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**How are you
contributing to
the UK's carbon
reduction targets?**





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s a society we are increasingly environmentally conscious and aware of the need for positive change around emissions. And as a nation we have a national end date to achieve net zero emissions by 2050. It is a legally binding long-term goal, set out in 2019 by the UK Climate Change Act and introduced following advice from the Climate Change Committee (CCC).

Since then, even in this short space of time, the UK has made huge strides - particularly within the public sector.

Many local authorities have introduced their own, more ambitious targets to meet net zero carbon and emissions goals. New green projects are regularly being commissioned, using both new and existing technologies. From our survey, covering 107 public sector employees across the country, the vast majority of respondents (85%) felt their organisations were on track to contribute to meeting the 2050 goals.

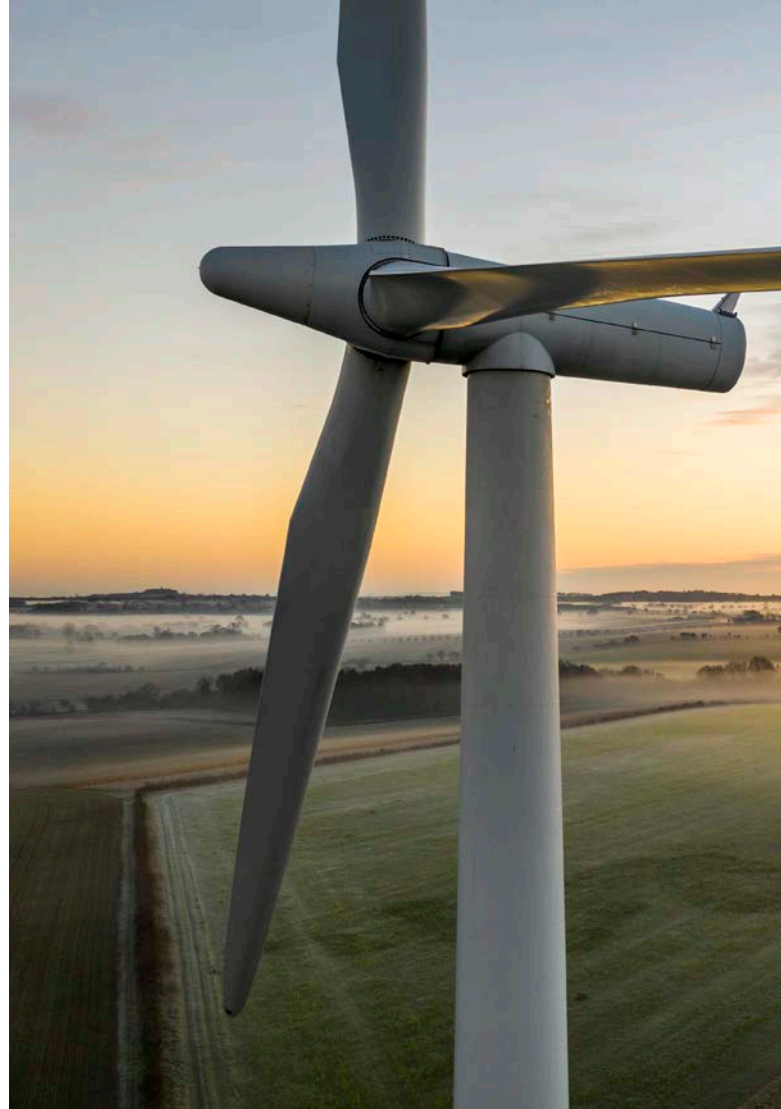


Just recently, the CCC released its Sixth Carbon Budget recommendations which have been adopted in full by Government. The new carbon budget, which covers the period of 2033-2037, aims to, “set the UK firmly on the path to reaching net zero emissions in less than 30 years” and will see the UK reduce its greenhouse gas emissions by almost 80% by 2035, compared with 1990 levels.

CCC’s Chief Executive, Chris Stark, said at the time of the carbon budgets announcement: “This is an important and historic decision. In committing to cut emissions by almost 80% by 2035, the UK has taken its place at the forefront of global efforts to reach net zero – crucial in the fight against climate change.

“By implementing our recommendations in full, the Government’s decision rests on the most comprehensive ever assessment of the path to a fully decarbonised economy.

“Now we have set this goal in law, Government, business and people up and down the country can throw their full weight behind the actions needed to get us there. It means that every choice we make from now must be the right one for our climate”.



When it comes to key public sector decision making, climate considerations are relatively new concepts for us to adapt to, but they have been embraced by most with open arms. Even where our survey respondents felt they were ill-equipped to handle the bigger picture challenges of climate change, there was an understanding that small, localised changes could be introduced and can help to make a difference. Coupled with an increasingly green-minded public, there has been a cultural shift around prioritising policies and investment which protects our environment, reduces emissions and improves people’s lives.

Speaking with Claire Harrold, City Energy Transformation Lead at E.ON, she explains: “If we think back to just a few years ago, none of us were using terms such as ‘the climate emergency’ or ‘net zero strategy’ and now there are entire businesses being created – and global organisations rapidly transforming themselves – around the net zero agenda.

“In a really short period of time, the narrative has changed and is enabling public sector organisations to build practical plans. That’s a very positive and necessary thing.



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“At E.ON, we’ve been forming long term partnerships and working hard with cities and public sector organisations across Europe, and here in the UK, in some cases for many decades. We’re increasingly having conversations with them about setting more ambitious targets, bringing their target dates forward to 2030, even 2028 in a few cases.

“It’s very ambitious but we welcome that ambition because what that does is facilitate and motivate change, and create the urgency behind it.

“Whether those targets are 2028, 2030 or 2040 - they’re an aspiration, a clear statement of intent and a catalyst for change”.

By providing that spark and urgency, positive change can begin to occur immediately. With many of the most impactful climate change efforts requiring investment and infrastructure change, they can take time to be implemented. As such, we can’t afford to run the risk of treating the 2050 target as a far-off date and being hesitant in our actions.

For our public sector particularly, as some of the largest and most wide-reaching organisations within many local areas, they have the reach, influence and opportunity to introduce these hugely impactful infrastructure changes, at pace and scale, with the right planning. These projects need time to be completed and to demonstrate the desired effects, which means they must be up and running far sooner than 2050; hence the tighter, more ambitious targets introduced by many local authorities.



Some have gone beyond merely outlining a specific date/target for their own net zero emissions goals. Many councils have declared a ‘climate emergency’ as a public statement of intent. Our survey showed that almost two-thirds (64%) of their organisations had made a declaration like this.

Claire explains: “It’s a statement of intent and the groundswell we’ve seen over the past couple of years has been really important.

“This has been driven by citizen demand, and that’s the really exciting thing about the declaration of a climate emergency, because for the first time citizens, on a very grand scale, are demanding action on climate change and it’s becoming a vote winner.

“The challenge now is how we take those declarations forward; if that’s step one, how do we follow it up with firm actions?”

“This is a marathon effort and we don’t have to achieve everything immediately or even in the next 10-15 years. But we do have to start now, and a declaration is a very public statement of that.”





For those local authorities which have not made such a declaration (36%), it doesn't necessarily mean that work isn't being done.

Claire points to work that E.ON has been doing with Coventry, a city which has not publicly declared a climate emergency but is one of the more progressive cities in terms of the net zero targets it has set for the region, and the action that it's taking: "In terms of communicating this, particularly in those areas where local authorities haven't necessarily made a public declaration, it's important we have both a bottom-up and top-down approach. Top-down, strategic direction from the most senior executives and political leaders in an organisation, and bottom-up, gaining the support and buy-in from the communities most likely to benefit."

Marrying up those two approaches to the problem is the key to making sure that the transformation is meaningful and implemented. As Claire explains, getting senior leadership buy-in is vital to ensuring

the programme has the necessary backing and attention to succeed; otherwise, it very quickly risks the programme becoming "flimsy and marginalised": "What needs to happen is for the commitment to be led from the top and embraced by each and every department. Whether that is housing, transport, technology, energy, health and wellbeing, it needs to be explicitly included in their remit and objectives, with genuine collaboration between those departments to make it happen."

One of the best ways to build that buy-in is through tangible, early successes. Virtually every net zero or decarbonisation report or strategy published by public sector bodies, is championed by large-scale, significant investment projects which will deliver the most positive gains towards these ambitious targets. However, often these are also the projects which take the most resource, time and investment to realise.

So how do we build the senior-level backing to commit to this kind of investment and the support from the community to ensure inclusive, long-term success?



85%

OF RESPONDENTS FELT THEIR ORGANISATION WAS ON TRACK TO CONTRIBUTE TO MEETING THE 2050 GOALS

80%

THE UK WILL AIM TO REDUCE GREENHOUSE GAS EMISSIONS BY 2035, COMPARED TO 1990 LEVELS

64%

OF RESPONDENTS HAD MADE A CLIMATE EMERGENCY DECLARATION

COMMON ROUTES TO NET ZERO CARBON SUCCESS:

64%

TRANSPORT DECARBONISATION

61%

ENERGY EFFICIENCY RETROFIT

26%

SMART LOCAL ENERGY SYSTEMS

One of the most effective ways, in Claire's experience, is to prioritise some of those quicker, smaller successes in the near term to build up a foundation of evidence to encourage greater engagement in these green plans.

"In terms of the stages of the journey, it's important to have some quick wins so the programme becomes visible early on. Getting buy-in and positive feedback from the community upfront is key too," she says.

"There are a number of areas that cities and public sector organisations can focus on. Communities tend to know the benefits of energy efficiency, and are used to seeing solar PV on roofs or EV charging points by the roadside. All of these things are very important, but there are other areas on which the public sector needs to focus, where we need to see a step change. These are becoming increasingly important for E.ON too.

"One of those is around the capture and reuse of waste heat. Our cities are already generating a very large amount of heat to warm the homes and buildings within it; so, the challenge is how we create the infrastructure and ecosystem that allows organisations to capture that heat and share it within and between buildings. Fifth generation technology does just this. E.ON's ectogrid™ uses thermal energy flows generated in modern cities, for example, by an air-conditioning system, to provide both heating and cooling for homes and businesses. By connecting buildings with different needs and using data analytics to balance the demands and energy flows between them, energy is effectively distributed and used to decrease both pollution and the energy consumption in a city.

"That is something that we're looking at very closely in terms of the net zero agenda, but also in the creation of smart local energy systems in which we combine heat, chill, low carbon power generation and EV charging into one interconnected system.

"These are gaining more traction, even in the most built-up areas of a city and there's no reason that a smart local energy system couldn't be built in every town and city across the UK."

"A live case study is in London where E.ON is one of the consortium partners on the GreenSCIES project. An Innovate UK-funded project, GreenSCIES - Green Smart Community Integrated Energy Systems - will deliver a detailed design for low carbon technology in



the Islington area. The project aims to integrate EV charging, low carbon generation and low carbon heat pumps to capture waste heat generated from sources, such as the London Underground and data centres, and shares it with other buildings in the local area that need it. This energy system both minimises wasted energy and reduces the amount generated in the first instance.

“With a smart local energy system like this pathfinder project in Islington, there is a really great opportunity to capture and act on the learnings, to roll out similar projects elsewhere and influence the policy landscape”.

The only way wider replication will happen though, is by building greater awareness of these types of schemes. When surveyed, our public sector respondents identified some of the more common areas they were already working on to achieve net zero carbon success: energy efficiency retrofit (61%); transport decarbonisation (64%); but only a quarter identified smart local energy systems as a solution they were currently investigating (26%). Much of that, Claire believes, is down to awareness amongst public sector decision makers.

“There’s a massive issue around awareness for some of these more innovative approaches which cities can look to implement.

“These innovative approaches exist now. We know how to do them. It’s just about bringing that awareness to the local authority, in terms of the art of the possible, and bringing the community on that same journey, early on.”

To expand that local authority knowledge, one potential solution is to introduce some of the expertise from the private sector through long term partnerships and joint ventures. It is an area that E.ON has pioneered across Europe, and which opens up new opportunities to local authorities and public sector bodies, helping them accelerate progress towards green objectives; objectives which, due to their nature, span the public-private divide. For Claire, it’s an area worth serious consideration: “The whole knowledge transfer debate is a really important part of this.

“There are a number of barriers that local authorities come up against when it comes to making net zero happen, and I think that was highlighted in the survey in a number of areas, such as expertise, funding availability, the resources available and delivery capability.



“One of the cities that we always recognise as being one of the leaders, whether it’s on decarbonisation or in the environmental movement more generally, is Bristol.

“It’s taking a leadership position on this, with its City Leap programme, through which it is looking to procure a long-term joint venture partner to help deliver its net zero aspirations.

“If we take cities like Bristol, Coventry and London and get some really good pathfinder projects underway, then there is an opportunity for the UK to take centre stage and make a real difference.”

In the year that the UK hosts the United Nations Climate Change Conference (COP26) in Glasgow in November 2021, there will be more eyes than ever on the UK and its net zero actions. That gives even greater momentum to many of these innovative schemes, as well as the likelihood of supportive legislative policies.

If we are going to make real progress towards achieving our net zero ambitions, we must seize the momentum that has built up over the past couple of years and act now to make this once-in-a-lifetime opportunity happen.

