



Dan Lewis, Senior Infrastructure Policy Adviser at the Institute of Directors (IoD) and Chief Executive of Future Energy Strategies, asks if governments of all stripes have failed to produce a coherent energy policy

Just before the Brexit vote in June, the Institute of Directors conducted a comprehensive survey of its members, exploring business attitudes to UK energy policy. In particular, the survey asked members to deliver an overall verdict on the direction of energy policy in the UK over the past 15 years. The results were both encouraging and uncomfortable reading for the government, as well as key players within the energy industry.

At a glance, the key findings indicate that, since 2000, successive governments have failed to deliver the sort of secure and competitively-priced energy policy that businesses would have expected. On the face of it, this seems like a damning indictment, but the results paint a more nuanced picture. Depending on

their priorities for energy policy, for instance within the debate over long-term sustainability versus immediate affordability, respondents inevitably differed in their outlook. Those that were inclined to be more positive focussed on the very positive numbers in favour of renewables and decarbonisation, while downplaying the negative results relating to the two leading parts of the energy trilemma – security of supply and affordability. The most interesting question for readers of *Gi*, though, is what does it all mean for the gas industry going forward?

This question can – in part – be addressed through examining the results of our 2016 survey, covering 998 IoD members. The survey was in the field between 11 and 26 May 2016.

As you can see opposite, energy

policy has been seen as effective in terms of increasing renewables and reducing carbon, but very poor in terms of delivering security of supply and competitively priced energy. These findings ought to serve as encouragement to the gas industry. Wholesale gas prices have halved over the last two years and the UK sits on a vast untapped resource in shale gas. Moreover, the obvious synergy between the growth in intermittent renewables and the requisite need of back up gas-fired power stations is self-evident. For now, gas turbines are the only power stations that can provide gigawatt quantities of power at short notice to make up for a sudden drop in renewable power.

The pursuit of decarbonisation is undoubtedly popular. UK gas followers, however, will be very aware that significant decarbonisation (if you don't count the rising carbon emissions from increased imports) of one-third from just under 600 to 405 million tons of CO₂ equivalent between 1990 and 2015 was principally achieved through replacing

To what extent do you agree or disagree that British energy policy since 2002 has been successful in increasing renewables, reducing carbon and delivering secure, competitively priced energy to your business?

	Increasing renewables	Reducing carbon	Delivering security of supply	Delivering competitively priced energy
Strongly agree	8.12%	2.81%	1.70%	1.00%
Tend to agree	50.40%	42.28%	13.03%	8.92%
Neither agree nor disagree	15.63%	21.54%	19.54%	19.44%
Tend to disagree	15.33%	19.94%	33.87%	39.28%
Strongly disagree	6.51%	8.02%	28.76%	28.56%
Don't know	4.01%	5.41%	3.11%	2.81%

To what extent do you agree or disagree that the UK needs to decarbonise its energy use to mitigate the effects of climate change?

Strongly agree	36.07%
Somewhat agree	38.18%
Neither agree nor disagree	9.52%
Somewhat disagree	8.42%
Strongly disagree	7.11%
Don't know	0.70%

To what extent do you support or oppose hydraulic fracturing ('fracking') of shale rock for oil and gas as a way of extracting UK-based hydrocarbon resources?

Strongly agree	26.25%
Somewhat agree	30.16%
Neither support nor oppose	13.53%
Somewhat oppose	14.93%
Strongly oppose	13.33%
Don't know	1.80%

To what extent do you support or oppose the increased deployment of the following renewable energy technologies?

	Solar	Onshore wind	Offshore wind	Biomass	Wave and tidal
Strongly support	52.81%	21.54%	44.49%	29.16%	56.91%
Somewhat support	34.57%	34.37%	34.27%	38.68%	30.86%
Neither support nor oppose	6.61%	9.32%	6.81%	18.14%	7.31%
Somewhat oppose	3.81%	17.03%	7.82%	6.01%	2.51%
Strongly oppose	1.80%	17.23%	6.21%	3.41%	1.70%
Don't know	0.40%	0.50%	0.40%	4.61%	0.70%

coal with gas. Back in 1990, coal provided two-thirds of UK power, while gas barely registered. The interesting point then is how much further decarbonisation can be achieved with more use of gas?

It seems there would be some more scope for replacing existing and fast-declining coal burn with gas but not on the scale of the last 25 years.

For the gas market to really prosper, it is going to have to find new markets that can also be decarbonising. Options include replacing petrol and diesel as a transport fuel, for example, or using it as the fuel for micro gas turbines or combined heat and power plants in distributed generation.

Again, renewables are clearly popular with IoD members and why not?

Everyone benefits from clean energy. An unkind observation though would be that the popularity of renewables does not necessarily match up to their useful level of deployment. Of the most popular renewable, wave and tidal power, we have almost none to speak of. And solar's now substantial capacity of 11GW is overstated by its low 10 per cent load factor

Additionally, few realise that of the 25 per cent renewable contribution to the power supply last year, two-fifths of it actually comes from burning biomass (which can cause local air pollution issues) and is often imported from abroad. In 2015, the UK imported a record five million tons of wood pellets.

IoD members have maintained their support of shale and the IoD for the last few years has played a major role in supporting a still nascent industry. We believe there is clear evidence that fracking in the USA has transformed the prospects for parts of the manufacturing industry. It has also played a significant role in boosting rural economies and reducing fuel poverty with lower oil and gas prices. However, in the UK it may well be that wider and deeper public acceptance will not settle in until after the fracking has happened and can be seen to be safe and successful.

So all in all, our survey suggests that low carbon gas ought to have a bright and popular future in conjunction with intermittent renewables and nuclear. Domestically fracked gas - if and when it were to be produced at scale - would do much to ease energy security concerns and could provide valuable competitively priced feedstock for industries that can no longer receive it from the North Sea. To speculate further into the future, there really ought to be more scope for using gas as a transport fuel, for cargo ships and liners, lorries and just maybe, aviation. The energy density requirements of long-distance heavy transport are simply too challenging for battery technology. Indeed, we may even see much more growth of distributed hydrogen sourced from gas, along the model being tried out in Leeds. As in all industry, growth will come from new markets and innovation.

We are in for a long ride and gas will play a major role. ■

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