

The Committees of the UK Parliament probably come as close as one can get to an impartial, objective vehicle for examining a spectrum of subjects of major importance. Such reports will inevitably fail to impress all their audience all of the time: subsequent examination of the fine print may suggest that aspects of an analysis were flawed, or that it makes recommendations which prove impractical to implement. But the integrity of their investigations cannot be faulted.



Action needed to reach energy target

The Report on Renewable Electricity-Generation Technologies published in June 2008 by the Commons Innovation, Universities, Science & Skills Committee is one of the more detailed examinations of the subject to have been published in the UK. In its 58 pages of analysis and conclusions, the report addresses themes as diverse as the research funding for renewables, an appraisal of the technologies available, and the planning process which affects the implementation of renewable energy generators.

Written with great clarity, it opens with a brief history of renewables in the UK and the issues raised by the technology. Along the way, it produces an examination of renewable generating capacity at present and how far that scenario must change in order to reach the targets which have been set for renewable energy. To achieve a 20% renewable share of all energy production by 2020, around 35% of electricity specifically must come from renewable sources by that date.

While accepting that the 35% share is possible, the Committee's report expresses serious reservations over whether the Government has taken sufficient steps for that target to be reached using the technologies currently at its disposal. Perhaps most significantly, it questions whether the UK has the skills base to underpin the successful exploitation of renewable technology.

The report monitors the renewable electricity environment and alerts Government to what it identifies as the shortcomings in its strategy for meeting its own targets.

Overtaken by events?

In the ordinary course of events, a Select Committee report criticising the Government over a subject as important as energy resources far into the future, would be receiving media coverage for several weeks after its publication.

But literally one week after the report's launch, the Government announced its UK Renewable Energy Strategy Consultation.

Did Committee Chairman Phil Willis MP feel that the thunder of the Renewables report had been stolen? "We are always delighted to have completed a piece of work, only to find that the Government then announces policy which reflects its outcomes.

"There is certainly some satisfaction in doing that. The main criticisms which come out of the Committee's report, however, remain as strong now as they were when Gordon Brown made his statement.

"Certainly in terms of our conclusions, we made it absolutely clear that it is feasible to take determined and co-ordinated actions which will allow the UK to meet its 2020 renewable energy targets. It is good that the Government's own analysis mirrors that of the Report as it shows we are working from a common position. But the problem we identified is how the target is to be delivered."

Part of that problem, Mr Willis maintains, is that we are inexorably edging our way towards 2020 without the Government having taken the first substantive steps of its own towards the target. What the Government launched back in June was not an action plan but another period of consultation. "Time is of the essence when the task is one of increasing renewable electricity generation by a factor of seven. It

Select Committee accepts that the renewable electricity quota can be achieved but questions whether the Government has taken sufficient action to make this happen.

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can be done, but some very rapid decisions have to be made by the Government.”

A seven-fold expansion in twelve years in a sector which requires significant amounts of capital expenditure is a daunting task, particularly when the starting point is about 4.6% and the UK needs to be producing at least 35% by 2020.

Support for Ofgem review

When the Prime Minister and BERR Secretary John Hutton launched their consultation document, the energy regulator Ofgem issued a detailed statement on the changes that it would be able to make to the operating framework for electricity producers to help ensure that the targets would ultimately be met. Our commentary on Ofgem’s involvement can be found on page 30 of this edition.

To set the Select Committee’s own observations in context, Ofgem is keen to see major changes in the rules under which operators can feed electricity that they have generated into the national network.

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rules which slow down the connection process further.

Did Phil Willis see any great merit in the Regulator’s contribution to the debate? “The Ofgem statement does support our case as we highlighted some very important issues over which the Government would have to put pressure on Ofgem and National Grid. The first is that it is nonsensical to hold up access to the national grid even if you do not have the planning permission and the finance to build.

“This is a very British way of doing things. It presented few problems when renewables were a quirky third stream technology. But now that 15% of all energy has to come from renewables by 2020, the game has changed. Those with the technologies ready, and who have secured permission, need to have immediate access and that is what Ofgem is only now getting ready to do. The fact that Ofgem has not been doing this so far shows a remarkable level of complacency, a point which we highlighted in our Report.”

£5 billion estimated investment

In setting the price caps for electricity from 2007 to 2012, Ofgem factored into the network owners’ costs more than £5 billion of new

Phil Willis, MP, Chairman of the Innovation, Universities, Science & Skills Select Committee

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investment. That 'allowance' has to be funded by those companies (National Grid, Scottish Power Transmission and Scottish Hydro Electric Transmission), and it does not mean that the new capacity can be developed particularly quickly,

The Committee Chairman accepts that the network companies need some re-assurance that there will be sufficient demand from wind generators for the connections in which they are planning to invest.

As matters stand, however, that position would not be reached. "We have probably missed the boat for building enough wind turbines and are reliant on foreign suppliers to put us into their queue. We have to ask why they would be keen to supply the UK as a priority when there are more developed markets in other European countries.

"All of the goals remain achievable but there are significant hurdles along the way. Simply producing a report with targets cannot meet those goals unless the Government is going to step in and take control to move the programme forward. But the Committee did not get the feeling from the Energy Minister that driving renewable electricity was his *raison d'être*."

Lack of qualified engineers

The Select Committee had expressed serious concern over the dearth of qualified young people coming into what could be termed 'renewables engineering'. The nuclear sector is much better served, with a Nuclear Academy and university courses at Lancaster and Manchester. "There has not been a similar development for the renewables industries", Phil Willis noted. "It is needed as a matter of urgency in areas such as wave and tidal power."

He sees the shortage of skilled engineers, at every level from technician to post-doctoral, as a major factor in the progress of British

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industry; a subject which forms the basis of another of the same Select Committee's enquiries. The relatively small number of engineers coming into the profession is not a new phenomenon, and has been a constant cause for concern since the 1960s.

The issue is not just one of engineering training but the political environment into which they are operating. The use of wind power to generate electricity, for example, involves rather more than designing and erecting a succession of wind turbines. Apart from raising the capital cost of such a project, there

It is one thing having the wind turbines constructed - assuming that there are no hold-ups on the planning permission front - but it appears to be quite another matter to have the installation connected into the national grid.

When wave power starts to play a greater part in renewables, there will be new grounds for opposition; more reasons for planning enquiries to stretch on and ensure by default that targets are obstructed.



Conclusions of the Innovation, Universities, Science and Skills Committee Inquiry into Renewable Electricity Generation Technologies

The Select Committee set out a number of important conclusions which are listed below. The complete Report can be found at <http://www.publications.parliament.uk/pa/cm/cmdius.htm>

237. Once finalised by the EU Commission, the UK's 2020 renewable energy target will be mandatory. The agreed target is likely to require around 15 per cent of energy to be supplied from renewables, which in turn will require upwards of 35 per cent of electricity to be generated by renewable technologies (up from 4.6 per cent in 2006).

238. Critical to meeting the 2020 target will be the widespread deployment of renewable electricity-generation devices, both at the level of macro and microgeneration. At the current time, rather than acting within a framework that functions to support the delivery of renewable electricity-generation installations, project developers face a lengthy wait for planning consent, limited access to the electricity transmission system, and a shortage of the necessary skills and equipment to allow for efficient project delivery.

239. To meet National Targets it is now essential that immediate steps are taken to support the RDD&D needs of the renewable electricity industry. We welcome the Government's commitment to consult on a new Renewable Energy Strategy. However, without increased public acceptance of renewable technologies, a clearer funding landscape, and action to upgrade and expand the UK electricity transmission system, no amount of Government intervention will be sufficient to meet the challenge that lies ahead.

240. Given the scale of the renewable energy targets and the need for action by stakeholders at every level, from the consumer to the Government, we were surprised and concerned by the lack of urgency with which organisations such as National Grid spoke of the need for change. Further, although Mr Malcolm Wicks, Minister for Energy, offered warm words to the renewables industry ("their task is urgent and the challenges are great, but we shall overcome. That is my message to them"), we sensed little engagement on the part of the Government with the issue at hand. We think it reasonable to expect the Government to lead on this matter and hope that a greater sense of dynamism, together with a clear strategy for progress, will be forthcoming.

241. On a more positive note, we believe that with decisive and coordinated action it is feasible to meet the 2020 renewable energy targets. To do so, however, it is essential that any action is both considered and swift; without this we may find that the increasingly short amount of time we have to make the necessary change has run out. §

are the protracted planning enquiries characterised by deep opposition from the community. When wave power starts to play a greater part in the total renewables mix, there will be new grounds for opposition; more reasons for planning enquiries to stretch on and ensure by default that renewables targets are obstructed.

The new entrants to the profession will have to display the consummate skills of the advocate and economist alongside their engineering theory.

Perhaps the most serious shortfall in the skills needed by the renewables sector is in project management. "That has to come from the engineering community. In order for the Government to drive forward its campaign, it has to demonstrate that it is an intelligent customer and can react accordingly.

"I would contend that it does not have the capacity to be that intelligent customer. It is going to take a seismic shift in thinking within Government."

Government must take lead

Accepting Mr Willis' views at face value, what can the Government do to keep the UK on schedule? As he observed, we are already in danger of missing the tide. "We are at a point where there is political consensus on what has to be achieved in the years ahead.

"But the Government has to seize the moment to show what is possible. In the case of tidal and wave power, for example, we need to get demonstrators up and running: we do not need protracted consultations. We just need to get on with it."

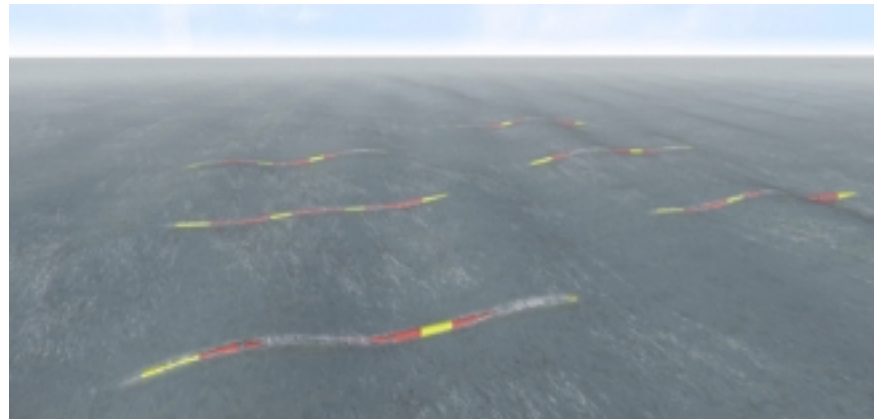
Speaking with experience of the matter, the Chairman points to the recent decision to develop a working trial Carbon Capture & Storage (CCS) system.

The forerunner of the present Committee had recommended going ahead with the Peterhead and BP project. "But the Minister's argument was that it would not have been fair simply to go ahead and award a contract. At what point does procrastination stop and action start? "I am convinced that in some of

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these major demonstrator programmes, action has to start now and we should be commissioning the first operational CCS programme, and the demonstrators for tide and wave systems. Meanwhile, we should be pressing on with the calculations for the barrages – that step can go ahead right now.

"If private investment is not committed after these trials, that would be unfortunate but not disastrous. But if the demonstrations do not proceed in the first instance, then all hope of reaching the targets will be lost."



Caution over new planning rules

The introduction of a Bill in Parliament to streamline the planning laws for major projects has met with mixed reactions. Most views away from the Government benches are cautious about legislation which its critics see as an attempt to circumvent otherwise valid objections.

Phil Willis is supportive of the principle that projects such as wind farms must be brought faster on stream, but believes that the Government is approaching the question from the wrong end of the telescope.

"You have to take communities with you. If you look at the roll-out in Germany and Scandinavia and Spain, the Governments do not ride roughshod over communities which may be affected: what they do is ensure that timescales are adhered to, without an endless legal enquiry process."

He is not opposed to public enquiries but maintains that objections can be examined in six months rather than six years - and that does not involve a government silencing the critics. It is equally important to secure decisions on small projects as on the high profile installations if the overall goals are to be reached.

Like Conservative Shadow DEFRA Secretary Peter Ainsworth, Mr Willis believes that the renewables sector could see production

of generators in the UK with major implications for employment.

The manufacturing costs of turbines are high but with roughly 7,000 wind turbines envisaged by John Hutton, those costs will fall and make UK producers more competitive. Between 250,000 and 500,000 jobs in the UK should result from the renewables sector meeting its targets.

Extending option range

Constant reference to wind power, with some wave energy thrown in, would suggest that these were the only technologies on the table. Phil Willis does not see these as the complete picture.

"We have to continue developing new, more advanced technologies such as photovoltaic cells embedded into plastics. I am confident that there will be major breakthroughs.

"The UK could be a world leader, so the Government must not take its eye off that particular ball. It should be supporting and driving today what be tomorrow's technology. The trouble is that this Government is afraid of backing winners. And if we are not sure what those winners might be, we simply have to take some risks." §

The proposed Pelamis wave power scheme of E.ON UK off the north coast of Cornwall.

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