



My Role in Sustainability and Energy Management

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 it really? We have asked two sustainability professionals to compare their role to our 10 energy management competencies and here is what they told us.

Mimi Cedrone,
Sustainability Manager at
University of East London



What does your role at the University of East London entail?

As the Sustainability Manager for the University of East London, my main job is to act as sustainability

champion, leading the University's drive to improve its environmental performance across all its activities and driving cultural and behavioural change throughout the organisation. In general, this involves developing and implementing policies and management systems and co-ordinating environmental sustainability activities across all three of our campuses.

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



I am responsible for creating and keeping an up-to-date Environmental

Aspects Register and working with internal legal teams to ensure compliance on all environmental regulatory matters. In addition to being involved in the development of a Carbon Management Plan for the University, I track carbon emissions and make an annual report to the University's Executive Board, along with other required reporting like the Higher Education Statistics Agency.

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



As the Sustainability Manager, I am one of the key players in energy

management strategy for the University. A very important part of my role is keeping track of the University's electricity and natural gas consumption. Because I have access to this data, it is up to me to highlight any consumption-related issues as I notice them, as well as provide an overall picture of energy consumption across all campus buildings. In this way, I can help the Estates & Facilities Team target certain buildings for energy efficiency projects, as well as make broader recommendations for our Net Zero Emissions Plan.

Are you involved in energy procurement?



We are on the CCS Framework, so are not currently doing any energy procurement.

Are you involved in waste management?



Though waste management does not fall under my direct duties, I work closely with my colleagues in the Estates & Facilities Team who manage waste and recycling for the University. Recently, I have been helping to create some new messaging aimed at residential students to help them better understand what can and cannot be disposed of in different waste and recycling bins.

Are you involved in managing transport?



We have a very small fleet of maintenance vehicles at the University, the management of which falls under the Maintenance Team, and two externally contracted inter-campus shuttle buses which fall

under the management of one of the campus Facility Managers. There hasn't been much opportunity for me to be involved in the management of transport so far due to the small size of the fleet, but I have spoken with the Maintenance Team in the past about the possibility of electric vehicles in the future should anything need to be replaced.

Are you involved in water management?



I lead on all aspects of water management for the University, including supplier procurement, invoicing, consumption tracking and working with the Maintenance Team and contractors to identify and repair issues. Recently, I have initiated and overseen an upgrade to AMR for all our water meters on campus, along with online consumption tracking and installation of water-saving fixtures. Over the lockdown period, I have also worked with our water retailer and the University's Maintenance Team to confirm that a meter believed to have been a retail meter was actually a sub-meter, and we had been incorrectly charged for its water consumption since the building was constructed. We would not have had the ability to notice this without the more granular consumption tracking from the AMR and have received a refund of £100,000 for past incorrect charges.

Are you involved in behavioural change and motivation?



Behavioural change and motivation is a key function of the Sustainability Team, which has obviously looked a bit different over the past year! Recently, I have

been trying to keep in touch with staff and students through the University's email newsletters and news section of the University's website, linking past and current sustainability initiatives to things like World Water Day to encourage people to keep sustainability in mind, even though most are not on campus at the moment. In the past, the Sustainability Team has run initiatives like Green Impact where University staff and students are encouraged to form teams and earn points through different sustainability-related activities such as attending or holding an environmental event on campus, attending a planting session in the community garden or using office materials that would usually be disposed of to create art. This all culminates in a big awards ceremony where everyone's achievements are celebrated!

Are you involved in IT?



I have not had much opportunity to be involved with IT, apart from providing them with energy consumption data on their server rooms.

Are you involved in technical and operational activities?



While I am not involved in the actual installation and operation of technology and equipment on campus, I am involved in ensuring that our technical and operational activities are being carried out properly, are working correctly and that we have all the information and knowledge we need to make the most of the technology, particularly anything sustainability-related such as our solar PV systems, biomass boiler

and building management system. We are currently in the planning stage to upgrade our outdated BMS and I am leading on the project to ensure that the University gets a system that works for the specific needs of our campus and our BMS users.

Are you involved in energy assessments, measurements and verification?



Has the University set a Net Zero target?



The University of East London has set a Net Zero target as part of its 10-year transformation strategy, Vision 2028. An interdisciplinary team has been formed to oversee this huge undertaking, with members from Sustainability, Maintenance, Projects, University Research, the Vice-Chancellors Office and external project delivery partners.

Though we are still in the early stages, we have already seen some success in the development of more detailed project stages, as well as the different ideas and perspectives that come from having a diverse and engaged team.

What are your biggest achievements in your role?



I have had many wonderful experiences and worked on lots of great projects in all of my past roles, but the things that stand out to me as true achievements are when I hear from former student interns who reach out when they get full-time jobs in sustainability, or when

someone I have gone to in the past in order to try and incorporate sustainability into their department comes to me with an idea or to let me know about something they have already done on their own.

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

In the world of university sustainability, the line between sustainability and energy management is often blurred or non-existent, and it is certainly the case for my job! I would not be surprised to see more and more people like myself moving into the workforce in the future—those with backgrounds in both the more technical aspects of energy management as well as sustainability behaviour change and engagement.

The simple fact is that the two things are inextricably linked. You cannot manage energy without educating and influencing the behaviour of people, from those who use the buildings to those who operate and maintain the buildings. And you cannot drive sustainable change or effectively communicate on sustainability concepts and goals without active energy management.

The ability to navigate both worlds and speak both languages definitely makes it easier to relate to a wider range of people who have the ability to positively contribute to the sustainability goals of an organisation, and to get them excited about how they can become sustainability champions within their own role.

“YOU CANNOT MANAGE ENERGY WITHOUT EDUCATING AND INFLUENCING THE BEHAVIOUR OF PEOPLE, FROM THOSE WHO USE THE BUILDINGS TO THOSE WHO OPERATE AND MAINTAIN THE BUILDINGS. AND YOU CANNOT DRIVE SUSTAINABLE CHANGE OR EFFECTIVELY COMMUNICATE ON SUSTAINABILITY CONCEPTS AND GOALS WITHOUT ACTIVE ENERGY MANAGEMENT.”

Author's Profile:

Mimi is the Sustainability Manager at the University of East London. She is a Certified Energy Auditor and has led both technical projects and engagement with staff and students on sustainability initiatives. She is currently doing her Masters in Interdisciplinary Design for the Built Environment at the University of Cambridge.

Rebecca Smart, Energy Projects Support Officer at University of the Arts London



What does your role at the University of the Arts entail?

I am the Energy Projects Support Officer for the University of the Arts London and I work in a team of two, alongside my manager Ian Lane

(Associate Director, Sustainable Operations, Estates Department). In my role, I lead on the ISO certifications for Estates – 50001 (Energy Management) and 14001 (Environmental Management). My primary focus is effective energy management (monitoring, targeting and reporting) across six colleges and three halls of residence – 16 buildings in total which operate according to varying complexities of HVAC systems.

The annual energy spend is £4M and I coordinate the procurement of all utilities using a flexible procurement strategy. As part of my role, I ensure legal compliance in these areas and I also forecast and report against the utility budget. Working in a large department that is home to disciplines that range from facilities management to major project development means I have the opportunity to work on a range of projects. For example, I have helped secure a Power Purchase Agreement for the University, and I am a

member of the review team for the fit-out of our new £250 million build in Elephant and Castle, London.

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



As part of my role leading on our ISO management systems, I ensure that the University is meeting necessary environmental legal compliance, report any major incidents and communicate any risks and opportunities. I conduct site visits twice per year to all of our sites to ensure the University is not only meeting the standards it sets for itself through ISO, but all legal compliance. This includes ensuring waste transfer notes, consignment notes for hazardous waste and F-gas certificates are available and correct. I also ensure Display Energy Certificates (DECs) are on display and I lead on the renewal of the DECs each year. With the new Streamlined Energy and Carbon

Reporting legislation coming into force, I put together the necessary data and statement to comply with this legislation for the first time last year. The EMA was very helpful for this task as I attended a useful presentation at EMEX in November 2019 which explained the necessary requirements.

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



I am a key stakeholder regarding the University's Energy Policy. The policy commits the university to reduce energy consumption and to reduce carbon emissions by 43% by July 2020, which was achieved. There is a focus on monitoring and targeting our energy consumption, which is particularly important as we aim to ensure any savings made are not lost and we can maximise savings from work such as adjusting BMS schedules. Part of our policy commits the University to refurbish



and design sustainably – for example, the new construction of the London College of Fashion will be rated as BREEAM Outstanding. The new energy strategy which will outline how the University can achieve carbon positive status by 2030 is in draft.

Are you involved in energy procurement?



In 2019, I worked on a project to sign the University up to a Power Purchase Agreement (PPA) so that a portion of our electricity came directly from a wind farm. This was a really interesting project to work on as, at first, it was all new to me and for this project I presented to senior management on what a PPA is, the benefits and potential risks. I was also part of the tender process to find a suitable provider. The University joined with 20 other universities as part of the deal to buy a portion of its electricity directly from wind farms and this was a first for higher education and public sector organisations.

In terms of regular energy procurement, the University procures electricity and gas through a Consortium who act on behalf of the University and who I have a close relationship with. I have been involved in the tender process for the Consortium when it was selecting new electricity and gas suppliers, by reading and scoring nine different bids on the customer service side. This was a really good experience to understand further the tender process for utilities and to help the University and other members of the Consortium to select the best possible suppliers. Each quarter, Risk Management Meetings

are held with the Consortium which are an opportunity for me and the University to assess the procurement strategy and examine any changes to strategy or utility prices. Ahead of the meeting, I will scrutinise data provided by the Consortium and raise any queries.

Are you involved in waste management?



Waste management is the biggest part of our ISO 14001 certification (alongside energy, which is managed through ISO 50001). I have learnt a lot from setting up this system and I have helped to pass on key knowledge to our Facility Managers – we have held training sessions and I carry out regular site visits. These site visits fall into our ISO 14001 system and I will look to see if WEEE and other hazardous waste is being stored correctly, general and skip waste is not contaminated and that waste transfer notes and consignment notes are available and signed correctly.

As a result of this we have had zero non-conformities in our ISO 14001 system. I have also visited a waste transfer station which was an eye-opening experience – seeing the in-depth processes it takes to sort our waste, including hand sorting, reiterated the importance of segregating waste correctly at the start of its journey.

Are you involved in managing transport?



The University does not own or lease any vehicles; however, I am involved with transport management in terms of Scope 3 emissions.

I have written a transport survey, managed a team of students to carry out a month-long distribution of the survey and I analysed the data. This survey was useful for reporting our Scope 3 emissions from students and staff commuting and to understand where our emissions are being produced and could be reduced. In the past, I have worked on the 'Cycle to Work Day' for the University and the University has a cycle to work scheme.

We are also working on implementing consolidated delivery for our sites. This will significantly reduce the number of deliveries and reduce our Scope 3 emissions from this source

Are you involved in water management?



Water management also forms part of our ISO 14001 certification and through this, I monitor and report our water use. This is something I have developed so that each site has a monthly target and consumption is reported against this. I have undertaken water surveys alongside our supplier to find areas where consumption can be reduced and planned on doing more of these until Covid-19 made visiting our sites more difficult! We have installed a handful of AMRs on to our meters and this is proving helpful to ensure accurate reporting of our consumption as well as accurate billing. As part of Green Week 2019, I worked with an alumnus who created an interactive sculpture which demonstrated every step water went through to reach the University's taps. This sculpture was moved around a number of our sites for students and staff to see.

Are you involved in behavioural change and motivation?



As part of my role, I have given presentations to Estates staff and Facility Managers to teach about our ISO systems, waste management and our energy consumption with a view to engaging staff with these and encouraging sustainable management. With the help of the Estates Communications Executive the wider University audience has been reached through the promotion of activities and events that I have helped to put together. This includes 'Green Week' activities such as the 'Useful or Beautiful' competition where students and staff are encouraged to use waste materials to make something useful or beautiful, or a sculpture raising awareness of water use at the University.

“WITH THE HELP OF THE ESTATES COMMUNICATIONS EXECUTIVE THE WIDER UNIVERSITY AUDIENCE HAS BEEN REACHED THROUGH THE PROMOTION OF ACTIVITIES AND EVENTS THAT I HAVE HELPED TO PUT TOGETHER. THIS INCLUDES 'GREEN WEEK' ACTIVITIES SUCH AS THE 'USEFUL OR BEAUTIFUL' COMPETITION WHERE STUDENTS AND STAFF ARE ENCOURAGED TO USE WASTE MATERIALS TO MAKE SOMETHING USEFUL OR BEAUTIFUL, OR A SCULPTURE RAISING AWARENESS OF WATER USE AT THE UNIVERSITY.

The University has recently launched its 'Carbon Literacy Training' which was put together by my manager, but I provided all the technical data for and which all staff are encouraged to take. The training covers climate emergency, carbon positive, waste and circularity, buying with a conscious and sustainable learning, teaching and research.

Are you involved in IT?



Are you involved in technical and operational activities?



Energy consumption in our buildings is large part of my role, therefore I work closely with Facility Managers and building maintenance staff regarding technical and operational activities that affect energy use. This includes looking at heating and air conditioning schedules and reviewing whether buildings are in line with our heating and cooling policy.

Recently, I have reviewed BMS schedules at two of our largest sites to ensure they are running at an optimal level – this is important in our newer buildings where there are fewer opportunities to install more efficient equipment as they have already been constructed to run more efficiently.

BMS optimisation has been important during the opening and closure of our buildings through Covid-19 in order to find a balance between running our buildings in a safe and healthy manner but also so that little energy is wasted.

Currently, I am working with our maintenance contractor to review the lighting schedule in our largest building to look for any energy saving opportunities.

I am currently reviewing the energy

and sustainability strategy for the fit-out of our new construction of the London College of Communication. This is an £250 million project and is aiming for BREEAM Excellent. The building will use mixed-mode ventilation which is particularly notable as it is located in central London (Elephant & Castle) and will need to balance providing fresh clean air from natural ventilation while being located next to a road and railway.

Are you involved in energy assessments, measurements and verification?



I monitor, target and report on energy use, on a monthly basis, across our six colleges and the three halls of residence that fall under our ISO 50001 scope. Each building has a monthly consumption target against which actual consumption is reported.

I investigate any high consumption or anomalies by examining half-hourly data and consumption patterns and follow up with Facility Managers. Through this I have been able to spot high consumption due to increased opening hours or found opportunities to reduce consumption, for example identifying equipment that was turning on earlier than expected. I visit the sites regularly to carry out surveys to look for energy saving opportunities and to meet with the Facility Managers.

On an annual basis, I compile our consumption data for various compliance obligations such as Streamlined Energy and Carbon Reporting, Display Energy Certificates and Estates Management Return.

Has your organisation set a Net Zero target?



The next energy management strategy is in draft, as the University achieved its target of a 43% reduction in carbon emissions by July 2020. Our next strategy will focus on how the university can achieve net carbon positive status by 2030, which will be presented to our Executive Board by July 2021. I will research net zero and study different organisation's approaches. I recently attended the EMA's webinar 'Net Zero: what is it, how do you measure and achieve it?' which was very useful.

“THE NEXT ENERGY MANAGEMENT STRATEGY IS IN DRAFT, AS THE UNIVERSITY ACHIEVED ITS TARGET OF A 43% REDUCTION IN CARBON EMISSIONS BY JULY 2020. OUR NEXT STRATEGY WILL FOCUS ON HOW THE UNIVERSITY CAN ACHIEVE NET CARBON POSITIVE STATUS BY 2030, WHICH WILL BE PRESENTED TO OUR EXECUTIVE BOARD BY JULY 2021.

What are your biggest achievements in your role?

Working in a small team means I have had the opportunity to work on a wide range of projects. A couple of those that were particularly interesting and that I am proud of is my work in signing the University up to a Power Purchase Agreement (PPA) and leading a team of seven student interns. The PPA involved researching different types of PPA, considering the risks and benefits to the University – particularly as it is long-term contract and considering what proportion of our electricity should be sourced from the PPA. As a result, the University joined with 20 other universities as part of the deal and

now sources 14% of its electricity directly from wind farms. Leading seven student interns who each worked on their own project was a good experience for me as my only previous leadership and team management experience was captaining my hockey team! This was a great learning opportunity, and I am pleased to have helped students

with work experience. For example, one intern said the internship “really boosted my confidence and being able to be involved

in this type of work as a first-year undergraduate was so inspiring.”

Each year the University is audited for ISO 50001 and ISO 14001 and it is always pleasing to be given a seal of approval for the work done for these. The work I did regarding waste management in setting up 14001 and continue to do is a particular achievement for me as waste management is now a topic that the Estates Dept. is a lot more knowledgeable and conscious about.

The University has been very good in supporting me with my professional development as I have completed the Energy Institute



Level 2 Energy Management training course which was a 200 hour course for which I completed a range of modules including lighting, heating & ventilation and BMS and I undertook a work-based project.

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

At the moment, I think sustainability and energy management are quite closely linked, with sustainability focusing on the ‘environmental pillar’ of sustainability and covering subjects such as waste and water management, often with organisations focusing on their direct impact. As people become more aware of sustainability and scrutinise organisations more about their impact, I think sustainability will expand to focus more on indirect impacts of organisations such as their supply chains and investments.

Author's Profile:

Rebecca has always had a keen interest in the environment and nature and completed an MSc in Climate Change in 2016. As part of this, she undertook an internship with the University of the Arts London before joining them full time at the end of 2016.



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.

“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.

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

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

“ 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.

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

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



experience is very much about consumer side, large, multi-site, complex organisations.

I am quite clear that to become a successful Energy Manager in this type of environment, you need to know a bit of everything, from finance to procurement, construction, project management and technology. You are likely to become a specialist on a few subjects, but you will rely on the expertise of your network, supply chain and colleagues across the organisation for the specific skills and knowledge. This is even more the case if you are just an individual, or a small team, managing thousands of buildings and energy bills for millions of pounds.

It is becoming clearer to me that the sustainability manager role in this type of organisation is becoming a natural evolution of the energy manager, or at least

an essential part of the role. As an Energy and Sustainability Manager, you now need to understand what the broader impact is of what you do and how it compliments to the overall strategy and the company's public commitments. So, you need to be able to evaluate where the limited resources available, both in human and financial capital, are better allocated.

To make these decisions, you need to have a broader view and understanding that goes beyond energy only. So perhaps, the more pressing priority will be reducing carbon emissions from refrigerants rather than installing a new BMS, or the colleague behaviour campaign should focus more on travel than energy reduction.

You will also need to broaden your internal and external network to ensure you can bring the people with the right skillset and

knowledge into the conversation, and of course there will be new stakeholders that you didn't need to engage as much before like external communication teams or consultants that deliver carbon reporting calculations, etc. I found this transition very exciting, and certainly one of the reasons why I love this job so much – the continuous pace of change and evolution.

Author's Profile:

Matteo is a Sustainability Manager with an Engineering background, an MSc in Renewable Energy and Energy and Sustainability Management experience in some of the largest British energy consumers. He has joined Lloyds Banking Group from Vodafone UK, preceded by Sainsbury's where he played a key role in the achievement of the 2020 carbon reduction targets.

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.

