

ENERGY MANAGEMENT GROUP NEWSLETTER

ENERGY REVIEW

Since publication of the UK government's Performance and Innovation Unit's energy review a consultation exercise has been carried out by the government in relation to future energy policy. Several members of the EMG committee prepared a joint response to the document, which has been submitted to the DTI. The key points in the response are summarised below.

Energy strategy

The renewables obligation is a strategy of central direction on top of market forces and a similar approach should be applied to other parts of a national energy strategy. Security of supply is an important issue, especially given that the UK could switch from being a net supplier to a net importer of gas within the next three years. Furthermore if the present generation of nuclear plants are all retired in the next 10 to 15 years, the UK will be heavily dependent on imported gas from abroad.

CO2 emissions

CO2 emissions should be factored into market prices for energy, for example by full UK participation in emissions trading schemes, and the climate change levy should not be imposed on nuclear power. Efficiency targets for existing plant could be set and development of CO2 removal and sequestration should be urgently researched and given maximum support in any future energy policy.

Hydrocarbons

There are concerns that the UK could have severe gas shortages within 3 years with a resulting loss of security of supply, exacerbated by retiring existing nuclear plant.

Oil extraction is currently pursued only to the point of economic practicality and consequently companies do not invest in research to facilitate deployment of alternative techniques in the future. In addition the physics of the recovery process is not fully understood and there is a need for further research to prevent physically incorrect models reducing recoverable reserves. Full life cycle modelling of hydrocarbon recovery could lead to more environmentally acceptable recovery techniques being adopted, but the lack of appropriate scientific skills is one of the limiting factors.

Nuclear

Measures need to be in place for a back-up to intermittent supplies such as wind generation as the proportion of renewables generation increases. If nuclear plants are retired this may involve increase use of fossil fuels, increasing CO2 emissions.

In a worldwide context nuclear power has increased in deployment and utilisation in recent years. The PIU report states that the nuclear option should be kept open for the UK. But to do this we need to put a strategy in place now. Given the lead time required for building new nuclear stations and the residual lifetime of existing stations we need a decision about the strategy and type of reactor now.

Renewables

Planning and technology risk are key obstacles to renewables implementation. The reform of the planning regime, which has already commenced, should be pursued and consideration might be given to underwriting the technology risk of new projects, rather than paying premium prices for renewables electricity. The distribution network is also key to the contribution of wave energy etc. and the undersea cable project being investigated by the DTI is critical to this. Policy intervention may be required to facilitate increased grid connection of renewables and photovoltaics.

SNAPSHOT

In the next issue of the group newsletter we would like to start a regular feature which gives a brief profile of the company, academic department or institution of one or more of our members. If you would like your details included in a forthcoming edition of the newsletter please forward them to Patricia Thornley at patricia.thornley@physics.org.

DIARY

Pyrolysis and Gasification of Waste and Biomass Expert Meeting

29 September – 1 October, Strasbourg
For further details see www.thermonet.co.uk

Clean Energy from the Heart of the Earth

16 October, University of Nottingham
For further details contact Alison Payton at the IMechE on a_payton@imeche.org.uk

The Energy Future: Technology & Skills

22 October, IOP HQ, 76 Portland Place
This half-day seminar (starting at midday) is being organised by the Energy Management Group and full details will shortly be sent to all members. The seminar will coincide with the groups first AGM and we would encourage as many members as possible to attend.

Sustainable energy and Energy Efficiency Expo 2002

Two free co-located shows with over 100 exhibitors, country and industry pavilions and related seminars and conferences. Topics covered include solar and photovoltaics, wind, CHP, fuel cells, energy storage and distribution, energy management and control systems and much more. Further details can be found at the websites www.sustainable-expo.org or www.energy-expo.org and pre-registration is required by 18 October.

The Expo 2002 event also includes

Renewable Power Delivery, 23-24 October 2002, Olympia, London, organised by the Renewable Power Association and other conferences and seminars

Energy Solutions in Action 2002, ESTA

A series of industry sponsored conferences on energy conservation and management, which are free of charge for the first two delegates from any one organisation. Available at the following venues/dates:

London Olympia/Energy Efficiency Expo 2002, Tuesday 22 October

Coventry Hilton Hotel, Tuesday 29 October

Blackburn Ewood Park, Thursday 31 October

For further details and to register visit www.esta.org.uk

Renewable Bioenergy: Technologies, Risk and Rewards. 29 and 30 October IMechE HQ
1 Birdcage Walk, London. Contact: Helen Ricardo 020 7973 1304.

Offshore Wind Energy: The Technical Challenge

19 November, IMechE, London

For further details contact Natalie Clarke at the IMechE on n_Clarke@imeche.org.uk

Hydropower Developments. 21 Nov IMechE HQ 1 Birdcage Walk, London. Contact:
Stephanie Love 020 7973 1312.

Climate Policy for the Longer Term: From here to Where?

21-22 November 2002-09-10 Organised by the Royal Institute of International Affairs, Chatham House, London

Energy Choices 2002

5 December, Church House, Deans Yard, Westminster, London

Organised jointly by British Nuclear Industry Forum (BNIF) and British Nuclear Energy Society (BNES). For further details: 020 8542 9333

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INFORMATION, LINKS AND REVIEWS

Recent publications

2002 Digest of United Kingdom Energy statistics and Energy Consumption in the United Kingdom

DTI

Published 25 July 2002

Energy – Its impact on the environment and society

DTI

25 July 2002

Managing the Nuclear Legacy: Comments on the Government White Paper

House of Commons Trade and Industry Committee

Fifth Report of Session 2002-02

24 July 2002

A Sustainable Energy Strategy? Renewables and the PIU Review

Fifth Report of Session 2002-02

House of Commons Environmental Audit Committee

22 July 2002

Free publications

A number of regular energy-related publications are available free of charge to qualifying professionals in the UK. While many carry large quantities of advertising and promotional literature group members may find some of the following of interest.

Renewable Energy World – bi-monthly publication providing up to date summaries of renewable energy projects and policy world-wide and in-depth features on specific technologies and projects. See www.jxj.com/rew/ or tel: 020 7387 8558 or e-mail rew@jxj.com.

Industrial Environmental Management, is a monthly publication by Faversham House Group covering environmental issues, many of which are relevant to the energy sector

Energy and Environmental Management is published by DEFRA bi-monthly and includes many updates on government activities and policy on the energy scene, as well as topical articles of interest in the sector. To receive your free copy complete the request form on the web-site at www.eaem.co.uk.

Cogeneration and On-Site Power Production is of relevance to those involved with small scale embedded generation and CHP and Onsite Power Production (COSPP). Copies are free to qualified professionals who complete a printed circulation form. These can be obtained from the publishers, James & James, 020 7387 8558, www.jxj.com, cospp@jxj.com

Refocus, the International Renewable Energy Magazine is another bi-monthly renewables publication which can be obtained by registering at www.e-focus.net. This publication has more of a UK slant than Renewable Energy World and focuses more on news than projects.

UPDATE

Renewables target criticised

A report by the Royal Academy of Engineers published in August criticised the government's target to produce 20 per cent of electricity from renewables by 2020 as well intentioned, but vastly overestimated. Furthermore, the report considered that by misplacing trust in renewable generating capacity the government was jeopardising the chances of meeting the Kyoto targets on greenhouse emissions and leaving the country dangerously reliant on imported natural gas. The report voiced concern that delays in commissioning nuclear plant to replace the existing ones would result in a skills drain from the UK and a loss of nuclear technology expertise.

Gas in short supply

The same RAE report also predicted that by 2020 the UK could have to import virtually all the gas it needs for energy supply as it might no longer have enough of its own. Furthermore, the report notes that the UK has little storage capacity for natural gas and consequently it was possible that if the UK experienced some really cold weather we could experience shortages of gas within the next few years.

Wind power on hold

Plans for expansion of offshore wind generation were dealt a hefty blow when one of the developers granted a permit for development of a scheme announced its intention to withdraw and handed back its permit. Rows with MoD were cited as one of the reasons for failure of the scheme to progress. The MoD has indicated that it would object at the planning stage to five out of the 18 licence sites, due to the risk of the movement of turbines affecting radar on low flying jet aircraft and thereby threatening national security.

Nuclear power risk

The International Atomic Energy Agency (IAEA) has called on national governments to tighten security at their nuclear plants to avoid them being targeted by terrorists and has recently held a special session on nuclear terrorism, concerned that security at some sites where radioactive material is stored was weak.

Climate change and energy policy

Several recent reports have noted that the climate change levy is not provoking businesses to improve energy efficiency measures, as had been hoped prior to its introduction. Meanwhile Ofgem has warned in August that an overhaul of climate change policies is needed if Britain is to meet its greenhouse gas emission targets. Recommendations could include compulsory emissions trading and the imposition of a carbon tax.

Legal Wranglings Over Proposed US Nuclear Dump

Plans for America's first national nuclear waste dump look set to be delayed by legal suits being filed on behalf of the state of Nevada against President Bush, the US Energy Secretary, the US EPA and others. The proposals would see construction of probably be the largest nuclear waste dump of its kind anywhere in the world to hold waste currently stored at 131 power plants across 39 states. It is being opposed by the state of Nevada partly due to fears about its geological suitability, given its position in an active volcanic field.

Flue Gas Desulphurisation

A proposal from Cottam Power Ltd to fit a flue gas desulphurisation plant to its 2000 MW coal-fired power station at Cottam in Notts has been approved by the DTI.

Renewables Targets

The Scottish Executive has set its own targets for renewable energy generation in Scotland.