

New Power

REPORT

MARCH 2018

PAMELA TAYLOR, OFGEM

How the Innovation Link and the Regulatory Sandbox led the regulator to launch the supplier hub consultation



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The New Power Interview



LESLEY RUDD, SUSTAINABLE ENERGY ASSOCIATION

The home is where much of the innovation in the energy industry has to take place, whether it is using new technologies or in convincing consumers to be more active energy users. Janet Wood spoke to Sustainable Energy Association chief executive Lesley Rudd about making the most of the energy we have – and fixing some longstanding issues

Electricity has been a mainstay of decarbonisation so far. But it is just a part of the challenge of decarbonising the whole energy system. For a decade after 2000, electricity, and renewables, were the main focus of government policy, but in the past few years policymakers have started grappling with the larger challenge of heat and transport needs.

“Energy efficiency is a ‘no regret’ option. There is no reason we can’t do it

This is the among the aims of the Sustainable Energy Association (SEA), which wants to place buildings at the heart of delivering UK energy policy goals. That means producing energy directly from low-carbon and renewable sources and reducing energy waste by upgrading buildings.

That agenda will touch customers directly in a way the switch to renewable electricity has not, because it will require different behaviours from consumers and, in determining the future of domestic gas supply and the gas network, potential changes inside domestic properties.

It’s clearly an area that will require innovation. But what is not clear, until we have a routemap on heat decarbonisation, is the framework within which that innovation will happen. So when I ask SEA chief executive Lesley Rudd about evolving the industry, she first talks about “no regrets” options. That means energy efficiency – building it in from the start, and bringing existing buildings up to scratch.

There is no reason why we can’t do it, she says. “We are building lots of new homes and lots of new connections to the system, and when you are doing that the obvious thing to do is to try to decrease the >

BIOGRAPHY

Lesley Rudd has a degree in Business Studies with Politics, is an accountant (CIMA accredited) and a member of the Chartered Institute of Public Relations.

She has worked in the energy industry for over 30 years.

Her roles have included government and stakeholder relations manager, trading manager, commercial manager, and communications manager at BG Group; public affairs manager at Microgen; and commercial negotiator, commercial manager and audit manager at British Gas.

amount of energy consumers use.” She ticks off the goals it helps achieve: decarbonisation, security

“I would like energy efficiency to be an infrastructure priority

of supply, managing a stressed network more efficiently, and reducing fuel poverty.

She says: “We are building lots of new homes and we already have a lot of cold and draughty Victorian buildings. If we insulate them properly and we

put in an efficient heating system, that is likely to have a big impact on the whole system. We need to be doing that”.

INFRASTRUCTURE IN AGGREGATE

She wants to make people aware that in aggregate, heating buildings is not just a domestic issue:

“If you set the parameters and the direction then people will innovate

“There are a lot of large infrastructure decisions being made and one thing that we would like is for energy efficiency to be an infrastructure priority.”

Of course, we need to decarbonise heat.

“But even if we are not doing renewable heating systems, we need to be efficient. If you’re putting in a gas boiler we need to make sure that when they’re installed they are installed correctly.” That should not be seen as a discrete change but part of a large aggregation.

It’s not always easy to make policy decisions that will have an effect at the level of householders. I ask

what has been the most successful government measure in her experience and she says it was the decision, which took effect in 2005, to mandate condensing boilers. “That made a huge difference,” she says. What disappoints her is that the next measure she can point

“There will always be people who want to stick with what we have got, but we need to push on

to is 13 years later – a new ‘Boiler Plus’ regulation that takes effect from April this year. She says the gap was too long. And more importantly, “it has to be a journey”.

She explains that: “What I’ve been asking for years is clear policy direction and for governments to set the direction and make it clear where we’re

headed... If you set the parameters and the direction, then people will innovate.” That may be a strict target, such as that for boiler efficiency, or it may mean “building houses with renewable heating systems or at least making them ‘renewables ready’”. Even if you are putting in a gas boiler you can try to future-proof the property,” such as preparing it for the lower temperatures used by heat pumps.

“You don’t have to set out what the steps are and what the route will be,” she says, industry will respond to the target.

That requires industry to have confidence in the end point and I ask whether government has ground to make up there, after it scrapped the zero-carbon homes policy – a decision described by Matthew Knight of Siemens in a *New Power* interview as the single most damaging taken by the government.

Rudd agrees: “That policy being scrapped was a real blow.” And she uses it to highlight the difference between the policymaking phase and the need for certainty in implementation. Construction companies admitted they lobbied against it before it was finalised, but told her: “Now it is on the statute books we don’t want it taken away.”

She says: “In any industry, if you are a leading manufacturer with the status quo you would not want to change. But if you say it’s going to happen, the leading manufacturers will change and adapt and they will have the money to make the investment. If you set out the policy and get on with it, people will innovate.

“There will always be people who want to stick with what we have got, but we need to push on.”

DELIVERING CLEAN GROWTH

I ask whether the Clean Growth Strategy provides that push, and Rudd is hopeful. “The Clean Growth Strategy was a really good signal in that direction. We are now saying that green growth and economic growth are the same thing: that is a really big step.

“The Clean Growth Strategy has a lot of things in it that need a lot more policy detail, but the fact that we finally have some sort of long-term commitment to green growth is really helpful.”

She adds: “It has some commitments, and some aspirations. We would like to see firm commitments and the more industry can do to come up with analysis and evidence, the easier it is for government departments to do that.”

Most of the changes that Rudd highlights have been delivered by new regulations, and she wants to see standards used too. “If you have standards and you mandate them, the costs come down,” she says, because as demand for better products rises their cost falls.

"I would like to be sure that the houses that we are building now are built to high standards. We have carbon issues now, but if we are building new

We are now saying that green growth and economic growth are the same thing: that is a really big step

homes that are not up to the right standards we are adding to the 'carbon gap' identified by the Committee on Climate Change. Every day you build a poor-quality home you make it worse."

She refers to the government's Help to Buy scheme and says: "If taxpayers' money is being used to help build homes for people to live in that's fine, but I want them to be sustainable homes. It must be affordable to live in, not just to buy."

And she says costs have to be considered more widely. "What about the cost to the environment, or to air quality, or to the National Health Service

[of poor building stock]?"

There are all sorts of costs apart from putting a few pounds extra on the cost of building."

Since many of our standards have been set at EU level I ask whether the UK's exit from the bloc is an opportunity or a threat.

Rudd says: "We have

some good environmental standards that came out of the EU, and a lot of companies that operate right across the EU. Having a mismatch of standards in different countries could be quite an issue. It certainly is a threat if we dilute the standards."

But she has a bigger vision. The UK's carbon budgets are a world-leading way of setting out

and following a path to a low-carbon economy, she says, and "if we can be a world leader in environmental standards that would be an opportunity".

HELPING THE SYSTEM

When it comes to innovation, Rudd sees domestic users playing an important part in the system.

"We need to be looking at appliances being interconnected and energy-optimised in homes. Then we need things like time-of-use tariffs.

"We arrange our system for the peaks and that's

really costly, but if you want to switch off fridges and freezers for a few seconds it can have a huge impact on the grid."

That may be a role for electricity suppliers – Octopus Energy in February this year launched a time-of-use tariff that would also pay back at times of peak generation. But Rudd notes that other organisations are moving into the space and offering bundled services - whether it is insurance companies offering boiler care or a larger move towards energy services.

She notes: "People like organisations like Google and Nest and there is a big opportunity around data. If you have data – and smart meters will provide that – it might be data companies, it may be the companies who do smart controls, or companies who just aggregate. It doesn't have to be energy companies."

She is keen to expand thinking on this subject to heat supply. "I did a lot of work on combined heat and power and one of the benefits of that is that when you switch the heating on you are generating electricity you can send back to the grid. We need to think about not just people putting on a gas boilers, but the home and all the appliances you may have.

"We need to think about storage differently. There are lots of combi boilers that have been put into houses and they have taken out the water tank – but when you have a tank it can also be used to flex demand and supply.

"What is storage? Is it a new battery or is it the water tank that is about to be ripped out that you should keep? The heating system of the future may really benefit from that tank."

She says that over 30 years in the industry she has seen many energy ministers and "all of them talk about 'keeping the lights on'". "The way we tried to keep the lights on was to make sure that we had peak capacity and the supply was there. What we didn't think about in those days was what we could do to reduce the demand, especially at peak times. There has been a movement towards that, but it's not enough yet."

She notes that most people in the energy "system" are not concerned with the system overall. "We have people responsible for certain assets and certain bits of the system, and people who supply to the home are different again." That might change, as the idea of using property as an active energy hub gains traction.

Again, the point is that aggregating many small users can be powerful. "We need to be thinking about them as hubs and joining them together so we can impact the grid. If you are building a new housing estate and you think you need to reinforce the grid – maybe you don't, if you think about it differently." **NP**

Having a mismatch of standards in different countries could be quite an issue

What is storage? Is it a new battery or is it the water tank that is about to be ripped out?

New Power is a specialist monthly report for anyone with an interest in the UK energy industry.

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New Power's database includes all types of power projects: gas (combined cycle gas turbine (CCGT), open cycle gas turbine (OCGT) and small engines), coal, onshore wind, offshore wind, hydro, photovoltaics (PV), energy from waste, biomass, wave and tidal, etc; also interconnectors and storage.

Sort entries by: project name; developer; project type; location (mostly by county); country (England, Scotland, Wales, Northern Ireland); original planned start-up date; planned capacity; status (see below); actual start-up; current capacity; transmission capacity and from when; ownership.

You can use other categories to refine your search.

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