




# My Role in Sustainability and Energy Management

The drive behind organisations' energy management continues to evolve. The latest rise of the climate change topic has seen a new shift towards corporate responsibility, stakeholders' engagement and Government's policies. These tools will be used by those who have the skills to lead the delivery towards the set goals. The roles of those in energy management may differ but the common goal remains.

The EMA defines energy management by 10 core competencies which are required for individuals to effectively manage organisational energy cost, consumption and its monitoring and reporting, as well as energy efficiency requirements. Energy Management can sometimes be viewed as more technical than other similar disciplines. However, is that really the case? We have asked two sustainability professionals to compare their role to our 10 energy management competencies and here is what they told us.

**Philip Spiby, Sustainability Advisor at UK Power Networks**



**What does your role at UK Power Networks entail?**

UK Power Networks operate the electricity distribution network in London, the South East and the East of England and are responsible for the cables and substations that take the electricity from the National Grid to the homes and businesses of around a quarter of the UK's population. I am responsible for measuring our business carbon footprint and advising on how

it can be reduced. I was also responsible for launching our Green Action Plan at the start of 2019 which set short term targets for all of our environmental touchpoints with a view to reducing these.

As a regulated industry which operates under agreed price control periods, I have been helping with our Environmental Action Plan which will cover the period 2023-28. My role largely focuses inwards on the carbon we generate as a company. Colleagues in the innovation, smart grid and connections team focus outwards as DNOs have a huge role to play in facilitating society's journey to Net Zero through the roll out of the electric vehicle charging infrastructure, electric heat and facilitating the connection of more and more renewables to the electricity network.

**Are you involved in regulatory & legal compliance and carbon management?**



It is a regulatory requirement of our licence to distribute electricity that we measure and report our business carbon footprint to Ofgem, and I am responsible for this. In terms of legal compliance, I facilitate our ESOS audits, the reporting under SECR and worked with the facilities management team on the CRC reporting. We have reduced our

carbon footprint by 25.5% since 2014/15 (the end of our previous price control period). We have also contributed to the fact that the carbon intensity of a kWh of electricity in the UK has reduced by nearly 50% in less than 10 years, reducing everyone's carbon footprint. Around 60% of our current carbon footprint is tied up in diesel however, used in the



vehicles and generators required to maintain, upgrade and fix the 188,000 kms of cables and 130,000 substations which provide electricity to the 18 million people that live in the 29,250 square kilometres we cover. That is our big internal carbon challenge in the next decade.

**Are you involved in energy management strategy and/or plan?**



Over the years I have worked closely with the Facilities Management team on reducing the energy we use in our office and depot estate. One of our short term commitments in the Green Action Plan is to reduce the energy used in our Top 6 buildings (which use 60% of the

energy across our office and depot estate) by 10% by the end of 2021 compared to 2018 levels. Covid will have had an impact here as those staff who can have been working from home for long periods. All UK Power Networks employees are classed as key workers as maintaining the electricity supply is fundamental. No one has been furloughed within the organisation

and offices have been open with Covid-safe measures for those that need them throughout. Going forward, ambitious carbon reduction is at the heart of our Environmental Action Plan for the next funding period for our industry, which requires a major contribution from all aspects of the

organisation.

**Are you involved in energy procurement?**



This is managed by the Facilities Management and the Procurement teams with my role being more advisory. I am pleased to say that we have purchased a 100% renewable energy tariff since the start of 2018 for all our offices, depots and substations.

**Are you involved in waste management?**



Again, this is largely managed by the Facilities Management team with the Sustainability and Environment team working closely alongside. We

had targets of a 70% diversion from landfill for office and depot waste and to recycle 98% of street works waste for this price control period, which we have been able to meet. For the Green Action Plan, we upped this to 90% diversion from landfill and also designated six of our main operational depots as exemplar sites where the aim is to achieve 80% recycling (excluding energy from waste). The next aim is to achieve zero waste to landfill and the Sustainability team is drawing together an application for the Carbon Trust waste standard.



#### Are you involved in managing transport?



In an advisory capacity only, rather than managing. We have a dedicated Fleet Management team as we have in excess of 3000 vehicles. We work closely with the Fleet Manager and Logistics teams as reducing vehicle carbon is essential to meeting our ambitious carbon reduction goals over the next decade and a key element of our Environmental Action Plan. In the short term, Covid will have a negative impact on our Scope 1 transport carbon. While we used to send two engineers to a job in one van, we hired extra vehicles to enable our employees to travel to

jobs in isolation. Our Green Action Plan targets for fleet and generators were longer term than most others aiming to reduce NOx emissions by 30% by 2030 to help combat pollution - particularly important in London.

#### Are you involved in water management?



Again, working alongside the Facilities management team. We have not historically managed water to the same extent that we have managed energy but set a Green Action Plan target of a 15% reduction in our Top 6 offices. We asked our ESOS assessor, while auditing our offices to make water reduction recommendations at the same time. The Sustainability team are pulling together an application to the Carbon Trust Water Standard.

#### Are you involved in behavioural change and motivation?



We provide the content for regular internal and external comms articles on sustainability issues, including

a monthly Environment Moment which goes to all staff focusing on an appropriate topic for that month - be it energy saving, water saving, recycling, more efficient driving or biodiversity issues such as nesting birds. Pre-Covid, we ran for several years a Talking Rubbish campaign

where we visited different offices to encourage recycling and identify any barriers to recycling at that site. We had intended a big save water campaign in the offices last year but this was parked for the moment as there was concern that it provided mixed messaging with a more important

health and safety message of wash your hands frequently!

#### Are you involved in IT?



This is managed separately by the IT department. It has a major role to play in carbon reduction across the organisation. For example, they have rolled out Toughpads to all field staff which enables them to receive detailed network cable plans on the go rather than have to go to an office and depot between jobs to pick these up.

#### Are you involved in technical and operational activities?



In an advisory capacity. UK Power Networks is one massive technical and operational organisation



maintaining an electricity network covering nearly 30,000 square kilometres. Reducing the carbon emitted by this operation is fundamental to my job and our future plans.

### Are you involved in energy assessments, measurements and verification?



I work closely with the Facilities Management team, analysing half hourly data and meter readings to try to get a better understanding of opportunities for energy reduction. I also organise the four yearly ESOS assessments, the recommendations of which are pulled into our long-term plans. Meter readings and verification is undertaken by an external agency contracted by Facilities Management.

### Has your organisation set a Net Zero target?



But we have a key role to play in helping enable the UK's journey to net zero, by making sure people can use new and emerging low carbon technologies such as Electric Vehicles, and we recognise that as a company we can also improve. We worked closely with the Carbon Trust to determine exactly what is required to achieve a 1.5 degree Science Based Target for the emissions within our control and a well below 2 degree target which includes other elements such as network losses and supply chain. Putting in place the specific plans required to achieve this is a major element of our Environmental Action Plan for the next price control period. A challenging Net Zero target is likely to follow. However, we wanted to take the

approach to first determine what is necessary to play our part in keeping global warming to below 1.5 degrees, put the plans in place to achieve that and then develop a challenging Net Zero target - rather than take a pick a date with your finger in the air approach.

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### What are your biggest achievements in your role?

- Launching the Green Action Plan in 2019 which sets short term (end of 2021) targets for all our environmental touch points, carbon, energy, waste, water, biodiversity, pollution and noise. This has had a real impact focusing the minds of different areas of the business on their impact in these areas and puts us in a good place while currently developing long-term plans covering these areas taking us to 2028.
- In 2019, we became the first electricity DNO in the UK to be accredited with the Carbon Trust Carbon Standard.
- Developed plans for Science Based Targets which we hope to shortly get accredited by the SBTi.

### What are your thoughts on the link between sustainability and energy management?

Energy Management is key to many areas of sustainability and the closer sustainability teams work with Facilities Managers and Energy Managers the better. Sustainability teams also have to ensure they work closely with the Fleet Managers, IT, operational teams and everyone else

in the organisation as you can't have a siloed approach to sustainability. It is the role of sustainability to bring all the different parts of the organisation to work together to common environmental goals. Things like carbon targets can be set by the sustainability team but they are actually delivered by technological changes put in place by the managers of the specialist areas and the behaviour of everyone in the organisation.

### Author's Profile:

Concerns over climate change meant Phil made the move from journalism and in-house PR to Sustainability. To educate himself in this field he gained a 1st in BSc (Hons) Environmental Science from the Open University. Phil worked as Senior Executive on EEDA's £2.5 million Cut Your Carbon campaign and then as Communities' Manager for the Energy Saving Trust, East of England, before moving to UK Power Networks in 2011.

**Matteo Deidda,  
Sustainability Manager  
(Energy and Carbon),  
Property Design at Lloyds  
Banking Group**




**What does your role at Lloyds Banking Group entail?**

As a Sustainability Manager working in the Property function, my core objective is to drive a reduction in operational carbon emissions and improve energy efficiency and effectiveness across the group estate. To do so, I lead several workstreams including project investment, technology innovation, optimisation of the existing portfolio and colleague engagement.


As often happens when working for large organisations, I spend a good chunk of my time engaging with our supply chain and colleagues across the group such as Finance, Sourcing, Operations, Retail and FM, in order to build support for the sustainability programme and identify new opportunities for action.

**Are you involved in regulatory & legal compliance and carbon management?**

 Although this is not a primary accountability of my role, the responsibility for ensuring environmental compliance sits within my broader team. So, it is important for me to have a sound knowledge and

understanding of the compliance and legal landscape, as most of the initiatives that I work on will have some level of interdependence with external reporting requirements.

**Are you involved in energy management strategy?**

 This is an essential part of my role from different aspects including innovation, implementation and ongoing operation.


From an innovation perspective, I am interested to test new and improved technologies and how they perform in our estate. Once I am clear that the solution has delivered the expected benefits, I can then present the findings back to key stakeholders so that we can bid for internal investment and move to implementation.

Part of the energy and carbon benefits come from the optimisation of existing assets that will not necessarily require replacement any time soon, in this case I work closely with our O&M suppliers to coordinate the desktop and onsite activity.

Finally, colleague engagement at every level, is essential not just to deliver direct reduction in energy usage and carbon emissions, but also to support access to funding, buy-in for bigger projects and identify opportunities for improvement.

All these activities are always underpinned by a broader, longer term strategy and business case that guides myself and the rest of the team in what investment and actions must be prioritised to meet the group sustainability ambitions.

**Are you involved in energy procurement?**


 I think there is real value for organisations in having a close working relationship between the energy procurement and the sustainability teams.

There are many overlaps between the two functions, and I get involved at different levels. For example, I take an active role when discussing PPA requirements, because of the importance in the longer-term carbon management strategy. From an operational level, I attend the regular monthly risk and procurement strategy updates.

**Are you involved in waste management?**

 I don't have direct accountability of waste management and one of my colleagues in the team is the subject matter expert in this area. Although I don't have much of an active role, I find this area extremely interesting and I spend time listening carefully to the regular team updates and ensure we have regular 1-2-1s to understand more about what it is happening and the longer term strategy.

**Are you involved in managing transport?**

 Similarly to waste management, my involvement is limited to specific projects and activities. I am close enough to understand the numbers, the strategy and be aware of the key initiatives ongoing, although the delivery accountabilities remain with other colleagues.

### Are you involved in water management?



This is also one of the key accountabilities of my role, from an investment

and infrastructure perspective. Although water usage in the group is relatively small in comparison to energy consumption and carbon emissions, it remains an area of focus with a direct link to our group sustainability commitments.

### Are you involved in behavioural change and motivation?



As a team we have a strong focus on engagement and

communication with colleagues across the group. We share our strategy, planning and progress with regular and focused updates.

I am also currently working on a pilot study to engage branch colleagues on the broader sustainability subject. Colleague engagement is complex but can deliver huge benefits for the organisation but requires planning and hard work. Colleagues, especially those with customer-facing roles, are extremely busy, and therefore any message and training material needs to be well-thought to ensure it is clear, engaging and straight to the point.

### Are you involved in IT?



I am involved in specific areas around energy optimisation and

monitoring at our data centres, and I have regular catch ups with key stakeholders. However, in my experience, data centres onsite management and operational teams are very skilled, with a deep technical knowledge about the assets that they manage and

therefore the involvement from a central function, such as mine tends to be limited and mainly as a support of the great work already happening on site.

### Are you involved in technical and operational activities?



For me this goes hand in hand with the energy management strategy,

so I am involved in all sorts of technical and operational activities, from expanding and fine tuning key sites BMS, to making sure the engineering standards for new and existing assets are aligned with the sustainability strategy, as well as evaluating new technologies to test, and optimise the existing assets. Although I rely very much on the expertise of our supply chain

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and engineering colleagues, I think is important to be hands on when it comes to technical matters and not being afraid to ask what may seem like the obvious questions.

### Are you involved in energy assessments, measurements and verification?



I find that having a robust measurement and verification in place

is often the neglected part of a sustainability project development, so those who work with me know that this is likely to be one of the first questions that I would ask about any project. In my current role, I have worked with some

internal and external stakeholders to develop an M&V standard, so it becomes an integral part of the project development. It is still work in progress, but we are certainly getting better at it.

### What are your biggest achievements in your role?

I started my journey at Lloyds Banking Group just before the pandemic forced the country into lockdown, so it has been a tough year balancing work and childcare. I actually have never met in person most of the people that I work with. This makes me even prouder of the quantity and quality of the initiatives that we have collectively delivered over the last twelve months. One thing that I am particularly proud of is

the work that we did to maintain momentum on innovation, standard implementation and compelling business cases, despite all the challenges. We have developed a working group across internal stakeholders and our supply chain that is open, accountable and where decisions are challenged in a constructive environment.

### What are your thoughts on the link between sustainability and energy management?

I think the link between the two will certainly be different for different people, depending on which type of organisation they work for, the scale, the structure, etc. My





## 01 Technical and operational competencies

- Do you know where energy is generally consumed in different types of buildings within your remit?
- Do you know what type of major energy using equipment and systems are used in your business?
- Do you understand how energy consumption plays a role in the design, installation and commissioning of equipment, systems and buildings?
- Do you understand how good control systems and effective maintenance can be used to make equipment and systems efficient?

## 02 Energy assessments (finding energy savings opportunities), measurements and verification

- Do you understand basic metering types and the data they collect?
- Do you know how to carry out basic checks on bills and other recorded data to verify accuracy and repeatability?
- Do you know how to set targets in line with published guidelines?
- Are you able to explain reports against targets to a range of stakeholders?
- Are you able to compare energy assessment methods?

## 03 Behavioural change and motivation

- Are you able to identify changes required to improve energy performance?
- Are you able to develop structures and strategies for change to

# Energy Management Competencies - How much of an energy manager are you?



improve energy performance?

- Are you able to monitor and report on progress towards defined goals?

## 04 Regulatory & legal compliance and carbon management

- Do you understand key EU directives and UK legislation relevant to energy and climate change?
- Do you understand economic incentives that may encourage energy generation or efficiency?
- Are you able to anticipate broad changes that might affect long-term organisational plans?
- Do you know how to assess

simple carbon footprints?

- Are you able to factor the cost of carbon into business cases?

## 05 Energy management strategy/plan

- Do you understand global energy trends and their impact on business operations?
- Are you able to determine suitable objectives and targets for improvement?
- Do you know how to develop a basic action plan around energy, carbon and water?
- Do you understand how success can be measured and verified?



## 06 Waste management

- Do you understand the key challenges in dealing with waste streams?
- Do you understand financial advantages and opportunities of an organisation's waste stream?
- Do you understand the possible use of waste as a renewable resource via recycling?
- Do you know how to undertake a basic waste audit?

## 07 Procurement

- Do you understand what may drive energy prices in the UK?
- Are you able to carry out simple procurement actions?

- Do you have a basic understanding of electricity tariffs to allow best use of time of day charges?

## 08 Transport

- Do you understand the overall use of transport within an organisation?
- Do you understand what impact transport has on the organisation and potential ways to reduce its impact?

## 09 Water management

- Do you know how to undertake a basic water audit of a workplace, identify water using fixtures and fittings and suggest water efficient replacements?

- Are you able to identify water efficiency within processes?
- Do you understand the links between water and energy in a workplace?
- Are you able to develop behaviour change programmes and communications for water efficiency?

## 10 Information technology

- Do you understand where energy and water are used by ICT in a workplace?
- Are you able to estimate the carbon footprint of an organisation's ICT infrastructure including offsite services?

## What Next?

If you have answered 'yes' to most of the above questions, then you may be eligible for the EMA

Recognised Energy Manager status. Get in touch with the EMA to arrange the EMA Gap Analysis Interview and start the New Year with taking a step forward in your professional development.

If you have identified competencies where you may need up-skilling, then check out the courses the EMA offers in these areas. If you are unsure which areas to focus on, then also consider the EMA Gap Analysis Interview.

The EMA introduced the Knowledge and Skills Gap Analysis Interview to assess a professional's knowledge and skillset at any point in their career through an informal conversation based on a professional's experience achieved to date.

The interviewees receive a verbal and written feedback on how to develop their professional career further and, if necessary, are given advice and guidance on which areas of energy management to focus on in order to up-skill.

**For more information or to arrange the EMA Gap Analysis Interview, please email [jana.skodlova@theema.org.uk](mailto:jana.skodlova@theema.org.uk).**

