

AUDE

Together, for excellent university estates & facilities

LIGHTBULB MOMENTS: BRIGHT SPARKS GATHER HERE

Key themes from the AUDE Big Conversation 2025 at Lancaster University

November 2025

AECOM Delivering a better world



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This report has been written on behalf of AUDE and AECOM by...

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AECOM AUDE



Introduction

The ninth annual Big Conversation brought together university estates directors and sector leaders for a dynamic day of knowledge-sharing, discussion and reflection on the future of higher education estates. Held over 2 days, 11th and 12th November, this year's event was hosted by Lancaster University renowned for its sustainability initiatives, innovative campus infrastructure, and global impact.

Paul Morris, Director of Capital Development and Estate Operations at Lancaster University, welcomed delegates to the event. His reference to Professor Dame Sally Mapstone on behalf of Universities UK set the tone for the day, as delegates explored how estates can adapt to meet the challenges of a rapidly evolving sector:

We stand at a fork in the road in the history of the UK's universities. We can allow our distinguished, globally competitive higher education system to slide into decline. Or we can act together, as institutions and with the government, to ensure that higher education is able to deliver for the nation into the 2030s.

Professor Dame Sally Mapstone DBE FRSE, Sept 2024

Lancaster University is a research-intensive institution; 95% of its research is rated as having outstanding or very considerable impact, and it holds a Gold standard in the Teaching Excellence Framework (TEF) 2023. With a global community of nearly 30,000 students across six international locations, Lancaster's reach extends far beyond its 578-acre campus at Bailrigg. Just three miles from Lancaster city centre, the university exemplifies an integration of sustainability and innovation. Its economic impact is equally significant, contributing £2 billion to the UK economy in 2021-22, with 61% of that impact benefiting the North West region.

Lancaster Institute of Contemporary Arts, the first higher education building to achieve a BREEAM Outstanding, provided the setting for the day's theme: "Lightbulb Moments: Bright Sparks Gather Here."

The day began with a campus tour, offering delegates the opportunity to explore Lancaster's cutting-edge energy infrastructure, including its wind turbine and new solar farm which together exemplify the university's two-decade journey toward sustainable energy and carbon reduction. Installed in 2012, the wind turbine alone generates 13-16% of the university's annual electricity consumption, reducing carbon emissions by up to 2,200 tonnes annually. The tour also highlighted Lancaster's ongoing focus on estate right-sizing, ensuring that its facilities remain efficient, sustainable, and fit for purpose.

An afternoon of engaging sessions followed, including a Lancaster case study, a panel discussion featuring sector experts focused around Lancaster as a case study, and group discussions that encouraged delegates to share their own experiences and insights.

This report mirrors the structure of the day, beginning with the campus tour and Lancaster's energy journey as a case study before delving into the panel discussion, and group reflections. It aims to provide a comprehensive summary of the key themes and takeaways from the event, offering a valuable resource for the sector.



LANCASTER UNIVERSITY NET ZERO PROJECT



Lancaster University Net Zero Energy Project

At the core of the technical solution is the Net Zero Energy Centre, which acts as a central hub for managing energy from multiple renewable sources. The centre utilises state-of-the-art heat pump technology to generate an estimated 39 gigawatt hours (GWh) of low-carbon heat annually. To ensure the optimal performance of the heat pump technology within the Net Zero Energy Centre, AECOM conducted advanced Computational Fluid Dynamics (CFD) modelling, providing critical insights into airflow, heat transfer, and system dynamics, enabling the design to be optimised for maximum efficiency and resilience.

The new solar farm and existing wind turbine connect to the Net Zero Energy Centre via a private wire network. The new 11MW solar farm is fundamental to the system delivering commercial viability. AECOM optimised the array to overcome site constraints and maximise energy generation.

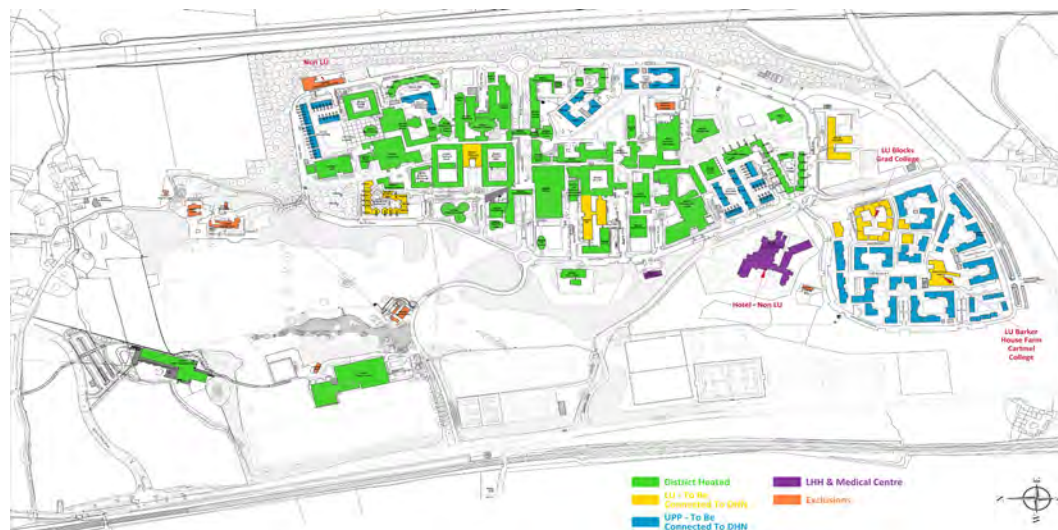
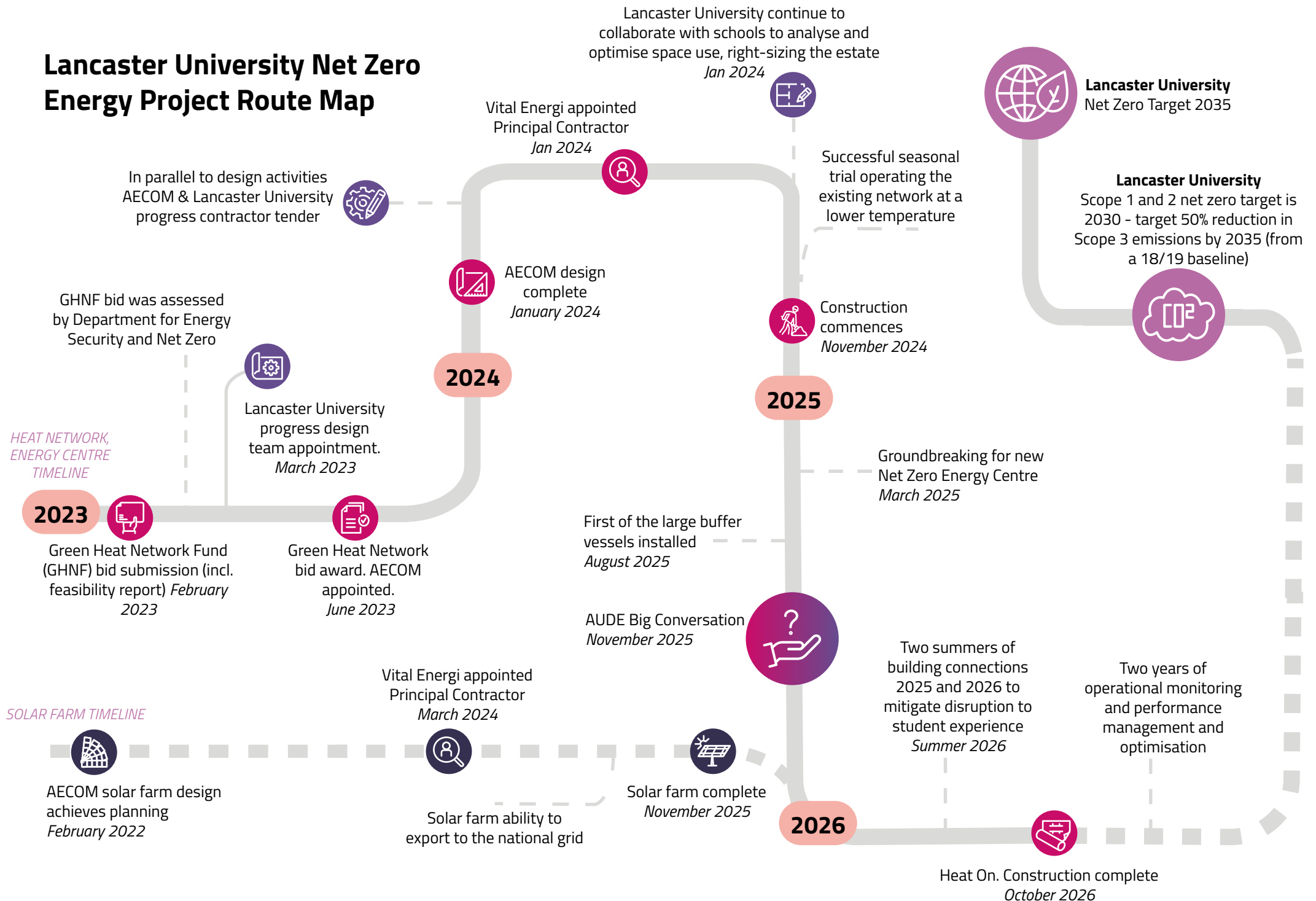


FIGURE 1: LANCASTER UNIVERSITY PROPOSED DISTRICT HEAT NETWORK

FIGURE 2: LANCASTER UNIVERSITY NET ZERO PROJECT TEAM

Lancaster University Net Zero Energy Project Route Map





Renewable Heat Generation

TOUR OBSERVATIONS

Heat pump innovation: The innovative two-stage heat-pump process, along with the substantial scale of the plant room (76.5 x 22.0m), drew significant attention. The heat pumps were manufactured off site.

Thermal stores: Recognised as a central component of demand management, effectively flattening demand peaks and optimising system performance, delegates observed three of the eight 185,000-litre vessels that will be installed. Manufactured in Hull to minimise embodied carbon, the vessels were noted for the “ballet-like” precision required by Vital Energi to transport and lift them into position.

Low-temperature trial validation: We heard how the university carried out a live trial that incrementally reduced district-heating flow temperatures, demonstrating that the estate remained comfortable and efficient at around 70°C flow / 50°C return, thereby confirming its readiness for low-temperature heat-pump operation.

Natural refrigerant selection: AECOM highlighted that the heat-pump designs specify natural hydrocarbon refrigerants - principally propane (R290) and CO₂ (R744) - to achieve higher output temperatures while avoiding the F-Gas phase-downs that threaten synthetic alternatives.

Control system flexibility: There was strong interest in the design of the connection between the solar farm and the Energy Centre, and the ability for the system to manage energy storage dynamically was seen as a key enabler of operational efficiency.

Future-ready infrastructure: The system’s readiness for battery-storage integration positions it as a model for future-proofed energy solutions.

Research enabled: The integration of a research and visitor facility within the plant room was recognised as a catalyst for continuous improvement, driving innovation and advancing progress within the sector. The visitor facility contributes to the university’s GHNF Market Transformation Commitment.

Renewable Electricity Generation

TOUR OBSERVATIONS

East-west panel orientation: Delegates were surprised by the east-west orientation of the nearly 17,000 solar panels. AECOM designers explained how the east-west orientation extended energy generation throughout the day which aligned with the university's energy demand profile, minimising the need for storage.

Agrivoltaics demonstrator: The inclusion of a 50-kilowatt agrivoltaics demonstrator, believed to be the first of its kind in the UK, sparked interest. This demonstrator co-locates solar panels and food crops, enabling researches to investigate the interaction between renewable energy generation alongside agricultural production.

Panel optimisation: We observed the rolling topography of the site, the Vital Energi and AECOM team outlined how a review of the layout, initially prepared by others, then updated by AECOM and Vital Energi ensured buildability, maximised efficiency, increased capacity by 25% and saving £14 million in electricity costs over its lifetime.

Solar tracking research: The group observed the solar tracking photovoltaic systems, which will allow the university to study and advance technologies around energy harvesting.

Grid connection: The solar farm's connected to the Grid at the 'back of the meter' on the Lancaster University side to provide optimal cost recovery to the grid, generating income for the University at times of low demand.





Lancaster University Management School - East Pavilion



Lancaster University Management School - West Pavilion

Campus Right Sizing

TOUR OBSERVATIONS

Improved accessibility: The site tour commenced with a visit to the Management School's east pavilion, where refurbishment of the original 1960's estates is underway. Entering through a new landmark entrance off the Spine, the enhanced connectivity and engagement with the landscaped quad is immediately evident.

Retrofit first: Retention and retrofit of the existing structure were prevalent throughout, achieving an 80% carbon saving compared to a new build and avoiding over 4,700 tonnes of carbon emissions—equivalent to the annual emissions of more than 400 homes. Set for completion in late 2026 and featuring bespoke facilities such as a Bloomberg suite alongside agile, accessible learning spaces, the east pavilion will be an exemplar in repurposing 1960s space and a 150 seat multipurpose IT suite for e-learning, exams and flexible teaching.

Investing in quality: Following the east pavilion, the tour concluded at the west pavilion, designed by Feilden Clegg Bradley Studio. Its large atrium creates a cohesive environment ideal for teaching and collaboration.

Right sizing: A stand-out theme of the tour was the university's dynamic and adaptive approach. The original plan for the Management School included occupation of the Charles Carter building as well as the east and west pavilions, but by rethinking their plan and making strategic adjustments, they have been able to increase occupancy. On completion of the east pavilion, there will be an overall reduction in the Management School footprint of 2,300m² net usable area (NUA), providing the opportunity to repurpose Charles Carter. This forward-thinking approach not only optimises space usage but also delivers substantial sustainability gains, aligning with the university's commitment to responsible estate management.

***PANEL
DISCUSSION:
THE
JOURNEY TO
NET ZERO***



Expert Panel

During our panel discussion, we heard from a group of experts, all actively involved in Lancaster University's Net Zero Energy project, sharing their insights on achieving Net Zero in university estates.

Anna Cockman, emphasised the challenging programme ahead and the benefits of appointing AECOM before securing funding from the Green Heat Network Fund (GHNF). She highlighted key initiatives, such as the construction of an 11 MW solar farm and energy efficiency improvements, while showcasing the broader community benefits, including local employment opportunities and student engagement, demonstrating how sustainability efforts can drive social value alongside environmental goals.

Tom Lelyveld, shared a designer's perspective on the energy ecosystem created for Lancaster University, highlighting the importance of high-quality Employer's Requirements and transitioning to renewable energy sources.

Scott Lutton, reflected on the challenges of construction delivery on a live campus and his role in ensuring social impact through community engagement.

Lauren Bright, discussed her experience supporting Lancaster University's successful GHNF bid, emphasising how the university's readiness, demonstrated by having AECOM appointed on the day of the funding award, provided confidence in their ability to deliver. She also outlined strategies for creating investment-ready initiatives.

Finally, Kit Gillibrand, emphasised flexible infrastructure and innovative energy solutions, drawing on his role in the commercial modelling of the project.

Together, the panellists provided valuable insights into the multifaceted approach required for sustainable university estates.



Anna Cockman

*Head of Estate
Development*

Lancaster University

ANNA COCKMAN is an accomplished project director with over 20 years of experience delivering diverse capital projects, including regeneration and carbon-reduction initiatives.

Anna currently leads the university's Net Zero Energy and Solar Farm projects and provided her perspectives on the journey so far:

- **Ambitious carbon targets:** The University's Climate Emergency Declaration commits to achieving zero carbon emissions for Scope 1 and 2 by 2030 and Scope 3 by 2035.
- **Scope 1 and 2 initiatives:** Key projects, constructing an 11 MW solar farm, decommissioning the Combined Heat & Power engine, and implementing an the Energy Centre district heating efficiency improvements and the Net Zero Energy Project.
- **Market transformation and community engagement:** Anna outlined the broader benefits that were being achieved through the project including; local employment opportunities (apprenticeships, traineeships), student research placements, embodied carbon reporting, and innovation through R&D investment in heat networks.



Tom Lelyveld

*Regional Director for
Sustainability and
Decarbonisation*

AECOM

TOM LELYVELD is a technical specialist with 22 years of experience in sustainable development and energy strategy, contributing to national heat network policy and zoning initiatives.

Tom is AECOM's Project Director for Lancaster University's Net Zero Energy Project and offered a designers perspectives:

- **Collaborative achievements:** Tom reflected on the energy ecosystem that has been designed by AECOM, featuring an 11 MW solar farm, a 2.3 MW wind turbine, and an 8 MW Net Zero Energy Centre in response to Lancaster's vision.
- **Insights and recommendations:** Investing in high-quality Employer's Requirements to ensuring effective design and timely delivery.
- **Future challenges and opportunities:** With CO₂ emissions from electricity declining, Tom highlighted the need to shift to transition to renewable supply and demand management across zones.



Scott Lutton

Regional Director

Vital Energi

SCOTT LUTTON is an accomplished leader with over 20 years of experience in construction and engineering, specialising in managing low-carbon and renewable projects.

Scott introduced the Vital business and outlined how Lancaster University's Net Zero Energy Project had developed from pre-construction into construction:

- **Navigating key challenges on campus:** Overcame diverse challenges including minimising disruption during major university events such as open days, sporting events, and graduations; implementing effective traffic management and site cordoning procedures on live sites; coordinating multiple subcontractors under tight project schedules; and tackling unpredictable weather-related impacts, all while ensuring the continuity of campus activities.
- **Strong commitment to social value and climate education:** Demonstrated significant social impact through 70 hours of engagement with local schools, a £3000 donation to support the Lancaster Triathlon, organising five career drop-ins, hosting seven student engagement events, and providing three internships, while also educating over 23,000 pupils on climate change to foster informed decision-making and drive environmental action.



Lauren Bright

*Relationship Director
for Clean Heat*

Triple Point

LAUREN BRIGHT specialises in purpose-driven investments and collaborates with public and private stakeholders to finance low-carbon heat networks in the UK.

Lauren provided her perspectives on supporting Lancaster University's successful GHNF bid, and shared thoughts on how to unlock future resilient, low-carbon heat network opportunities:

- **Evolving funding landscape:** The transition from PSDS grants to GHNF catalytic capital emphasises tighter eligibility and a shift toward private investment, reframing Net Zero as an infrastructure investment challenge rather than a funding pursuit.
- **Defining 'investment ready':** Successful projects require turning policy ambitions into bankable initiatives through robust data, demand and carbon baselines, clear governance and risk allocation, blended financing, and measurable performance outcomes.
- **Strategies for net zero heat:** To stay ahead, Lauren recommended mapping campus energy needs, exploring blended funding streams, establishing governance for external participation, building board-ready investment cases, and acting early to leverage zoning opportunities, with a focus on creating assets attractive to investors.



Kit Gillibrand

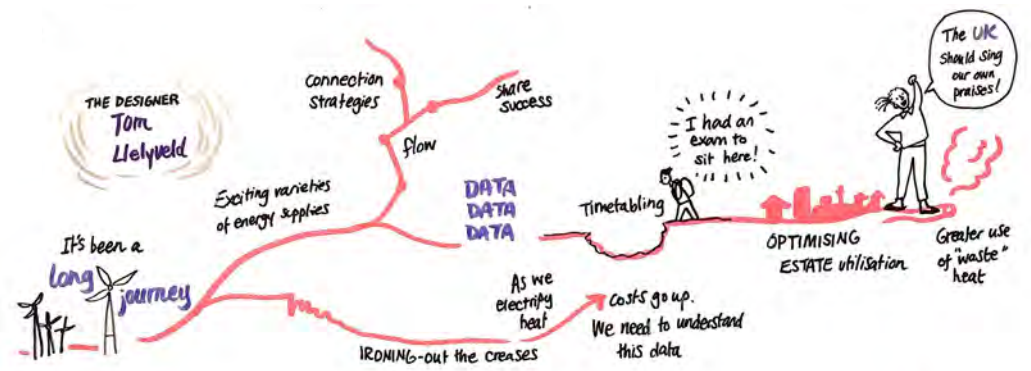
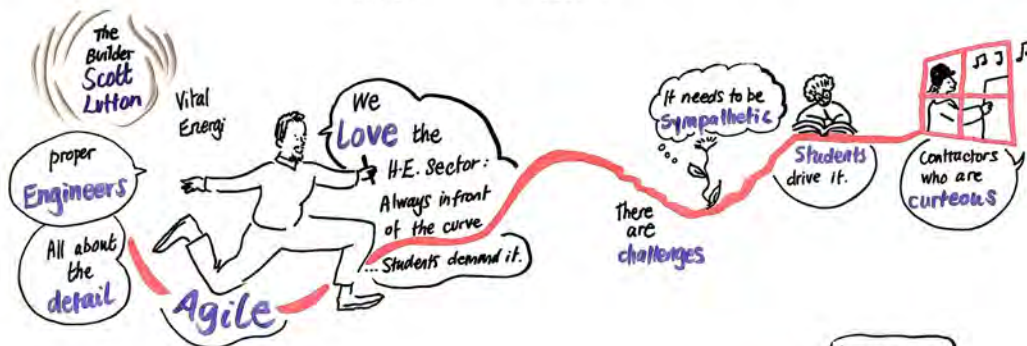
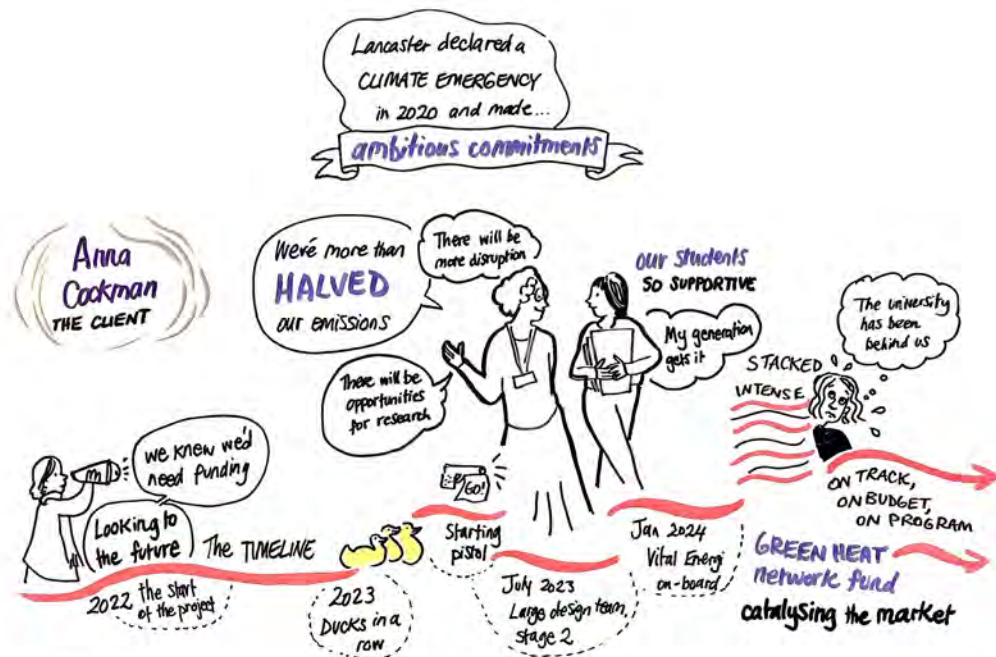
Managing Director

Hermetica Black

KIT GILLIBRAND is a leading advisor on the commercial structuring of decentralised energy projects, specialising in investment, risk management, and delivery strategies for low-carbon infrastructure, supporting AECOM with the commercial modelling of Lancaster University's Net Zero Energy Project.

Kit highlighted the flexibility and different approaches to low-carbon heat networks:

- **Infrastructure as a decarbonisation enabler:** Effective infrastructure supports decarbonisation and retrofitting while integrating capital- and revenue-funded projects, requiring contracts that align with strategic goals and flexibility.
- **Flexible core infrastructure:** Lancaster University's Net Zero Energy Project establishes adaptable infrastructure to accommodate future estate changes and evolving energy needs.
- **Energy integration:** Using the University of Bristol's Temple Quarter building to demonstrate innovative energy use by enabling heat recovery from data rooms to be supplied back into the network.



A diverse group of people are gathered in a social setting, possibly a bar or a lounge. The image is split vertically by a diagonal line. The left side is covered by a semi-transparent pink overlay. On the right side, a woman with long, wavy blonde hair, wearing a grey dress and a patterned cardigan, is smiling and looking towards a man with short dark hair and a beard, who is wearing a white shirt and a dark tie. They are surrounded by other people, including a man with glasses and a beard, a woman with short blonde hair, and a man with a beard and a grey shirt. The background shows shelves with bottles and glasses, suggesting a bar or a lounge environment.

THE BIG QUESTION



THE BIG QUESTION: THE REALITY AND THE SOLUTION

A rich and diverse group of participants came together for a meaningful conversation around three key questions:

1. *HOW FAR ALONG IS YOUR INSTITUTION IN ITS ENERGY TRANSITION, AND WHAT CHALLENGES ARE HOLDING YOU BACK?*

Participants shared varied progress levels and highlighted common barriers such as funding constraints, limited resources, and grid capacity issues.

2. *ENVISIONING THE FUTURE, WHAT WOULD AN IDEAL ENERGY ECOSYSTEM LOOK LIKE FOR YOUR INSTITUTION?*

The conversation explored ideas around efficient space utilization, smart demand management systems, and the integration of multiple low-carbon energy sources.

3. *WHAT PARTNERSHIPS OR SUPPORT MECHANISMS WOULD MAKE THE BIGGEST DIFFERENCE TO YOUR ENERGY TRANSITION?*

Discussions here emphasised the importance of collaboration with national and regional government, energy companies, investors, sector peers and AUDE, as well as the role of clear government policies and financial incentives.

The responses that follow capture these insights, showcasing the different strategies and ambitions institutions hold as they work to align academic priorities with sustainable energy practices.

How far along is your institution in its energy transition — and what's holding you back?

Conversations developed around the maturity of their decarbonisation plans, typically followed by some of the contemporary challenges.



ENERGY TRANSITION MATURITY

The discussion showcased a wide range of maturity in energy transition efforts, with most institutions reporting progress levels between 20% and 60%. Many institutions highlighted that they had developed decarbonisation strategies, with some actively implementing the first phases of multi-stage plans. These strategies often focused on energy efficiency upgrades and renewable energy projects aimed at reducing carbon emissions. While a few institutions outlined they had secured funding and are delivering projects, others remain in the early stages of planning or are constrained by limited resources and competing priorities.

The urgency of meeting ambitious deadlines, particularly for a significant number of parties who are targeting Net Zero by 2030, adds significant pressure to accelerate progress.

It can be concluded that the pace of transition varies widely across the sector.



CHALLENGING LANDSCAPE

The most significant challenge faced by universities in their energy transition is the lack of capital funding, which severely limits their ability to implement large-scale infrastructure projects.

Many institutions identified that financial pressures had resulted in a redirection of capital funds from planned decarbonisation initiatives to address backlog maintenance, delaying progress on long-term goals. Additionally, higher education teaching faces challenges such as adapting to hybrid learning models, addressing diverse student needs, and integrating technology, all of which complicate the alignment of academic priorities with financial resource limitations, including a shortage of sustainable staff and technical expertise, had further hindered the ability of some universities to execute their plans and strategies.

A number of universities, also highlighted challenges with grid capacity and listed buildings.



INDIVIDUAL EXAMPLES

Over the discussion several universities shared specific examples to illustrate their energy transition journey and challenges:

- One university is in phase one of a three-phase decarbonisation strategy but is held back by a lack of capital and capacity to move forward.
- Another institution reported a £105 million capital spend plan but has had to divert funds to address urgent backlog maintenance.
- A city-centre university with a 2030 Net Zero target is unable to allocate significant funding for the next 18 months, delaying progress.
- Another university explained that it was planning a 20% reduction in its campus footprint over the next 10–15 years to support the achievement of its targets.

Envisioning the future, what would an ideal energy ecosystem look like for your institution?

The discussion was broad and evolved around three distinct but inter-related themes.



EFFICIENT SPACE UTILISATION

In the pursuit of a sustainable energy ecosystem, the conversation recognised the importance of efficient space utilisation. Many highlighted that they are addressing the challenge of under-utilised buildings, which can lead to unnecessary energy consumption. By implementing strategies to right-size their estates, including assessing building occupancy and usage patterns, they can identify opportunities for repurposing or decommissioning spaces that no longer serve their intended purpose. The discussion recognised that efficient space utilisation not only contributes to carbon-reduction goals but also aligns with broader institutional objectives of maximising resource efficiency.



SMART DEMAND MANAGEMENT

Effective demand management was identified as a crucial constituent for optimising energy use across their university campus. Institutions are exploring and are envisioning a future that places greater emphasis on Building Management System (BMS), AI-enabled control, alongside occupancy analytics to align system performance and energy consumption with actual building usage. For instance, smart systems can dynamically adjust heating and lighting based on real-time occupancy data, significantly reducing waste. Views were expressed that this proactive approach not only improves energy efficiency but also transforms flexibility into a revenue-generating opportunity, where campuses can be compensated for reducing demand or exporting power during peak periods.



INTEGRATED LOW-CARBON SUPPLY AND STORAGE

The conversation reiterated institution's aim to eliminate reliance on gas by transitioning to electric operations supported by advanced energy storage solutions, including thermal reservoirs and battery installations. A diverse range of renewable energy sources were envisioned, responding to different organisations natural assets, such as solar farms, wind turbines, geothermal and maximises natural water-source. The expansion of district heat network was seen as essential for connecting urban campuses with city-wide infrastructure, allowing for a collaborative approach to decarbonisation. Additionally, campus universities aspired to creating campuses that can operate as self-sufficient energy islands.

Universities foresee energy infrastructure as a revenue opportunity by leveraging flexibility in energy demand, where campuses can be compensated for reducing consumption or exporting power during peak periods, transforming energy management from a cost centre into a value-generating activity.



SPECIFIC UNIVERSITY EXAMPLES

- Natural resources were being considered as part of renewable opportunities; including the River Thames and Nene as thermal reservoirs or Swansea Bay Tidal Lagoon.
- Large off-site photovoltaics arrays were envisioned by two campus universities.
- Exploration of geothermal opportunities were under consideration by one university.
- Many referenced the desire for a smart campus with a digital tools and controls, with AI support to refine energy demand, and response, in real time.

What partnerships or support would make the biggest difference to your energy transition?

Conversation themes included collaboration, industry partnerships, and support from AUDE, alongside the role of clear policy frameworks and proactive government action.



GOVERNMENT OPPORTUNITIES

The discussions revealed clear opportunities for the government to play a transformative role in the energy transition. Participants emphasised that government involvement is vital in setting supportive, long-term policy frameworks that provide both clarity and financial incentives. These policies can unlock access to public funding, streamline regulatory hurdles, and encourage risk-transfer mechanisms that attract private investment. Partnering across various organisation was identified as a key enabler for urban universities to create an ecosystem in which equitable and resilient energy systems not only benefit campuses but also bolster regional economic opportunities and community resilience.



PARTNERSHIP

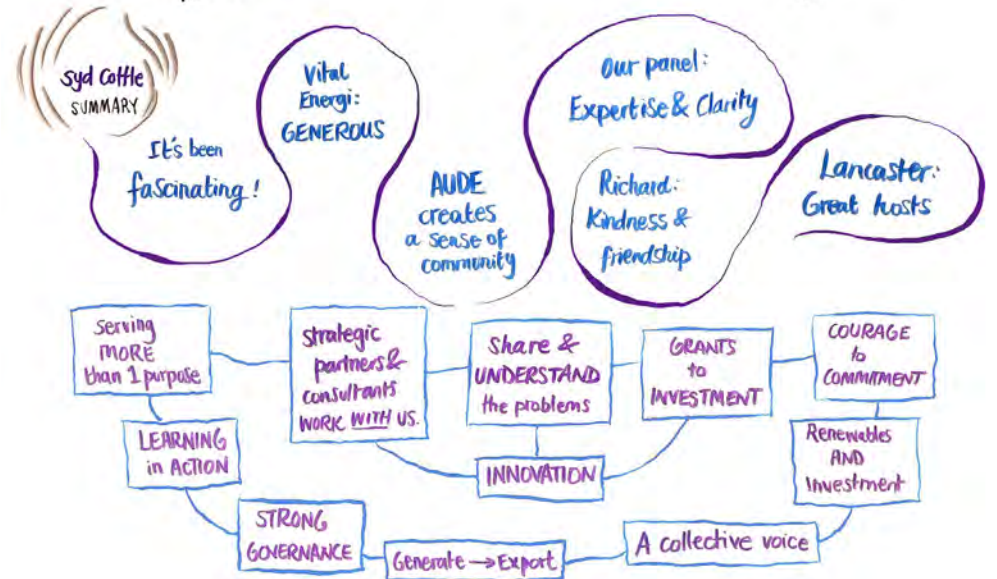
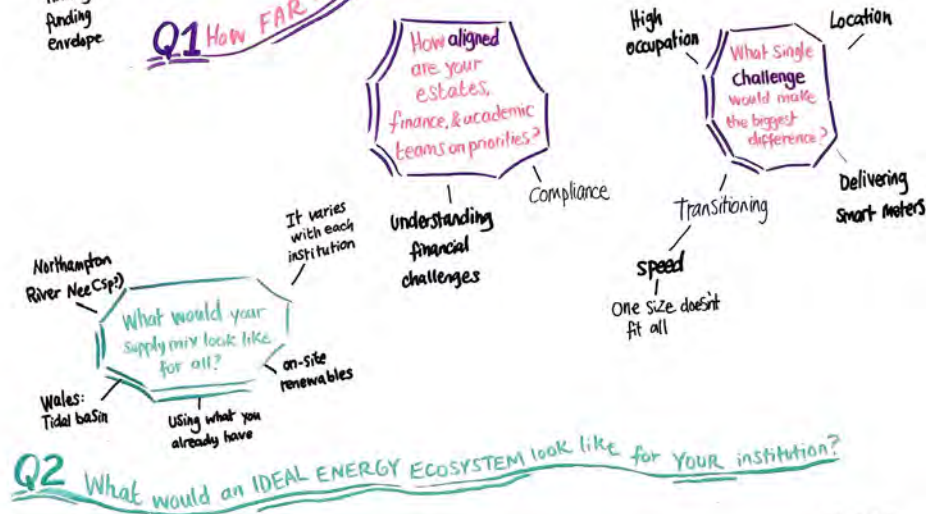
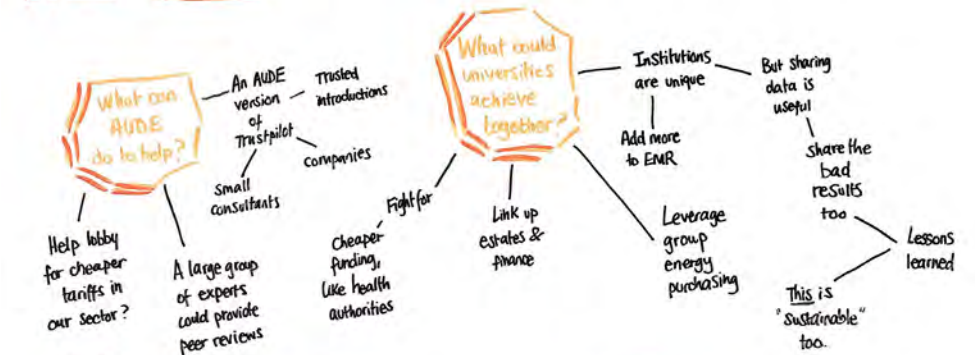
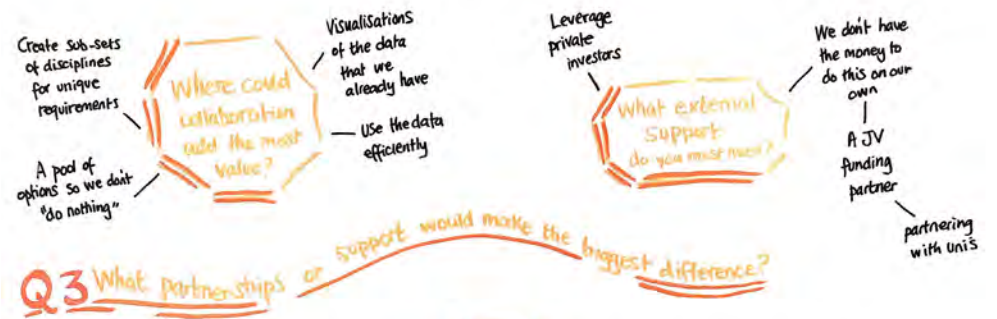
Conversations stressed that a key driver for a successful energy ecosystem could be establishing robust, strategic partnerships among institutions along with a range of external bodies. Views were expressed that pooling resources through collaborative procurement, shared services, and joint energy purchasing not only spreads the financial risk but also increases bargaining power.

Partnerships with Local Authorities were also highlighted as an opportunity to unlocking renewable projects and potentially lower-cost debt. There was consensus that underpinning these efforts is the need for government to adopt clear, long-term energy policies that reflect the core value universities bring in advancing education and research.



SUPPORT FROM AUDE

Participants proposed that AUDE could guide members towards organisations who have the experience to be able peer review energy strategies and could create a repository of energy transition case studies which transparently share both successes and failures. Importantly, they saw an opportunity for AUDE to serve as a community hub, facilitating the flow of information, lobbying for clearer energy policies, and ensuring that universities come together to share lessons learned regarding innovative financial instruments such as incentive grants and flexible loans. Through these efforts, AUDE will continue to promote excellence in estate energy management.



The transition is not a competition, it's a collaboration.



REFLECTIONS

Reflections from the AUDE Chair

Over the course of the day, we examined not just infrastructure or technology, but the systems of collaboration behind any genuine transition to net zero. Paul Morris opening tour of Lancaster's Net Zero Infrastructure Project framed our discussions, showing a twenty-year journey of consistent effort, investment, and partnership, and making clear that the journey is still far from over. Paul's reminder that asking for help is integral to the AUDE community resonated throughout every session. I value AUDE's inclusive approach: consultants have the opportunity to understand our issues and work through answers with us.

Anna illustrated how a first bold decision multiplies value; cutting emissions, reducing costs, building skills, and creating a living learning environment. Lauren highlighted the shift toward investor-ready projects. Success now rests on solid data, blended funding, and robust governance, as Lancaster demonstrated by having partners and designs in place before funding bids. Tom showed that campuses can be active players in city energy networks, able to generate, store, and export energy, provided we plan now, invest in data, and design for the future grid. Kit urged us to view energy assets strategically: when demand, consumption, and connection capacity are balanced, infrastructure becomes a shared, value-creating asset rather than a cost centre.

In our discussions, we explored where institutions are on the journey. Many of you said the momentum is there, but aligning estates, finance, and academic ambitions remains difficult. Funding uncertainty is a persistent hurdle. When imagining the future energy ecosystem, we agreed that the path ahead is not just renewables; it is data-driven intelligence, flexibility, and resilience. In building effective partnerships, we concluded that stronger collaboration, shared data, consistent frameworks, and a unified voice with government and funders are essential.

Several themes cut across the day. Energy, finance, estates, and academic mission must speak the same language if projects are to succeed. The sector's determination is strong, but consistent investment frameworks are key. Projects like Lancaster's function as living laboratories, enriching student and staff capability. The transition depends as much on relationships as on engineering.

We have the vision: Lancaster proves that a net zero campus is attainable. We possess the knowledge and the partners. Now we need the confidence to collaborate: to engage investors, share data, and be bold in forming partnerships. The next wave of projects must redefine success; measured not only in carbon saved, but in skills developed and resilience achieved. The transition is not a competition; it is a shared construction project, and every university is a co-builder. Our collective task is to convert ambition into acceleration, and to do it together.



Syd Cottle
AUDE Chair

*Director of Estates and
Infrastructure*

University of Liverpool

Reflections from headline sponsor, AECOM

As AECOM's National Education Lead, I am delighted to reflect on the success of the Big Conversation 2025, hosted at Lancaster University. This year's event brought together university estates directors, sector leaders, and energy managers, whose expertise significantly enriched our discussions.

The day began with a campus tour, showcasing Lancaster University's impressive energy infrastructure, including its wind turbine and newly commissioned solar farm. These projects exemplify the university's two-decade journey toward sustainability, demonstrating how bold decisions and sustained investment can drive transformative change. Delegates explored how this infrastructure supports the university's ambitious carbon reduction goals and serves as a living laboratory for research and learning.

The panel discussions that followed were equally engaging, offering diverse perspectives on Lancaster's energy transition journey. Speakers highlighted the importance of collaboration, data-driven decision-making, and maintaining momentum. AECOM's role as the designer and project manager for Lancaster University's Net Zero Energy project was a focal point of the conversation, with our contributions in energy masterplanning and system optimisation receiving recognition.

The final session, "The Big Question," gathered delegates to explore the energy transition journeys of their institutions. The discussions revealed several key themes:

- **Variation in progress and financial pressures:** Delegates noted differences in advancement alongside shared financial challenges.
- **Decarbonising heat in a stable manner:** There is a pressing need to transition away from traditional heat sources without compromising financial stability, especially given that electricity remains significantly more expensive than gas.

- **Leveraging off-grid campuses:** When all energy vectors are interconnected—using wind to supply the thermal stores, heat networks to redistribute energy, solar and wind to reduce costs, and battery energy storage systems (BESS) for demand flexibility — off-grid campuses can offer substantial benefits.
- **Importance of tailored strategies and partnerships:** Not all campuses are well-suited to an off-grid solution. In many cases, collaborative partnerships can provide unique opportunities for developing actionable, at scale energy strategies.

As a global consultant and leader in infrastructure and sustainability, AECOM is uniquely positioned to support higher education institutions in their energy transition journeys. Our expertise, exemplified at Lancaster, spans every stage of the process, from strategic planning to design and implementation. We offer bespoke tools for decarbonisation and net zero carbon planning, such as the Operational Energy & Carbon Analysis tool (OCEAN), which gathers data on the carbon and energy performance of individual buildings, enabling institutions with large asset portfolios to develop tailored pathways toward sustainability. This capability, combined with our project management and technical monitoring, ensures that construction quality is maintained throughout the project lifecycle, providing institutions with confidence that their energy solutions are executed to the required standards.

In conclusion, the Big Conversation 2026 underscored the critical role of collaboration, innovation, and bold decision-making in driving the energy transition. AECOM is proud to be at the forefront of this movement, partnering with universities to create sustainable, resilient campuses ready to meet future challenges. Together, we can turn ambition into action and accelerate the journey toward net zero.

Learn more about how AECOM is delivering Sustainable Legacies for a better future.

[We all leave a legacy. | Sustainable Legacies | AECOM](#)



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