



My Role in Tackling Climate Change

The professionals in energy management, sustainability and environmental roles play a key part in organisations' plans to deliver on energy efficiency and Net Zero targets. By performing their everyday roles, investing in professional development and exchanging of ideas and experiences with others, they are contributing to tackling the risks of climate change on organisational as well as national level. With all the varied roles and tasks, we are keen to showcase our members' skills and day-to-day tasks. In this issue, we have asked Edward Barlow about his role as Head of Climate Change & Environment at Buckinghamshire Council.



What attracted you into the industry?

Firstly, that it is important work. During my career it has been great to see climate change and the environment more broadly go from somewhat niche topics to a mainstream issue all organisations are now responding to. The last 2 to 3 years in particular have seen a massive change in the importance they carry – it's felt like an overnight change but it's been 20+ years in the making.

Secondly, is that it's really interesting! There are rarely simple answers to many of the challenges I face, and I

enjoy trying to find a good outcome from a difficult situation. Sometimes that will mean compromising, but I'm strong believer in not letting excellent being the enemy of the good.

How have you started and progressed through the industry?

My first significant role was at the Institute of Environmental Management & Assessment (IEMA) which was a really great opportunity. It exposed me to a real mix of environmental issues but importantly the work always had a pragmatic and pro-business viewpoint.

I joined what was then Buckinghamshire County Council in 2014 in an energy management role and progressed over the following years to become Energy Manager.

I gained experience in developing and delivering energy efficiency and renewable energy projects, as well as managing the day-to-day energy management functions and the procurement of supply contracts.

I also undertook some part time internal secondments, most

interesting of which was managing the council's interactions with HS2 which passes through Buckinghamshire.

We went through a process of merging with other councils in our area and from March 2020 became a Unitary authority – Buckinghamshire Council (i.e., a single council providing all local services). My role continued to focus on energy but more explicitly picked up our response to climate change as well.

In late 2021, I secured an internal promotion and now manage the Climate Change & Environment Service. This includes the energy and climate team but covers a really broad mix of natural and built environment teams – 11 different disciplines in total.

What does your current role entail?

I lead the council's work on reducing emissions and hitting our 2050 net zero target which applies to both the council's operations but also the whole of Buckinghamshire.

For our own emissions, this essentially

includes work to reduce our emissions as far as possible (renewables, energy efficiency and fuel switching as the core) as well as our tree planting programme which will see over 500k trees planted over a 10-year period. One tree for every Buckinghamshire resident.

As a Unitary authority the climate remit extends into so many areas which help support how we address climate change. For example:

- How we address climate change in the planning process;
- What does our local transport planning work need to consider;
- How do we use our procurement processes to achieve reductions;
- What does a changing climate mean for public health and social care provision?

Climate change affects everything we all do, so leading this work in an organisation with such a wide remit is a great position to be in.

In your opinion, what role do you play in tackling climate change?

I'm biased, but I feel my role is central – around 30-40% of local emissions can be influenced by the functions of local government – transport and planning are good examples of where we have a bigger influence than our direct emissions suggest (we are less than 1% of emissions locally). So, leading on climate change in local government is a critical role for reaching net zero.

What makes this challenging is that its largely non-statutory. While councils have responsibilities in statue for example to collect waste, or provide social care, we are not required to reduce our own emissions or those of the area we serve. So, I work by influencing and encouraging action, and by tackling the challenges others face to make action easier. What I

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What are the main challenges in delivering Net Zero targets at your organisation?

Getting to net zero is a huge challenge for any organisation, particularly if your plan is not to just offset everything. I think I share many similar challenges to other professionals. Some of these I think are less problematic – for example, I know that moving the vehicle fleet to electric won't be easy. But the technology is rapidly falling in price and the lifecycle cost (even for larger vehicles) are just going to make electric the easy financial choice in the not too distant future.

Decarbonising heat is probably the hardest at the moment – and that is both for our estate but also for all the homes and workplaces across Buckinghamshire. While the technologies exist and are mature, the financial case is generally not there – big upfront costs, long paybacks if any, and buildings which often need a lot of disruptive works to install doesn't make these simple to take forward.

We also need to deal with a lot of uncertainty – the long-term impact of Covid on working patterns means we are not clear yet what the estate

needs to look like. So, if a proposal comes forward with a 15-year payback, it is very difficult to justify that if we do not know what the future of that building is in the next 5 years.

In your opinion, what is the order of importance for the three key aspects of tackling climate change – finance, skills, technologies?

Tricky one – I would go skills, technology then finance.

Finance is clearly essential, but my experience is that when a proposal stacks up financially, the money is there. Skills are top as we need to select the right measures, in the right circumstance and at the right time. If you start off this part wrong, it doesn't matter how good the technology is or how much money you have, it won't be a good outcome.

I am also increasingly aware of the skills gap the UK faces in getting to net zero – in particular, the number of heat pumps systems which need designing and installing and for which the supply chain is just not there yet. It's a good example of where the technology itself is mature, but applying it at scale requires many more people to be skilled in its deployment.

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What is your biggest achievement to date that has contributed to tackling climate change?

I'll cheat and give two! I was really proud to lead on the installation of 10 solar PV systems in months ahead of the FiT being reduced back in 2015. With a fixed deadline and with the whole industry responding, it was a real push to get the systems live and registered in time. Those systems have had a direct impact on our emissions and so this is a really tangible achievement.

Though a document in nature, getting our Climate Change & Air Quality Strategy adopted last October was also a big moment.

Developed in the new Unitary authority and working across such a big organisation to agree a plan on how we address climate change in so many different aspects wasn't easy and there was a lot of back and forth to get it agreed. We also spent a lot of time working the numbers to ensure our funding was aligned with the targets and we were able to show with confidence that this was achievable. Now just the simple task of delivering it!

Thinking about your role and skills, how well equipped do you feel in your ability to tackle or contribute to tackling the climate change and deliver on Net Zero targets?

I feel quite well equipped for my role – I know the challenges we face well and can put these in a useful context for others. I bring people with me on the changes we need and, by and large, keep people motivated to make these changes.

I also know what I don't know – for

example, I know I wouldn't be the right person to design a heat pump system, but I do know that it's important that a skilled person does!

Thinking about current Government policies and incentives in delivering on the UK's climate change promises and Net Zero target where would you like to see more developments and guidance?

I think increased focus should be put on domestic emissions – energy generation has massively decarbonised, and transport has a long way to go but the technology exists and is increasingly being deployed on a commercial basis.



Domestic emissions are in a different place – the technologies exist and are well established, but the paybacks are too long and the scale of insulation and fuel switching needed is enormous. There are around 27 million homes which will need retrofitting to meet net zero and we are not yet seeing the increases in delivery we need to. With recent gas price rises and the war in Ukraine, I think improving domestic energy efficiency is vital.

As big as the challenge is, I remind myself that it's only really been since the 1950s and 1960s that gas central heating has been widespread. Before

this, most homes still had a fireplace and we saw a huge deployment of new technology over a relatively short period which gave us the heating systems most of us have today. So yes, it's a huge challenge to decarbonise this, but it's certainly not impossible.

What particular knowledge and skills do you see vital in reaching the national and organisational climate change targets?

At this scale I see us needing to tackle this in two broad areas.

There are the 'everyone needs' skills – just like health and safety was 40-50 years ago and GDPR was more

recently, climate change needs considering in everyone's roles. This doesn't mean everyone needs to be an expert, but ground up identification of opportunities is really important and that means everyone knowing enough to think about climate change in their roles.

The second is the specialist side where we need people leading this agenda in each organisation. What the

exact mix is will depend

on the sector, but people who can manage emissions, lead projects to install renewable energy or energy efficiency measures, select and design the right technical solutions for a project and make sure they deliver the improvements they set out to.

What are your thoughts on greenwashing and how should it be tackled?

Greenwashing is a major concern – there is now so much marketing value to be gained by appearing to offer a lower impact/eco product that the pressure to put a green tint on

a product is massive. But often the reality is that the difference isn't that straight forward, and the 'green' option could well be more environmentally damaging.

The two common examples I see are reusable shopping bags and metal drinks bottles. Both are driven by a desire to reduce resource consumption and waste – but how many plastic bottles do you need to avoid using before the energy which went into producing a metal bottle is recovered? More than it will get used for in many cases.

Likewise, reusable bags – I'm sure I'm not alone in having an ever-expanding collection of bags for life, jute bags and alike. I also use more bin bags as I don't use old carrier bags as bin bags anymore. As with the bottles, I think few of us use these bags enough times for this to reduce the overall environmental impact.

I feel I should acknowledge that some of this is driven by the 'David Attenborough' effect of seeing the damage which plastic waste causes to the environment and the oceans in particular. Like anyone who sees those images, I too am moved by the pictures of the damage done to the environment. And undoubtedly

the streets have fewer carrier bags being blown around in the wind now. But plastic waste in the ocean is a symptom of either inadequate or absent waste management systems in a country and I worry that greenwashing risks our response to one environmental problem making other problems worse.

So yes, we should absolutely reduce plastic use – but if the alternative is using metal for bottles and cotton for bags, which require much more energy and resources to produce, have we actually helped the planet?

What are your thoughts on offsetting?

I think it has its place, but at the bottom of the energy or carbon hierarchy of options. We are yet to purchase any offsets and any funds we would have to spend on it, I would prefer to invest in emissions reductions we can have complete confidence in and where we can reduce our energy costs.

I do draw a distinction though between carbon offsetting and carbon sequestration. With offsets you are (typically) trading in an 'avoided increase' in emissions – be that a forest which was not cut down, or emissions

from coal which was not burnt as wind turbine was built instead. So, you are only reducing the amount of carbon going into the atmosphere.

With carbon sequestration as you get with woodland carbon units, you are trading in a removal of carbon from the atmosphere and being stored away. This is essentially a negative emission and so where properly quantified and assurances of delivery are in place, this should be placed higher up the hierarchy in my view.

Where do you see your future within the sustainability sector?

I have no idea! I have not planned out my career so far but have taken the opportunities which I've come across and I think I'll continue to approach it this way. With climate change, the environment and sustainability having become such critical topics for all sectors, it's an area that there will be more opportunities for many years to come. So not knowing doesn't worry me.

I do really like local government though, as I get to work on so many different aspects of climate change and I don't think I could get that range elsewhere. So, if I had to guess, I'd say I'll be somewhere in that area.

