

Update briefing on Powerline Electric and Magnetic fields (EMFs) and ill health

1. Public health was not a routing consideration for Scottish & Southern Energy and Scottish Power in their Beaulieu to Denny 400kV proposal. The proposed route of the high voltage overhead transmission line (HVOTL) passes close to many homes, with approximately 100 homes within the critical 200m boundary. Many homes could be within 100m, as the application contains a deviation corridor for the construction phase.
2. The Scottish public is extremely concerned about the potential adverse health effects of living close to HVOTL. There were 14,000 objections to the Beaulieu to Denny 400kV application which specifically raised health concerns as a prime reason for rejecting the proposal. Concerns raised by the public have been investigated in the Scottish Parliament through two main avenues to date:

Petition PE 812 was submitted in Dec 2004 as an issue of some urgency. It had unprecedented cross-party support. The Petitions Committee reviewed evidence from a variety of professional bodies, but PE 812 is still under consideration pending an announcement by the Stakeholders Advisory Group on Extremely Low Frequency EMFs (SAGE) (April 2007).

A Cross-Party Group was established in 2005 to investigate the subject. It held several meetings with high profile speakers, but does not appear to have been reconvened since the election.

There have been occasional written questions and answers and one debate on this issue.

3. Although this topic has been under investigation for a quarter of a century, much has happened since the Beaulieu to Denny proposal first alerted us to the potential health threat that would be imposed upon hundreds of residents along the line if approved. Below is a very brief summary:

2004 In response to numerous international studies, the World Health Organisation and the National Radiological Protection Board NRPB (now within the Health Protection Agency HPA) acknowledged the association between powerline EMFs and childhood leukaemia. The NRPB called on government to consider the need for further precautionary measures.

June 2005 The government funded Draper report was published (BMJ 330 (7503):1290). This massive study (investigating the records of 30,000 children with cancer), recorded a **doubled risk of childhood leukaemia** for those born within 100m of HVOTL. The risk diminished with distance from HVOTL, but there was still a 70% increased risk of childhood leukaemia up to 200m, with a statistically significant risk recorded up to 600m.

April 2007 The Stakeholders Advisory Group on Extremely Low Frequency EMFs (SAGE Report) was published (www.rkpartnership.co.uk/sage/). I was a member of this group in its final few months and observed that it was industry dominated (its chief editor an employee of the National Grid), ill-informed and out-of-date (eg. its

refusal to investigate the much reduced costings for undergrounding using the latest technology (XLPE) as a mitigating option). However, the report does allow some limited discussion of the California Health Department Study (2002) which examined associated adult conditions (various cancers, motor neurone disease and miscarriage) in addition to childhood leukaemia. These more commonplace conditions significantly alter any appraisal of the subject based specifically on cost benefit analysis.

The SAGE Report states that “the best available option for obtaining significant exposure reduction” would be a building moratorium within 60m of HVOTL. However, SAGE’s very limited recommendations are for government to provide public information and balance lines, which would not result in any significant exposure reduction.

The government is now awaiting a response from the HPA prior to implementing any new policy with regard to powerline EMFs.

April 2007 The Royal Institution of Chartered Surveyors (RICS) called on government to legislate to restrict the building of new homes and schools next to existing power lines.

June 2007 Lowenthal study (Journal of Internal Medicine) reveals a five-fold increase in certain leukaemias and lymphomas for those who as young children (0-5) lived within 300m of HVOTL

July 2007 Westminster Cross-Party Inquiry Report published (www.epolitix.com/forum/cpielfemf). This publication by a group of Westminster MPs calls on the government to adopt precautionary measures for HVOTL. Its key recommendation is for “**a moratorium on the building of new HVOTL within 60m of existing homes and schools**”, with the further recommendation that “**government consider the case for extending this distance to 200m**”. One of the study’s stated aims is to inform devolved governments, including the Scottish Parliament, of the current state of research in this field. The Beaulieu to Denny proposals do not comply with these recommendations.

August 2007 The BioInitiative Working Group launched its report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF) (www.bioinitiative.org/ - chapters 1 and 17 particularly relevant). The Report (from highly acclaimed international scientists) dissents from existing ICNIRP and WHO guidelines, and recommends an interim planning limit of 0.1 microtesla for homes near new lines, which in practical terms would equate with a building moratorium of approximately 200metres for HVOTL.

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