Inspiring business

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Future-proofing Energy

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Overview

Energy is an indispensable part of the economy. Right across the board, from supply to production to the growing role of consumers and software, Britain's energy market is transforming. But those changes won't be cheap. In order for Britain to remain competitive, a future government must play a positive role in enabling a more competitive energy environment whilst moving towards decarbonisation targets.

Proposals for all parties:

1. Deliver cheaper sustainable nuclear energy beyond Hinkley Point C

The government must seek out more innovative ways to save money on nuclear waste, prioritising the designation of a Geological Disposal Facility. The government should organise large auctions when looking for nuclear suppliers, and so encourage a UK-based nuclear supply chain that comes with scale.

2. Create greater competition in the energy markets

Freezes and price caps are politically appealing, but are not the solution. OFGEM should be given the power to create a universal transparent standard default tariff and for the government to review separating the retail market from the wholesale and billing from supply.

3. Move ahead with the use of shale resources

For our energy requirements, oil and gas will still have to do the heavy lifting for decades, but in the short to medium-term we should look to make the most of potentially significant shale resources rather than rely on increasing imports. IoD research has previously estimated that up to 74,000 jobs could be created within a fully mature shale industry, in parts of the country that need them most¹.

4. Move from fixed subsidies of renewables towards a more auction-based system

With prices falling for renewables, locking in fixed subsidies for years to come through feed-in tariffs is very expensive - moving to auctions will adjust to this new reality.

5. Review the Smart Meters programme

With incompatible meters, deadlines missed and costs mushrooming, the Smart Meters rollout continues to be plagued by problems. The next government must pause and review the rollout to assess where savings could be made, which we estimate could run into the billions².

² See IoD report, from March 2015, "Not too clever: will Smart Meters be the next Government IT disaster?"

Context

For years, energy policy has been fixated on delivering the energy trilemma of clean, affordable and secure energy – with very mixed results. Businesses have a different hierarchy; energy is the one absolutely indispensable input to their everyday activity. As such, their priority is the security and reliability of supply. The second is cost, and third that it is clean.

Last year, the IoD surveyed its members about energy and the findings were clear. Some seven in ten felt that successive Governments since 2001 have all failed to make energy available at a reasonable cost. Two-thirds worried about energy security, concerned that the lights might one day switch off. On the other hand, directors felt energy policy had been more successful in increasing the use of renewable sources (59 per cent) and reducing carbon emissions (45 per cent)³.

Clearly, our members understand the need for decarbonisation. We have our doubts, however, about holding to rigid timetables for it. All too often, "policy by timetable" drives up costs before competition and technological progress could potentially have delivered cheaper outcomes.

In part, that drive has led to the fact that the UK's industrial electricity prices are the third highest in

the EU-15⁴. We have seen the impact that too high energy prices can have on heavy industry already; Port Talbot is only the most obvious example. Aligning business needs with wider policy imperatives must be a priority.

Deliver cheaper sustainable nuclear beyond Hinkley Point C

lower.

The UK needs a nuclear programme. Decarbonising the power supply with intermittent renewables, energy efficiency, Demand Side Response and energy storage will only take you so far and at very high cost. Over the next decade, to replace and eventually expand the UK's nuclear power stations, policy needs to deliver the following:

- The designation and construction of a longterm Geological Disposal Facility
- The setting up of large scale reverse auctions between competing nuclear power developers to build new stations
- A fully component capable and skilled supply chain

Today, Britain's nuclear waste is stored above ground, mostly at Sellafield, and as the £3 billion annual budget of the Nuclear Decommissioning Authority will attest, it is very expensive. Above ground waste requires additional security, safety, and monitoring at all times. Nor is the waste confined to that from nuclear power stations, but will increasingly be needed for MRI scanners, other medical and industrial equipment and future small modular reactors. Running costs for a Geological Disposal Facility storing the waste 1000 feet below the surface would be significantly The next government should organise a competition between local authorities that possess the appropriate geology to handle the site, boosting the local economy and benefiting from generous central government incentives. Even if the UK never builds another nuclear power station after Hinkley Point C, we will still need a GDF to bring down the cost of nuclear waste.

However, we do *need* new nuclear. It's important we learn the lessons of Hinkley and radically increase competition to ensure more bidders than there are contracts for future plants. It may therefore be time to consider using taxpayers' money to part- or even fully-fund new design applications to the Office for Nuclear Regulation, especially considering the financial weaknesses of some major international firms.

Create greater competition in the energy markets

For all the talk of the dominance of the 'Big Six', their market share has actually fallen to 74% of the electricity and gas markets, compared to 98% in 2010. It is nonetheless troubling that a period of falling wholesale prices from 2014-2016 has led to barely any reduction in standard variable tariffs – which in a 'normal' market would have been expected. Quite apart from the obvious implications for business premises and their energy needs – the Competition and Markets Authority report into energy markets found that SMEs were overpaying for their energy more than households ⁵ - with more people working from home this clearly has an impact on the selfemployment revolution too.

Worst of all, whilst consumers were overpaying by an average of ± 1.4 billion a year in 2012-2015, this increased to ± 2 billion a year in the last of those years.⁶

For all that, we do not support many of the solutions that have been proffered by politicians. Price freezes or caps are crude interventions that run the risk of scaring away foreign capital and investment. They would also serve to limit price discovery and competition.

We believe the problem goes deeper and propose

three solutions that will enhance competition and bring prices under real control.

- The next government should task OFGEM with the creation of a new regulated standard default tariff, transparently calculated using the same methodology, for example, the wholesale price plus a transparent breakdown of each individual suppliers network, billing, customer service and other costs. It's wrong that when tariffs expire, prices are ramped up, perhaps as much as 40 per cent to the default Standard Variable Tariff. A standard default tariff would greatly enhance competition.
 - Secondly, the government should consult on fully separating the retail sector of energy from wholesale and supply. The root cause of a lack of competition within the energy sector derives from the privatisation period, when incumbents inherited a huge consumer base. Many of those customers remain on Standard Variable Tariffs today with the same suppliers. Some have suggested that the high margins enjoyed on SVTs can be used to squeeze out competition by offering lower rates to new customers.
- A future government should further consult on

Use of shale resources

separating energy billing from supply so that third and neutral parties come between suppliers and consumers. A separation could well restore public trust in the utilities, as energy companies are incentivised to sell you more energy and potentially even more expensive variable 'time of day' tariffs through smart meters. A billing company however would be neutral as their margin would not be in the volume of energy sold. A separation could even lead to joined-up utility services. The consequences are not entirely clear, however, so an open consultation should do just that.

Despite the welcome progress in low-carbon technology, hydrocarbons will still have to do the heavy lifting for the British economy in the shortand medium-terms. The big change over the last two to three decades has been a switch from coal to gas, and more recently, the decline in North Sea oil and gas production which has led to the UK switching from being a large net energy exporter to importing £14 billion of energy sources a year.

Energy imports are not 'bad' in and of themselves, but they are not cost-free and should serve as a useful motivator to do more with our existing hydrocarbon resources. The jobs, taxes and associated economic benefits cannot be ignored and could be captured by increasing domestic production. The progress in exploiting the UK's bountiful shale resources has been disappointingly slow. An IoD study in 2013 suggested that a shale gas industry at full scale could support as many as 74,000 jobs, many in parts of the country that need them most⁷.

The next government should look at how to faster unlock a resource that has been instrumental to the American manufacturing revival, and more than that, how to ensure that local and national priorities can be balanced.

Moving away from fixed subsidies of renewables

According to a recent International Renewable Energy Report, auctions are a far more costeffective method of procuring renewable energy than feed-in tariffs (typical in Germany) or quotas (Renewable Portfolio Standards in the USA). Competition through auctions has aided a profound downward cost slope to solar and wind across the world; in the UK, we have seen the benefits from auctions for offshore wind bringing down contracted prices.

One downside of current renewable technologies is their relatively short lifespan. We would like to see auctions that encourage the deployment of longer-life technologies, out to as many as 25 years. The next government should commit to give all renewable technologies a contributory role not from fixed price feed-in tariffs, but awarded contracts through longer-term rolling and reverse auctions.

Smart Meters

The latest revelations that millions of the first generation of smart meters, SMETS1, may have to be replaced is regrettably unsurprising. That compatibility issues may never be solved should give the new government reason enough to order a consumer-facing review of the troubled £11 billion Smart Meter programme.

The programme has already failed to deliver interoperable meters for switching, is behind schedule, is over-budget and wedded to out of date technology. Not only that, the legal obligation on suppliers to install potentially incompatible meters by the deadline of December 2020 or else pay large fines is already pushing up inflationary costs in wages and advertising.

These additional costs will only be added to consumer and SME bills as they are fully socialised. An urgent pause, and thorough review, needs to be undertaken. This would also involve revising EU-derived legislation, altering the 2020 timetable we are currently beholden to. We do see a need for smarter meters, but much cheaper solutions that can offer automated meter reading and faster switching need to be included. Top-down rigidity is not the answer.

Author



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