SPOTLIGHT ON POWER: THE INDUSTRY'S BIGGEST CHALLENGE ... AND OPPORTUNITY

BENEWS

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Hosted by:

AVISON YOUNG

INDUSTRY GUESTS:

Genna Boyle, chief commercial officer and head of EMEA, Gridcog

Dave Brend, energy director, SEGRO

Isabel Fuell, vice-president of operations strategy and expansion, Hived

Owen Power, chief executive, Greenvolt Next UK

Phil Roe, president, Logistics UK

Chris Wright, head of sustainability and decarbonisation, Avison Young

Professor Jacopo Torriti, professor of energy economics and policy, School of the Built Environment, University of Reading (keynote speaker)

Liz Hamson, editor-in-chief, *BE News* (chair)

Power is one of the biggest challenges facing the UK built environment industry. Outdated grid infrastructure, electrification, challenging net zero targets, soaring demand from power-hungry sectors like data centres and life sciences and the phasing out of fossil fuels are all stymying development.

The problem is not lack of power but lack of access to it, and a grossly inefficient system. So, how do we improve access and ensure power is getting to where it is needed? What can be done to boost the UK's power resilience? And how do we turn what is currently the industry's biggest challenge into its biggest opportunity?

These were just some of the questions asked during a Spotlight on Power event sponsored by SEGRO and Greenvolt Next UK, and hosted by Avison Young.

The event kicked off with a keynote speech delivered by Jacopo Torriti, professor of energy economics and policy at the University of Reading's School of the Built Environment.

In his speech, Torriti focused on the demand flexibility of electricity, which he said was about "shifting consumption away from peak times".

The benefits of having flexibility in a highly electrified, low-carbon future could equate to annual savings of several billion pounds by reducing the need to reinforce the network and avoiding the activation of costly generation at peak times, he explained.

He noted that flexibility was expected to grow up to fivefold, to 10-12 gigawatts at peak, by 2030. Key drivers of this in the built environment community include smart vehicle charging, shifting household consumption and responsive industrial demand, with flexibility solutions built from demand data.

Torriti also lobbied for a new form of building-level certificate, which he dubbed the Energy Flexibility Certificate, because "there's no systematic single way of measuring building level flexibility".

He added: "What we are after is the flexibility of many buildings. Distribution network operators want to know, with some advanced knowledge, how much flexibility they could tap on to for the next day, at that period of the day."

Professor Jacopo Torriti

> ***There's no systematic single way of measuring building level flexibility***
>
> *Professor Jacopo Torriti*

Torriti concluded that market demands would be critical to achieve the decarbonisation and reduce the cost of electrification, given the government's ambitious clean power targets by 2030, and that the built environment community "needs to be focused yet creative around energy efficiency and building performance".

Liz Hamson, *BE News* editor-in-chief, chaired the following panel discussion.

QUESTION: How effectively is the UK addressing the energy challenge and will it meet the government's 2030 clean power targets?

WRIGHT: More is now going on, with lots of strands, good pieces of work and good investment in terms of nuclear, as set out in the chancellor's November's Budget, and small modular reactors, with the NESO Grid Reform and the Clean Energy Action Plan 2030. But my concern is how they all compromise when they come together. As for 2030, it is a date we are going to go to miss – it will be closer to 2050.

FUELL: When speaking about 2030, 2050, dates like that, it petrifies me. If we cannot get it right in the next two to three years, we're not going to fix it in that time, but there has to be a solid, cohesive pull-together plan put in place that everyone feels confident in – otherwise it won't work.


Chris Wright

BREND: How do you get clarity and certainty to make investment decisions, given the volatility occurring almost daily in multiple energy policy changes, shifting time frames, and then even if you get clarity on your energy asset strategy, the long journey begins in the planning and consenting system?

ROE: Essentially, the plan is based on dates in the future rather than enough action now. While you can put out any dates, it doesn't really make any difference – it's the cohesiveness of the plan and of the action and the relationship between generation, availability and investment in technology that ultimately is going to determine the day.

POWER: I agree. We need more emphasis on action, because too long is spent talking about putting up obstacles. We haven't invested in our grid, meaning it is not able to deal with the demand our current lives expect, while renewables cannot fit into it as it stands, leaving a huge space that the grid needs to change quickly.

But an area of opportunity, and where we should be focusing more, is distributed generation, where you can generate your own electricity. This can be done by every company and every household.

BOYLE: I've got a slightly more optimistic take. Yes, there's a lot to do, but last year we had our biggest year yet in terms of changes made. NESO reformed the connections queue, we've got distributed flex, code modifications like P415, being a game-changer for batteries, and flex located behind the meter. We're also deploying more battery storage than ever in this country. But, yes, there's a long way to go.

QUESTION: What impact will the calls by the Tony Blair Institute to ditch clean energy for cheaper energy make?

WRIGHT: It's a change of mindset. We are obsessed with clean power and focused on it to the detriment of cheap power. While the institute's thinking is light on detail, it is aspirational on how it's working the idea, and I like the tagline 'Energy to Prosperity'. However, for the purpose of our debate, I'll call it 'Power is Prosperity', because if you can make it cheap, then you make it accessible, and then you can almost create that next industrial revolution we all want to see.

QUESTION: Are the public becoming numb on the whole idea of cleaner or renewable energy?

POWER: When people are bombarded by so much of it, you get punch-drunk. You don't feel it anymore, and we don't feel it here. We're not seeing the sharp end of climate change that they are in some countries. ⩥

QUESTION: With renewable energy, where should we be focusing our attention?

BREND: The UK has the world's best wind resources, meaning wind is a given and should be exploited. We have 130 megawatts of rooftop solar in our portfolio, so solar makes sense in a lot of cases. Ultimately, energy systems need a bit of everything [renewables], because they all work in slightly different ways at different points in time.

QUESTION: How do we improve the way we manage intermittency of renewable energy sources?

POWER: An area common in other parts of Europe is private wire legislation that allows people to share electricity when they are generating it, and share with their neighbours who don't have it. We do have a certain type of private wire here in Britain, but it is surrounded by regulation, constraints and controls. It's just not the way it's done here.

But private wire is a fantastic opportunity if we get the legislation to bring it in and get it to work. It makes absolute sense. Someone needs to stand up and declare: "We're going to break down all the roadblocks or all the reasons we're saying we can't do this and just do it."

BOYLE: Comparing the UK with other countries, Australia is an interesting market ➢

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> *Dave Brend*

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Genna Boyle


Isabel Fuell

with about 30% of homes having solar generation; Germany and Spain are beating us in terms of the share number of negative prices; and the Spanish, again, and Portuguese market for battery storage is growing stronger with the need for flex.

Ultimately, different markets can learn from each other. But the need for roadmaps is critical because people are just cracking on, building without a plan, because it's commercially professional.

FUELL: If everyone is cracking on with their separate plans, does that not mean we end up with a disparate approach? Would it not be more helpful if we were all on the same page and pulling in the same direction?

QUESTION: What is the one single change that would unlock some of these short-term solutions and enable us to get where we need to be by 2030?

BREND: Provide a different perspective, because what we need in the short term are more active network management and flexibility solutions, local solutions, as we can deploy those quickly without building lots of infrastructure.

I think the 2030 date is more of an issue when ED3 [Ofgem's electricity distribution price control framework] gets out of the blocks and then you've got to start all the other consent processes to get building - that doesn't give much time to 2030.

So, for that reason, I think the ambition is there but single deliverability probably isn't.

ROE: In transport, getting past the hydrogen versus battery storage electrification debate is critical if we are going to get the confidence we need. There are several trials running now that need to be finished, and I'd like to see NESO create the sector plans they've hinted at, because by 2030 we'll have a lot more vans, but not much else, which again will be significantly determined by tech. □