New Power REPORT Power

'We are going to be doing a crowdfunding in the next few weeks and that's really exciting. We want people in the industry to be able to own it' *Sarah Merrick, Ripple Energy*



SOLAR STEPS More power to local authorities





OFGEM Independent regulation faces some existential questions





'Ofgem should have more 'sandboxes' and they should not be stuck at the demonstration level' Polly Billington, director, UK100

GAS Less or more?

'We believe Ofgem could up its game, and send a clearer signal on low-carbon to the companies it regulates' Judith Ward, Sustainability First

Expert information for all those invested in the UK's energy future

The New Power Interview



POLLY BILLINGTON, UK100

Members of the UK100 network of local authorities have pledged to convert to using 100% green energy by 2050. Janet Wood spoke to the network's director, Polly Billington, about taking a local approach to energy

K100 came out of the Paris agreement in 2014, explains director Polly Billington. A large number of companies made a commitment to 100% clean energy at the time but she says: "I have been around enough campaigning to understand that if you are not careful a political commitment like that can get put in a bottom drawer and nothing happens." She sourced funding for a network of UK local authorities, who would replicate the Paris Agreement's C40 network of 'megacities' committed to addressing climate change.

From the original 66 UK100 members, the network has grown to 94 (Bath and East Somerset signed up in March) which is about a fifth of UK local authorities. "The more connections you make between people who are elected to make these decisions, the more you can increase not only their ambition but also their ability to deliver," says Billington. Local leaders are better placed to do some of these difficult things because "they are committed to their communities, they have good relationships with local business and they are very connected".

Climate change is a huge motivator for some people, she explains, but for others it comes alongside other practicalities, like deep retrofitting social housing, or understanding and engaging with the energy sector. "Those things are the bread and butter of local authorities and although these are not particularly sexy, they are also things that deliver co-benefits that local leaders can talk about. You are more likely to win on your deep retrofit if you are talking about saving people money and creating warm and healthy homes, than you are if you talk about saving the planet."

The network has connected leaders and built consensus, and at the same time "created a bit of city rivalry that has enabled us to escalate upwards", she says. "Local leaders rarely leave the place that they represent because they are very committed to it, so we have realised you have to meet them

BIOGRAPHY

Polly Billington took a postgraduate diploma in Broadcast Journalism at the department of Journalism, Media and Communication, University of Central Lancashire.

She was a BBC reporter including for the *Today* programme and the *Politics Show*.

She became a special adviser to Ed Miliband in 2007 and was the Labour Party's parliamentary candidate for Thurrock at the 2015 general election and a Labour Party official. She was head of communications and campaigns at Citizens Advice between 2013 and 2015.

Since December 2016, Billington has been director of UK100. This network of local government leaders "seeks to devise and implement plans for the transition to clean energy that are ambitious, cost effective and take the public and business with them". It supports decision-makers in UK towns and cities in their transition to 100% clean energy by 2050.

where they are already. We convene at party conferences and local meetings and that's where you see this competition and learning from each other... it's almost always the need to say 'we are doing something better than someone else', and that's the nature of politics."

ENABLE OR REGULATE?

How can local authorities best engage with the energy industry? Billington says UK100 sees a high level of ambition among its members but "there is a long way to go for local leaders in understanding the rapidly changing energy landscape and how they can formally engage with it". Regulatory structures at the moment don't favour the rapid decarbonisa-

Engaging with Ofgem and the DNOs is so challenging for local authorities tion of energy and heat and transport required, she says.

The important thing about local leaders is that "they have levers across all their vectors" in delivering local services, she says, so, even if they don't have control over transport, they still have control over plan-

ning – where and how you put car charging points in. On heat they have levers in the social housing and the private rented sector, and "you have planning regulatory powers to say you can't build houses unless they meet high energy standards".

Local authorities have become energy suppliers and many "are still attracted to following the lead of Bristol Energy and Robin Hood Energy in saying we can shift towards a cleaner energy offer through creating an energy company ... it means they can

You need to make sure that the regulatory environment is one where the finances stack up provide for the residents in a better way than the big players in the market," Billington says.

The attraction of the supplier space is, she says, "partly because engaging with Ofgem and the DNOs is so challenging for local authorities. There are significant

barriers to [authorities] doing

what is really necessary."

Her ideal approach would be comprehensive: generating power, facilitating storage, creating the environment for smart EV infrastructure, having high levels of energy efficient homes and generating electricity to be able to cross-subsidise retrofits. Supply can lead that and "some of the most interesting things that Nottingham is doing might be related to Robin Hood Energy but include community energy, retrofits on the Energisprong model and other funding that has supported solar panels and storage on social housing. So they are trying a whole lot of ways of transforming a city," she says.

Given recent failures, I ask about the view of the supply company as less problematic and Billington explains: "It's not so much that the regulations are easier, as the attractiveness of being able to badge it as your local energy supply. Being able to be seen to provide a good deal for your local residents often looks like a good way into the energy market."

But on energy generation: "They have very high ambition – but the regulatory systems don't work in many peoples' favour."

Nevertheless, Billington sees a need to invest and that extends to dense cities that cannot follow the most popular local authority option of solar farms: "It's being driven by austerity, let's be honest, they need to find other ways of generating income." But they are developing an 'enabler' role – Leeds has invested £17 million into a district heating scheme providing systems ahead of need. "That's hard, Ofgem doesn't like you doing it, but they said: 'If we are going to have system commercially the market will never provide, so we have to do it if we want to decarbonise our city."

Do cities have the understanding – and the freedom – to make such investments commonplace? Billington admires government's approach to heat. "There is a lot of work to be done on the financial side and that's why they [BEIS] have the Heat Network Development Unit. District heating won't happen without a certain amount of upfront development capital provided by government," she says.

More broadly: "You need to make sure that the regulatory environment is one where the finances stack up. That's why Ofgem and the shift from DNOs to DSOs are so important. They have to understand the local authorities as partners, not just customers, and that the flexibility market can be guite important."

Generally, electricity generation locally is difficult and that puts local authorities off, she says. First, "they are not instinctively entrepreneurial", and second, they are in a Catch 22: authorities borrow money at a low interest rate from the Public Works Loan Board (PWLB), but that body will not lend to "interesting" projects supported by the sustainability team – those with higher risk. "The finance team pushes the project back towards PWLB to save borrowing costs 'and you get a 'business as usual' development," says Billington.

To break out of that cycle, UK100 members "have to find other forms of development capital and reassure their finance team that this is worth taking a slight hit on the cost, or finding cheaper capital", she says

WHAT CAN BE DONE?

I ask if it is about building a pipeline of projects and >

Billington says that is where UK100 can help.

In a recent meeting, UK100 brought investors, developers and local authorities together so they could start to replicate projects and exchange notes on what works.

There are pathfinder projects: Swindon initially set up a solar farm and now it is doing solar with storage. "They are able

Ofgem should have more 'sandboxes' and not stuck at the demonstration level

The regulatory framework has

of road

probably run out

to do it because they set up a wholly-owned arms-length company, so they can effectively de-risk it for the private sector and sell it on," says Billington. Plymouth has a similar approach, whereas for some local authorities owning it would be an intrinsic part of what they do.

UK100 is "pretty agnostic on that. We aren't going to dictate an ownership model."

I ask whether there are standard models available 'off the shelf' yet. Billington says: "It's early days and that is one of the problems. Fundamentally it's often about standardisation of contracts. It's standardised paperwork and it's about having a developer who will roll up their sleeves and say: 'You need wayleaves here'.

"Local authorities are good at doing that in the normal way but everyone wants it de-risked. So how do you make sure someone is prepared to take the risk – and get paid for it properly, which is

really the role of development capital – or do you say that government should be prepared to do that?"

Local authorities "have lots of powers to do this stuff, but they didn't know how to exercise those powers and they don't have the internal capacity. Your planning department won't

have been thinking like this before, nor will your finance department or your legal department," Billington says.

Where the network is making progress is the ability to set a 'ground-up' agenda, she says, for example on housing standards. Working with organisations such as the Green Building Council, means several large councils can agree a floor level. That helps smaller towns that "won't have the muscle in front of a developer who is arguing that tougher standards put build costs up and it's not viable at lower land values". Standardisation works elsewhere, too. Land Securities, for example, joined with Oxford City Council and came up with a set of sustainability criteria for a shopping centre. "They have created a template that can be applied to their shopping centres elsewhere," Billington says.

GETTING INSIDE ENERGY

When it comes to energy provision, what can regulators do to help authorities that want to take local control? she believes Ofgem should have more 'sandboxes' (projects where temporary derogations are permitted) and they should "not be stuck at the demonstration level – get them bigger".

Devolving some energy regulations to local authorities has been suggested in the past, but raised concerns over lack of consistency. Billington's solution is simple: "What we'd like to have eventually is a 'drop down menu', so we can say we would like to go for this regulatory framework, because we think it will enable us to go for renewables and EV, and develop a smart grid infrastructure in our new-build. Or that framework, to do it with CHP district heat and combine it with energy from waste.

"Ultimately the problem is that Ofgem still is about keeping the price down for consumers now rather than for consumers in the future. We need to change the way Ofgem judges distributed energy. It requires Ofgem and the DNOS and the new DSOs to spend more time on understanding local authorities."

Billington notes that regional energy 'Hubs' – five are being set up – will be able to collect experience, but they cover very large areas. But "you really need a 'critical friend' to be able to guide you through", she says.

To make projects 'investor-ready', Billington proposes a 'crack team' in BEIS. The HNDU is her model, providing the contacts and expertise and linking up government support. "They have to go to BEIS and DFT and OLEV and DNOS – there is plenty of grant funding that you could potentially stack up into more than just funding feasibility studies. It starts to become interesting when you have a range of pots of money being put into a project," she says, because that 'stack' makes it clear to private investors that it has the backing of government.

Billington adds: "It's important that when you have that crack team they start gathering insights into what does and doesn't work and can effectively engage with Ofgem, government, National Grid and the DNOs about how to change the regulatory framework and speed it up."

Does Billington think change is needed at the regulator? She says: "Some people would like to have all those functions put under one regulator. There are arguments for that. What I do see is that the lack of regulation around heat is really problematic. My hunch is that the regulatory framework has probably run out of road in terms of being able to >

deliver, especially when you need to decentralise." But she adds: "Say what you like about Ofgem, if there is one sector that has been able to decarbonise ahead of others it's the one that Ofgem is in charge of."

WHAT'S THE DIRECTION?

Discussing the current shift away from a centralised system, Billington looks back at the decision made decades ago to invest in a national electricity grid: "Government said electricity is a public good, and we are going to make it available for everyone by a big national piece of infrastructure." That has affected thinking, she says. "We have been used to one thing that provides everything to everyone... It also means we are used to everything being the same everywhere. That standardisation, which we know is important for scale, is one of the great beauties of how we managed to industrialise."

The future will have less reliance on a single grid and that is "a massive deal", she says. Nor do we know yet how which smart systems will be transformative for Britain's energy, but we will only find it and get it to scale "once you de-risk it and try it in quirky ways in different areas".

Billington says: "We don't really have the regula-

I'm not convinced that the DNOs/ DSOs know what their business model will be tory framework to facilitate a 'thousand flowers blooming' at scale". Local authorities want freedom to act but they don't want to have to make the decision on whether to back a particular technology – they want government help on the right models.

In a decentralised system

that may mean different models in different places, but "it's very difficult for us to get into our heads that Stoke may not have the same future as Birmingham. What does that mean and what does it mean for equity? Is it still fair? Understanding that it's all going to be a bit different feels very weird.

"We are a deeply centralised country anyway – I totally support offshore wind, and it's a massive industrial opportunity and consistent with our national resources, but it also fits a system that is dumb, national and at-scale." How does that work alongside smart, local energy systems?

Billington admits that local authorities are a long way from this debate yet.

DECISIONS PLEASE

We speak very soon after the chancellor's spring statement, which included a key announcement on ending new gas domestic connections. How important is that decision? Not just that one, says Billington: "We need more decisions, more quickly, especially with no regrets stuff." The 'no regrets' are things like district heat on new-build. The things that drive those could be a package quite quickly. "The sensible thing for government to do would be a response to the CCC net zero report, which is going to come out in a couple of months' time. The government should accept that recommendation."

Are there other 'no regrets' options? Billington names super-rapid EV charge points, and for heat, high standards in new-build and retrofit programmes on the existing stock. She wants to use state programmes to leverage volume. "The great thing about social housing is that it creates a supply chain. Local authorities can de-risk [the industry]." That also means that when the 'able to pay' want to find providers, they are there.

NETWORK SUPPORT?

Surprisingly, given its interest in heat, UK100 has not had much contact with gas networks. But "we have been talking a lot to DNOs because there is lots to do there, and their shift to DSO means they have an imperative to engage with local authorities", Billington says.

I ask her view on that shift to DSO and she says: "I'm not convinced that the DNOs/DSOs know what their business model will be yet in the new environment, so they are trying lots of things out. It's a big philosophical shift for them. Flexibility services is one of the things they offer and local authorities are the kind of institutions that can help them with that, but local authorities are not used to thinking of themselves in that way. So understanding each other is a really important part of the way we reconfigure the energy system."

There are going to be a lot of different relationships between existing and future organisations, she says. Some will disappear "but local authorities are always going to be there. Whoever is the regulator, whoever owns the pipes and wires, whoever supplies the electricity, they are going to have to deal with local authorities who have to empty the bins, people out of poverty and keep the lights on," she says.

What's the next step for UK100? Billington says a key issue is connecting local authorities with businesses that can help solve their problems, and with financiers. The plan is to launch a sustainable finance All Party Parliamentary Group in order to link local leaders to policymakers and parliamentarians. But she thinks her 'crack team' and connecting it to the rising energy hubs "will send a very strong signal that government wants this to happen and that will reassure local leaders. We need to transform local [development] plans into 'net zero' plans by 2050. That's the way we should be living."