

Speech: The Foundation for Science and Technology, 7th November **Energy policy: selecting the right mix for future electricity supply**

1. Opening remarks

Thank you Chairman, I'm delighted to be here tonight as a member of a team that is already delivering on the right mix for the UK's electricity supply.

EDF Energy provides around one half of the UK's low carbon electricity via our existing nuclear and renewables fleets, as well as owning and operating gas and coal-fired generation.

We also have 5.5m customer accounts and are the largest supplier of electricity by volume to business and customers.

So we are serious about delivering.

And I am grateful for the opportunity to contribute to this important discussion today.

Foundation for Science and Technology plays a vital role in facilitating scientific debate.

At a time of change and challenge around climate change, energy, the economy and society, it is particularly important that the voices of expert scientists are heard.

The contribution of DECC's Chief Scientist Professor David MacKay on energy and climate change issues has been incredibly helpful and his book 'Sustainability without the hot air' helped create sensible and informed debate.

The science community also played an invaluable role during the Fukushima accident by providing factual information that helped public opinion.

So I recognise its crucial place in the energy sector.

Since I started my career in engineering in 1975, there have been significant changes in the requirements of an energy policy.

Whilst security of supply and affordability have always been fundamental, environmental concerns have risen to the same level of priority in recent years.

2. The issue at hand

Now the UK faces major and far reaching decisions which must be taken in a difficult economic context.

Electricity is fundamental in our society, as we have seen in New York in recent days, and our thoughts are with those who are suffering and those who are working to restore power.

So we understand that vital role we play.

But how we generate that electricity is changing – North Sea gas is being depleted and we are increasingly dependent on imports from abroad.

While shale gas should be investigated, even its advocates do not believe it will be a game changer as it has been in the USA.

The UK is required to reduce carbon emissions by 80% by 2050. That means the almost total decarbonisation of electricity generation.

40% of the UK's electricity generation is due to come offline in the next 15 years and needs to be replaced.

And the CBI has estimated that replacement will cost around £110bn over the next 15 years.

All of this must be done in as affordable a way as possible to ensure fairness for customers and to keep business internationally competitive.

3. EDF Energy's contribution

So what are we at EDF Energy doing to tackle these energy challenges?

We are investing to ensure diversity.

We have plans to build the UK's first new nuclear power station for 20 years at Hinkley Point in Somerset and another subsequently at Sizewell in Suffolk, together providing enough secure low carbon electricity for 10 million homes.

We have 600MW of onshore and offshore wind consented or under construction, with the aim of increasing this to a 1.2GW portfolio from 2012 onwards.

We are in the final stages of building a 1.3GW CCGT in Nottinghamshire.

We have invested hundreds of millions in our coal fired power stations to mitigate the environmental impact of coal which has a vital role to play in the transitional period to a low carbon economy.

And we continue to invest in our existing nuclear fleet to keep it in good working order, contributing so much of the UK's secure low carbon electricity.

These investments will all help to ensure that the UK has the energy generation infrastructure it needs to keep the lights on over the coming decades as ageing plant starts to come offline.

4. Hinkley Point C progress

This is exemplified by the effort we are making to deliver nuclear new build.

We want to develop up to four new nuclear reactors in the UK, with the potential to deliver as much as 3.2GW of low carbon, secure energy.

And the first of these projects - at our site at Hinkley Point in Somerset - is progressing well.

Preparations to ready the site for construction are underway.

We hope the Planning Inspectorate will make a positive recommendation before the end of the year and then refer this to the Secretary of State for approval.

We have completed 3 years' worth of consultation with the local community ending in an agreement with the councils for a £94m package of impact mitigation measures.

We have been working with our regulators for four years to assess our chosen reactor, the EPR, and expect this process to be complete by the end of the year.

We are progressing negotiations with the Department of Energy & Climate Change to determine our Funded Decommissioning Programme arrangements for our waste transport and storage. These should also be complete by the end of the year.

We have already signed contracts worth nearly £1bn with 400 UK companies in the supply chain and have announced Laing O'Rourke /

Bouygues as the preferred bidder for the £2.1bn main civils work contract.

And we are discussing a new industrial relations framework with our union partners and contractors to ensure heightened productivity and recognised career pathways to develop the skills of our workers.

5. EMR

So our project will be ready for a Final Investment Decision around the end of the year.

We must now work with Government to deliver the market framework which will allow us to make that decision.

The soon to be introduced Energy Bill will play a key role in bringing forward investment to deliver this.

Reform is needed to provide a level playing field so that low carbon generation can play its role.

It is vital that the Energy Bill has completed its report stage in the Commons before Christmas so that we can progress to that Final Investment Decision.

And because we plan to make a FID before Royal Assent, legally robust transitional arrangements that provide clarity and certainty for investors will be essential.

6. Benefits of nuclear

These reforms are important not just because NNB will help deliver on our energy challenges.

As the Energy Secretary said last week, nuclear new build is part of a drive to develop an industrial strategy, and will provide a huge boost to the economy.

Research from the Institute of Public Policy Research think tank shows that a programme to build up to 18GW of new nuclear capacity could boost UK GDP by more than £5bn annually for 15 years.

It could also create, on average, more than 30,000 jobs per year at the power stations, in the supply chain, and in the supporting economy around the nuclear plants.

Hinkley Point C alone will deliver £100m per annum into the local economy during peak construction and see 25,000 people employed over the construction period. Thousands more will be employed in the supply chain.

This is already manifesting itself on the ground in Somerset.

We have invested millions in local colleges to ensure that we have the right people with the right skills and leave a legacy of a highly skilled workforce in the area for decades.

New energy skills and construction centres in Somerset drive home the benefits already available.

Local companies are already benefitting from contracts worth around £70m and 1,000 companies have now registered on our Supply Chain register to learn more about opportunities and our expectations.

When complete, there will be 900 permanent jobs and the station will continue to inject £40m for each of its 60 operational years into the local community.

If the UK can seize the opportunity now, investment in a low carbon energy mix could play a key role in getting us back on the path to growth and international competitiveness.

7. Costs

At this stage I think it is right to say something about the price of energy.

We need to remember is that the current prices do not take into account significant new investment in infrastructure.

Demand and therefore prices are also depressed as a result of the recession.

Our wholesale electricity prices are currently around 50% lower than they were just four years ago, in 2008.

The future wholesale price of electricity will have to reflect the cost of new investment.

Investment that the UK urgently needs in generation technology, transmission lines and distribution systems.

But rises must be fair.

If energy bills must rise, we need to find the right balance for customers between economy and environment, between fairness to customers and rate of return for investors.

If prices aren't fair they won't be sustainable. That will undermine the aim of delivering a programme of new build sites, with all the impacts that will have on the supply chain and skills development.

This is right for the long term, both for energy policy and for the UK economy.

Because although investment will inevitably push up prices, the cost of failing to decarbonise our power supplies...

...Of remaining reliant on imports...

...Of failing to grow our economy...

...And of continuing to struggle on with ageing and outdated infrastructure...

...will be much higher.

That is why EDF Energy is facing up to these challenges by investing in new energy infrastructure.

8. Energy efficiency

But that is not to say we are doing nothing to reduce consumption. On the contrary, EDF Energy is fully supportive of efforts to improve energy efficiency.

Whilst investment in more energy generation is absolutely necessary, particularly as we move towards electric vehicles, another long-term goal must be reducing household energy consumption.

Steps are already being taken to make this a reality – nationwide roll-out of smart energy meters will improve the public's understanding of their consumption, revolutionising how we use electricity at home and work.

The Government's Green Deal scheme to fund household efficiency measures has now been launched and will help to improve the inadequate energy efficiency of our housing stock.

We are supportive of both measures because energy policy must be seen holistically, with generation and demand side by side in helping us to deliver a secure, low carbon future affordably.

9. Time for delivery/concluding remarks

So the right policy framework to facilitate this is vital.

EMR is needed to unlock investment in nuclear, in renewables, in high efficiency gas and in CCS.

We need to cultivate a diverse, low carbon and secure energy mix and improve awareness of consumption and efficiency.

Now is the time for delivery and we stand ready as a company to play our part.