Volume 32 Number 1
March 2015

ENERGY FOCUS

Energy policy after the General Election

Amber Rudd MP, Parliamentary Under Secretary of State for Energy and Climate Change, assesses this Government's record on page 20

The journal of the Parliamentary Group for Energy Studies

The Parliamentary Group for Energy Studies
Established in 1980, the Parliamentary Group for Energy Studies remains the only All Party Parliamentary Group representing the entire energy industry. We champion cross-sector energy research and development. The Group's membership is comprised of over 190 parliamentarians, 130 associate bodies from the private, public and charity sectors and a range of individual members.

Published three times a year, *Energy Focus* records the Group's activities, tracks key energy and environmental developments through Parliament, presents articles from leading industry contributors and provides insight into the views and interests of both parliamentarians and officials.

Executive Council

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ISSN 0265-1734 For non-members, annual subscription rate is £65.00, single copies £27.00
Members receive a complimentary copy as part of membership to the Group

Printed in Great Britain by First Colour Ltd, London.

CHAIRMAN'S FOREWORD

As the dissolution of Parliament takes place, it also marks the end of this term's activities for the Parliamentary Group for Energy Studies. And what a Parliament it has been. We've seen membership increase and diversify, so we now reach commercial, academic and trade audiences of all sizes. From the start-up entrepreneurs to those who employ tens of thousands of people; from suppliers to generators, via those in research and development, the Group's reach across the energy sector continues to go from strength to strength and is even making in-roads abroad through our embassy members.

We've also seen increased engagement from across the parties and departments. We've managed to engage them all: From the Secretary of State for DECC attending the House of Lords Annual Dinner for three years running, to every energy minister since John Hayes MP affording us an interview – not to mention the Parliamentary Under Secretary of State for the Foreign and Commonwealth Office providing us with an insight into the centrality of energy to foreign policy.

And now we must look once again to the future as the parties formally announce their General Election manifestos – some of which were outlined for us at our March speaker meeting.

In this edition, our contributors also take a look at the parties' approaches to energy in the run up to the General Election and one of the last acts of DECC for this Parliament, round one of the Contract for Difference (CfD) allocation:

- Jamie Stewart, editor of European Daily Electricity Markets at ICIS looks at the parties' approaches to energy for the General Election 2015 **(page 4)**;
- Esbjorn Wilmar, Managing Director at Infinergy Ltd, looks at round one of the CfD allocation **(page 6)**.

Finally, can I take this opportunity to thank the team at Bellenden for seeing us through to this point: Nikki da Costa, Sophie Fernandes, Allan Paltzer and Alexander Holloway. The time and effort you have put into giving the Group a new lease of life has been greatly appreciated by the members and me as Chairman; because of this, we go into the next Parliament with a healthy membership and an excellent reputation across both the industry and all parties.

Ian Liddell-Grainger MP
Chairman of the Parliamentary Group for Energy Studies

GENERAL ELECTION 2015 – AN EVIDENCE-BASED APPROACH?

Jamie Stewart, editor of European Daily Electricity Markets at ICIS, looks at the parties' energy policies going into the election, and how they stand up to shifting energy market signals

"An evidence-based approach." The phrase has echoed through the halls of the Department of Energy and Climate Change throughout Ed Davey's tenure. Not with the frequency that Treasury mandarins have heard "long-term economic plan" bouncing off the walls of George Osborne's offices, but it defines Davey's time in charge.

That is not to scorn – quite the opposite. Two years ago, when I first wrote for *Energy Focus*, I applied cold, hard numbers, free of vested interest, from the forward-curves of the energy markets to question the longevity of an incrementally-rising carbon price floor which, although environmentally admirable, was becoming economically unsustainable.

And a year later, George Osborne announced a four-year freeze of carbon price support at his next budget. I like to think the chancellor read *Energy Focus* on his way to the chamber that day in 2014.

The numbers-based evidence gleaned from the energy markets has a vital role to play in policy design. So how should the existing picture inform the major parties' policies at this year's general election?

Fundamental change

The wholesale gas and electricity markets have undergone a fundamental change in recent years. Today, the price of energy along the forward curve barely changes year-on-year, whereas traditionally, this curve would display a sharper 'contango' shape, meaning prices rise further ahead. This traditional shape reflects inflation, demand growth assumptions and supply-side risk premium – you pay more, further ahead, just in case.

But today, the forward curve is remarkably flat (see fig 1 comparing with 2010), because of steadily-growing renewable energy supply, while energy

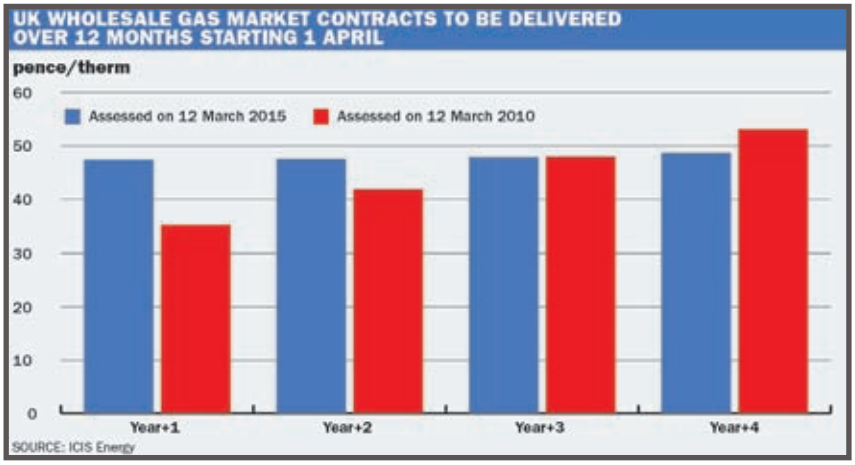


Fig.1

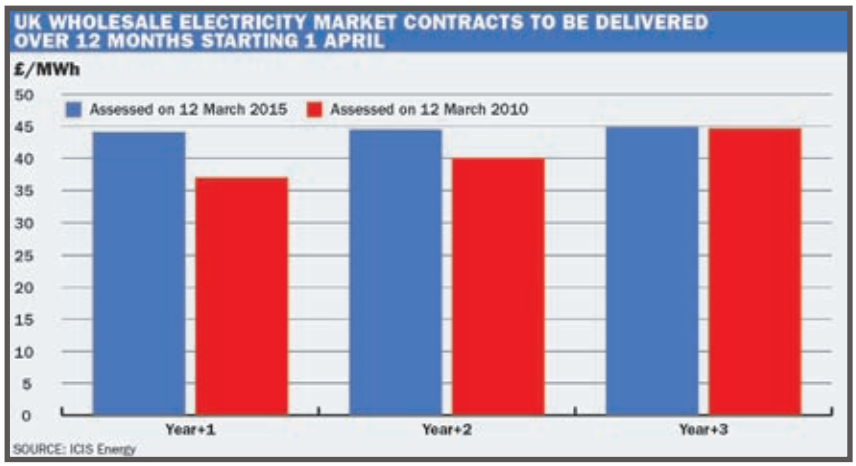


Fig.2

efficiency measures and decentralised, embedded power generation have cut demand on the grid.

So the future landscape of the energy sector looks different. However, the energy policies of some major parties – particularly the more polemic in design – fail to recognise this. Others, on the other hand, better reflect this shift in outlook.

Parties predicate policy on ever-rising commodity costs, and over the long term, natural resources do rise in price as populations increase while reserves deplete. But over a medium-term time-scale – think two parliamentary terms – commodity prices can remain flat, or even fall.

For example, in 2020, I would wager Brent crude oil will average less than in 2010, when it was just over $80 per barrel. The forward market already agrees. Brent crude for 2020 delivery at the time of writing was around $76 per barrel.

This means, on occasion, the UK's prospective leaders should think carefully before predicating policy on assumptions. Conventional wisdom has its place, particularly at the business end of politics when appealing to masses, but when we are living through unconventional times, conventional wisdom is ill-suited at best.

If commodity prices fall...

This is illustrated by the most high-profile energy pledge of this election campaign to date: Labour's retail bill cap. This inadvertently contributed to relatively modest bill cuts earlier this year in spite of more substantial falls on wholesale markets (fig 2). And who can blame the utilities? If you run a company exposed to unpredictable global markets, and are told your income stream may be capped, you are going to limit the risk by maintaining as high a price as the competitive market allows.

Across the House, Conservative policy is to continue with the electricity market reforms already in place. Sections of this, too, were based on assumptions of rising hydrocarbon prices, hence the introduction of Contracts for Difference to subsidise low-carbon power.

However Conservative policy, like Labour and UKIP, also backs the development of a shale gas industry. For the consumer, this complements and indeed encourages falling hydrocarbon prices.

A sustained deflation of hydrocarbon prices would go against the pro-renewables agenda of the Greens and SNP. However, it must be remembered that renewables development is the principle driver of the relative flatness seen on the forward curve of today's gas and electricity markets.

Plummeting fossil-fuel costs would suit the radical, carbon-intensive energy policy of UKIP, but while the economy may benefit from this highly unlikely scenario, the environment would suffer. UKIP's polemic approach is further reflected in its plan to abolish DECC which, while symbolic of its underlying principles, lacks an evidence base. You can spray-paint over the '...and climate change' on the sign outside DECC's Whitehall offices, but beneath the paint, climate change is still there.

If commodity prices rise...

The UK's drive to develop renewable sources of power is the primary policy predicated on an assumption of rising fossil fuel prices. It follows that, were fuel prices to climb consistently, more environmental and economic benefits would be seen if more renewables were on the system.

But here the third branch of the energy trilemma – alongside the economy and the environment is supply security – rears its head. While the Green Party espouses a radical shift towards renewables, this is not yet technically feasible or affordable, and can only be achieved if fossil fuels remain in the mix to back up variable renewable power.

The one thing we can be certain of in energy is that we cannot be certain of anything. This 'certain uncertainty' drives Conservative and Labour policy. Although each party's energy approach opposes the other in underlying ideology – the Conservative belief in market forces versus Labour's state intervention – both subscribe to the belief that a diverse range of energy sources is required. This is healthier than a polemic approach. And the market agrees: bets are best off hedged.

CFDS MAKE IT EVEN CLEARER: ONSHORE WIND IS THE WAY FORWARD

Esbjorn Wilmar, Managing Director of Infinergy Ltd looks at round one of the CfD allocation

On 26 February 2015 the Department of Energy and Climate Change (DECC) published the results of the first round of UK Contracts for Difference (CfD) allocations. This replaces the Renewable Obligation (RO) with an auction-based system topping up generators' power prices from market rate to a "strike price" pre-agreed through competitive auction. This aims to decarbonise the UK energy market whilst guaranteeing security of supply as well as providing the British consumer with electricity at least cost.

In their press statement, DECC welcomed the outcome, stating that the introduction of competition had delivered reduced green electricity prices and better value for consumers.

While the auctions appear to have secured generation at lower rates of support, the auction mechanism has clearly incentivised some renewables developers to bid unviably low to be sure of winning a contract. This is a gamble that assumes other, rational bids would ensure that the price they received would be higher than they bid in at. In the absence of these bids some developers have publicly conceded that their projects are unbuildable at the price secured in the auction. Whilst DECC celebrated solar coming in at up to 58% lower, in his Linked-in post 'We got out CfD... oh dear', solar developer James Rowe predicts that "no projects over 5MW get built in the next year (2015-2016) and maybe three get built the year after (2016-2017)". So what seemed to be the cheapest option in the first round of the auction will in reality be undeliverable.

The cheapest large-scale low-carbon technology is onshore wind. Until 2017, the onshore wind industry will be delivering projects under the RO. From then on, the sector will bid for CfD's more substantially, putting more pressure on bids for the 'established technologies' pot.

With large-scale solar coming under increased pressure, energy from waste not at a scale to be deployed at a significant level and offshore wind clearing at levels of £114 per megawatthour and over, let alone the billions of pounds to be awarded to nuclear, onshore wind is the only low-carbon energy technology that:

1. is deployable now, at a significant scale, ready to help bridge the gap left by taking old nuclear and coal offline;
2. has a significant scope for further future deployment; and
3. provides low-carbon, safe, home-grown and reliable power at the lowest price and therefore the cheapest option for the consumer.

Not to harness the full potential of new onshore wind would therefore be against the interests of bill payers.

But onshore wind has challenges too. In Infinergy's case, the projects that have now successfully secured a CfD are the very best in terms of their economies of scale and the very high wind speeds at the sites, meaning they have 'meat on the

bone' and are still commercially viable with a reduction in income of around 12% compared to current levels under the ROC. These projects are not representative of the UK onshore wind project resource overall, which will have smaller margins. Other worthwhile projects still need support to be built. If that is constrained artificially and prematurely, out of a theological desire from politicians that onshore wind, uniquely among low-carbon technologies, be subsidy-free, it will make many projects unviable and force overdependence on needlessly expensive low-carbon alternatives for UK decarbonisation.

Cottle Castle

The value of the total amount of bidding projects which was published by DECC suggests that the majority of them was unsuccessful in securing a contract in round one. It is vital for investors in these projects that uncertainty around the question when the next round will be held will be resolved shortly. It is highly unlikely that banks will provide finance for projects without viable contracts, adding risk to their successful development and further undermining the stability of the investment environment of the renewable energy sector. Onshore wind developers are striving for grid parity, partly to be able to get out of the political football situation that has emerged over the years. But we are not there yet. Nevertheless, there are many GW of good onshore wind sites that can be built, and were DECC not to ensure that the pipeline of good sites is fully harnessed, it will only lead to an needlessly high cost for decarbonising electricity by means of more expensive alternatives and give unnecessary ammunition to those who seek to equate greening energy with more costly energy.

Ferndale Operational

Some suggest that onshore wind is unpopular. This is a myth. DECC has been monitoring public opinion on the various power generating technologies over the last couple of years and recently published the latest findings. It found that popularity of onshore wind had remained stable since the previous polling in September 2014, scoring an approval rate of 68% (source: DECC Public attitudes tracking survey: wave 12, February 2015).

In February of last year, when addressing the pressing issue of climate change, Chancellor of the Exchequer George Osborne said: "Let's try and do this in as cheap as possible a way as we can. Let's not be too theological about which technology we use." George, we have the answer for you. It's onshore wind.

Infinergy Ltd is an independent UK-wide wind developer with offices in Wimborne, Dorset and Inverness, Scotland. The company secured CfD's for two wind farms; Dorenell and Tom nan Clach, totalling an installed capacity of 216MW.

HOUSE OF LORDS ANNUAL DINNER

Secretary of State for DECC, The Rt Hon Ed Davey MP, meets guests from the Dinner's sponsors, IChemE

Alan Thompson, Arup

Christopher Hills, Costain; Claire Baker, Costain

David Gent, AB Sugar; Derry Carr, Combustion Engineering Association

David Workman, Confederation of Paper Industries

Michael Gibbons; Dr Paul Fennell, IChemE

Tim Rotheray, CHPA; Paul Gardiner, AB Sugar

PGES Chairman, Ian Liddell-Grainger MP

Professor Martin Fry, ESTA; PGES Chairman,
Ian Liddell-Grainger MP

Barbara Vest, Energy UK; Matthew Gordon, Honeywell

Secretary of State for DECC, The Rt Hon Ed Davey MP; Andrew Jamieson OBE, President Elect, IChemE; PGES Chairman, Ian Liddell-Grainger MP

Secretary of State for DECC, The Rt Hon Ed Davey MP

ENERGY SECURITY

NOVEMBER SPEAKER MEETING: Address to the Parliamentary Group for Energy Studies

By Angela Knight, Chief Executive, Energy UK

One of the benefits of standing down from my role in December 2014, is that it is possible to look back and be totally honest about the issues.

Energy policy across at least the last decade has been, to put it politely, "confusing". Energy to some means oil and petrol; to others it means gas; to another group it means electricity, generation; and when everyone talks about an energy bill they usually mean both gas and electricity. Although none of these forms of energy are disconnected from the other, the policy for each needs to be different, and conflating them by bringing them under the generalist term of "energy" has not helped policy making, has not helped the industry and has not helped customers, whether domestic or commercial.

The members of Energy UK are either generators of electricity, suppliers of electricity, gas or both to homes and businesses, or are 'integrated' (i.e. they both generate and supply). How electricity is generated and how much gas and electricity is used by citizens and industry is at the core of the UK meeting its legally binding climate change targets.

It is about 15 years ago that concerns over climate change and what countries should be doing to minimise its impact, became a general and serious public discussion. Today there are UK, European and international targets, much of which has been put into law. It is, though, quite clear that policymakers in the mid 2000s either did not know what they were agreeing to, were not aware of the magnitude of the changes required, were unclear about the costs – or all three. For example, when the UK signed up some seven years ago to producing 20% of its "energy" from renewables by 2020, at the very least the target should have been 20% of "electricity" by this same date. In many countries there is little difference between the two; for example in France and the Nordics they heat their homes by electricity and so the word "energy" is almost synonymous with that of "electricity". In the UK, where we heat our homes through gas central heating, and with around 70% of all gas consumed being for domestic use, the two words manifestly do not mean the same thing. Getting this confusion at the start means that the UK now has to generate not 20% but 30% of its electricity from renewables, predominantly wind, by 2020. This basic error has significantly increased the cost of the UK's renewable programme, paid for directly by adding to customers' bills.

Then as the wind blows at sufficient strength to generate electricity for around 30% of the time onshore and offshore for 40% or so of the time, the back up required is substantial and is invariably from gas generation as it is the most able to start up quickly. So the more wind-farms that are built to meet the renewables targets, the more gas fired power stations are needed as back up. To make it an economic proposition to provide the power from gas generators (and a few others such as diesel power plant) when the wind doesn't blow, a complex capacity mechanism has been devised. Or to put it another way, the more we seek to meet the UK power needs from intermittent renewables, the more fossil fuel power stations are required as well – a practical issue invariably ignored by green groups and even some of the renewable organisations.

The large scale deployment of wind generation turbines has reduced their cost, but they still produce electricity at significantly higher prices than conventional generation. And as they are not built in the same location as existing power stations, a whole new investment is required in distribution – which, as with all the other policy costs, again sits on the customer's bill. Meanwhile as the world price of coal slumped on the back of the

US shale gas revolution, the coal fired stations are now producing the cheapest electricity. And somewhat surprisingly with the Middle East in flames and the Russia/Ukraine stand-off getting worse, rather than the world price of gas increasing, it has actually fallen substantially. As the long-term gas supply contracts come up for renewal, this should start to reduce the cost of electricity generated from gas.

But the UK is shutting down its coal and older gas fired power stations according to the timetable set out in two European emissions directives. The rebuild programme of wind farms, biomass and small scale renewables is taking place on a timetable to meet the carbon reduction and renewables targets and within the essential cost controls of the levy control framework. The closing and opening programmes therefore are not linked together, and this disconnect gets more concerning as coal is closing quicker than expected.

Despite assurances that mechanisms are in place and that the transformation will be seamless, none of it feels like this from the perspective of the key players. New nuclear still has not commenced, British industry is getting more and more worried about how much they have to pay, and is also concerned about the security of supply. Households are concerned about their bills and being told to switch their supplier and wait for a Smart meter (the main contribution of which is providing customers with an accurate bill). Switching can bring a short term reduction but fundamentally no one can switch away from the cost of an energy policy which is about closing cheap electricity producing power stations and opening expensive ones, with costs being added directly onto the customer bill. Put it all together and it is not surprising there remain a number of questions. Will these various interconnected complicated programmes work? Have we got enough short-term power back up? What are the probabilities of a power shortage at some stage? And just how much people will ultimately be prepared to pay for all this?

I am wholly on side of using cleaner fuels, renewable generation, rebuilding nuclear and of conserving the energy that each of us uses. So there needs to be some solutions to the energy policy problem. Some of the options to consider are:

- As the biggest part of a household's energy bill is gas central heating, better insulation has the biggest impact. The current ECO programme should be simplified and targeted at insulating social housing, with homeowners receiving some sort of discount off their council tax every time they make an improvement which puts their property into a higher energy efficiency category.

- Energy welfare should be moved to the Department for Work and Pensions and the winter fuel allowance deducted off the fuel bill and added to that the Warm Home Discount.

- Rethink the carbon reduction programme from the perspective of the "lowest cost route" and with security of supply as the top priority. This would result in a major step forward to a practical and coherent programme and in the replacement of many of the coal and old gas stations with new gas. Renewables have a significant part to play, but in a competent and cost-effective manner.

- Link the closure programme of existing power stations to the opening programme of the new ones. This is essential for good decision making, to give confidence to industry that there will not be shortages and for keeping a sufficient capacity surplus in the UK.

- With the majority of the costs being placed on electricity bills and with the majority of electricity being used by industry, then the consumer is looking at a substantial rise in their electricity bill. Either industry pays it and is then placed at a significant competitive disadvantage, or industry is protected from the increases as is proposed under the CfD, in which case these additional costs are all paid for by the householder. Are either of these credible in the long term? I suspect not and at some point and in some way, general taxation will need to be involved.

- Get going with the rebuilding programme of the nuclear power stations but instead of the current smoke and mirrors way of financing it, do it by the lowest cost route for this work.

- Get on with the exploration of UK shale gas in a careful and environmentally sensitive way. Energy security is important to us and whatever happens next, gas will play a long-term and vital part.

- Have an honest debate. I appreciate that all polls show that people support the green agenda, but at the same time it's only as long as they don't have to pay for it. Without a much more honest and open discussion about the issues, energy policy is likely to remain highly unstable.

Angela addressed the Group in her capacity as Chief Executive of Energy UK. She has since stepped down from this post.

ENERGY SECURITY

NOVEMBER SPEAKER MEETING: Address to the Parliamentary Group for Energy Studies

By Dr. David Robinson, Senior Research Fellow, Oxford Institute for Energy Studies

I would like to challenge five myths related to energy security and, for each, offer an alternative message for government. The general theme is that well-designed markets make an essential contribution to energy security and that governments should create the conditions for markets to work better.

Myth 1: energy security is about supply shortages

This view reflects memories of supply shortages, especially the oil embargo in the early 1970s. But energy security is about balancing supply and demand; so demand also matters. We have seen this in emergencies, such as the Japanese nuclear accident, where measures were taken to reduce demand significantly. More generally, demand can play a stabilising role in energy systems, for instance by providing flexibility to respond to intermittent renewable generation.

The message is that policy should pay more attention to the demand side, and markets should be designed to facilitate the active participation of demand in the short and the longer term. The UK Government has been moving in this direction, but much more could be done.

Myth 2: Energy security is about short-term disruptions

Energy security has different time dimensions. Short-term disruptions matter, of course, and well-designed and liquid markets can help demand and supply to adjust quickly.

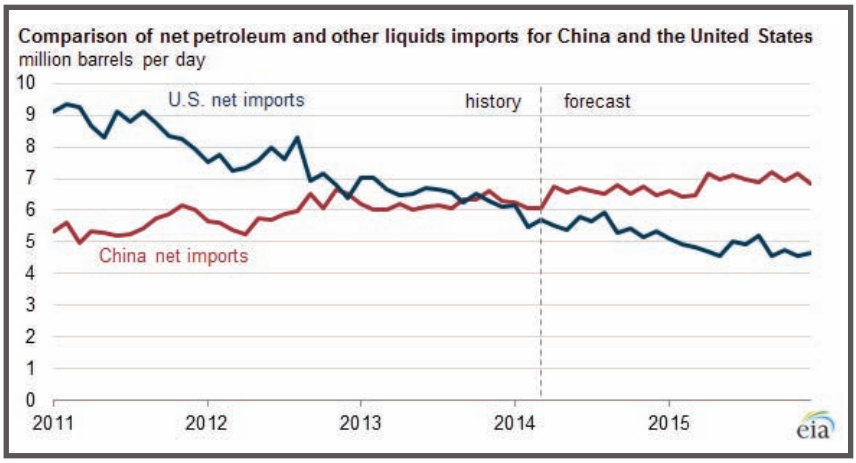
Longer-term energy system imbalances are often more difficult to resolve through markets. Policies have a more important role, notably involving global coordination. Nowhere is this more evident than with the incompatibility between rising hydrocarbon consumption and the global carbon budget required to avoid dangerous climate change. On current forecasts, the 'safe' global carbon budget will be used up by 2040.

The message is that policy makers – at national, regional and global levels – should take the lead in providing long-term incentives to encourage innovation in low-carbon (and low cost) alternatives to hydrocarbons. Successful de-carbonisation requires low carbon alternatives that can compete with hydrocarbons. That means policies and market mechanisms that promote innovation, not specific technologies.

Myth 3: Energy security requires self-sufficiency

Energy self-sufficiency could make sense if costs of domestic energies were genuinely lower than the cost of imports. But this is often not the case. Furthermore, domestic bottlenecks could be more disruptive than international ones. Generally, consumers are the losers when barriers to trade are erected.

Today, all countries rely on well-functioning global energy markets. Energy "independence" does not really exist; "interdependence" is a more sensible description of the reality. This is true for major energy producers/exporters and for energy importers. Furthermore, this is not a zero-sum game. Most consumers around the world benefit when additional energy supplies or technologies are developed, whether they are conventional hydrocarbon



resources in the Middle East, shale oil and shale gas in the US, or lower-cost solar PV panels in China.

The message is that policy makers should support open markets in energy and related technologies and not treat domestic production as a panacea for achieving energy security.

Myth four: the IEA guarantees global energy (oil) security

When it was established in the 1970's, the International Energy Agency's (IEA) central mission was to manage an emergency oil sharing mechanism among the major consuming countries to reduce the disruption and limit the price spikes associated with market imbalances.

The IEA's original purpose has been undermined by two factors. First, oil markets are now very liquid and able to cope with imbalances when they occur. Second, some of the world's main oil importing countries (e.g. China, India) are not IEA members, while the most important IEA member (US) is no longer as concerned about imports as it was.

The message is that it is time to rethink global governance of energy markets and to deal with the concerns of the largest emerging countries, including the largest energy producers and consumers. Governance needs not only to provide assurances to emerging countries that they will have access to energy supplies, but also deal with the longer-term issues (for producers and consumers) related to the transition to decarbonised energy systems. The issue of global energy governance should be put on the Paris 2015 climate change agenda, even if an agreement on that issue would take years to forge.

Myth 5: Governments must intervene to guarantee energy security

Geopolitical risk on the one hand, and energy security as a public good on the other, remain valid justifications for a degree of government intervention. Like the environment, markets on their own cannot address these issues adequately.

Nevertheless, government intervention can stifle innovation and investment and indirectly provoke concerns about energy security. For instance, political decisions to subsidise specific low-carbon technologies, the threat of price caps and major regulatory uncertainty all discourage investment, especially for technologies that do not receive subsidies or guaranteed payments. This, in turn, can lead to the tight market conditions that governments then use to justify further intervention.
The message is that, for energy markets to work properly, governments have to design them well and let them operate so that they can provide efficient economic signals to consumers and producers.

Conclusion

We need a new pair of glasses through which to see the issue of energy security. Liquid and well-designed markets can support energy security. Policy makers can help by establishing the framework for markets to work more effectively.

Dr. David Robinson is an independent consultant, a Senior Research Fellow at the Oxford Institute for Energy Studies and a Member of the Board of Regents of St. Louis University (Madrid campus). The contents of this paper are the author's sole responsibility. They do not necessarily represent the views of any of the organisations with which the author is affiliated, or any of the members of those organisations.

ENERGY POLICY IN 2015: FORTY YEARS IN THE PIPELINE

FEBRUARY SPEAKER MEETING: Address to the Parliamentary Group for Energy Studies

By The Rt Hon. the Lord Howell of Guildford, Secretary of State for Energy, 1979-81

Some lessons are worth remembering. The stormy period of 1979-81, when I served as the first Energy Secretary in Mrs Thatcher's Cabinet, holds huge lessons for energy policy today.

Despite little attention being paid in those days to CO2 emissions there was a strong impulse in policy thinking to move towards energy conservation and low energy technologies, and away from over-reliance on fossil fuels – especially coal, and especially imported oil.

First, in May 1979 we were in the midst of the second great oil shock, following the fall of the Shah in Iran, with crude oil prices soaring upwards and real fear of actual oil supply interruption to the West.

Second, the coal miners, nominally led by the milder Joe Gormley but in fact propelled by the hyper-militant Arthur Scargill, were mobilising to renew their attack on the new Tory Government – and this at a time when 70 percent of the Britain's electricity was generated from coal – self-sufficiency, but of the wrong sort!

In theory, with North Sea oil production rising fast, Britain should have been less troubled than those countries much more heavily dependent on Middle East oil imports. But in practice, as Ted Heath had discovered six years before during the first oil shock, the North Sea gave us no special protection. This was because North Sea producers were (and are) free to sell their oil freely into world markets. That was the basis on which they had made their colossal investments in the first place. We were exposed to the international oil price just as much as anyone else, and as we are today.

On the coal front we could see the Scargill attack coming and from the moment I took office we began to stock up the power stations. Scargill struck before we could be fully ready and we had to give ground, waiting for the next big attack (which came two years later). The lesson for Britain's energy security, then as now, was quite clear. We could not afford to risk being so heavily reliant on unionised, home-mined coal for our electricity supply. The once mighty British coal industry was a rotting pillar. Even without Scargill there would have to have been a rundown, with concentration on the most modern and least uneconomic pits. But Scargill ruined even that prospect and by his militancy undermined the whole industry's future. There had to be alternatives.

What would these be?
Answer: gas, which in 1979-80 unbelievably only accounted for one percent of electricity generation), plus much more imported coal from plentiful world markets, and, for the

longer term, more, much more nuclear power.

Margaret Thatcher was extremely keen on building more nuclear power stations – principally to escape the mining union's terrifying dominance.

A secure future for Britain's energy supplies thus began to take shape. First, we would build up and maintain North Sea supplies of both oil and particularly gas for a generation, (the experts thought it would all peak around about 1989; actually with new technology it lasted far longer at the top) .

Second, we would build increasing numbers of gas-fired power stations – although with the strong disapproval of the formidable British Gas chairman, Sir Denis Rooke, who thought gas was far too 'sweet' a fuel to be burned in power stations.

Third, we would launch a new generation of nuclear power stations, emulating the amazing French nuclearisation of almost 70 percent of their domestic electricity (incidentally 'borrowing' a slice of French nuclear power along the way by enlarging capacity of the electricity interconnector from France).

My job was to knock the scientists' heads together and get them to agree on a single new reactor design (which I did), to get them also to come absolutely clean about nuclear power costs – including the cost of decommissioning (which the enthusiasts had tended to overlook), to get the waste handling issue properly and safely tied down via vitrification (which we did, although it continues to this day to be challenged). The Cabinet then authorised me to come forward with an approval programme of nine new nuclear power stations with a total capacity of fifteen gigawatts – at least a quarter of our national electricity consumption.

There was just one major snag to this nuclear plan which no-one foresaw. We were about to enter a prolonged period of low oil and gas prices – in an amazingly similar pattern to the one emerging today. Saudi Arabia decided it was tired, at least temporarily, of being the 'swing producer' and cutting production to keep the crude oil price so high.

The oil price plummeted and the 'dash for gas' eased. Quite suddenly the economics of new nuclear power began to look increasingly unrealistic. There was of course a price to be paid for energy security but it was becoming just too high. Chernobyl raised new political fears and therefore delays and costs. Most of the new nuclear projects were 'postponed'. The only one to go ahead, with huge determination from the then CEGB, was Sizewell B on the Suffolk coast , which after years of planning wrangling and heavy opposition from the anti-nuclear campaigners, eventually began construction.

The lessons are exactly the same today, although this time not even one new one may get built for a while. The colossal Hinkley C project, led by Electricité de France, has seen its capital costs rising like a soufflé, with a guaranteed 'strike price' for its electricity for 35 years ahead, indexed, at double the price of electricity from gas – a huge additional state aid burden on energy consumers, industrial and domestic alike, and indeed on the taxpayer. Now the Chinese partners, whom it was hoped would provide some of the cash, have started insisting all kinds of conditions to protect their investment. Since no reactor of this type has yet been successfully completed by EDF, their caution is understandable. Meanwhile Austria is unhelpfully insisting that EU state aid rules have been breached by the Hinkley deal and is threatening to sue.

A period of much lower oil and gas prices, driven this time by enormous American increases in shale oil and gas production and – once again – Saudi unwillingness to cut back its output, have made these nuclear economics even more unsafe. It would obviously be far wiser to wait a few years, see how the shale phenomenon works through the system and then go for cheaper and more reliable and proven nuclear designs, such as those being offered by the Japanese and the Koreans.

That is the most important lesson to be learnt for British policy from the1980s. At least there has been one sensible interim move which is to extend the life of the very old but reliable nuclear plants (AGR design) from the previous era, such as Dungeness B.

But with a massive over-supply of world oil and gas in clear prospect, with OPEC losing price influence and with non-OPEC producers desperate for more revenue, an entirely new scene has emerged, as it did in the early eighties. Have the energy policy planners and the deal makers of the 2010s and 2020s studied the past carefully and got the message? Clearly not so far. But watch this space.

ENERGY POLICY IN 2015: FORTY YEARS IN THE PIPELINE

FEBRUARY SPEAKER MEETING: Address to the Parliamentary Group for Energy Studies

By The Rt Hon. the Lord Wakeham DL, Secretary of State for Energy, 1989-92

The Electricity Act received Royal Assent on 27th July 1989. It had been steered through Parliament by Cecil Parkinson and the Opposition was led by Tony Blair.

Three days earlier, on 24th July 1989, I found myself, to my surprise, Secretary of State for Energy. When I went to the Department, the first question I was asked was, "Was I serious in wanting to privatise the Electrical Supply Industry before the forthcoming election?" It was clear that much needed to be done in a hurry, I asked that an accurate critical path be drawn up and I imported an expert from an oil major to keep a watch on all the many matters that had to be dealt with and to let me know as soon as any aspect got behind the timetable. I also held a meeting at 2.30 every Wednesday to review progress.

There were many difficult but important decisions that flowed one after another in very quick order.

I decided over the first weekend that trading had to be carried on through one trading pool, rather than two (one for the generators and one for the distributors). This was a much bigger decision than I at first realised, but I am sure it was the right one.

Secondly I decided that vesting, which was the day the nationalised industries were to be reformed from state corporations to Companies Act structures, but still owned by the state, should be postponed by three months. This was achieved on 31st March. On that day over 10,000 individual contracts were exchanged – all in a special office block in the City hired for the occasion.

The next task was to negotiate coal contracts between the

generators and the still-nationalised coal industry, as well as contracts between the generators, the distributors and the National Grid. This was not easy but we achieved satisfactory three year contracts.

It soon became clear to me that the City was not prepared to invest in nuclear energy with its uncertain financial record and no acceptable view of what its decommissioning costs would be. I therefore decided that the nuclear stations had to be excluded from National Power's portfolio and no privatisation of the nuclear stations would take place for four years.

We planned to privatise the Distribution Companies first, followed by the Generators. We had several meetings to settle the price and how much was to be allocated to shares and how much to debt. All this was successfully completed and we then turned our attention to the Generators.

The first major difficulty I encountered was that the directors of Power Gen, who were the same directors both before privatisation and after and so in a way had an understandable difficulty, informed me that they were advised that the maximum price for their company to be floated was around £800 million. If this was correct the knock-on effect on National Power would make privatisation of both impossible.

Much to their surprise I negotiated a trade purchaser who made an indicative offer of £1500 million for Power Gen. This certainly opened things up and we were able to go ahead with the floatation at a realistic valuation. This we did by putting the floatation into two tranches, the first of 60% and the remaining 40% as a second tranche. We achieved much more than £1500m for Power Gen and an appropriate valuation for National Power.

We achieved satisfactorily what was then the biggest privatisation the world had ever seen within the timetable we had set ourselves.

During the course of our negotiations we lost two chairmen of two of the nationalised companies, which again was a sort of record. Many a Secretary of State has had to accept the resignation of one chairman but I think I am the only on to have accepted two during his time in office. However in spite of the difficulties I remained friends with both of them and was grateful for their cooperation and the support they gave me, as I was for the officials and advisors, without which we would not have achieved our objectives.

In this short account of the privatisation of the electrical supply industry I have not discussed one or two important matters, such as the support we gave to encourage renewable energy, or the efforts we made to improve energy efficiency.

Also after my time came the floatation of nuclear energy, the floatation of the National Grid, and the very big question of the vertical integration for the industry, with Generators acquiring Distributors – during my time in office, this was not something I wanted to see happen.

David Wagstaff, Head of Heat Strategy and Policy at the Department for Energy and Climate Change, also addressed the February 2015 speaker meeting. Given the timing of this issue, as a serving civil servant David was unable to contribute an article. We would like to note our thanks to David for his interesting and informative contribution on the evening.

ENERGY POLICY AFTER THE GENERAL ELECTION: PRIORITIES FOR CONSUMERS

MARCH SPEAKER MEETING: Address to the Parliamentary Group for Energy Studies

By Antonia Dickman, Joint Head of Environment Research, Ipsos MORI

Government and industry are clear about the energy challenges facing the UK over the next few years and decades. Whoever forms the next Government after May will face challenges in:

- Ensuring security of supply;
- Ensuring affordability and tackling fuel poverty;
- Delivering a low carbon economy;
- Mitigating climate change; and
- Helping to ensure customers can access a competitive and transparent energy industry.

But what is the public's take on these challenges as we approach the General Election, what are their concerns and priorities around energy, and what implications does this have for prospective policymakers?

A 'cost of living crisis'?

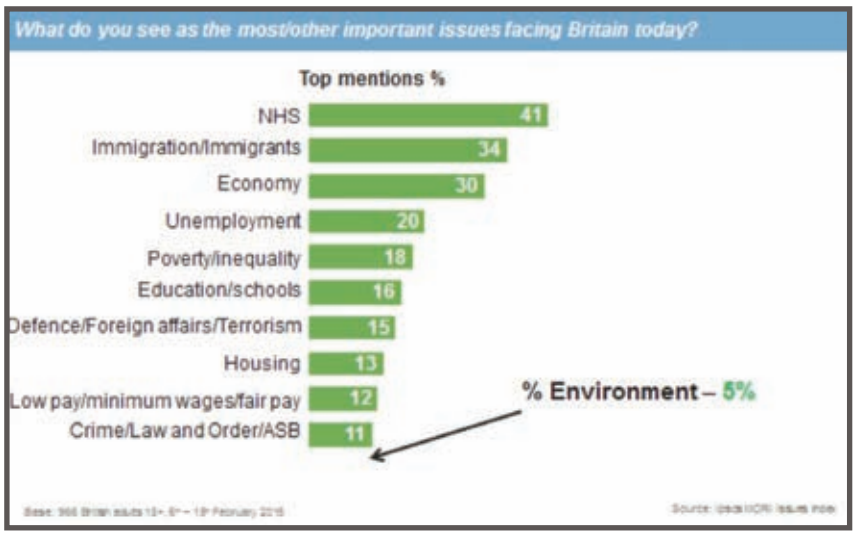
The so-called 'cost of living crisis' has already emerged as a key potential election battleground. Ipsos MORI research shows that voters are feeling the squeeze and energy prices are central to this.

Ipsos MORI's polling following the 2013 party conference season found Labour's proposed energy price freeze, preventing suppliers from raising prices for two years, resonated with voters. If the current oil price slump continues it will be interesting to see whether people feel the reductions are being passed on to them, and how this affects views of affordability and the price freeze policy.

Do consumers feel we have a competitive and transparent energy industry?

Ipsos MORI research on behalf of Energy UK found fewer than half (45%) of British adults trust their supplier to provide them with value for money, and only 50% trust them to be open and transparent. Over 2014 this research did, however, record improvement in customer ratings of the ease of dealing with their supplier overall and trust in suppliers to provide a service that meets customers' needs[1].

Negative views of some elements of the industry are also not confined to the public. Ipsos MORI's MP survey found the majority of MPs did not trust energy companies to protect



vulnerable consumers from high prices (80%), to offer genuine competition (73%), or provide clear information to help consumers choose between suppliers (86%). Working with the industry to improve perceptions of competitiveness and transparency will be a major challenge for the next Government.

To what extent do the public care about energy security and climate change?

Consumers are also thinking beyond their own homes. Ipsos MORI's research reveals high levels of public concern about the UK's energy security, with 81% agreeing that the UK risks becoming more dependent on imported energy, and 78% concerned about fossil fuels running out[2]. Indeed, when asked to name the three most important environmental issues facing the country, the most commonly given (unprompted) responses related to "future energy sources and supplies".

The public also understands the link between energy consumption and climate change. Ipsos MORI research for Chatham House found at least four in five think burning fossil fuels in power stations (87%), industry and manufacturing (85%), and heating and cooling their homes (80%) contribute a lot or a moderate amount to climate change[3].

So how accepting are the public of policies to tackle these challenges?

It's evident that the public are concerned about energy on a number of fronts; however this does not necessarily translate into support for policies or understanding of the difficult decisions that need to be made. While the public tend to support renewables, there are signs of this support eroding slightly. Support for solar fell from 88% in 2010 to 77% in 2013 and from 82% to 64% over the same period in relation to wind, but three in five would not support tax increases to pay for more renewable energy.

Among the public, the jury is also still out on nuclear, with 42% supporting the replacement of nuclear power stations in Britain and 33% opposing. Education and reassurance on safety will be key to convincing people: 55% agree that "if we had safer nuclear power stations, I'd be prepared to support new ones being built".

And what are the public willing to do themselves to tackle these challenges?

So, the public accept our energy system, and our use of it, needs to change. But where do they think the responsibility lies for driving the necessary transformations? The public places this responsibility firmly with Government (54% compared to 16% saying energy suppliers should be mainly responsible and 13% placing this responsibility on individuals). That said, smart meters are seen by many as a way to further reduce waste and cost – 30% say (unprompted) the greatest potential benefit of smart metering will be help with budgeting[4].

Challenges for policy makers

Energy and environment are competing in voters' minds with a great many other issues, as Ipsos MORI's Issues Index illustrates. Whilst people are concerned about climate change and energy security, they are likely to prioritise a number of other issues, presenting a challenge in getting the public to focus on energy.

The public may have low levels of trust in energy suppliers, but according to Ipsos MORI's Veracity Index they feel similarly about politicians, ministers and journalists (between seven and eight in ten say they 'do not trust these types of people to tell the truth').

Overall, the public's priorities are simple: secure, affordable, and fairly priced supply. Getting there will be more difficult and involves building trust and confidence in the message and the means.

With special thanks to Stefan Durkacz, Research Manager in Ipsos MORI's Environment Research team, for his assistance in the creation of this article.

1. https://www.ipsos-mori.com/researchpublications/publications/1720/Research-for-Energy-UK.aspx
2. https://www.ipsos-mori.com/researchpublications/researcharchive/2620/Climate-Change-Still-High-on-Publics-Agenda.aspx
3. https://www.ipsos-mori.com/researchpublications/researcharchive/3488/Diet-and-climate-change.aspx
4. https://www.ipsos-mori.com/researchpublications/researcharchive/3033/Public-Awareness-Attitudes-and-Experience-of-Smart-Meters.aspx

REFLECTIONS ON THIS GOVERNMENT'S ENERGY & CLIMATE CHANGE ACHIEVEMENTS

MARCH SPEAKER MEETING: Address to the Parliamentary Group for Energy Studies

By Amber Rudd, Parliamentary Under Secretary of State for Energy and Climate Change

Since I was appointed last July, I've been delighted to act in the role of Parliamentary Under Secretary of State for Energy and Climate Change. It has been a truly fascinating experience and I am very proud of the work Government has achieved.

But before I get into the details, I want to share some exciting new research from our Early Learning Project on smart meters. Smart meters will transform our energy system, with three major benefits. First, they'll give consumers near real-time data about how much energy they're using, and what it's costing. Second, they'll end estimated billing. And third, they'll enable faster, easier switching, to ensure customers get the best deal. Over one million meters are now operating, and through the Early Learning Project, we've heard directly from some of the early adopters.

So, what did we find? Well, nearly three-quarters were satisfied with their smart meter and display, over two-thirds found the display easy to use, and nearly 90% were satisfied with the overall installation process. These findings show that we're headed in the right direction in smart metering – a project set to deliver over £6 billion in net benefits to the UK and to reach 30 million homes and small businesses by the end of 2020.There's more information available on Gov.uk[1] and I encourage you to take a look.

Next, onto another hot topic – the recent decline in global oil prices. Oil prices have seen the biggest fall since the financial crisis in 2008-2009. We'd all like to predict where they're headed, but what is in our control, is to test our policy scenarios across a wide range of prices. Gas prices too have dropped to their lowest seasonal price for four years, and gas is now 20% cheaper, at around 50p / therm. It's worth noting that there's no direct link between oil and gas prices. However, both fluctuations are driven by complex factors which inevitably come down to a supply and demand imbalance.

Overall, a low oil price is expected to produce a net benefit to the UK and is predicted to boost GDP by 0.5%, weaken CPI inflation by 0.6%, reduce costs at the pump, and to provide a net fiscal impact of £1.6 billion.

However, these short-term advantages do come with long-term risks – like lower investment in marginal supply, and the potential for unstable suppliers to impact.

Energy security and resilience remains a top priority and the UK remains one of the most energy

secure countries in the world. Of course, we must also keep an eye on the impacts changing prices can have on UK Continental Shelf (UKCS) activity. On 25 February, the new Oil and Gas Authority (OGA) published a report on UKCS risks and mitigation measures. It found that we need cooperation across OGA, Treasury and industry to tackle the risks of insufficient profitability and reduced investor confidence.

Now on the subject of investor certainty, I'm pleased so say that this Government has developed a number of policies which indicate cross-party support on a wide number of energy and climate change policies. We've set the Levy Control Framework (LCF) out to 2020-21. We've invested £34 billion in large-scale renewable electricity since 2010, with the potential to support almost 37,000 jobs. We've doubled the capacity of renewable electricity since 2010, and now over 15% of electricity is low carbon.

We've announced £315m in new Contracts for Difference (CfDs) on 5 types of renewable technologies – which could power 1.4 million homes. These world-leading auctions resulted in an impressive 550 Megawatts more capacity than could have been funded without competition. We've supported the Green Investment Bank with the first £3.8 billion in investment. We're building the first nuclear power station in a generation at Hinkley Point.

We're a world leader in offshore wind. We're supporting the advancement of Carbon Capture and Storage (CCS) technology, which could save more than £30 billion a year, by 2050. We're bolstering low carbon innovation, with £200 million distributed, including £40 million to the Energy Entrepreneurs Fund, supporting UK small medium enterprises. And for the first time, I'm delighted to say that over half a million homes are powered by rooftop solar PV.

But of course, the cheapest form of energy is the energy we don't use. Supporting industry to become more energy efficient is good for growth and we're working to revitalise the EU carbon market and with industry to develop our 2050 low carbon Roadmap.

For consumers, it's about making homes warmer for less. We've now reached over one million homes through the Energy Company Obligation (ECO) and Green Deal. We've also delivered a £50 average reduction on bills and boosted competition in the market – with 10% of the market represented by independent suppliers, up from 1% in 2010. And further, we announced energy efficiency regulation in the Private Rental Sector and energy efficiency targets for fuel poor homes.

While colleagues may have different views on how we deliver energy efficiency, I am pleased to say that on climate change, there's clear cross-party support. When the Prime Minister addressed the UN last September, he set out a strong case for an ambitious global deal to limit the impacts of dangerous climate change.

In October, the EU agreed a target to reduce emissions by at least 40% on 1990 levels by 2030, and we're now on track to submit our Paris pledge to the UN – known as an Intended Nationally Determined Contribution (INDC).[2] Following the EU's lead, last year the US and China also each made a commitment towards a global deal.

Tackling the energy trilemma is a big challenge. We've had political consensus on the Energy Bill, on the Infrastructure Bill, and recently had a significant three-party Leaders' pledge – putting us on what I think is a good footing as we go to the polls.

1. https://www.gov.uk/government/publications/smart-metering-early-learning-project-and-small-scale-behaviour-trials
2. As of this publication, this pledge has now been submitted (on 6 March 2015).

CHEMICAL ENGINEERS: PROVIDING SOLUTIONS TO ENERGY AND CLIMATE CHANGE

Andrew Jamieson, President-Elect of the Institution of Chemical Engineers (IChemE), announces the launch of the new IChemE Energy Centre

IChemE is a professional membership organisation for chemical and process engineers. We have over 42,000 members around the world - roughly half of them in the UK, but large contingents in Australia, Malaysia, New Zealand, India, South Africa and the US. We are represented by chemical engineers in 120 countries.

There is a single global challenge that unites these countries and it's the same challenge that engages all of us in PGES. It's the matter of how you power an increasingly energy-demanding world. The question begs different approaches in different countries, but the challenges of greenhouse gas emissions and climate change add a common urgency to the problem.

Here in the UK we know well what the question demands of us. We must decarbonise an electricity system that already faces significant challenges. We must drive a revolution in the technologies that are used to move people and goods about the country. We must ensure that precious energy is not wasted in homes and factories. We absolutely must accelerate the glacial progress we are making on implementing carbon capture and storage.

Procrastination in these areas will cost us dearly. If major decisions on investment and policy are not made within the course of the next parliament, they will most certainly be needed in the parliament thereafter.

So why am I, a chemical engineer, telling you this?

One obvious reason is that chemical engineers are to be found working right across the energy sector. From developing new sources of energy, moving it to where it's needed, capturing the carbon that's released, and improving the efficiency of the processes that use it. What is more important is that the chemical engineer is trained to be a systems thinker. We deal with complex systems. With flows and transformation of material and energy through pipes and vessels. We consider how systems interact and we seek to improve their efficiency, cost and environmental impact.

The flows of material and energy through the global economy are not dissimilar, and the problems faced demand a systems thinking approach.

Therefore I believe that we are well-placed to engage constructively with energy policy issues. It is for this reason that on 19 March, IChemE launched an 'Energy Centre', which will bring together the breadth of expertise in our membership.

Through the development of evidence-based advice and guidance to policymakers internationally, and working with kindred bodies such as the Royal Academy of Engineering, we anticipate that this Centre will become a thought leader in the energy space. If you would like to find out what the Energy Centre can offer you, please get in touch.

I would like to leave you with one final thought. As the impacts of increasing greenhouse gas emissions on our planet become ever more apparent, and as we are forced to extract our heads from the sand, we will see the urgency of the low-carbon energy transition climb up the ladder of concerns of voters and consumers. Perhaps where today 'the NHS' and 'immigration' feature top of mind and on the lips of politicians, maybe in a few years' time it will be 'climate change'.

Our new Energy Centre will demonstrate that when it comes to energy and climate change solutions, chemical engineering matters.

The world needs better energy policy. Believe me, chemical engineers can help.

For more information, email energycentre@icheme.org
Follow IChemE on Twitter: @IChemE

DEPARTMENTAL STATEMENTS

Written and Oral Statements from the Department for Energy and Climate Change – 5th January 2015 to 16th March 2015

Written Ministerial Statement on the Nuclear Decommissioning Authority

13th January 2015 – Ed Davey MP announced that the Nuclear Decommissioning Authority (NDA) changed the commercial model of the Sellafield site. Due to its complexity, the site was considered less well suited to the transfer of full site-wide responsibility to the private sector via a PBO structure. Instead, Sellafield Limited will temporarily become a subsidiary of the NDA, before a strategic partner is found to strengthen the programme management and commercial capability at the site.

Written Ministerial Statement on the Second Triennial Review of the Committee on Radioactive Waste Management (CoRWM)

27th January 2015 – Baroness Verma announced the start of the Second Triennial Review of the Committee on Radioactive Waste Management (CoRWM). The review will examine whether there is a continuing need for CoRWM's function and its form and whether it should continue to exist at arm's length from government.

Written Ministerial Statement on the Fuel Poverty Strategy for England

3rd March 2015 – Ed Davey MP outlined the first new fuel poverty strategy for nearly 14 years. The new approach sets an ambition that as many fuel poor homes as reasonably practicable achieve a Band C energy efficiency standard by 2030. It aims to achieve this through a number of initiatives, such as introducing a new minimum energy efficiency standard for the private rented sector.

Written Ministerial Statement on the Smart Meter Delivery Plan

5th March 2015 – Ed Davey MP announced that the Data and Communications Company (DCC), which is responsible for establishing the enduring data and communications infrastructure over which energy suppliers will operate smart electricity and gas meters, will now aim to deliver operational services from April 2016 rather than its current target of December 2015.

PARLIAMENTARY RECORD

SELECT COMMITTEES: REPORTS AND ENQUIRIES

5th January 2015 to 16th March 2015

House of Commons

Energy and Climate Change Committee

Inquiry into Implementation of Electricity Market Reform

13th January 2015 – The Committee heard from Mark Ripley, Director of Regulation, National Grid, Neil McDermott, CEO, Low Carbon Contracts Company, Rt Hon Matthew Hancock MP, Minister of State, and Jonathan Mills, Director of Electricity Market Reform, Department of Energy and Climate Change

4th March 2015 – The Committee published its report, which commended the Government for establishing a robust framework for the reform of the electricity market in such a short timeframe, while noting that the implementation of EMR through its first year has been relatively smooth. However, the Committee remained concerned around National Grid's potential conflicts of interest as the EMR Delivery Body and reiterated the importance of providing a level playing field for demand-side response.

Inquiry into DECC's Annual Report and Accounts 2013-14

21st January 2015 – The Committee held a one-off evidence session on DECC's Annual Report and Accounts 2013-14, hearing from Rt Hon Edward Davey MP, Secretary of State, Department of Energy and Climate Change, Stephen Lovegrove, Permanent Secretary and Account Officer, Department for Energy and Climate Change, and Angie Ridgwell, Director General, Finance and Corporate services.

Inquiry into Ofgem Annual Report and Accounts 2013-14

27th January 2015 – The Committee held a one-off evidence session with Dermot Nolan, the Chief Executive of Ofgem, to discuss the body's annual report and accounts.

Inquiry into Energy Price Comparison Websites

3rd February 2015 – The one-off evidence session on energy price comparison websites heard evidence from Peter Plumb, Chief Executive, MoneySuperMarket, Steve Weller, Chief Executive, uSwitch, Paul Galligan, Managing Director, Compare the Market, Martin Coriat, Chief Executive, Confused, and Phil Morgan, Chief Operating Officer, Go Compare.

24th February 2015 – The Committee published its report demonstrating that switching must be made easier in order to engage consumers in the energy market and help foster competition amongst suppliers to drive down energy bills. The report found that consumer trust in these sites had been damaged by unscrupulous practices and urged the sites to be more transparent. In addition, any consumers who have been encouraged to switch to tariffs that may not have been the cheapest or most appropriate for their needs should be compensated.

Inquiry into Linking Emissions Trading Systems

10th February 2015 – The Committee published its report, finding that emissions trading is an established, cost-effective way to control greenhouse gas emissions. A global carbon market would the best way to reduce emissions in the long term, with a global climate agreement that promotes carbon pricing the most likely way to achieve this. Consequently, the UK Government has a crucial role to play in driving forward international linkage.

Inquiry into Network Costs

23rd February 2015 – The Committee published its report, highlighting that a number of changes are needed to provide greater transparency of how network costs are calculated and passed onto consumers. Simple charging mechanisms would strengthen the market's ability to scrutinise costs, and increase pressure for more efficiencies. In addition the Committee would like to see Ofgem connect more consumers and smaller energy providers to the grid.

Inquiry into Smart Meters

7th March 2015 – The Committee published its report, revealing that it is highly unlikely that the near-universal smart meter roll-out will be achieved by 2020, given a shortage of installation engineers and the delays by the Data and Communications Company, which is running the programme. The report stated that without significant and immediate changes to the present policy, the programme runs the risk of falling far short of expectations and calls on the Government to take a more active role to support the industry-led roll-out.

Environmental Audit Committee

Inquiry into Climate Change Adaptation

7th January 2015 – The Committee's fourth evidence session heard from Tony Glover, Director of Policy, Energy Networks Association, Professor Jim Hall, Director, Environmental Change Institute, Oxford University, and Director, Infrastructure Transitions Research Consortium, Allen Creedy, Chair, Energy, Water and Environment Policy Unit, Federation of Small Businesses, John Dora, Chair, Infrastructure Operators' Adaption Forum, and Brian Smith, Member, Expert Panel on Review of the Resilience of the the Transport Network to Extreme Weather Events.

21st January 2015 – The Committee took evidence from Lord Krebs, Chair, Adaptation Sub-Committee, Committee on Climate Change, Matthew Bell, Chief Executive, Committee on Climate Change, and Daniel Johns, Head of Adaptation, Committee on Climate Change.

4th February 2015 – The Committee heard from Rt Hon Oliver Letwin MP, Minister for Government Policy, Cabinet Office, Dan Rogerson MP, Parliamentary Under-Secretary of State, Department for Environment, Food and Rural Affairs, Steve Quartermain,

Chief Planner, Department for Communities and Local Government, Bob Ledsome, Head of Building Regulations and Standards Division, Department for Communities and Local Government, and Rob Hitchen, Team Leader, UK Climate Change Adaptation Policy, Dept for Environment, Food & Rural Affairs (DEFRA).

Inquiry into the Risks of Fracking

14th January 2015 – The Committee heard evidence from Dr Tony Grayling, Director of Sustainable Business and Development, Environment and Business, Environment Agency, Mark Ellis Jones, Environment and Business Manager, Climate Change Energy and Emerging Issues, Environment Agency, and Jane Burston, Head of Centre for Carbon Measurement, National Physical Laboratory, Lord Smith, Chair of Task Force on Shale Gas, and Steve Thompsett, Director, UK Onshore Oil & Gas.

14th January 2015 – The second evidence session of the day heard from Tom Burke, Chair of E3G, Professor Paul Stevens, Chatham House, and Dr John Broderick, Research Fellow, Tyndall Centre University of Manchester.
26th January 2015 – The Committee published its report, calling for a moratorium on fracking because it cannot be accommodated within our climate change obligations, while a halt is also needed on environmental grounds. Furthermore fracking must be prohibited outright in protected and nationally important areas and water source protection zones. In addition, the report highlighted that any large scale extraction of shale gas in the UK is likely to be at least 10-15 years away, and that given that carbon budgets are continually tightening, only a very small fraction of the possible shale gas deposits will be burnable.

House of Lords

Science and Technology Committee

Inquiry into Resilience of Electricity Infrastructure

13th January 2015 – The Committee took evidence from Dr Robert Gross, Reader in Energy Policy and Technology, Imperial College London, Rupert Darwall, Author of REFORM publication How to Run a Country: Energy Policy and the Return of the State, and Dr John Constable, Director, Renewable Energy Foundation.

13th January 2015 – The Committee's second evidence session of the day featured contributions from Rachel Fletcher, Senior Partner for Markets, Ofgem, and Maxine Frerk, Senior Partner for Smarter Grids & Governance: Distribution, Ofgem.

20th January 2015 – The Committee heard from Rt Hon Ed Davey MP, Secretary of State for Energy and Climate Change, Department of Energy and Climate Change (DECC) and Jonathan Mills, Director, Electricity Market Reform, DECC.

PARLIAMENTARY ORAL QUESTIONS AND DEBATES

House of Commons

Tidal Energy
Andrew Turner MP (Con, Isle of Wight)
7th January 2015, Col269

Low Carbon Economy
Anne McIntosh MP (Con, Thirsk and Malton)
8th January 2015, Col374

Manufacturing: Renewable Technologies
Andrew Turner MP (Con, Isle of Wight)
8th January 2015, Col376

Nuclear Management Partners (Sellafield)
Tom Greatrex MP (Lab, Rutherglen and Hamilton West)
13th January 2015, Col725

Shale Gas
Sheila Gilmore MP (Lab, Edinburgh East)
14th January 2015, Col849

Household Energy Bills
Andrew Miller MP (Lab, Ellesmere Port and Neston)
5th February 2015, Col401

Household Energy Bills
Pamela Nash MP (Lab, Airdrie and Shotts)
5th February 2015, Col401

Household Energy Bills
Geoffrey Robinson MP (Lab, Coventry North West)
5th February 2015, Col401

Household Energy Bills
David Hanson MP (Lab, Delyn)
5th February 2015, Col401

Household Energy Bills
Mike Kane MP (Lab, Wythenshawe and Sale East)
5th February 2015, Col401

Renewable Energy
Andrew Robathan MP (Con, South Leicestershire)
5th February 2015, Col404

Solar Power Panels
Graham Allen MP (Lob, Nottingham North)
5th February 2015, Col406

Wind Power
Douglas Carswell MP (UKIP, Clacton)
5th February 2015, Col407

Offshore Wind
Jim McGovern MP (Lab, Dundee West)
5th February 2015, Col408

Energy Efficiency
Andrew Gwynne MP (Lab, Denton and Reddish)
5th February 2015, Col409

Energy Efficiency
Joan Walley MP (Lab, Stoke-on-Trent North)
5th February 2015, Col409

Energy Efficiency
Barry Gardiner MP (Lab, Brent North)
5th February 2015, Col409

Energy Efficiency
Alex Cunningham MP (Lab, Stockton North)
5th February 2015, Col409

Energy Efficiency
Sir Gerald Kaufman MP (Lab, Manchester Gorton)
5th February 2015, Col409

Energy Efficiency
John Robertson MP (Lab, Glasgow North West)
5th February 2015, Col409

Oil Prices (North Sea)
Michael Connarty MP (Lab, Linlithgow and East Falkirk)
5th February 2015, Col414

Community Energy Generation
Kerry McCarthy MP (Lab, Bristol East)
5th February 2015, Col414

Energy Bills
Philip Hollobone MP (Con, Kettering)
5th February 2015, Col415

Energy Supply
Anne McIntosh MP (Con, Thirsk and Malton)
25th February 2015, Col299

Energy Security
Charlotte Leslie MP (Con, Bristol North West)
3rd March 2015, Col806

Severn Barrage
Peter Hain MP (Lab, Neath)
4th March 2015, Col931

Energy Tariffs
Iain McKenzie MP (Lab, Inverclyde)
4th March 2015, Col945

Fracking
Anne McIntosh MP (Con, Thirsk and Malton)
12th March 2015, Col415

House of Lords

Climate Change: UN Conference
Bishop of St Albans
7th January, Col344

Electricity Generation
Bishop of Chester
8th January, Col443

Welsh Government: Fracking
Lord Wigley (PC)
22nd January 2015, Col1382

Oil Prices: Rural Consumers
Earl of Courtown (Con)
29th January 2015, Col323

Fracking
Lord Greaves (LD)
11th March 2015, Col655

LEGISLATION

5th January 2015 to 16th March

Government Bills

Infrastructure Act 2015
Baroness Kramer and Patrick McLoughlin MP, Secretary of State for Transport

Commons

Committee debate
8th, 13th, 15th January

Report stage, Third reading and Programme motion
26th January

Ping Pong
11th February

Lords
Ping Pong
9th February

Royal Assent
12th February 2015

Private Members' Bills

Control of Offshore Wind Turbines Bill 2014-15
Christopher Chope MP
(Con, Christchurch)

Commons

Second reading
16th January 2015

Withdrawn
16th January 2015

Fracking (Measurement and Regulation of Impacts) (Air, Water and Greenhouse Gas Emissions) Bill 2014-15
Geraint Davies MP
(Lab, Swansea West)

Commons

First Reading
21st January 2015

Onshore Wind Turbines (Abolition) Bill 2014-15
Nigel Adams MP
(Con, Selby and Ainsty)

Commons

First Reading
21st January 2015

Wind Farm Subsidies (Abolition) Bill 2014-15
Peter Bone MP
(Con, Wellingborough)

Commons

Second Reading
6th March 2015

Thinking Big, Building Small

Fluor has a 50-plus year legacy of engineering, constructing and maintaining some of the world's largest and safest nuclear power plants. Fluor's investment in NuScale Power and its unique and passively safe small modular reactor plant design provides power generators a new nuclear power option for safe, efficient, new generation.

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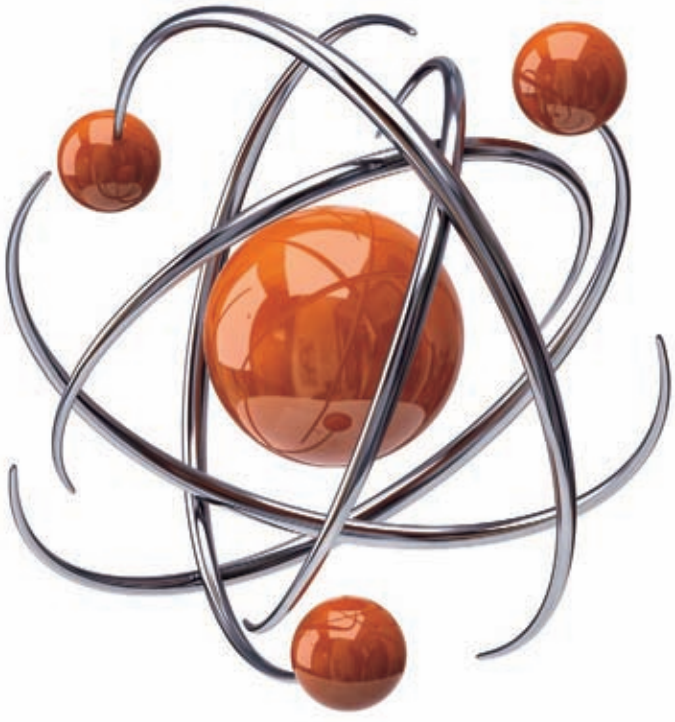

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