

Securing a bright future

**Keynote speech to the Economist
UK Energy Summit**

Sam Laidlaw, Chief Executive, Centrica plc

centrica

“Securing a bright future”

Sam Laidlaw, Chief Executive, Centrica plc

Good morning ladies and gentlemen, and thank you for inviting me to make the keynote address at the Economist energy summit. It's a very timely event and very topical. It seems that scarcely a day goes by without the issue of the nation's energy security raising its head, whether it's the debate about building a new generation of nuclear power stations, or the impact on oil prices of events in the Middle East and North Africa.

As Britain's leading energy supplier, Centrica is intimately affected by all these changes. And as I reflect on some of the extraordinary happenings of the past few months, as well as the underlying fundamentals, I am drawn to an inescapable conclusion; we are rapidly approaching a tipping point in the energy story of this country.

Three forces are coming together – our growing dependence on an increasingly volatile world market; our commitment to make serious cuts in carbon emissions; and our obligation as a society to ensure that energy remains affordable at a time of huge pressure on household and business incomes.

It is going to be extremely difficult to reconcile these three forces as we build the energy market of the future. Decarbonisation of our economy will require major structural changes in the way we generate and use energy. The transition will be expensive and there are limits to the savings that can be made through greater efficiency. When it comes to fossil fuels, which we will need for the foreseeable future, the UK has to be out there fighting for supplies with everyone else.

There is also a big risk that society is not being realistic about the path ahead. Today, we have published the results of an opinion poll – undertaken by Populus - which gives some startling insights into the public's understanding of these critical issues. Fewer than half those polled agreed that it was better to have higher energy prices than have the lights go out in the future. Only 25% thought that the Government should stick to its plans for creating a low carbon power industry if it meant higher bills.

We - all of us – politicians, regulators, consumers and business - need to understand that costs are on the rise and that behaviour will have to change.

The Government needs to put in place a clear, effective and durable framework to support the right investment. Businesses have to recognise their responsibilities by seeking out opportunities for profitable low carbon investment and taking the lead to create those opportunities where they do not exist.

Ladies and gentlemen, this morning I will aim to introduce a sense of realism into the energy debate by setting out the challenges we face as a society and outlining the steps we all need to take to move forward on the right track.

First of all, some stark facts. Eight years ago, the UK was self-sufficient in gas and able to export any surplus we produced. Today we're importing around 50% of our needs and that proportion is expected to rise up to 75% by 2020. We used to take North Sea gas for granted. But in just a few short years, gas has changed from a national resource to a global commodity.

This is not just a matter of academic interest; it affects the every day lives of every person in this country. The UK uses a higher percentage of gas to generate its power and heat its homes than most other European countries. In our opinion poll published today, 82% of respondents said they were worried about the UK's increasing dependence on imported gas.

In the power sector too, the facts of life are equally stark. Our ageing coal and nuclear power stations are approaching the end of their operating lives and networks need rejuvenating. All but one of the UK's existing nuclear plants are due to be shut down by 2023 and nearly a third of the coal generation fleet will close by the end of 2015 due to new environmental standards. This capacity needs to be replaced and the decision on how to do that must be taken soon.

This then is the world in which Centrica operates. And I'm pleased to say that, in terms of securing gas supplies, we're doing well. Just a few days ago, a tanker carrying the first cargo of liquefied natural gas under our new supply agreement with Qatar docked at the Isle of Grain terminal in Kent.

LNG imports now account for more than a quarter of UK gas demand, up from around 15% a year ago. We are no longer in

control of our destiny in the way that we were during the heyday of North Sea gas and the price we pay for our gas is determined by a global marketplace not the marginal cost of North Sea production.

The good news here is that there are plentiful supplies of natural gas on the planet – enough, on some estimates, to meet global demand for the next 100 years. But the gas market is subject to a number of constraints which restrict available supply at any one time. Gas may be a global commodity, but unlike oil, it trades regionally .

In the United States, shale gas has revolutionised the market, and now accounts for 20% of production there, up from just 5% in 2006. As a result, the price of natural gas in the United States has fallen by 40% over the last three years. At times this year it has traded at half the cost of gas in the UK.

But there are strong reasons for seeing the shale gas phenomenon as largely confined to the US, at least for some time. The combination of superior geology, access to acreage, incentives for land owners and exploration companies, as well as the existence of a well developed supply chain, is unlikely to be replicated elsewhere.

With a well supplied North American market, the US no longer needs large volumes of LNG imports. So, will this gas flood on to world markets, leading to oversupply and falling prices elsewhere? In fact the opposite has happened. In the course of just a few short months, political unrest in North Africa and the Middle East and natural disaster in Japan have had a dramatic tightening effect on the gas market. The Arab Spring has also had a deep psychological effect on the oil and gas markets, which now take the view that the risk of potential future disruption has escalated significantly.

This political risk premium is not likely to be a temporary phenomenon, and will persist across the region until new institutional frameworks become established.

The tragedy at the Fukushima nuclear plant has also had a marked effect on the gas market. With its nuclear power industry out of action, Japan is filling the gap with imports of LNG, effectively increasing the worldwide need by some 4 to 6% and absorbing the spare export capacity of the major LNG producers. Again, the effects will be long lasting. 10 nuclear stations in Japan are currently closed and some will never come back on line. And

some countries – such as Germany - have decided to abandon nuclear power altogether. On balance, this will increase demand for other sources of power generation, such as gas.

But there's another factor underlying these recent supply shocks. And it is the most significant long term trend of all - the steady growth in gas demand from consuming countries in Asia. That growth averaged 12 per cent last year and continues at a similar rate this year.

China's new five year plan prescribes a major upward shift in the nation's use of natural gas. According to the International Energy Agency, global usage of gas could grow by 50 per cent by 2035, accounting for a quarter of world energy demand, up from around a fifth today.

By that date, the Chinese market alone could be as large as the entire European gas market today. The IEA estimates that the wholesale price of gas on world markets could rise by a further 30% by 2020.

Now, it is possible to construct a scenario under which wholesale gas prices in Europe would fall significantly - a full scale recession in Asia, for example, or the United States developing the capability to export shale gas in volume.

But the more plausible scenario is that the long term trend in prices remains inexorably upwards, supported by growing demand in Asia and the other developing economies, quite apart from any supply shocks. We are competing globally for increasingly costly energy supplies and the growth in unconventional production is unlikely to compensate.

Turning to the power challenge... nearly one third of the UK's coal-fired plants are due to shut in under five years' time. By 2020, with oil and existing nuclear plants also coming off line, as well as the less efficient gas-fired power stations, 30% of the existing generation fleet will be gone.

Meanwhile, the first of the new nuclear stations is not due to come on stream until 2018 at the very earliest, and those plans are likely to be impacted by investigations following the Fukushima incident and progress on the legislation that underpins new build.

We are not facing an imminent capacity crisis, although the reserve margin will shrink over time. In the immediate future, the shortfall caused by switching off coal-fired plants could be made up by existing gas-fired generation. Gas already accounts for around 40 per cent of the nation's electricity production, with additional gas capacity currently being held in preservation mode.

New wind power is also coming on stream. In fact we at Centrica have this year commenced offshore construction of our Lincs wind farm, our biggest renewables project so far. But the UK's wind investment pipeline will not be sufficient to plug the supply gap. The total lifetime costs of developing new offshore wind power are up to three times the cost of conventional generation, not to mention the challenge of addressing public concerns about the effectiveness and desirability of wind.

These changes are largely being driven by Government policies to make sure that we have a sustainable energy market in the decades to come. And the effects are already beginning to feed through to the cost of energy. So-called non-commodity charges have risen by 10 per cent this year and will continue to increase well into the future.

These costs, which currently make up around one third of the average domestic energy bill, include charges for the transmission of gas and electricity; investment in low carbon power generation; and mandated energy efficiency programmes, as well as the installation of smart meters. The UK needs to invest a total of £200bn by 2020 to decarbonise its power industry and ensure that the lights stay on, more than doubling the rate of investment seen over the last 10 years.

According to the regulator – Ofgem – consumer bills could rise by anything between 23 and 52 per cent over the next decade, largely due to the levels of new investment required and the increasing cost of carbon abatement. That's equivalent to adding between 250 and 600 pounds to the average annual household energy bill as it stands today.

But the public is totally unprepared for price increases on this scale. According to our poll, only 1% of respondents would be prepared to pay an extra £500 on their annual bill to ensure decarbonisation and security of supply. One per cent. There is a dangerous disconnect here between reality and popular understanding.

I happen to believe that low carbon is the right route to take. Whether we realise it or not, most of us voted for this when we put our "X" on the ballot paper at the last election because it is the established policy of all the major political parties. But the public needs to know the price; and the public needs to take ownership of the decision, along with the energy companies and the Government.

Now, some of the coming increase in bills can be offset by consumers if they make their homes more efficient. Britain still has some of the most poorly insulated housing stock in Western Europe and we at British Gas are leading a revolution in energy efficiency.

But I think it is disingenuous to suggest that energy efficiency measures alone can prevent bills going up at all over the next decade, no matter how much we might wish it to be true.

We are spending one billion pounds over three years on the Government's energy efficiency measures and we have insulated 2.7 million homes in the past five years.

We have also examined the possibility of further savings through our Green Streets project where streets across the UK compete with each other to see who can do the most to cut energy use and reduce carbon emissions.

It's a great project and we fully support it. But even so, the average saving we have achieved under the Green Streets project is 25%, and that was with free installations. Now, 25% is a significant saving. But unfortunately, to put this in context, that's not even enough to compensate for the increase in wholesale prices that we've seen over the last twelve months.

And it won't compensate for any future price rises from higher transmission charges and decarbonisation, not to mention any further increases in commodity costs.

You can insulate homes against the cold. But you can't insulate consumers completely against the changes that are taking place in the electricity market.

But to judge by the tone of much of the energy debate in this country, many of the underlying market fundamentals and policy drivers are being ignored. Consumers are being given the

misleading impression that – if only the market was more competitive – domestic energy bills would somehow fall.

I am not saying that the energy market, like all markets, cannot be improved. But let's put this in perspective. According to figures released by OFGEM yesterday, the combined profits of the supply companies are expected to amount to just 1.3% of the bill before tax in the year ahead. Although that calculation does not factor in future price changes, it demonstrates firmly that margins in the supply business are not the real issue. The problem is the cost of the commodity, transportation and decarbonisation.

We welcome new market entrants. But they are subject to exactly the same cost pressures. And, although smaller players have been exempted by the regulator, as they grow they too will have to shoulder the same environmental and social obligations, as well as the immense financial responsibility of securing future gas supplies in an increasingly competitive world.

It's time to acknowledge the reality of the situation and for all of us - politicians, regulators, the industry and the public – to engage in an open debate about energy.

It is vital to set out the true costs and implications of decarbonisation. The public, I believe, is largely unaware of the electricity market changes being decided at the moment.

The Government has already set a floor price for carbon; and with the proposed electricity market reforms - whether through a contract for difference or a premium feed-in tariff - electricity will become more expensive.

It's worth noting that none of these changes to create a low carbon power industry are commercially viable under a pure market system. They all require some degree of incentive and a support mechanism. Without it, they fail. Governments have chosen that this incentive should be met by the consumer rather than the taxpayer, but that does not absolve them of the need to communicate the cost.

Events in Japan have caused some countries to re-evaluate their nuclear programmes. It is imperative to learn the lessons of Fukushima. But knee-jerk reactions, like those seen in Germany, simply lack commercial and economic credibility. It's important not to

sacrifice an important element of our future energy security on the altar of political expediency and I'm pleased to see that the Government here has taken a much more level-headed approach. So too has the British public. In our poll, 53% of respondents agreed that it was better to have more nuclear power than higher carbon emissions.

But the transition to the low carbon future, in a way that keeps the lights on, depends on a number of conditions being met, principally that emission reduction targets are adhered to and that the necessary structures are put in place for encouraging investment in wind and new nuclear.

That has to happen soon. We can't afford to postpone these choices. If we do, then there is a danger of interruptions to supply in the coming decade. In this country, we take it for granted that the lights will come on at the flick of a switch. Widespread power cuts are a distant memory.

But in other advanced economies, even the United States, it's a different matter, as we saw recently with rolling black outs in Texas. We've become a little bit complacent about energy in this country, cushioned as we were for so long by the comfort blanket of North Sea gas and oil.

Gas will play an increasingly important role as we strive to meet our emission reduction targets while making sure that energy remains affordable to consumers.

Gas-fired generation emits around half the carbon of coal-fired plants and the capital costs of developing new gas capacity are much lower than those for new nuclear or wind.

Gas is often forgotten in the decarbonisation debate. According to a recent study by EGAF, Europe could achieve its greenhouse gas emission targets and save 500 billion Euros in power system costs by 2030, if gas is allowed to play a larger role alongside renewables and nuclear power. I'm not suggesting that we should scale back our carbon reduction ambitions. But it is important to start a dialogue about how to achieve them in the most affordable manner.

With UK resources dwindling, no new power plants being sanctioned, the threat of climate change becoming increasingly real,

and customers suffering the biggest squeeze on household wealth in a generation, we face an unprecedented range of challenges.

So I am proposing a series of key measures that will support the energy industry in meeting those challenges.

Firstly, the market has served us well since privatisation and delivered some of the lowest energy bills in Europe to UK consumers. But today, selective government intervention and regulation is becoming increasingly necessary to support the low carbon agenda. We need the industry and the regulator to work more collaboratively together if we are to achieve the massive task before us. The big prize is building a world class low carbon energy infrastructure for Britain at an affordable price for our customers and that is where our efforts should be focused.

Next, new nuclear must be part of the energy mix. The carbon floor price is helpful, but it is not sufficient to deliver the massive investment needed.. We must make timely progress on Electricity Market Reform and it's worrying to see that the parliamentary timetable on that may already be slipping. Equally planning remains a major obstacle, to move the process forward, it is important to see the energy National Policy Statements presented to Parliament before the summer recess.

Thirdly, as I have just mentioned, there must be recognition of the future role of gas in generation and heat. Renewables, such as new large scale wind, are intermittent and require back-up generation, a role which gas is uniquely qualified to fill. That's even more the case if our nuclear plans are delayed. The building of new gas-fired capacity needs to be incentivised so that gas can fulfil its role as a bridging fuel.

Fourthly, we need a North Sea tax regime that encourages investment and recovery of the remaining oil and gas reserves in the UK. In this respect, the recent decision to increase the tax on UK oil and gas production was a step in the wrong direction and an example of lack of consultation. It means that the effective rate on some of our fields is now more than 80%. In the poll, nearly two thirds of people said they believed that level of tax was too high, an interesting outcome given that the public is not known for its sympathy towards big energy companies. Higher taxes will drive investment overseas and increase our dependence on more expensive imported gas and weaken Britain's energy security.

Finally, this is not about advocating a new energy policy. It's about turning current policy into action. All the building blocks are there to create the low carbon energy market of the future – the carbon floor price, Electricity Market Reform, new nuclear build, emission reduction targets, incentives for revolutionising energy efficiency in the home. What's needed now is the Government, industry and the regulator to work more closely together to make it happen.

The clock is ticking. In my view, we as a nation have got little time in which to take action, or our carbon reduction targets may have to be sacrificed in the interests of safeguarding the security of our energy supplies.

These challenges do not lie in the future. They are already here.