

## Martin Cave's speech at Ofgem Future of Energy Conference

### Projecting the energy transition

We live in a time when - after a long period of relative stability - the UK energy sector is going through a period of major transformation.

Across the economy, we are at different stages in this transition.

In transport, after more than 100 years of the internal combustion engine, we have started a gradual but probably inexorable shift towards electric vehicles.

The way we heat our homes and industrial processes has remained largely the same.

That too is likely to change as we seek to decarbonise heat to help combat climate change.

In electricity, the transition is accelerating and becoming self-sustaining, through falling renewable generation costs and increasing digitalisation.

Renewable generation now accounts for about a third of the electricity we generate compared to just 5% a decade ago.

As renewable generation grows, their intermittency brings new challenges.

The way we balance our electricity is becoming as important as maintaining sufficient generation for our security of supply.

Demand side measures will help us avoid having to build new generating capacity to meet peak demand, as will batteries and electric vehicles which release electricity onto the system when it is needed.

The way consumers use and buy energy will change too.

Smart meters, combined with half hourly settlement and smart gadgets, will allow consumers who shift consumption to save money and help balance the system.

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The realisation and timing of all these changes is uncertain.

Having witnessed at close quarters the transformation of the telecommunication sector over the past 20 years, I know that you have to expect the unexpected.

Fundamentally, our role is to facilitate but not seek to direct this wave of innovation in order to drive maximum benefit for consumers.

Our approach will as ever be guided by our over-riding goal to protect the interests of consumers now and in the future, particularly those in vulnerable situations.

These interests are best protected by an energy system that can attract investment and innovation and keep costs as low as possible.

Doing this will require us to regulate in different ways.

In the past 6 months, seven new people have been added to Ofgem's board, bringing in expertise and experience from a range of sectors and backgrounds.

We are redesigning and reprioritising our work in order to become a more agile, effective regulator.

This means economising on some activities, and acting with greater speed and flexibility in response to rapid and sometimes unexpected changes.

We will seek to avoid unpredictability by signalling our direction of change in advance, and preserving our tradition of wide and transparent consultation.

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While Ofgem is an independent regulator, we will need to work within policy set by Government.

In November, Greg Clark, the secretary of state, listed the government's four principles for the energy sector.

The government's principles are:

- the market principle – using market mechanisms wherever possible to take full advantage of innovation and competition
- the insurance principle – given uncertainty about the future, government must be prepared to intervene to provide insurance and keeps options open
- the agility principle – energy regulation must be agile and responsive if it is to reap the great opportunities of the smart, digital economy, and finally
- the “no free-riding” or “fairness” principle: consumers of all types should pay a fair share of system costs

I've already touched on the importance of agile regulation, which Ofgem is embracing.

I will also set out how the market principle and the fairness principle will help Ofgem achieve its objectives for the next five years which is my term as the regulator's recently appointed chair.

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First let me say a little more about the energy system and energy networks and how we regulate them in the context of the transition.

Distribution networks are at the very heart of the energy transition.

Historically they have been monolithic monopoly pipes and wires businesses which delivered electricity and gas downstream to passive customers.

In the longer term, distribution operators, as well as safely distributing energy to local consumers, may mutate to perform more complex functions, including, systems management, the operation of a local market platform and the role of a data hub.

It may be necessary to separate some governance functions from the nuts and bolts of network operation.

In a similar way, Ofgem has already agreed to legally separate, by agreement with National Grid, the electricity transmission system operator role from the transmission network owner.

As the governance, design and management of the system become strategically much more important, we may need to make aspects of system operation more independent of the networks to ensure that all decisions are made in the long term interest of consumers.

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Some of this thinking is already embodied in our recent proposals for RII02, the next round of network price controls starting in 2021.

These envisage a more decentralised system, with local markets developing for energy generation and flexibility services - including storage - particularly for cities.

Generating – and storing - more electricity locally may avoid the expense of reinforcing the transmission network to meet new sources of demand such as electric vehicles, and could even help some cities become self-sufficient.

In the longer term, co-ordinated action between networks could also increasingly deliver much lower whole system costs to consumers.

For example, gas and electricity networks could collaborate by investing in new hydrogen networks to lower the cost of transition to a low carbon heating system.

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Wherever possible, we look to make greater use of market mechanisms to unlock the benefits of competition.

Transmission investments are becoming increasingly contestable.

The Offshore Transmission Owner (OFTO) regime, which government and Ofgem launched in 2009, has achieved £700 million in savings for consumers.

Ofgem is looking to replicate this success onshore via the Competitively Appointed Transmission Owner (CATO) regime.

We will also provide incentives to expand the use of innovation as well as competition for the delivery of projects across all the network sectors, where these may offer value for money to consumers.

In the longer term, within wider government plans, competitive innovation is needed in particular to support the decarbonisation of heat or longer term electricity storage to manage seasonal variation in the use of electric heating or heat pumps.

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I've talked about the agility and market principles.

The fairness principle is also guiding our approach to network and systems regulation.

This means removing distortions or unintended consequences in network charges or other system costs which fall on consumers.

Last month we published the latest proposals to reform the network charging system.

These are aimed at making more efficient use of the existing system, reducing the need for expensive new wires and power stations and minimising costs to consumers.

They are also aimed at preventing those who generate electricity at home or on-site from getting a "free ride" and avoiding paying their fair share of residual network charges.

Without reform, the burden of these costs would increasingly fall on domestic households, including those in vulnerable circumstances.

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The goals of fairness and competition guide our approach to retail regulation too.

Here we are working in two tracks. Parliament has instructed us to impose a default price cap to ensure loyal customers who don't switch pay a fair price. This came into effect on January 1.

At the same time we are trying hard to widen customers' opportunities to exercise choice within a competitive market place.

In recent years Ofgem has focussed on opening the market to new entrants to challenge the Big Six suppliers.

These efforts have met with significant success, with greater competition helping to drive down prices for engaged customers and drive up customer service levels across the market.

1 in 4 customers are with a small- or medium-sized supplier after switching to get a better deal.

However, there are downsides with the way competition has evolved in the retail market.

Many suppliers attract new customers by offering deeply discounted fixed term tariffs, then roll those who don't switch at the end of their contract onto a much more expensive standard rate.

This "tease and squeeze" pricing results in unacceptable price differentials of a kind now known as a loyalty penalty.

Arguably too many suppliers have come into the market with unsustainable business models.

This can manifest itself in shoddy customer service, triggering more enforcement action by Ofgem against the worst offenders.

In the last year we have seen a series of supplier failures, with three suppliers going out of business in the run-up to Christmas alone and one more this week.

In such an event, Ofgem's safety net ensures that customers' energy supply and credit balances are protected.

However, at present the cost of reimbursing credit balances and meeting payment shortfalls for things like the Renewable Obligation scheme is met by the rest of suppliers - and ultimately their customers.

In order to minimise the impact - and cost - of supplier failure on consumers and the wider market, and to help drive up standards, Ofgem is currently consulting on new customer service and financial tests for new suppliers.

This year we will also consult on further changes to the licensing regime, including on how suppliers accrue, hold and use customers' credit balances and how they make the payments they owe under the Renewables Obligation scheme.

In future, we want competition to lead to sustainable and "everyday" low prices - not rate-chasing churn where customers have to switch every year to avoid a massive hike in prices.

We want to see greater competition driving up the quality of customer service - but with a reliable minimum standard.

And we want all suppliers to pay their way.

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Over the longer term, we expect the retail market to become more complex as new technologies, services and business models emerge.

Consumers will have to decide not only who to buy energy from but also:

- when to use it with the emergence of time of use tariffs
- what kind of tariff – for example a bundle including energy or other household services
- whether to invest in things like smart technologies and storage
- and to make decisions on whether to share their data and if so with whom

We might also expect the role of intermediaries to grow – from price comparison websites to autoswitching services, as well as home automation providers which help households manage their consumption and save money.

These intermediaries, which may operate in other sectors as well as energy, are largely unregulated. It will be necessary to decide if this is appropriate.

Other questions that arise for Ofgem from these changes include:

- should we remove the restrictions that mean energy can only be sold by the Kwh?
- should we enable customers to contract with multiple suppliers?
- should all suppliers have an obligation to supply any customer?

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As ever, we will consider these questions through the lens of the long-term interests of end users.

We are currently working jointly with the government to review the retail market arrangements.

As we do so, we have identified three priorities that our future regulation of the retail market must address.

First – new consumer protections must reflect market changes and the risks posed by new services and market players.

Second – specific safeguards must guarantee that customers receive at least a minimum level of customer service and are protected from exploitation.

And thirdly - whilst consumer protections must be robust, regulation must also unlock the full benefits of innovation for consumers.

In other words our goal is that innovation meets customer needs in the future – including the needs that arise in a more complex energy market.

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My 5-year term as chair of Ofgem comes to an end in September 2023.

By that time, all the gas and electricity network companies will be subject to RIIIO2 controls and the energy transition will be marching on.

Key programmes to make the retail market more responsive – the smart meter roll-out, half hourly settlement, and the faster more reliable switching programme – should all be bearing fruit.

According to Parliament's Act, the price cap on default tariffs must be lifted no later than the end of 2023.

The next five years will be crucial for all of us – Ofgem, government, industry and other stakeholders – to build on the progress we've made to help deliver an energy market – and system – which works for all consumers.

In this process, Ofgem will protect those who struggle to engage in a smarter, digitalised future, particularly consumers in vulnerable circumstances, so that no-one is left behind.

We will also need to harness the benefits and savings from the transformation of the sector for consumers.

To do this we need to become more agile. This means getting out of the way when appropriate where new products, services and business models can benefit consumers.

But it also means intervening speedily to stop behaviour that harms consumers.

This is the challenge Ofgem faces. I believe we are responding to it – I hope that others are as well.

Because when the price cap is lifted we cannot - and will not - go back to yesterday's state of affairs. We can, and shall, do much better than that.