

## The Second Annual Fuellers' Energy Lecture

# Whither Energy Policy?



Presented at Haberdashers' Hall  
On the evening of  
Wednesday 10<sup>th</sup> May 2006 by

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Master of the Worshipful Company of Fuellers, Distinguished Guests.

## Introduction

It is my privilege to give the second Annual Fuellers' Lecture – which I have entitled "Whither Energy Policy?" There can scarcely be a more important issue for our society currently than 'energy policy' amongst the many priorities jostling for government and international attention. Energy is a basic necessity for a modern society – vital to industry and commerce, to transport, to everyday domestic circumstances and our community life – which we tend to take for granted for much of the time but which requires our serious attention.

In the lifetimes of a fair proportion of this assembly this evening we have twice as a nation adopted radical approaches to energy policy:

- **nationalisation** introduced 60 years ago which survived on an all party basis until fault lines developed
- then the **privatisations** of the late 1980's/1990's which in their turn have survived for 15/20 years or so, also on an all party basis with their roots in a liberalised market

And where do we stand today? Fault lines have again developed, this time in relation to security of supply and environmental impacts. I shall be arguing that today's circumstances mean that we are at another historic turning point – a need and opportunity for a further radical readjustment on an all party basis because of its long term nature which I have chosen to call

- **Rationalisation**

I need to make three preliminary points:-

**First**, it is an honour and a privilege to be invited to deliver this lecture, the annual series having been created by Lord Ezra. When he delivered the inaugural lecture last year, those of us present appreciated that we were listening to one of the giants of our national industrial life. He demonstrated the great range of his knowledge and experience; I am confident that I speak for everyone who was present in saying that the regard in which he is held as a person meant that he was listened to, not just with respect, but with affection.

This leads me straight into my **second** point as you will understand my diffidence this evening. I know that there are many people present in this distinguished gathering with greater working and technical knowledge and operating experience of these energy issues than me. However, since being appointed as chair of the Coal Authority in 1999, I have of course met a huge range of people across the energy industry – I have been able to listen to them and I hope learned from them. In these situations it means that you do develop thoughts and ideas of your own.

Again this leads me directly into my **third** point as I need to make it clear that I am speaking this evening in a personal capacity, as I feel it is appropriate in a lecture to

this audience to range over many issues which go far beyond the Coal Authority's legitimate remit – although (surprise, surprise) I could not disappoint Derek Ezra and therefore will have things to say about the British coal mining industry and the contribution which I hope it will continue to make to the nation's future energy needs.

Perhaps I should interject a **fourth** preliminary point – I will in this lecture be dealing pretty exclusively with issues relating to electricity power generation. I will be recognising that this is only one part of the equation – the use of electricity in the home, in shops and offices, and in the factory, in fact in any building and activity, cries out for attention as does our personal and private and public use of transport. We need to register that issues of energy demand and energy efficiency in these respects are of equal importance to power generation itself, in considering what energy policy should encompass. And I am conscious that I am not covering fuel poverty issues which must not be ignored.

So – **Whither Energy Policy?** I will be asking many questions during the course of this address.

Like everyone who has been fortunate to have an interesting and stimulating working life, there are some incidents which remain in the mind. One for me is listening to a persistent young journalist asking questions of Harold Wilson when he was Prime Minister – the style was along the lines of what we now expect from the Today Programme journalists; at one point he said to him "Prime Minister, I feel that you're not indicating any solutions in your replies to my questions" to which he received the ultimate put-down response "The trouble is that you're not asking me the right questions". Is it not true that if someone is perceptive enough to establish what the right questions, are in relation to any issue, then the answers and the solutions can so often begin to present themselves. In posing questions for you to ponder this evening, I will therefore be hoping that I will be successful in leaving in your minds, a credible scenario in relation to the subject of energy policy – with its implications far beyond our own national interests.

### **The present situation**

I am imagining that there will be general agreement that the government are absolutely correct in the national interest to institute the current Energy Review. The assessment of the present situation has a whole series of worrying aspects. To mention but a few:

- **Import dependency is growing:** the country has moved rapidly to the position of no longer being self sufficient in energy (we have to accept a future for the UK as a net importer of gas, oil and coal).
- **The country is vulnerable to price volatility** outside our control: prices to consumers have risen sharply and show little prospect of reducing substantially or permanently putting pressure on our economic prospects, commercial profitability and domestic budgets, the cost and price volatility impacting severely on our national balance of payments.

- **The climate is getting warmer with UK harmful emissions to the atmosphere rising again**, reversing the downward trend against a declared need to reduce substantially on present levels of emissions if very serious consequences are to be avoided.
- **The dash for gas and current trends** indicating rising dependency on **gas from only a few sources of supply overseas** has exposed vulnerabilities – the Russians interrupt supplies for political reasons to the Ukraine and Belarus, the Russians point out that the Chinese need their gas too and propose a pipeline to supply them, when demand on mainland Europe rises gas does not flow as expected through the inter-connector to supply us rather than domestic markets (is that really so surprising?!).
- The **capacity safety margin** for electricity supply has been reducing and the actual safety margin was down to an alarming 4% on 29<sup>th</sup> December last and, not during the winter but on 14<sup>th</sup> March, a "gas balancing alert" was issued to avoid a gas supply emergency. The main UK gas storage facility at Rough Field suffers damage through an explosion and is out of action for a minimum of three and a half months and possibly double this period.
- There has been a lack of sufficient investment currently committed in power generation capacity against the certainty of rising demand and a considerable proportion of existing capacity having to be replaced over the next decade or so, with an "**energy gap**" emerging that has to be filled in the period immediately ahead.
- **The contribution of improved energy efficiency and reduction in energy demand has yet to be reflected in the consumer products** widely available to be taken up by the public.
- Most operators find practical problems arising from the **many departments and government delivery vehicles** involved in the policy making and delivery of policy.

### **How, pulling all of this together, do things look? What is the common ground?**

I am quite clear in my own mind – there are pressing and urgent issues to be faced – they are serious – there is a need for robustness – as a senior government figure admitted to me recently 'it is now a matter of political will'. The issues are so fundamental and long term in their impacts that we need a genuine cross party approach - the Review was absolutely right in being entitled 'The Energy Challenge'. At the launch of the review the DTI Permanent Secretary no less was working the room and asked me what I would regard as a successful outcome to which I replied 'a clear, certain and coherent policy for the long term' and in this lecture I will try to put the flesh on the bare bones of that conclusion. Congratulations to the government for establishing the Review, led by a Minister focussed on energy issues only, and accepting that a new policy focus is required.... I read that the Minister and Review Team have received over 2000 written responses and met over 500 individuals in workshops and seminars..... With the consultation period over, we now await publication of the outcome in the summer...

I am struck by the common ground on the fundamentals:

- The achievement of security of supply in its several aspects
- Meeting global warming environmental requirements
- How government policy can best be delivered

From what I have distilled from listening, it seems to me that the following five at least are the most important key determinants:

- **Keeping options for the future open as far as it is possible sensibly to do so BUT not as an excuse to avoid taking hard decisions and not waiting so long that unnecessary risks are run.**
- **Identifying the 'least cost' solutions for emissions mitigation and the best cost/benefit outcomes over a full life cycle (not recognised currently in the Emissions Trading Scheme) and supporting them actively, encouraging diversity through investment in complimentary approaches and solutions, making the most efficient use of scarce resources and supporting the development and marketing of innovative technology for the mass market.**
- **Basing the approach on market solutions but within a policy and regulatory framework that is clear and certain and coherent, which promotes the required capital investment in energy infrastructure, plant technology and operations, and which has regard to all aspects of customer energy use, i.e. demand and efficiency across the board.**
- **Achieve security of supply through diversity of energy source of origin, diversity of fuels, and treating indigenous supply as a strategic resource to be maintained.**
- **Adopting structures, approaches and incentives (fiscal, financial, regulatory and environmental) to deliver policy in a transparent manner with public awareness and support.**

## Assessment of Risk

If the need, therefore, is for secure, diverse, competitive, affordable and environmentally acceptable supplies of energy and its efficient utilisation, what would a **risk assessment** look like? I will suggest some of the questions and you might like to ponder the approaches and solutions to the four issues I will cover.

- **First Security**

When does dependence on external sources of energy become unhealthy and uncomfortable OVER-dependence?

In relation to this basic risk, with world energy demand estimated to rise 60% by 2030, we have to consider the implications of competition for energy resources, and what our vulnerability is to certainty of supply, price volatility and anticipated high cost. And what

about vulnerability to interruptions of supply and to terrorist attack. This leads inexorably to a need to assess the importance of indigenous sources of energy. On the occasion of the White Paper consultation the Coal Authority commissioned an assessment of the security of gas supplies from the internationally respected Control Risks Group – its sober and considered conclusions remain relevant today, vindicated by recent events, and have been re-submitted to the Minister and the Review Team.

- Secondly **Diversity**

Is an energy mix desirable?

Is there any danger in an insufficient mix of energy types or an imbalance between them?

Is there any danger of an insufficient availability and range of energy sources by origin?

And, of course, in considering this theme, is the tricky political question of whether there should be government encouragement and intervention put in place to see diversity is achieved and maintained, although in my book this is inevitable if government is to recognise its basic responsibilities with regard to risk.

- Thirdly **Investment**

The key question here is whether we have identified the areas where certainty and clarity are required in the range and impact of government policies for the energy and investment industry to deliver the capacity to meet future demand.

Leading on from this is what is the percentage of reserve capacity and storage availability required, to provide an adequate margin of safety in ensuring supply can always meet demand. I imagine it is pretty obvious who is going to collect all the blame if anything goes wrong and the 'lights go out'. There are plenty of other equally key issues – how we ensure that there is sufficient Research & Development & Demonstration leading to Commercial Deployment of future technologies. The identification of fiscal, financial, environmental and regulatory incentives is needed and to be properly targeted and coherent, a key element, I note, of the submissions from industry to the Review Team. A worrying aspect of all of this is appreciating the length of the timescales involved in ensuring investment will be timely so that supply is available to meet demand. I will also be raising later whether there are not structural obstacles such as in the planning system and in government delivery vehicles, which need to be addressed.

- Fourthly **Global warming**

Why is it happening?

How serious and severe is the current position/how much climate change can the planet take without disastrous consequences?

Is this, in whole or in part, caused by human activity?

Is this the most serious threat, which the planet faces?

In facing these questions part of the trickiness is the priority the government should give in deciding how far to go and what the balance should be between public expenditure and keeping costs to the consumer as low as possible. Not least there is the assessment of how it is possible to take effective steps without damaging economic growth and competitiveness and making fuel poverty worse.

Is there widespread complacency?

Although the position is probably changing, it is difficult to discern an adequate awareness amongst the members of the public for **acceptance of the need to change individual patterns of behaviour** and to have government action on the scale required to be effective. We need to consider the importance of public perceptions being influenced and changed. As a third of energy demand or more is from the domestic side, having increased enormously by around 20% in 15 years, we cannot ignore the impact of the electrical equipment we regard as essential and take totally for granted in our homes as well as the water and space heating we install. Given the large proportion of energy demand for road and air transport, changes to transport design and use are clearly essential. If the answers lie through the application of new and developing technologies, we need to question whether researchers and industry and markets are sufficiently geared up for this and how we can improve the take up of the technologies available.

Is it not clear that incentives are required to drive radical change in the right direction?

We need to consider the position of governments around the world and the scope for concerted international co-operation, particularly from those which constitute the societies which are the greatest polluters and those whose economies are likely to grow most over the decades ahead.

- **Your Conclusions Generally in relation to these risks?**

What are the options available nationally and internationally to mitigate these risks and in relation to these risks, what would be your assessment:

- **on the likelihood** **high, medium or low ?**
- **on the impact** **high, medium or low ?**

The growing consensus seems to be "high" on both counts.

## **The Way Forward**

The European Commission Green Paper refers, I quote, to the "new energy landscape of the 21<sup>st</sup> century.....the effects of which are felt directly by everyone and which require urgent action" – So is this not a historic point in time, demanding radical action. It will not have escaped your attention that I have exercised due constraint – I have not yet deployed an argument for or against coal or British mined coal – but not, either, re renewables or nuclear or gas – and deliberately so. One of the things I have learnt, as

my knowledge of the energy industry grew, was how partial so many commentators and participants are – I have heard more special pleading of special cases over the last few years to last me a lifetime – for every argument advanced for a particular approach to be encouraged or adopted, there always seems to be some lobby group or individual or scientist ready to jump in and emphasise drawbacks and disadvantages passing through the various stages of disbelief, scepticism and derision – the great requirement is to be objective and rational (you see I have now arrived at my basic theme of Rationalisation!)

Surely the solutions are not to be found in only one approach or in one technology or in action only with regard to generation – there are advantages and disadvantages to be weighed – there are choices and alternatives – **the various approaches available to us are surely complimentary: as someone has said "not 'either or' but all"**. There is a critical public interest element which has come to the fore after many years when the policy seemed to be to have "no policy" and no intervention of government – interestingly in a privatised commercial scenario and liberalised market, it is now **government policy which is seen as the key determinant in setting the parameters within which the market can operate effectively and efficiently** – so it is clear to me that the government were right in launching a challenging, if overdue, Energy Review and much hangs on its conclusions.

And the public has to be taken along – the way forward has plenty of direction signs but it is idle to suggest that there are not political difficulties in having a requirement for costly action now in the short term, with individual behaviours having to change, when the high profile obvious permanent threats are still quite a way off (especially when the global warming effects are not precise, are seen presently as only spasmodic in short lived impact such as flooding, and will gradually emerge in all their seriousness over a long period of time). And, of course, some are still challenging the existence, let alone the seriousness of the threat, let alone our ability as one country to make any significant impact on it.

What are the future scenarios if you are with me in this assessment? It is acknowledged that we need investment in new generating capacity on a considerable scale looking forward over the next decade or so – insufficient investment is committed currently as demand is rising and a substantial part of generating capacity will need to be decommissioned and be replaced.....

costs featuring in the current debate indicate an investment need of at least a staggering £20 billion in the UK over the next 15 years, with a figure of one trillion Euros throughout the European Union, and an estimate of world energy demand expected to rise by some 60% by 2030 with very disturbing implications for competition for resources, price volatility and global warming.

The message from industry seems pretty clear – **the Energy Review needs to deliver clarity, certainty and coherence if the framework for investment is to be created**. The popular media characterise the debate as being about whether as a nation we should build new nuclear power stations but serious commentators know it is a much more complicated picture. Even my gorgeous grandson Sam knows at 5 years old that in real life there is **no Harry Potter solution** of a wizard merely waving a magic wand to transform everything – but the solutions are surely readily identifiable.



## What are the available solutions?

The common messages involve a combination of approaches and I will run through a number (and there are others) with my conclusions to try on you:

- **An energy mix – so avoiding an overdependence upon one fuel or one source of origin.** What we have currently has not arisen by design, but it is perceived as a mitigation of present and future risk. We have the energy industry itself apparently committed to this and looking for government encouragement to maintain it through a **level playing field for coal, gas, nuclear, renewables**, a useful coincidence, I suggest, of commercial assessment mirroring national community interest.

- **An energy mix which recognises the strategic importance of indigenous resources as a national protection against risk**, the contribution of which should be maximised accordingly – this indigenous resource includes renewables, nuclear once the uranium is imported and above all British coal, which is competitive internationally, can produce 20 million tonnes annually (which equates currently to 12% of the electricity generated), and which in my opinion in combination cries out for appropriate recognition of their value and potential as a continuing contribution to underwriting our protection against vulnerability. Perhaps we recall that the current EU state aid regulations provide a dispensation for member states in supporting up to 15% of indigenous supply – I wonder if the percentage might be revisited notwithstanding the EU commitment to pressing on with market liberalisation.

- **Encouragement of all the various technological options available with a level playing field for all emission reduction technologies**, not favouring one against another, pump priming new advanced Near to Zero or Zero Emission Power Generation technologies including improvements in efficiency: my example is from coal. **The greatest immediate large scale gains in emission reduction are to be obtained from investment in clean coal technology at power plants** and while you will be thinking that "he would say that wouldn't he", it is surely a convincing argument that this route to the government's environmental targets does exist through clean coal. Available is proven technology to hugely increase efficiency in the amount of coal burnt in relation to the electricity generated and the technology to reduce emissions (although I suppose we were all somewhat thrown by recent research findings that suggest that sulphur emissions are regarded as beneficial, the sulphates in the atmosphere reflecting sunlight back into space.....so should we be fitting FGD after all!). This action is even more significant (and desirable) as utilisation of coal is maintained and increased with utilisation in the three recent winter months resulting in it producing more than 50% of the electricity generated in the UK: a three stage Clean Coal Concept (and all the signs are that industry is seriously examining these options) would deliver large scale gains through:

- reduced emissions in existing plants
- improved efficiency in new and existing plants

followed up with

- achieving near zero emissions with carbon capture and storage combined with advanced technology such as gasification coal power plant (which can generate

hydrogen) and in the longer term hopefully through Underground Coal Gasification, CCS being linked to Enhanced Oil Recovery and Enhanced Gas Recovery where possible as an added benefit and for revenue generation

But do I need to emphasise – one approach amongst many to be pursued and none ruled out.

- **Recast current and promote new incentives (whether fiscal, financial, regulatory and environmental):** civil servants seem to equate incentives with government money but this is far from being true: the Coal Authority commissioned consultants to scope the range of incentives which could be deployed and they come in many different guises. A couple of straightforward obvious examples – **retain but recast the Renewables Obligation to encourage all and not just some emission reduction technologies** and stimulate investment in them, e.g. revisit the scheme which (can you believe) reduces the amount of co-firing of biomass with coal that qualifies for Renewables Obligation Certificates (this reduced from 25% to 10% from this 1 April, is to reduce again to 5% from 1 April 2011 and is to disappear altogether from March 2016) despite the fact that biomass co-firing is a very effective way to reduce emissions and our domestic supply needs encouraging that the government are committed: another example of a sensible regulatory change would be to **require new gas and coal plant to be designed to be "carbon capture ready"** (carbon capture being relevant to gas also). Time does not permit me to mention other regulatory issues but there are contradictions in the system, for example with regard to coal methane, which demand attention. But incentives are a significant area for the effective delivery of the policies to be put in place so I do want to still pursue the point.
- **Incentives can be widely deployed to drive the agenda set by the Gleneagles Summit**, heavily influenced by the government's strong lead, which was to adopt a three step approach to climate change and achieve reductions in harmful emissions and which, in my opinion, has not received the support it deserves as a practical and realistic position and which will presumably feature in the Energy Review:
  - **first** – slow the rate of increase in harmful emissions
  - **secondly** – stabilise the level
  - **and then** – reverse the trend by reducing the level

Memories fade but the best example of an effective incentive that I can think of was the huge impact of the introduction of a lower tax on unleaded fuel – motorists adapted their engines, manufacturers designed new engines for new cars and the public bought them – today I do not know who still uses leaded petrol. If we see hybrid vehicles (through biofuels, vegetable oils, ethanol, methanol, hydrogen) as a more environmentally friendly alternative for powering cars, then fiscal policies to promote so-called eco vehicles can be a major driver in this direction which can be applied across the board and we are seeing a cautious start of that here in UK (I read by the way that already 13% of new cars sold in Sweden run on bio-ethanol) – on a more prosaic level, low energy light bulbs, electrical equipment with a different form of standby facility, smart meters: the list is endless once improvements in efficiency are regarded as a desirable community and social objective and incentives can be designed to be revenue neutral by applying differentials. And, as we know, **create a mass market**

**and costs come tumbling down** and acceptance follows in our rampantly consumer society – go to Turkey and you cannot miss the cheap solar water heaters on every roof.

- **The planning process**, which of course is not DTI's responsibility, will doubtless be a particularly difficult area for the government in the review. No company wishes to be trapped for years in a long running costly planning process and time is not on our side from the point of view of the wider community interest in the projects which will be needed: but **how to strike that appropriate balance between the justified protection** from undesirable environmental impacts and to be punctilious over **individual human rights, and the national need** for a huge programme of very large critical development projects. Some practical examples deliberately chosen across all forms of energy source:
- If a **nuclear plant** is proposed, substantial sustained opposition can be anticipated adding to an already very long time frame (remember Sizewell B – only 15% of the enquiry time was devoted to local issues).
- Most of the proposed much needed **gas storage facilities** are trapped in the planning process currently – we in UK only have a storage capacity of 3.6% of annual demand compared to 16% in Europe, 18% in US and 5 out of 8 storage proposals in the last decade have been rejected by planning authorities. The national interest needs to be asserted.
- If you believe that new large scale plant on existing sites is likely to be the way forward, think of Aberthaw Power Station whose Flue Gas Desulphurisation installation to the **existing plant** was opposed by local residents despite this being the major electricity supplier for South Wales.
- **The "presumption against" coal mining**, whether deep mine or opencast, is virtually killing off the coal opencast industry in England, even extending to the reclamation of derelict sites, for which public money is expended to restore, rather than permitting opencast working which would achieve the same planning gain at no public cost with no significantly greater impact on the local community. Do we not need to inject a recognition of the strategic value of an important national asset to redress the balance? It is also relevant that the Coal Authority is organising for submission to the Review Team an assessment of the UK coal resource which will facilitate the preparation of a national mineral resource and development plan for coal, which will inform the planning and practical constraints in relation to both deep and opencast mining future prospects and the potential for underground coal gasification.
- Do not even ask how long the Ffos y Fran **Reclamation Site** in South Wales has been mired in enquiries and court cases and what it has cost, basically just because it involves working the coal (currently held up by court action taken by one individual supported by legal aid despite the fact that now the operation has the support of both the planning authority and Welsh Assembly).
- There is growing hostility to **wind farms**, of necessity sited on land in exposed prominent locations.

- In Devon plans for a power plant were rejected recently by the local planning authority as being "too large", this for a 23 MW **biomass power station**.
- It costs literally millions of pounds to prepare ever more comprehensive and demanding Environmental Impact Assessments and even if planning enquiries do not occur, the lead times are already terrifyingly long.

The Minister for Energy can be quoted "the UK needs a huge and I mean huge amount of investment in its energy infrastructure in the coming 5 to 15 years. We can't have a situation out there where people simply say 'no, no, no' all the time to different planning proposals". So it is good to see the Minister himself publicly recognising that there is a pressing issue, however tricky politically it may be to resolve, but frankly it just has to be dealt with decisively – while it is understood that the Deputy Prime Minister in his former departmental capacity wrote to planning authorities about gas storage facilities, we need more than letters: a good immediate start would be for **starkly clear planning guidance for the local planning authorities**, which if they ignore will be held with costs against them in enquiries – a radical solution would be to **give the Energy Authority** I am describing in a moment **the planning and development remit for all energy related projects** with consultation with Local Planning Authorities.

- Allied to the planning process is the situation with regard to **building regulations**, again not the responsibility of DTI, nor of Defra for that matter.... There is an opportunity for a major improvement in energy efficiency if there is the political will, with promotion for public awareness and support and to promote such approaches as micro generation, decentralised generation and energy conservation. New building regulations have been piloted by imaginative and innovative councils, Croydon, Merton and Woking being the three most often quoted – we wait to see whether this innovation will be made universal and be as bold as the situation can be seen to demand, covering not just public but also private buildings. Tricky politically maybe, but again just has to be dealt with decisively if we really mean business (just remember the number of new homes projected over the next decade).
- A **new regulatory regime is required for carbon capture and storage**, relevant to gas as well as coal power plants. The practicalities of and the cost for **nuclear decommissioning and storage of nuclear waste** is clearly a very controversial issue and decisions are required by government on a site or sites for nuclear waste storage and the funding required, perhaps through a levy. But as carbon also will need to be stored indefinitely, a national regulatory regime and new international convention will need establishing: as a Coal Authority we have to date been approached by two parties for licences to store CO<sub>2</sub> in unworked coal seams and of course, with an encouraging carbon capture and storage pilot being pursued at Peterhead hopefully for early implementation, the whole onshore/offshore position needs resolving as the government have I think recognised but as I shall plead in a moment – please not yet another agency or authority to join all the existing ones operating independently.

- **The emissions reductions targets** – again not the responsibility of DTI – may have been published but **the reductions regime needs to be established with certainty to match the economies of the long term nature of the plant construction and operation investment cycle: at least 15 years ahead** would appear to be a minimum timescale. Is this so difficult – Germany have recognised this and have created the investment climate required, hence the programme of generation on the drawing board for new capacity of 18.000 MW, 8.000 MW being clean coal, (and I have seen higher figures of up to 24.000 MW with up to 12.000 MW being clean coal). This now all reinforced by a widely based national energy summit in which the Chancellor Angela Merkel actually participated to start the process of drawing up a new national energy strategy. Today's papers carry a report that Chancellor Merkel intends to put energy at the top of the EU agenda when Germany take over the EU Presidency next January. Look at the submissions from the generators – tricky maybe but it just has to be dealt with decisively if investment is to be stimulated. It was amazing to me that the Coal Authority a while back brokered the agreement between DTI and Defra on the Large Combustion Plants Directive – the need is for the new Ministers and Secretaries of State to bring this all together in the Energy Review and recognise the critical importance of addressing this **fundamental requirement on emissions certainty over the investment cycle**.
- The scope for **the contribution of energy efficiency is massive**: the European Commission, even against Europe already being one of the world's most energy efficient regions, concludes that as much as **20% of energy use could be saved without sacrificing either comfort or convenience**. This aspect deserves a lecture in its own right given the potential. I confess my own errors – when my elderly mother-in-law was alive she spent extended periods at our home and drove my wife and myself crazy because she used to go round the house every evening turning off all the lights we habitually left on – but granny was right, notwithstanding that most were low energy light bulbs. I am horrified at the number of pieces of electrical equipment we have on standby throughout the house (they say that standby requirements equate to 10% of electricity demand – can this really be true?). I note the comments about fridges being designed to only come on at non-peak times and so-called "smart meters". But it all needs picking up, being focused on, being actively promoted with the technology reflected in standard products widely available at competitive prices and promoted to the public. There do seem to be plenty of excellent ideas around but they need converting through effective marketing from talk to mass availability and use. Is this too difficult and is it not straightforward to promote. I recently wrote to my electricity supplier to see if they had advice and guidance on installing a wind turbine at my home as my wife had not managed to access adequate information on the internet; alas I do not have as yet their reply to be able to quote it here tonight, but members of the public need to have it made easy for them. My wife will not be the only one to be outfaced by finding the number of wind turbine internet sites to interrogate – would you like to hazard a guess? 1.160.000 – she gave up!
- Underpinning these approaches is, of an appropriate scale, **research and development supported by demonstration leading to commercial deployment**: if the key drivers are the supply challenges, demand growth, environmental constraints and security of supply, then **the solution is going to be through**

**technology.** Again an area in which government can stimulate industry through creating the right context. Innovative technology is what is going to be the vehicle for all of this and of course of itself this could be important for our national economy given the huge potential worldwide market.

But if these are examples of the available solutions which should be pursued in combination, in my opinion, **having the right policies in place** is only one half of the challenge – **implementation and delivery is just as critical.**

## **Implementation and Delivery**

I agree with those who believe that the delivery vehicles for government policy must be changed. As long ago as December 2001 the then Chief Executive of the Authority and I were giving oral evidence to a Committee of the House of Lords and in response to questioning I advocated the **establishment of an Energy Agency**. Currently we have DTI, Environment, Communities & Local Government, Transport and Treasury all responsible for aspects of this policy area which surely needs to be approached holistically if we are to succeed. Amazingly a recent departmental response to a recommendation of the House of Lords Science and Technology Committee actually quoted as the reason for rejection that, as responsibilities were spread across a number of different departments, therefore one particular energy programme successfully undertaken in Sweden could not be adopted here.

We have a proliferation of regulatory and research bodies involved – several aspects of regulation and licensing are contradictory, e.g. coal methane, there are Non Departmental Public Bodies and Executive Agencies and Research Bodies, Regulators, Advisory Committees and Government Joint Committees everywhere. In my opinion they need focusing through an Energy Agency responsible for all the executive action and implementation to deliver government policy. I envisage a Non Departmental Public Body, i.e. at arm's length and not an Executive Agency remaining part of the civil service.

At a recent meeting of the Parliamentary Group for Energy Studies an eloquent case was presented by Dieter Helm for such a body, described by a parliamentary member of his audience as a 'monster agency' – and I have been challenged by politicians that such a body would be inherently 'anti-democratic'. However, it seems that even a Department of Energy with a Secretary of State is not under active consideration. I believe such attitudes to be totally misplaced. I see an Energy Authority providing transparency and focus for implementing a government policy which would have to be publicly and clearly articulated – **it would bring together all the executive action of implementation, licensing and regulation presently scattered across government departments and official bodies – it would provide the focus for knowledge, experience, expertise, and continuity** (in seven years in post, I am on my sixth Minister for Energy and a similar number of Secretaries of State, my third Director General of Energy and there is only one civil servant on the coal side still in the Energy Directorate who was there when I arrived) – knowledge and understanding need time to build up: continuity should be valued: an Energy Authority approach would have to be open and consistent, **above all focused**. If there is a common thread running through every management theory that has ever been promulgated, it is the importance of being focused. A Department of Energy would be an improvement if it was given

departmental responsibility across the board – but the delivery vehicle of an **Energy Authority is in my opinion the key if we are to "rationalise"** – the best policies in the world can be adopted but are useless without effective implementation – words are not a substitute for action – activity does not equate with tangible results – the only test of effective delivery is positive outcomes and **what is needed is action, tangible results, effective delivery and positive outcomes according to the Energy Review consultation document.**

## Conclusion

Being Minister for Energy must be one of the most important offices of state to hold just now - time is pressing and we cannot afford a third damp squib to follow the PIU Report or the White Paper...the political cost of getting things wrong will be very high indeed....but the then Secretary of State Alan Johnson said when launching the Energy Review Challenge that it was 'a wake up call' which presumably can be interpreted as meaning that the government possesses the ambition and commitment necessary as long as his successor takes the same view, of course.....all the major political parties are bringing forward statements and comments.....suddenly one can hardly open a newspaper, watch TV or listen to the radio without some coverage of energy issues....suddenly too there is a focus on not just, "where will gas come from" and "should we build nuclear power stations", but the beginnings of a more mature appreciation of the key elements of security of supply in all its aspects and how to reduce environmental impact – surely on any analysis this is a **historic turning point requiring a radical review of policy and the means to deliver it and the raising of public awareness.**

I advocate '**Rationalisation**'...I toyed with quite a few labels but it struck me that this was the present requirement, i.e. to be sober and mature and serious, practical and effective, all embracing and visionary – objective and realistic, not distracted by emotive special pleading. When I was a school boy there was a guy who patrolled Victoria Station with a sandwich board reading 'The end of the world is nigh'....nobody seemed too bothered; he disappeared eventually so perhaps for him personally the prediction was correct.....In my opinion it is **facing up to reality, taking a considered view of the risk assessment of what faces us**, and it is not scare mongering or subscribing to an exaggerated doomsday scenario to say that, today, there is a need for a radical re-appraisal and a common agenda for policy and its delivery.

We await now the outcome of the Energy Review. Yes – I will be very disappointed if the contribution of British mined coal as a valued indigenous resource in relation to security of supply is not fully recognised and actively supported in the Review, together with a full recognition of the contribution which the application of clean coal technology in generation can make (globally and nationally) to emissions reduction with an acknowledgement of the long term potential through underground coal gasification. But the key word is "contribution" – this is a national asset and indigenous resource, once it was dominant in powering the successful economic development of our nation – today it still has its place alongside other sources of energy in underpinning our present and future requirements – **complimentary as part of a comprehensive approach.**

Perhaps I could conclude on a perhaps mischievous note – we need the Review but **is it really all that difficult:** as the need for action is fully acknowledged by the

government – if the appropriate policies are adopted, the parameters are set and the appropriate incentives provided, the market in all its forms will have what it needs to deliver, and the market is saying that it can and will do so. If the ambition and commitment is real and is reflected in the political will and action which the government has itself acknowledged is required, is it not pretty obvious frankly to everybody what is needed and that is what the Review is in place to deliver. Let us hope so.

**I look forward to the announcement of a Rationalisation of Energy Policy, which will see our country's long term energy needs met effectively through the deployment of all the complimentary means at our disposal with widespread political and public support. Through nationalisation to privatisation to now rationalisation at another historic turning point for our national energy policy.**

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10<sup>th</sup> May 2006