

Responsible business

Newsletter – Energy and sustainability edition 2023

Responsible business | *Empowering sustainable growth*



Contents

02 Foreword

03 Keeping up with changes

05 Decarbonising heat

08 Building a sustainable legacy

Foreword

Being a responsible business, following ESG principles, means focusing on a broad range of criteria. It can be challenging just keeping on top of changing legislation and regulation, particularly around sustainability and decarbonisation.

Striving to be a better business is good for society and is also about future-proofing and adaptation for changes ahead. It is about harnessing the power of new technology, adopting new approaches, and looking beyond what has to be done to what can be done.

Responsible business is an investment, but it's also an opportunity.

In the Summer edition of the Trowers & Hamlins Responsible business newsletter, we look at sustainability regulations and the growing use of heat networks and spotlight the major regeneration project Barking Riverside.

Decarbonisation is an evolving landscape of changing requirements. In a Q&A, our Energy & Sustainability team talk about what is coming down the line, what businesses tend to overlook and which technological advances are the most exciting.

The use of heat networks as a low-carbon means of keeping homes and businesses warm, particularly across large regeneration projects, is increasing. Whether connecting a development to an existing network or setting one up, there are a number of regulatory changes to consider.

Technology is opening up access to different sources of low-carbon heat, and Barking Riverside in East London is a case in point.

Matthew Carpen, Managing Director of what is a 443-acre brownfield regeneration, shares his approach to building infrastructure and a community from scratch and how ideas and solutions have evolved.

We hope you enjoy this edition of our Responsible business newsletter, and do get in touch if you would like any further information.



Keeping up with the changes:

The evolving landscape of decarbonisation and sustainability



What has changed in the energy and sustainability sector, and what do you need to look out for? Trowers & Hamlins' Energy & Sustainability team sit down to talk about how the market is evolving, what to watch for, and why the changing landscape makes for exciting opportunities and work.

How has the response to energy and sustainability changed in the last five years?

Chris Paul, Partner: Sustainability now has a clear voice at board level, it's being considered in investment plans, and the risks are part of business decisions in a way they never were before.

Megan Coulton, Senior Associate: Energy has also become more critical to decision-making: How you procure energy, use it and reduce consumption. Rising energy costs in the last year have accelerated this step change.

CP: The rising cost of energy for business means the payback period for investment in measures like insulation, on-site generation and battery storage has really come down. And things that were nice to have are now actually business-critical.

What do businesses tend to overlook?

Rubianka Winspear, Senior Associate: The Government is offering a variety of grants and financial incentives, such as the Green Heat Network Fund and the Industrial Energy Transformation Fund, to help fund the net zero transition. These tend to be short-term opportunities, and businesses need to be ready to respond to competitions.

CP: Climate change risk doesn't get the same attention as energy costs and net zero, but it will have a big impact on business. It's not just about flooding, droughts and heatwaves in the UK either – businesses need to consider climate change risks across their entire supply chains.

MC: Everyone talks about setting targets, but compliance is just one part; it's a huge opportunity for businesses that can navigate the transition and change.

What are the key changes in legislation/regulations to look out for?

CP: Regulations around heat networks are coming into force next year, and heat will become a regulated utility like gas, electricity and water. Heat suppliers will need to be licensed. It's a real shake-up of the heat market, and we await clarity on the legislation to fully consider the implications for both new schemes and existing developments.

MC: There will also be heat network zoning where developments are obliged to connect to the local heat network, which local authorities will likely lead. We are waiting on secondary legislation, but it brings in a European-style model where you have true district-wide heat networks.

RW: The Government recently issued a call for evidence on exemptions to the requirement to hold an electricity licence. The current class exemptions are difficult for clients to interpret, and don't support more innovative models for generation and supply. With the growth of financed retrofit, it is likely that we'll see more developments in the regulatory landscape. So, there could be potential changes there.

What drew you to working in the energy and sustainability sector?

Diana Lupa, Associate: It's a sector that drives change; you are dealing with the future, so it is a really exciting practice area to be in.

Emad Mehra, Associate: Managing the transition to net zero will take years, and it's great to be able to help clients on both strategy and delivery.

Hannah Giebus, Associate: It's a sector that is evolving with new legislation and technologies, and it's exciting to be part of that landscape.

RW: Clients come to us with new models and ideas, and it's a chance to be involved in something that hasn't been done before.

CP: My degree was in geography, so I've always been interested in the 'E' of ESG, and it's a chance to bring that together with the delivery of developments and infrastructure.

MC: It's an opportunity to deliver on a huge scale, and no project is the same.

What advance in sustainability technology is the most exciting?

DL: Green hydrogen has the potential to have a significant role in the way we transform our energy system, but there are practical challenges. It is one to look out for.

HG: Decarbonising heat networks is an increasing part of our practice. For example, we recently advised a developer connecting to Islington council's Bunhill Heat and Power Network, which uses waste heat from the underground network to provide low-carbon heat to the local area. Technology is advancing to help create a circular economy.

EM: Solar isn't a new technology, but with the recent energy price spikes the demand is high. With improvements in battery storage, it's becoming an option that will have a wide application.

CP: The combination of solar and batteries at an individual, domestic level but also on a commercial level is a game changer. At the moment, people can store energy, but that excess supply can't be coordinated and used by others. The digitalisation of energy will help create virtual power stations and that helps open up new revenue streams to fund the transition. The future's bright!



A photograph showing a series of parallel grey metal pipes with red circular caps, arranged in a perspective view that recedes into the distance. The lighting is dramatic, highlighting the textures of the metal and the vibrant red of the caps.

Decarbonising heat: The role of heat networks

Heat networks are not a recent phenomenon – the first one in the UK opened in Pimlico in the 1950s, and they have increasingly become a feature of new developments. But they now form a significant element of the UK Government's strategy to decarbonise heating particularly for high-density urban areas. The Climate Change Committee estimates that around 18% of UK heat could come from heat networks by 2050.

Heat networks have their own specific challenges, and lack the regulatory framework given to regulated utilities. This places greater emphasis on contractual protections, and connections to existing networks need careful due diligence. Plus, the regulatory landscape is changing. Current and proposed changes to legislation and building regulations to drive the transition to net zero will affect heat networks, both existing and new.

Legacy heat networks, some of which have been in operation for decades, will need a decarbonisation strategy as the market shifts away from gas. The changes to building regulations also make it difficult for new developments to connect to existing heat networks unless they are decarbonised.

The first step for developers is to get comfortable with treating heat like other regulated utilities. "If the heat generation plant isn't located on your site, you are reliant on the contractual arrangements to ensure heat keeps flowing. And that can be a difficult step for some," says Chris Paul, Partner.

Most developers are familiar with concession arrangements, where an energy services company (ESCO) is appointed on an exclusive basis to adopt the energy plant and provide heat. These were traditionally 25 year contracts, but the financial models supporting low carbon heating are driving longer concessions. Some ESCO models are also aligning with the regulated sector, with a push towards standardised contracts, supply terms and transfer of ownership.

Currently, ESCOs don't have any obligation to decarbonise, but that will likely change to meet the Government's net zero carbon targets. Pressure will also come from customers and developers.

The draft Energy Bill includes provisions for the creation and regulation of designated heat network zones. This includes powers to designate heat network zones and require buildings to be connected. There are some areas where connection to heat networks are already a planning requirement. Monkerton, on the outskirts of Exeter, has a low-carbon heat network run by E.ON, brokered by Devon County Council, East Devon District Council and Exeter City Council.

*“If you buy a plot of land within that development area, you have to connect to the heat network”
says Megan Coulton, Senior Associate.*

The area around the Olympic Park in Stratford East London is similar. Heat zoning is a key step to allow the investment to create low-carbon heat networks. It is a critical step in the transition of the heat market beyond individual developments.

Although the Energy Bill proposes a regulatory framework for heat networks, there is currently no legislative framework that governs the supply of heat.

Customers get some protection through the Heat Network (Metering and Billing) Regulations 2014 and the voluntary Heat Trust Scheme. However, customers do not currently benefit from the consumer protection available for regulated utilities such as gas, electricity and water.

So, it is important to negotiate controls in the contracts, and do due diligence on the ESCO entity.

“You need to be asking questions such as: How will the tariff structure impact plot sales, what are the terms of supply, and how are customers protected?” says Coulton.

And what happens if the heat isn't supplied? “Is there sufficient resilience in the system, and have you allowed space for temporary plant? Does the ESCO have a business continuity plan with clear response times, and is it a contractual document? It's part of risk management and minimising the risk of customers not getting heat,” says Paul.

“There is a new licensing regime coming, and if you are supplying heat, whether as an ESCO or a landlord, you will have to satisfy OFGEM to become a licenced supplier,” says Paul.

Exactly what OFGEM will require is still to be detailed. Based on the draft Energy Bill, it is likely that the regulations will include provision for fair prices and transparent information for consumers, a high quality of service and minimum technical standards and carbon limits.

“Setting up the minimum standards, as outlined by the Heat Trust, ahead of changes to legislation, is certainly an important first step,” says Coulton.

Regulatory changes will also impact tariff structures. Currently, no one ESCO prices in the same way. There will generally be a fixed charge and a variable charge, but what is included in each differs and impacts the bill.

“There will be a requirement to disclose the detail of the tariffs and how that has been calculated so people can understand what they are paying for. That's particularly important where the standing charge might include a capital contribution,” says Paul

For existing heat networks, it is particularly important to consider how contracts will deal with a change in law. Communicating to customers what is being done is also crucial.

“It needs to be explained properly, particularly if they are going to see an increase in tariffs so there are no surprises,” says Rubianka Winspear, Senior Associate.

Technological advances are creating more opportunities for low-carbon heat networks, and systems are getting increasingly complex. Schemes will require more electrical capacity to deal with heat pumps, and groundwater and river based systems require careful advice on licencing and associated operating risks. Still, whether setting one up or connecting to an existing network, it's important to keep an eye on regulatory and legislative changes and allow sufficient time for appropriate due diligence.





Barking Riverside: Building a sustainable legacy



Matthew Carpen

Managing Director of Barking Riverside

Barking Riverside, a former power station site in East London, was a blank page when it was earmarked for regeneration, and that presented both a challenge and an opportunity.

On the one hand, you are creating a community from scratch; there is no existing footfall or neighbourhood to plug into. But on the other, you are developing infrastructure from scratch, which offers the potential to implement sustainable frameworks with long-lasting benefits.

Matthew Carpen, Managing Director of Barking Riverside, says reducing carbon was a key driver across the 443-acre brownfield site on the Thames:

“This is a long-term proposition, so it was always an opportunity to do something innovative.”

And that is what Barking Riverside Limited (a joint venture between the Greater London Authority and L&Q) are doing.

Outline planning for 10,800 homes was granted in 2007. The density of development was driven by then Mayor of London Ken Livingston because of housing need, but it was also important for viability given the level of site remediation and infrastructure required.

The only way to deliver that level of housing was to improve the site’s connectivity with new transport links. Carpen joined the project in 2013: “When I started my performance review had one goal on it which was: ‘Deliver a railway’. And I thought: Where do you even start?”

But start he did, and, having managed to secure £56m of Government funding, the extension of the London Overground line from the Barking terminus finally opened last summer. This was a landmark moment, providing the critical transport infrastructure to allow further development at the site.

The neighbourhood currently has 2,500 homes, but those numbers still make placemaking and community building a challenge.

“You can’t just put in a café because there aren’t enough people to buy coffee and sandwiches. Amenities have to be pump-primed for the residents who are the pioneers of the site,” says Carpen.

And it’s a similar problem for essential amenities like healthcare. For the NHS to provide any form of health provision, it requires a minimum of 10,000 people.

As more homes are delivered, the job of placemaking will get easier but keeping up the momentum can be tricky, particularly when the economic conditions are challenging as they are currently.

It requires a pivot to focus on tenures which are more easily developed. Currently, that is affordable homes and build-to-rent (BTR). The latter is in high demand not only from residents but also investors keen to fund development.

A combination of planning requirements and sustainability aspirations for the site has focused attention on low-carbon heating and environmentally conscious waste management.

Various options for providing an affordable, green heat source for homes on the site have been reviewed, including water source heat pumps taking heat from the River Thames. The current strategy is to use waste heat from an adjacent energy from waste plant.

“The Trowers Energy & Sustainability team have been helping us with the commercial and legal side of a deal with our neighbours to deliver heat, which we’ll pump around the entire site through a heat network,” says Carpen.

“Heating is complicated and emotive, as you’ll know if you’ve ever had to have a cold shower,” says Carpen.

“It’s important to not only deliver a good, reliable service but be very good at customer relations.”

That job falls to L&Q Energy, the Energy Service Company (ESCO) that was appointed under a 40 year concession in 2019.

Describing the heat network as a continual learning process, he adds: “The source of energy may well change in the future as technology advances, but if you focus on the network you are installing, then that is the legacy.”

The heat network is not the only area of innovation Barking Riverside is looking at to reduce environmental impact. An Envac vacuum waste collection system has been installed to ensure that waste collection operates sustainably and efficiently. Waste and recycling are deposited at dedicated waste inlets close to buildings and then sucked through underground pipes to a central collection station. The aim is to remove bin stores, increase recycling and minimise waste vehicle movements around the site.

The cost of running the Envac system forms part of the estate service charge. There were initial concerns about whether it would be used and used correctly, but already 46% of the waste is being recycled. This is against an average household recycling rate of 12% for similar housing schemes.

“It’s an investment to install the Envac system, and it could be viewed as a luxury, but when you see recycling far above the London average, it is worthwhile. It’s something we want to develop across the site,” he says.

Whether delivering a transport link, heat network or waste system, the key is having a common goal.

Carpen says for every five supporters of an idea, there will be 100 blockers:

“These are all deals which require the leadership team to have a common goal, and that can be hard. You also need to build a team that are aligned with that goal – and good lawyers that become part of the client team are critical to successful delivery”.

While Barking Riverside has already reached some important milestones, there are another 10-12 years of development to go. If the density is increased, which is possible as plots are optimised through detailed design, then the development timetable will likely stretch beyond that.

The next steps on the journey, says Carpen, are growing the amenity offer, bringing on new house-building partners and rolling out the employment and commercial strategy.





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