditions. The issues around health were explored during the public inquiry, as outlined in the Parliamentary Question below:

S3W-13826 – Mr. J Farquhar Munro MSP (Ross, Skye and Inverness West) (LD) (Date Lodged Tuesday, June 03, 2008): To ask the Scottish Executive what specific information it received during the public local inquiry into the Beauly to Denny line

¹⁶ Ibid

¹⁷ <http://www.beaulydenny.co.uk/>

regarding the health effects of the expansion of the electricity substation at Wester Balblair, as opposed to the health effects of the overhead cables.

Answered by Mr. S Stevenson MSP (Wednesday, June 18, 2008):

Parties to the Beaulieu to Denny public local inquiry were advised that consideration of health matters would be in the context of government policy and advice. The strategy session heard detailed evidence on matters relating to concerns about health, with Dr W Bailey speaking for the applicants and Professors DL Henshaw and MJ O'Carroll giving evidence for the objectors. Mrs. C Paterson, a member of Stirling Before Pylons and a lay member of the Stakeholder Advisory Group on Electric and Magnetic Fields (SAGE) also gave evidence on health for the objectors.

The "corridor" option.

According to the SAGE Interim Report¹⁸, the "corridor" option could reduce exposures by stopping building homes near power lines. There would be difficulties with this as it involves sterilising land, compensation payments, devaluation of existing homes, and disruption to house-building programmes.

The Assessment calculates the costs, of perhaps £2bn, and also calculates that if EMFs do in fact cause childhood leukaemia, this option might eventually prevent less than one extra case per year (see page 50/51).

The majority of SAGE participants appear to agree that where there are sensible, reasonable precautionary options, they should be taken. The issue is whether this option is a reasonable response to the uncertain science. Some SAGE participants think that however much they would like to err on the safe side, the burden to society of introducing corridors is disproportionate (see page 53).

This option relates to stopping the building of any further homes near power lines, in fact, SAGE concludes this is the best place to start and that dealing with existing homes is even more difficult (page 53).

¹⁸ SAGE Interim Report (See footnote 1 for full title)
<http://www.rkpartnership.co.uk/sage/Public/SAGE%20first%20interim%20assessment.pdf>