

‘We close our ears to science and society at our peril’

Steve Holliday FREng FEI, Former Chief Executive of National Grid, became EI President in July. Here, he speaks to *Energy World* and *Petroleum Review* about his vision for the Institute – and the role it can play in helping the industry to decarbonise and become more diverse.



EW: *Climate change – or the climate emergency – could hardly be more topical than it is now. What do you see as the appropriate role for the energy industry in response?*

SH: You're right, it's the zeitgeist isn't it, so it's a great question to kick off with.

When I spoke at the annual dinner of the Aberdeen, Highlands and Islands branch in May I talked about public expectations. I warned that we now live and operate in a permanent era of super scrutiny – driven largely by the internet. And that how we as an industry respond on two existential challenges will determine whether we survive and prosper.

Climate change is the first of those challenges. The science is beyond dispute. The technologies are plummeting in cost. The targets are being recalibrated to

net zero. And the public pressure – whether that's in the form of Greta Thunberg, David Attenborough or Extinction Rebellion – is pervasive.

Given all of that, I believe the energy industry needs to 'own' this challenge, and be in control of its destiny. And, by extension, I want the Energy Institute to be at the head, not the tail, of change.

Of course that's a bit more straightforward for companies already working in the newer, clean energy technologies – and the EI's growing footprint in offshore and onshore wind, energy management and storage is a response to their growing importance.

But, alongside all of that, my view is that we won't be able to manage the transition without the oil and gas industries playing a huge role too. That might sound counterintuitive. But they've got

the capital, the intellectual and engineering capabilities to solve so many of these problems. In fact, the more the sector is isolated as enemy number one, the less they'll get involved.

Moreover, there are a billion people on this planet who don't enjoy proper access to energy, and billions yet to come over the coming decades, and they're going to want some energy too.

The oil and gas majors have got to be in the middle of this transition. We've got to help them step up to the plate and do more. Tackling fugitive methane and investing in carbon capture and storage are the obvious starting points, but there are big opportunities beyond that too. And I think the EI is uniquely placed to act as a critical friend and to bring together the expertise needed for these extraordinarily complex challenges.

EW: *The Energy Institute has always worked to provide skills and promote good practice. Given the expertise of its membership, how important is it also to point the way forward in terms of policy?*

SH: I look at the EI's role on two levels. First our duties and responsibilities towards our members, partners and customers. This is our bread and butter and it's vital.

But there's also our charitable purpose, and role in relation to society as a whole. And you're right to point to policy – and the wider public debate – as an area for greater involvement.

We're not a trade body of course – we don't represent the industry or lobby ministers for one project or technology over another. But the debate about energy and climate change is often so polarised in large parts of the media, even sometimes in parliament and in government. I think the EI is really well placed to play an educative, moderating, convening role – highlighting the trade-offs, interconnections and risks at play across the diverse energy system.

Much of our knowledge work already does this, aggregating the expertise within our professional membership and articulating it in a credible and independent

way. This hits home to me that everything about the EI comes back to its members and partners – in particular those who volunteer their time, energy and expertise to give something back.

There's a symbiotic relationship. While we provide the benefits, services and professional recognition, it's our members and their expertise which in turn makes us what we are.

Our ability to speak with credibility on the big issues of the day depends on our claim to be of – and for – experts in energy: people who know what they're talking about. I'm proud that we're thinking beyond our often-siloed day jobs, to bring our shared expertise together for the public good.

EW: *How important is the move to establish the EI as an international organisation?*

SH: I think the Council's strategy on this over the past few years has been savvy. The energy system is global, it always has been in many senses, but even more so now. The companies, the technologies and the challenges we're facing aren't confined neatly to national borders.

And likewise the professional needs of the workforce – which makes our broad offering of knowledge, skills and good practice incredibly relevant elsewhere in the world.

I don't think we'll succeed everywhere. And I don't think at all this means diluting our footprint in the UK. Quite the opposite – our historic and continuing grounding in the UK is a source of tremendous credibility when we talk to potential new partners and members in other geographies such as Asia, the Middle East and Africa.

There's no arrogance in acknowledging the UK has largely 'gone there first' – starting way back with the industrial revolution but more recently with reforms to the electricity market in response to carbon targets. So our insight into what works and what doesn't is something that people want to hear about and learn from.

EW: *You have a background in energy transmission and distribution – how vital are energy networks to decarbonisation? And energy use management?*

SH: People are often surprised that, having spent a decade heading up National Grid – the motorways of the UK's power system – these days I'm more often talking about the country lanes at the edges. But

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President

it's really where the interesting story is now.

The UK's conventional, centralised power stations and the main transmission system are still incredibly important pieces of national critical infrastructure. Indeed they're the envy of the world. But there's no escaping the centrifugal trend. I often point out three things:

First, growth in wind and solar has pushed renewable generation from single digits to a third of the UK's electricity mix last year.

Second, we've seen an extraordinary proliferation of generation facilities – from 80 or so power stations to more than 900,000 today.

And third, this has pushed generation deep into the distribution networks, making more than 10% of the electricity we use invisible to the main transmission grid.

This puts the spotlight firmly at the edge of the grid, on the DNOs and on businesses and homes who are morphing from passive 'end users' to dynamic players in the market.

This can all feel dizzying – in fact I've called it a 'chaotic revolution' – but I think it's a positive. And watch this space – with falling technology costs, there's a lot more to come.

EW: *Almost 50% of the main UK energy companies have no women on their boards. Why does this matter?*

SH: Workforce diversity is the second of the two existential challenges I mentioned earlier. While there are terrific areas of good practice, energy as a whole performs badly on gender diversity.

I'm on record as saying the pace of change on this is 'glacial' and I see no real evidence it's changing – wherever you look, survey after survey. The persistently low numbers of girls and young women studying STEM subjects at school and university is one factor, but so too is the dearth of women at the top in our industry.

I'm proud of the EI hosting the secretariat for the POWERful Women initiative, which does great work improving transparency and highlighting what 'good' looks like in terms of recruitment and employee policies and practices.

I'm also proud the EI's board is so diverse both in terms of gender and ethnicity – and I'm thrilled to have Juliet Davenport and Aleida Rios alongside me to add their expertise and perspectives to the table.

It's not only right and expected that our industry transforms the

makeup of its workforce, it's also essential for the mammoth task I talked about earlier.

Without all the talents we can throw at it, net-zero will prove elusive for this country and any other that pursues it.

Not just women, but different ethnicities, genders, abilities. We need all of the brains.

Just as in climate change, the pressure of public opinion on this issue is growing at breakneck speed – it's now impossible and probably dangerous for any corporate to ignore. Public expectation is fickle, and is looking for action on this.

My message to our industry is that we close our ears to science and society at our peril. A diverse, modern energy mix requires a diverse, modern workforce.

EW: *Younger members of society – and of the EI – seem to be more radical in their response to climate change today. What advice would you give to someone considering a career in the energy industry?*

SH: I've been in this industry for the best part of four decades – first in oil and gas, then at National Grid. And I'm even more certain now that I made the right choice of career.

I can understand why a lot of young people might gravitate towards the lower carbon parts of our industry – where they can be part of ushering in amazing new technologies in an era of great change.

But, to echo what I said earlier, companies more commonly associated with oil and gas should be given a second look. Not only are they doing incredible work to meet the world's growing demand for energy today, but they may yet become tomorrow's disruptors. And young engineers that anticipate this could find themselves in a really exciting place.

And I tell you something else – I wish the EI's Young Professional Networks had been around when I started out! I was at the London group's 'connect' event in March – a sort of speed networking where those starting out get to talk to seasoned hands like me.

I certainly gained insight into the next generation's interests and motivations. This intergenerational value is a terrific aspect of what the EI does. ●