

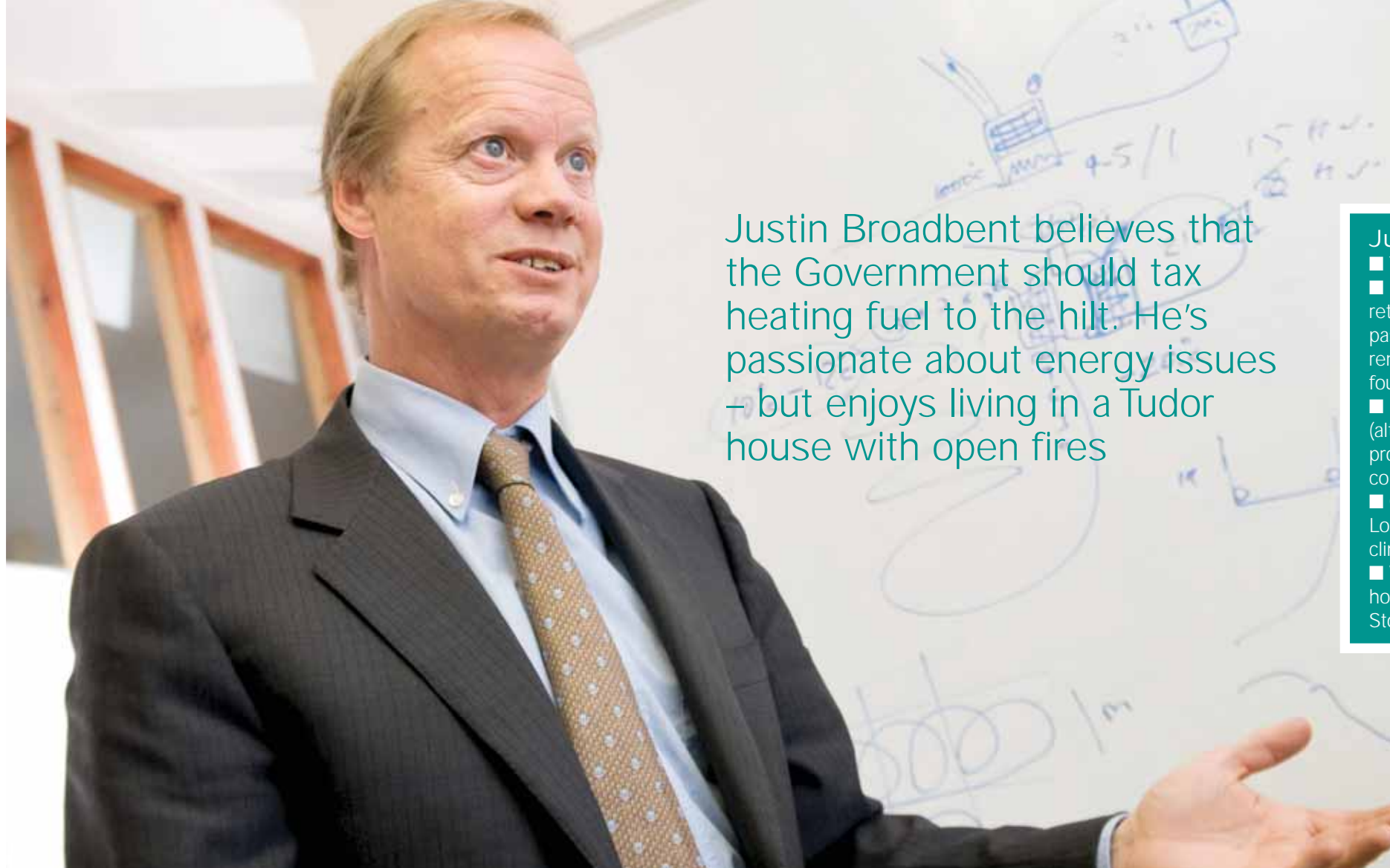
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There is no single technology that represents a magic bullet to solve our energy problems," says Justin Broadbent, founder and CEO of ISO Energy Limited. "We will have to mix and match."

Broadbent's company supplies sustainable systems – heat pumps, solar energy panels, biomass furnaces – to people who want to reduce their energy costs while reducing their environmental footprint (the amount of carbon released into the environment).

The Government wants to maximise low-carbon business opportunities, but Broadbent sees problems. "Over the last 30 years we've enjoyed cheap energy in the form of North Sea oil and gas. I believe we have squandered that – successive governments have just used the revenue and not invested for the future."

According to Broadbent this has resulted in us having to import all our renewable technology. "If we want a heat pump we have to buy it from



Justin Broadbent believes that the Government should tax heating fuel to the hilt. He's passionate about energy issues – but enjoys living in a Tudor house with open fires

Justin Broadbent

- Trained as a mechanical engineer.
- Ran a software company for 15 years, retired early ten years ago. Became passionate about the technology for renewable energy and formed ISO Energy four years ago.
- ISO Energy doesn't manufacture (although it would like to). The company provides installation, maintenance and consultancy services.
- Clients include Lord Sainsbury and Lord Stern (of the Stern report on climate change).
- Work-life balance: winter skiing at his house in the French Alps; boating in the Stockholm archipelago during the summer.

any manufacturers of renewable technology in the UK.

"The potential for the renewables industry is huge," he says. "If all new homes have to have a heat pump, and we build a quarter of a million homes, at £4,000 each, that's a £10bn business."

Most of his current business is divided between upmarket manor houses – owned by people who have plenty of money to invest in green technology – and social housing for local authorities. "But all houses will have to be heated somehow, when we run out of gas. And I speak as someone who lives in a sixteenth-century house and enjoys an open fire! But then that's my personal choice and I'm prepared to pay for it."

He is adamant that the Government could drive huge progress in green issues if it was prepared to take firmer action and set deadlines. "As an example, we use fluorescent lighting in this office. I could install low-energy tubes that are four or five times as efficient – but it's just not economic. And this is despite the fact that I run a company that specialises in green products and services.

"Why doesn't the Government simply announce that in ten years' time, every house in Britain must be lit only by light-emitting diode bulbs? They are more expensive, but if the demand was there, the price would go down.

"It's all about taking action."

Heated arguments

Sweden. The same is true of wind power – we have to buy turbines from Denmark or Germany. He is more sceptical about the opportunities for wind power. "Everyone points to Denmark as the example for wind power, but Denmark is a flat, windy country with a small population that exports energy to its neighbours when the wind is blowing. When it's not, they purchase power from their neighbours. But the UK, a country of 60 million people, can't just buy spare energy – our needs are too great.

"But we can't rely on wind power in this country," he says. "Our needs are too great, and wind itself is unpredictable." Broadbent believes a mix of biomass, nuclear and

hydroelectric power is the way forward. "In the UK, hydroelectric means tidal power. Every day, twice a day, the tide comes in and goes out. It's predictable and we have one of the highest tidal ranges in the world. We just need to have the will-power to invest in developing solutions."

Grants for installing renewable energy systems are a waste of time as far as he is concerned – they are too small to really encourage the 'transformative change' that Peter Mandelson wants from the low-carbon industrial strategy. Broadbent estimates that no more than 10% of the installations his company carries out are grant-aided – and they install £6m worth of this technology every year.

He believes the core problem is that energy for heat and light is simply too cheap. "The Government should either tax people into buying this kind of technology – or raise the price of fuel for heating to a realistic price. Whether you believe in global warming or not – and not everyone does – the fact is that we are running out of fossil fuels. And I think a brave government would acknowledge this as a fact, and then announce that the price of oil and gas for all purposes is to be increased by 20% per year – every year.

"If you did that – see how fast electric cars would start appearing on the streets and how quickly nuclear power stations would be built!"

Broadbent recently attended the

low-carbon industrial summit. "It was good, because those of us who attended were able to voice our concerns. I don't think anyone present feels that their area of the industry is going particularly well. The people who want to build combined heat and

"A brave government would acknowledge we are running out of fossil fuels, and announce a 20% increase in oil and gas prices per year"

power plants say they can't get planning permission, and the people who want to develop microgeneration come up against a lack of interest from the power companies."

He's positive about BERR. "You listen," he admits. "But the problems

we have in this country are structural – and teams of officials can't do anything about that. We should have committed to nuclear power five years ago. We haven't done so yet. People imagine we have – but I think we're still ten years away from the first new nuclear

power station becoming operational."

He's not optimistic that the Government can deliver on its promise to make the UK the best place to start and run a low-carbon business. He recently wrote to Peter Mandelson about his concern that there are hardly