

Schedule 4 (Tender)

Invitation to tender: To manage the delivery of decarbonisation interventions for one of three 47-school/college Lots

Lot 2 Quality Response

Prepared for: **LocatED (for and on behalf of the Secretary of State for Education)**

March 2025

Contents

Criteria

Q1.	Delivery methodology	Page 3
Q2.	Stakeholder engagement strategy	Page 16
Q3.	Delivery programme	Page 21
Q4.	Quality assurance	Page 24
Q5.	Risk management strategy	Page 29
Theme 2	Social value	Page 34

Criterion: Delivery Methodology

Criterion: A high quality delivery methodology which will meet the Authority’s requirements

Question 1: Please provide your delivery methodology explaining how you will meet the Authority’s requirements set out in the Specification. Tenderers must provide a delivery methodology for each element of the Specification:

- Selection Stage
- Regional Alliance Feasibility Stage
- Basket 1 Stage
- Basket 2 and 3 Stage

The delivery methodology should include the following elements:

- an outline of the resources (including the skills of relevant personnel) that you will use to deliver the project;
- an organogram, which should include all key members of the team working on the project; and a schedule of each workstream and associated activities including associated process maps e.g. mobilisation, data capture, procurement, behavioural change, monitoring etc.

5,000 words max

Introduction

To deliver the aims and objectives of this programme, LocatED seek partners with a demonstrable open and transparent approach to the development of site-specific decarbonisation plans that deliver:

- An actionable, unambiguous, holistic pathway to net zero for each school, bringing together short, medium and longer-term actions that will drive progress towards achieving the government’s strategic aims and overarching 2030 vision.
- Financial, energy, and emission savings within the first year, whilst establishing a solid foundation for future improvement.
- Effective communication of the requirements and implications to stakeholders, engaging and embedding change and commitment to further action towards net zero.

An overview of our proposed methodology is set out below.

Mobilisation: At inception, we will review data requirements with LocatED to confirm levels of detail and data collection methods. We recognise data will be variable, particularly energy consumption data and existing records, therefore our approach accounts for a mix of data granularity, to be refined as more documentation becomes available.

We will work alongside colleagues collecting data via the CDC programme to secure the condition data for each school; this informs the selection stage and later data collection activity.

Data sharing: We will agree on a secure method for exchanging data (e.g. SharePoint) privately for both the schools and LocatED. This site will host Request for Information (RFI) trackers, consolidate requests across schools and provide a single, traceable source of data exchange.

Part 1 -Selection Stage

We will draft selection criteria for review, discussion and agreement with LocatED. At the same time we will review the long list of schools and undertake a desktop review of available information. We propose to contact all schools/colleges with questionnaire linked to the selection criteria. This will have a two-fold effect, first to help determine the availability of key information and second, to help understand the engagement of staff. Both are vital to achieving this ambitious programme and effecting change in the long term. This approach will help to select schools and colleges which will benefit the most and provide the best outcomes in value for money and for deliverability.

Part 2 - Regional Alliance Feasibility Stage

Our approach to developing the Regional Alliance Feasibility Study and Strategic Outline Case (SOC) is designed to balance robust analysis, stakeholder engagement, and practical delivery within an accelerated 11-13 week timeframe. The methodology is structured to be primarily desktop-based, with targeted in-person engagement for key decision-makers and virtual consultations to gather wider input. This ensures that the process remains efficient, cost-effective, and delivers a business case that meets HM Treasury’s Five Case Model requirements.

The methodology relies on timely participation from key stakeholders, particularly DfE, local authorities, and Multi-Academy Trusts (MATs), through structured engagement sessions.

Mobilisation and data review (weeks 1–3): The project begins with a mobilisation phase to establish governance, define scope, and assess available data. A kick-off meeting will be held with core stakeholders, including DfE representatives, local authorities, MAT estate leads, and funding bodies, to confirm objectives, expectations, and key constraints.

We will provide an analysis of regional and national policy frameworks, including the DfE Sustainability & Climate Change Strategy, Public Sector Decarbonisation Scheme (PSDS), Local Authority Energy Plans, as well as the outputs of the previous NZA pilot. This initial assessment will form the basis of the baseline performance snapshot, outlining key challenges and opportunities for decarbonisation.

By the end of this phase, a Project Initiation Document (PID) will be completed, setting out a refined workplan, key milestones, and success measures.

Stakeholder engagement and needs assessment (weeks 4-7): Engagement with key stakeholders is critical to shaping the Strategic and Management Cases of the SOC. This will be delivered through a mix of in-person workshops and virtual consultations, ensuring efficient input without delaying the timeline.

Two strategic in-person workshops will be conducted with DfE, major Local Authorities, MAT leaders, and funding organisations. The first session will validate initial findings from the baseline assessment, while the second will focus on refining potential delivery models. These engagements will ensure that decision-makers have direct input into the feasibility study.

To capture broader stakeholder perspectives, virtual engagement sessions will be held with school business managers, procurement leads, and regional energy specialists.

These will be complemented by a structured online survey to gather insights from a larger audience. In parallel, desktop case study reviews of similar regional decarbonisation initiatives, such as Welsh Government Net-Zero Schools (drawing AECOM's delivery of 1400 baseline condition surveys and zero carbon route maps) , NHS Estate Decarbonisation, and London's RE:FIT Programme, will be undertaken to benchmark best practices.

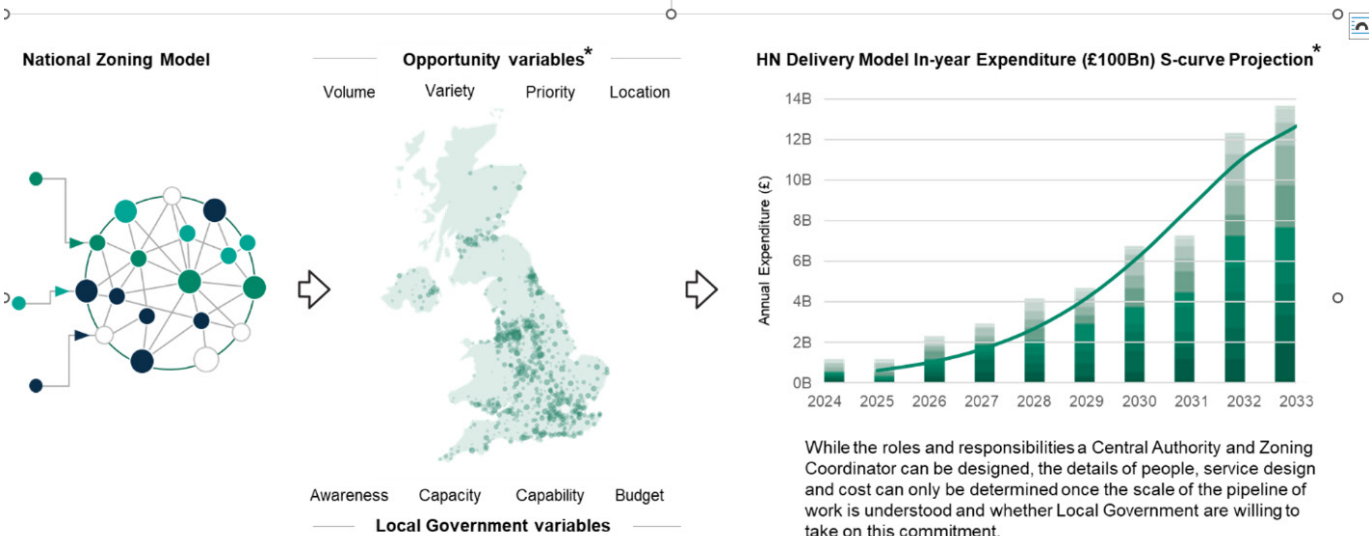
The output of this phase will include a Stakeholder Needs Assessment, identifying barriers to decarbonisation and demand for regional support services. Additionally, a Benchmarking Assessment will be developed, comparing different service models in education, local government, and healthcare.

Delivery model development and options appraisal (Weeks 8-14): Based on insights gathered, potential delivery models for a Regional Decarbonisation Alliance will be developed and assessed for feasibility. The study will consider three to four models, such as:

- A Centralised Regional Hub managed by DfE.
- A Public-Private Partnership (PPP) with private sector finance.
- A Hybrid Local Authority-Led Model with oversight from DfE.
- An Open-Source Regional Innovation Network.

Evidence

Dept of Energy Security and Net Zero - Heat Network Zoning
Challenge - Heat networks are key to the UK's strategy to be net zero by 2050. To effectively deliver heat networks across England, at pace and scale, DESNZ identified the need for a hub and spoke Central Authority & Local/Regional Zone Coordinator model.
Solution - AECOM were appointed to deliver the Target Operating Model for both zoning bodies, along with the implementation plan to transform to this new approach.



**Illustrative purposes only*

A high-level cost-benefit analysis (CBA) and Net Present Value (NPV) modelling will be undertaken to compare the financial viability of each approach. This will be supplemented by risk analysis and market engagement, with virtual validation sessions involving key funding bodies such as Salix Finance, GMCA, PSDS administrators, and private investment firms. Each model will be assessed against strategic alignment criteria to ensure compatibility with regional net-zero goals, education estate priorities, and national decarbonisation funding mechanisms.

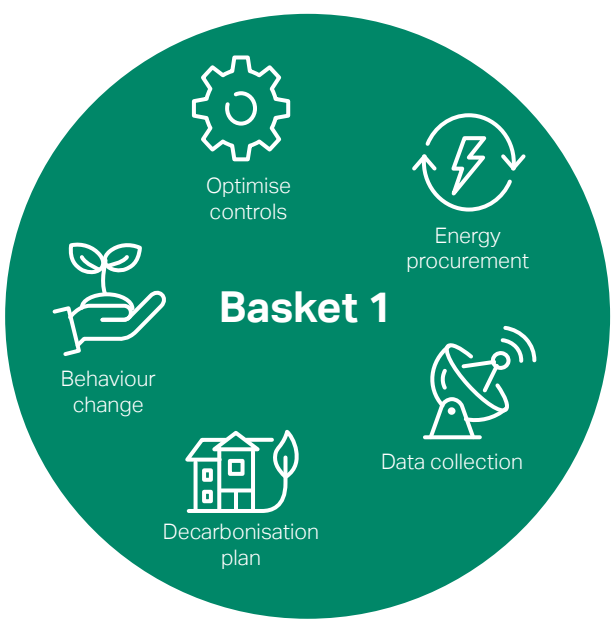
The results of this phase will be documented in an Options Appraisal, detailing the advantages, risks, and financial implications of each model. A supporting Financial Modelling Summary will outline estimated capital requirements, potential funding sources, and projected savings over time.

Completion and SOC review (Weeks 15-16):

In the final phase, findings will be consolidated into a Strategic Outline Case that aligns with HM Treasury's Five Case Model. The SOC will be structured around:

- The **Strategic** Case, demonstrating the need for intervention based on estate condition, carbon reduction targets, and funding challenges.
- The **Economic** Case, outlining the comparative cost-benefit analysis of each proposed delivery models.
- The **Commercial** Case, addressing procurement options and risk considerations.
- The **Financial** Case, detailing investment needs, funding strategies, and financial sustainability.
- The **Management** Case, defining the proposed governance, stakeholder engagement, and implementation strategy.

A final stakeholder validation session will be conducted to present key findings and incorporate final feedback. The SOC will then be submitted for formal approval, accompanied by an Implementation Roadmap that sets out the next steps, funding timelines, and key decision points.



Basket 1 Stage

Our approach:

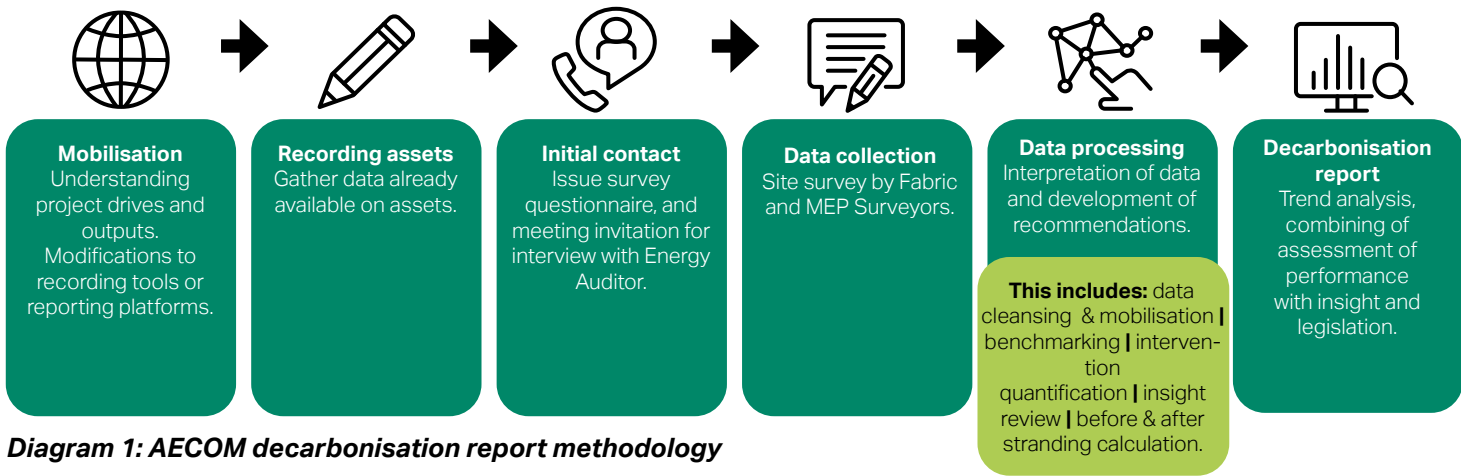


Diagram 1: AECOM decarbonisation report methodology

Mobilisation, project planning and process templating: From kick off, concurrent with the Selection Stage and Regional Alliance Workflows we will develop a suite of template documents to streamline data collection, techno-economic analysis and decarbonisation plan reporting. Consistency of approach across schools will be fundamental to the successful delivery of this programme. We will draw on our experience delivering surveys and decarbonisation pathways for 1400 school in Wales.

Measurement and performance tracking:

We will use our in-house **O**perational **C**arbon and **E**nergy **A**nalysis (OCEAN) platform to store data and report decarbonisation measures to participating schools. OCEAN provides a consistent reporting platform, hosted online, enabling the communication of current performance, recommendations for decarbonisation, and with further data upload, reporting and tracking of performance. The tool is used as a data repository to centrally store relevant surveys, reports and data collected as part of this appointment.

The success of this industry-leading tool was recognised as a finalist in the CIBSE Awards, 2024.

Deliverable 1 Behaviour Change

We understand change is not easy, especially when it requires additional time or resources. Our mission is to ensure school/college communities have a clear understanding of the benefits of their decarbonisation programme, and their role in driving its success. We achieve this by:

1. Creating a positive environment which challenges the norm.

Our workshops will focus on providing material to create a positive environment to facilitate change the hearts and minds. Schools can be a stressful environment, especially during periods of policy change often leading to fatigue. However, changes in culture are vital to improving outcomes and driving change acceptance. We will therefore provide nominated 'Change Champions' with the resource material to affect positive change, from the senior leadership, through to FM managers, pupils, and parents.



2. Educating - providing resource material which backs-up the how's and whys.

We will communicate the why, and the how, and provide the tools to affect positive behaviour change, ensuring change is sustained . This is achieved through a series of 1-hour virtual MS Teams 'all school' workshops, delivered live, and recorded and saved on the Sharepoint Project Resource site, to provide schools with the tools, inspiration and motivation to affect change

Working closely with school coordinators will ensure we reach the right audience to affect the greatest impact. Below are some of the proposed ~monthly workshops we will deliver over the 12-month engagement window:

- 1. Train the green trainers:** providing guidance to staff on how to encourage and embed sustainable behaviour within schools, empowering them to deliver the programme's key messaging and act as champions for the project long after the engagement period.
- 2. Help me prepare for green change:** including teaching resource material to help explain how staff can prepare for the impending change. We need staff to believe in the change to enable the message to cascade to pupils. This workshop will include understanding the levels of change, recognising the outcomes, pros and cons lists and visualisation.
- 3. Understanding what's changing:** How the small changes in how we work have the greatest impact. This will explain to Site / FM managers how they can do their part to lower energy consumption.

- 4. How to overcome a change blocker:** Helping the Change Champion to understand what the root cause of the change blockage may be, and empowering them to encourage open mindedness, to challenge what the thoughts behind what they think they are blocking, and to reduce the fear some may have to embrace change

3. Supporting - creating a change network to act as circular channel of information and feedback in addition to communications.

Change Champions are advocates and act as an important communication channel between the Project Team and colleagues impacted by the moves. As well as 'all school' workshops we undertake 1-2-1s to discuss the transition of change from ending the old regime, through the neutral zone, and onto new beginnings.

By developing stakeholders' awareness and understanding of net zero and actions they can take to personally contribute to decarbonising school buildings, we can maximise stakeholder buy-in and, in doing so, drive long-term behavioural change.

Climate ambassadors: AECOM is committed to delivering Sustainable Legacies for generations to come and, as part of this commitment, undertake compulsory sustainability training for all staff. We will work with climate ambassador regional hub leaders to develop our workshop materials, combining the best of change management with the latest sustainability education materials.

Digital displays and live monitoring: To support our change management and education programme, we work with Energy Sparks to install physical in school display panels allowing sight of real-time carbon metrics.

Evidence

In 2022, AECOM worked with Bath & Northeast Somerset Council to deliver a consultation for the introduction of 15 Liveable Neighbourhoods within Bath, focused on decarbonisation. The SECC team designed and facilitated community-led co-design workshops, enabling the client to approve designs that reflected local ambitions, reducing the risk of objection .

Recorded data will inform our workshops and our 'league' table helping inform school behaviour and give tangible sight of the impact of new behavioural change programmes.

Deliverable 2 - Optimise Controls

Our BMS specialists, supported by Mechanical and Electrical engineers, have investigated and delivered remedial actions within schools; proposing long-term measures, and enacting immediate improvements. In a recent commission for DfE, we undertook a desktop review of BMS and MEP as-built drawings and O+M manuals. We generated 'targeted check-lists' specific to each school so reducing on-site investigating times, enabling focus on fault-finding, operational adjustment, and end-user demonstration.

Through our engineers' visit; we resolve faults such as site wide balancing, inefficiencies in heating / cooling strategies, identification of non-compliant mechanical systems, and the immediate flagging of legionella risks. Reporting will be succinct and cover:

- Accuracy of installation against as-built / des-ops.
- Reporting of potential H+S concerns.
- Condition assessment.
- Identification of major omissions, faults, or operational errors.
- Statement of immediate actions taken whilst on site (efficiency, and corrective actions).
- Summary of training provided, specific to areas identified by the end-user; and summary of areas where further training is requested.
- Commentary on maintenance provisions, and gaps in maintenance strategy.
- Recommendations for future maintenance, update, or replacement where economically non-viable to retain, or where limitations on efficiency cannot be overcome.

Deliverable 3 Energy Procurement & Community

Our sifting questionnaire and subsequent RFI will gather knowledge of existing energy contracts, bill data, timescales for renewal, any relevant penalty clauses as well as information on existing brokerage relationships. We will review and summarise opportunities available to schools to utilise energy brokerage or to pool energy procurement to deliver cost efficiencies. We will discuss opportunities to link effective time of use controls, battery storage and renewable energy generation to maximise revenue through innovative contracts with the suppliers such as Octopus Energy.

We will appraise current opportunities in the market for Schools to benefit from community energy initiatives, be that to fund onsite renewables or to use sleeving arrangements to source renewable energy from local generators. We will engage with current examples of community led renewables such as Ashton Hayes Primary School, Cheshire and the current GMCA PV initiative 'Powering Our Schools'.

Deliverable 4 Data Collection

Data collection is crucial to the programme's success as this provides evidence of current performance, costs, savings, and the return on investment (ROI) for decarbonisation activities.

We will engage with the allocated point of contact for each school to complete an initial online survey to capture baseline information, including knowledge of systems, position of existing warranties, operating routines, and user behaviour. We will review existing data, undertake a gap analysis and create a data log for each school. School contacts will be interviewed by our Energy Advisor to review and clarify points within the survey.

We will update the school data log and use this information to plan interventions, determine bespoke training requirements, and tailor behaviour change training to identified needs.

We will agree on a secure method for exchanging data (e.g. via SharePoint or similar). This will host a Request for Information (RFI) data log, consolidating all requirements/requests across all schools and providing a single, traceable source of data exchange.

Our team will conduct block-by-block whole-building surveys to identify opportunities for fabric improvements to reduce energy and carbon demand. Mechanical and Electrical Surveyors will assess the physical plant and identify opportunities for improvement. Surveyors will make initial appraisal of the building's maximum electrical demand, electrical capacity, and infrastructure (relevant for heat pumps and PV). We will engage with the DNO and local planning authority where necessary.

Evidence

We completed the delivery of net zero roadmaps for 1,500 Welsh schools, covering ~3,000 surveyed blocks, reporting our analysis in OCEAN. We understand the critical data and milestones required to deliver Decarbonisation Plans at pace and scale.

Survey data will be used to predict likely thermal performance; and, where initial surveys indicate thermal imaging is necessary, we will timetable targeted thermal imaging for the 25/26 winter months and add thermal imaging reports as a later addendum to decarbonisation reports.

Our surveyors will provide an assessment of airtightness based on their appraisal of the existing buildings, their form and period of construction, the degree and quality of retrofit and improvements works already undertaken, and the fabric elements condition documented through inspection. Where survey data indicates that air pressure testing would provide significant benefit to inform the optioneering of decarbonisation measures and reporting we will undertake targeted air pressure testing. We anticipate however that the majority, if not all, existing school blocks will be unable to achieve adequate air pressure to the required level to pressurise and test.

Within Basket 3 where completed works will benefit from air-tightness testing at completion, we propose air-tightness testing be undertaken to validate the delivered decarbonisation plan, and to ensure all elements and areas of the envelope are performing to a satisfactory standard

Data processing and analysis: We will analyse data by checking and cleansing as appropriate. Any changes to primary data are recorded in an assumptions and exclusions log. The techno-economic calculation of the thermal performance of buildings and expected savings from predicted measures will be spreadsheet based using benchmarks further informed by survey data.

Data will be collated into our Techno-economic Model (TEM) to calculate carbon, cost saving, capital cost, and payback. Assumptions and estimations, along with a cost book, will be presented, providing an open and transparent approach to identifying decarbonisation potential. We will collect and review asbestos surveys and advise where further surveys may be required. Surveys will be carried out by a specialist third-party contractor.

Evidence

For the DfE Condition Data Collection (CDC) project, we delivered 5,500 (CDC 1) and 7,500 (CDC2) school condition surveys. To suit this project, we propose to create a bespoke mandate to collect and collate the data required for our decarbonisation planning.

We will review and evaluate potential measures to determine the most advantageous solution(s) for each block. Sites with multiple blocks may be suited to a site level solution (e.g. a heat network). We recognize ROI is a key driver for LocatED and will identify and agree on further criteria for selecting measures to take forward in plans. This includes assessing the solution's costs, savings (kWh, £, tCO2e), availability of grant support, and deliverability, in addition to ROI. We will also identify and undertake further design work where required for items such as, controls on a school-by-school basis.

BIM models: We will scan and photograph the interior and exterior of each school to create the digital 3D model point-cloud, held on web-portal this offers a 'Google Street View' mapping of the recorded images, translated onto a 3D geometry model. This will be cloud hosted for the duration of the delivery of the Decarbonisation Plan, accessible by the school and LocatED, providing a visual interactive tool for engagement of our education and behaviour change activities. The School or LocatED may extend this hosting.

Our model is founded on the point-cloud and provides a record for the school going forward. With LocatED we will agree the Level of Detail (LOD), developing BEP, EIRs, AIRs, and OIR to record the baseline point-cloud model, and explore enhancement to this that could benefit the decarbonisation plan and future projects. We propose a sample model be enhanced to explore these options, gaining understanding of the benefits this could bring.

Deliverable 5 Decarbonisation Plan

AECOM will produce a Decarbonisation Plan for each school detailing a programme for decarbonisation on a block-by-block basis. This focuses on B6–Operational Energy as per RICS Whole Life Carbon Assessment for the built environment.

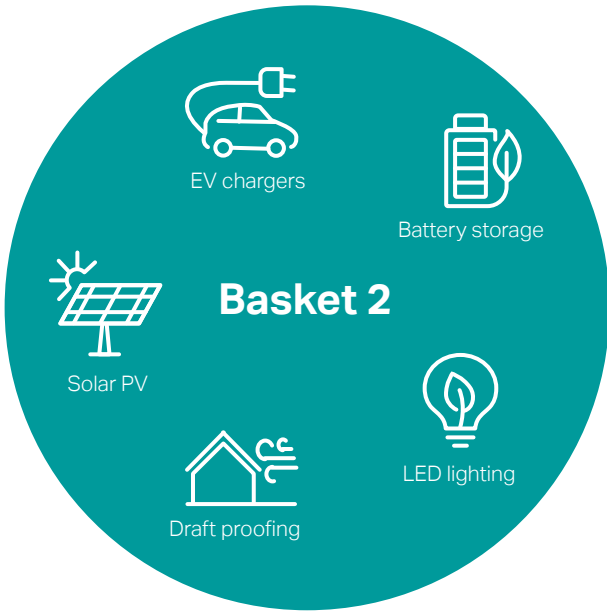
Our decarbonisation plans deliver the most efficient carbon reduction pathway, which will be discussed with stakeholders to develop a realistic and robust plan. This will include an estimation of the anticipated financial (£), energy (kWh) and carbon (tCO2e) savings and payback periods.

Each plan will also contain a high-level measurement and verification (M&V) plan for Basket 1 measures, (e.g. aligned with IPMVP), reflecting current data availability and support.

Different stakeholders have varying levels of understanding and needs from Decarbonisation Plans. We will create a standard format for the plans with clear visuals, tables, and explanations to make findings understandable. Technical details are included in separate appendices, plans will be reviewed and approved by stakeholders before release. As part of the communications and behaviour change initiative, we will review and explain report outputs with client representatives from each school. Decarbonisation Plans will identify opportunities related to behavioural change, control optimisation, and energy procurement. AECOM will deliver agreed measures by March 2025. This will allow for simple, low-risk interventions to be delivered at a pace across a batch of schools.

Evidence

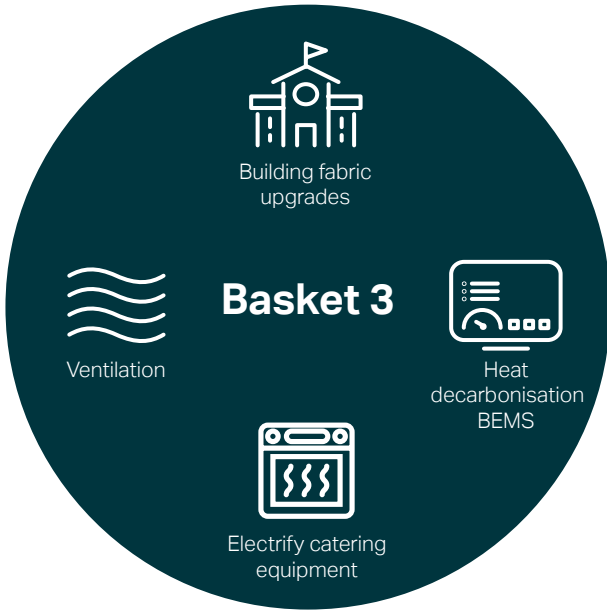
We have a strong understanding of what constitutes a good quality Decarbonisation Plan. Members of our proposed team have recently completed (May-24) a project for DESNZ to evaluate 1,200 Heat Decarbonisation Plans (939 of which were in the education sector) produced through the Low Carbon Skills Fund.



Basket 2 and 3 Stage

We recognise that the specific scope of Basket 2 and 3 measures will depend on the outcome of the Basket 1 appointment. Our methodology will produce a robust Decarbonisation Plan for each school that delivers energy, carbon, and cost savings from year 1, whilst unlocking action for future decarbonisation activities. Our approach includes a continual improvement loop, allowing Basket 2 and 3 measures to be implemented in the future.

After the delivery of decarbonisation reports and alongside behaviour change activities with initial carbon and cost saving interventions, we will work with LocatED to review and schedule activities for Basket 2 and 3 – focusing on optimising a low regrets net zero pathway of delivered measures. The final scope, programme, and costs for Basket 2 will then be developed collaboratively with LocatED based on the outputs of the Basket 1.



Similarly, the scope for Basket 3 will be finalised based on Basket 2 outcomes.

Our client engagement team will continue to support the schools in delivering behavioural change and social value workshops. This will include issuing regular updates and reports, updating and refining the online resource library and delivering workshops.

Grant funding: Where useful and meeting funding round timescales our team will support schools by preparing PSDS applications for applicable works. Our proposed team are currently delivering 10 heat decarbonisation plans for public buildings in Bolton, Trafford and Stockport (due to complete at the end of March 25) which are utilising the PSDS Round 4 Salix form to optimise packages of measures to maximise carbon saving and grant funding.

Our TEM will include an output page that details data required for input into the Salix PSDS application form. This will be included in an Appendix to our Decarbonisation Reports.

✓ **Added Value**

Our proposed team include staff currently seconded into the GMCA Low Carbon Team to help develop and structure the programmatic delivery of buildings decarbonisation, including schools, across the GM public estate. We described the full process of building decarbonisation as a comprehensive flow chart of activities. We are supporting GM in developing their application and evaluation process for PSDS funding when devolved to the Combined Authority. We are well placed to advise schools on applying for PSDS funding.

Specification toolbox: In delivering Baskets 2 and 3 we will draw in the wider AECOM team and develop a specification toolbox - a standardised suite of tender documents, that can be adapted to the specific needs of each school. We have excellent experience in procurement routes to market and can advise on both individual and batch delivery with potential cost and programme savings.

Procurement management: If required, our procurement experts within AECOM can advise on developing a framework for the procurement of contracts to deliver Basket 2 and 3. This approach will create a consistent competitive market for all deliverables which could be adopted country wide.

Organogram and Resources

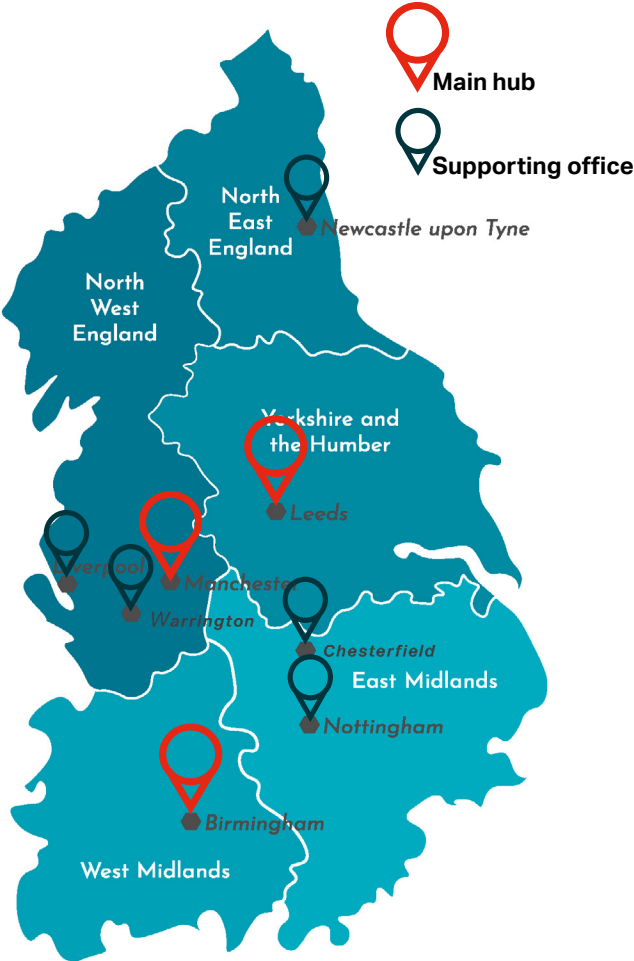
AECOM offers a team with the required skills and experience of decarbonisation and project delivery in both the education sector and the wider industry. The geographic spread of AECOM's offices aligns with the location of schools in the NZAP. We will mobilise local resource as appropriate to minimise travel time and cost. Specialist technical leads will support our project leads. Their skills and experiences are presented overleaf:

✓ **Added Value**

Our skills include stakeholder management and human excellence, cost managers, building surveyors, and +200 net zero and sustainability specialists. We are partnered with: Murphys, to provide the LIDAR surveys, Universal Systems and Controls, who will undertake the review, quick wins, and training for the BMS systems, and Energy Sparks who will provide their school-specific, online energy management tool and education programme.

Our main hubs and supporting offices are shown below. AECOM have 24 offices and over 7,000 staff. We are therefore well placed to provide all required resources on this project.

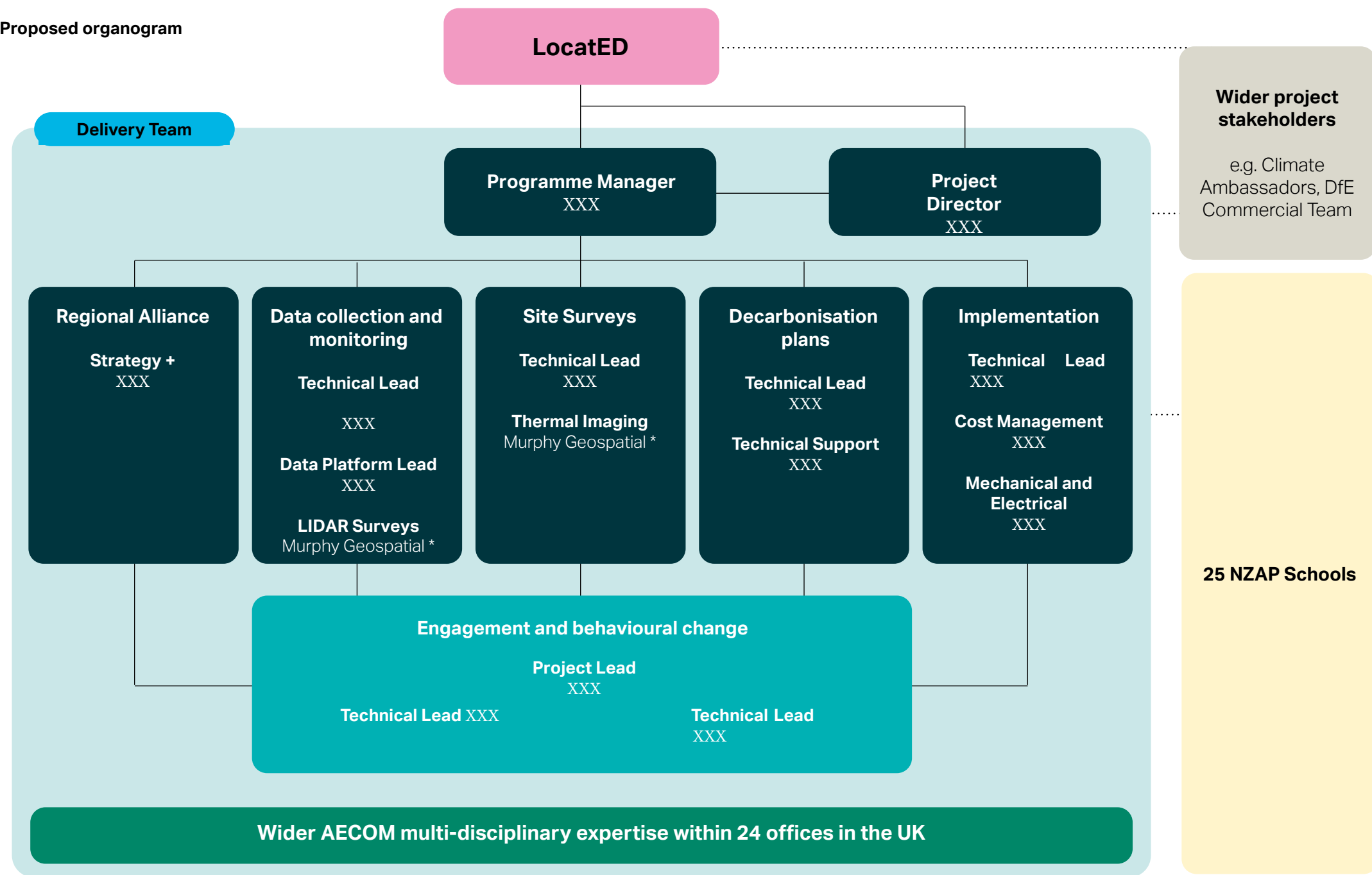
Our offices in your regions



Staff numbers in your regions:

- Lot 1: 907
- Lot 2: 574
- Lot 3: 817

Proposed organogram



* Indicates AECOM supply partner

Proposed delivery staff details

Team member	Role	Years' experience	Qualifications	Skills
XXX REDACTED	Project Director	25	- BSc (Hons) Building Surveying - BSc (Hons) Architectural Technology	- AECOM School Sector Lead, co-ordinating schools' commissions through DfE, local authorities, developers, and Trust appointment. - Project oversight, technical compliance, and resource management of internal resource and external suppliers. - Experienced in project delivery, with development and publication of the Kingdom of Saudi Arabia's Schools Sustainable Design guide.
XXX Programme REDACTED	Manager, site survey technical lead and survey support	25	- BSc (Hons) Building Surveying - BSc (Hons) Architectural Technology	- AECOM Schools Technical Lead. - Concept through technical design development, contract administration and soft-landing, for the delivery of survey, refurbishment and retrofit programmes of improvement, rationalisation, and maintenance works.
XXX REDACTED	Strategy + Lead	20	- MSc Technology Management BSc (Hons) Physics - BCS Professional Cert in Business Architecture - P3O Foundation - PRINCE2 Practitioner	- Head of Strategy + Consulting UK - Lead - Heat Network Zoning Policy Target Operating Model Design. - Programme Business Case development - High emotional intelligence Relationship building - Outcome focused planning - Innovative problem-solving
XXX REDACTED	Data Collection and Monitoring Technical Lead	5	- MSc Renewable Energy Systems Technology - BEng (Hons) Mechanical Engineering	- Delivery of net zero carbon roadmaps for over 1,500 schools across Wales. - Development of tool to streamline energy and water efficiency audits for 150 healthcare buildings. - Development of digital tool to automate energy benchmarking of assets, calculation of energy saving measures and asset level analysis within the carbon risk real estate monitor (CRREM) tool.

Team member	Role	Years' experience	Qualifications	Skills
XXX REDACTED	Data Platform Lead	25	- EngD in Computer Visualisation - MSc in Construction Innovation - BEng (Hons) in Building Services Engineering - Chartered IT Professional - Chartered Engineer	- Heads AECOM's Software Solutions Market Sector and has extensive experience in enabling clients meet their current and future technology requirements and leads AECOM's OCEAN offer. - Designs, manages, and delivers digital solutions focused on tasks such as analytics, visualisation, and management. - Previously held the position of assessor on several InnovateUK competitions and chaired internal technical innovation working groups
XXX REDACTED	MEP Lead	25	- BSc (Hons) Building Services - MIET	- Associate Director within our national M&E Building Surveying team. - Expertise in project management, surveying and design experience - Specialises in asset capture, condition, lifecycle, technical due diligence and dilapidations.
XXX REDACTED	Decarbonisation Plan Technical lead	16	- MSc Building Services Engineering, - BEng (Hons) Mechanical & Computer Aided Engineering,	- Seconded to GMCA to develop Decarbonisation Routemap for GM and support development of PSDS Application process for GM - Technical Team – LCSF HDP Research Project reviewing 1200 Heat Decarbonisation Plans - Programme Approach to Estate Retrofit for North West Net Zero Hub
XXX REDACTED	Decarbonisation Plan Technical Support	11	- MEng (Hons) Mechanical Engineering with Financial Management - AMIMechE	- Senior Energy Engineer - Specialist in delivering strategic advisory services to the public sector for decarbonisation of assets within existing estates with keen focus on decarbonisation of heat and implementation of energy efficiency measures.

Team member	Role	Years' experience	Qualifications	Skills
XXX REDACTED	Implementation Technical Lead & Behaviour Change Support	29	- BA Hons Architecture - Grad dip Architecture - APM project management	- School sustainability lead for AECOM in UK and in Kingdom of Saudi Arabia. - Managed solar installation programme for public buildings. - NWNZH Green skills programme, PSDS funding applications and installation.
XXX REDACTED	Implementation cost management	18	- BSc - MRICS Chartered	- XXX is a professional Quantity Surveyor providing cost consultancy services pre and post contract, to both new build and refurbished sectors ranging from healthcare, education and residential. - Currently working with the Department for Education advising in the role of Quantity Surveyor. - Jeff has developed skills in respect of contract administration, change management, procurement, value engineering, cost management, risk management and financial reporting.
XXX REDACTED	Engagement and behavioural change project lead	16	MA (Oxon), English Language and Literature	- Principal, stakeholder engagement, consultation, and communications. - Delivers strategic stakeholder engagement and communications services to major transport projects including East West Rail and Luton Airport Expansion. - Led public affairs and political engagement for the Institution of Civil Engineers. - Works collaboratively across disciplines to maximise buy-in and support from stakeholders to support delivery of projects.
XXX REDACTED	Engagement and behavioural change technical lead	19	- MA, Social Anthropology - Member, Public Relations, and Communications Association	- Associate director, stakeholder engagement, consultation, and communications. - Delivers communications and engagement strategies for high-profile infrastructure projects such as East West Rail. - Led a community-led, co-design approach to support development of Bath Liveable Neighbourhood plans. - Winner of the 2020 Best Event CIPR award for communications and engagement on the £1.5bn Cambridge to Huntingdon major roads upgrade.

Criterion: Stakeholder Engagement Strategy

Criterion: Detailed stakeholder engagement strategy relevant to the specific Lot

Question 2: Please provide a detailed stakeholder engagement strategy to facilitate successful completion of the Basket 1 deliverables within the required timescales set out in the Specification and the Basket 2 and Basket 3 services.

Please explain how you will engage with the following stakeholders: different types of schools and colleges, different responsible bodies including (trusts, local authorities and diocesan authorities), teaching staff, site staff, pupils, school governing bodies and statutory authorities (including utilities and planning authorities).

The stakeholder engagement strategy should include the following elements:

- a. stakeholder engagement approach / method;
- b. indicative programme and engagement plan; and
- c. management and report structure.

2000 word max

Stakeholder Engagement and Approach

At AECOM we have committed to science-based net-zero targets - reducing Scope 1, 2 and 3 emissions 90% by 2040. Our journey is well underway and we're committed to sharing our successes and lessons learned. We have a team of over 60 stakeholder engagement and consultation specialists who have significant experience developing and delivering effective, tailored stakeholder engagement strategies across a range of projects.

Our meaningful, collaborative engagement programme will see us work closely with Trusts and schools, building positive relationships and progressing the development of the Net Zero Accelerator to deliver a programme of positive, sustainable behavioural change supporting decarbonisation interventions in each school.

Our proposed approach is structured around the deliverables set out in the Basket 1 Behavioural Change specification. We will work closely with the schools and key LocatED members to ensure swift, effective engagement from the outset with staff, pupils, and governing bodies, as well as Trusts, statutory and local authorities. We will develop an outcome-driven communications and engagement approach that recognises the time and workload pressures schools face.

Our stakeholder engagement, communications and behavioural change programme will reflect the aims of the Net Zero Accelerator, the NZA Route Map and LocatED/DfE's wider sustainability policies and workstreams

Evidence

We have worked with clients such as Bath and North-East Somerset, Derbyshire County and Oxfordshire County Councils to develop engagement plans focused on fine-grained local concerns, including schools; we will draw on this experience to deliver excellence for LocatED.

Communication management: To support effective dialogue and engagement, we will establish three communications channels:

- 1. **Project inbox:** Using a LocatED email address for communication with the Trusts, and authorities will provide a single point of interface to help share updates, respond to questions, clarify activity, and receive information and suggestions..
- 2. **Microsoft Teams Shared Resource Library:** A 'one-stop-shop' for school stakeholders - curating online resources, providing materials to help stakeholders share the decarbonisation programme 'story' and key messages, in a relevant and accessible way. Content will align with the National Curriculum, supporting schools' wider teaching and learning on climate change and net zero. Collateral will include factsheets, slides, and visuals/ infographics to be refined as the decarbonisation programme is embedded and the behavioural change programme implemented.
- 3. **Microsoft Teams Private Data Site:** Each school will have a dedicated Teams Channel (secure) into which data will be deposited. Folders will be pre-populated to ensure data is clearly sorted, a dedicated data handler will monitor and record populated data and chase schools where data is missing.



Proposed approach

Indicative Programme and Engagement Plan

Our engagement plan will echo the ethos of:

- **Creating:** a positive environment which challenges the norm
- **Educating:** providing resource material which backs-up the how's and whys
- **Supporting:** creating a change network to act as circular channel of information and feedback in addition to communications

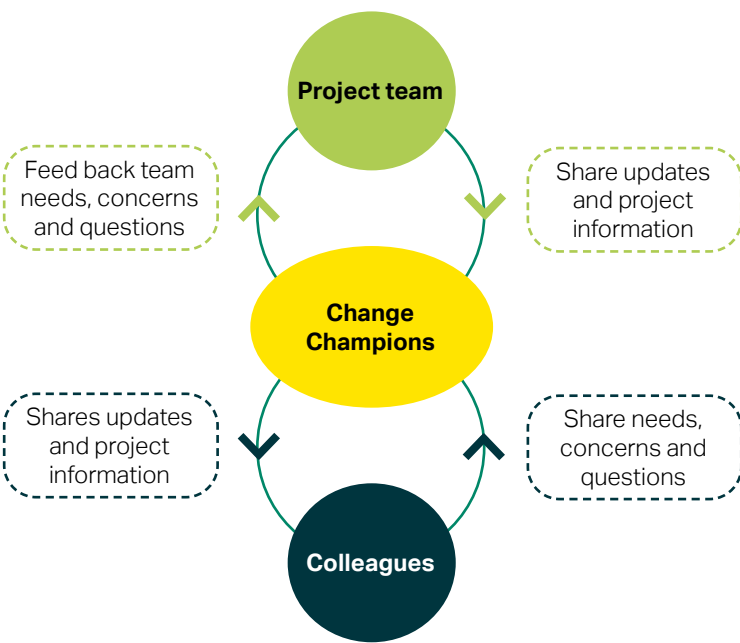
1. Creating

We understand behaviour change is not easy, especially when it includes additional time or resources; Our mission is to ensure school/college communities have a clear understanding of the benefits of the decarbonisation programme and their role in driving its success.

To help create the positive environment for change, each school/collage will be asked to nominate Change Champions who will become the advocates of the change and act as an important sounding board between the Project Team and those impacted by the changes. We suggest that this may be a combination of teaching staff, facility managers, pupils, and parents.

The role of a Change Champion:

- **Awareness** of the need for adopting new ways of working
- Delivering **key messages** to Staff and Pupils
- **Role model and encourage** behaviours for new ways of working
- Continue to **support** the new behaviours in to the future



Change champions

The Responsibilities:

- **Attend** regular Change Champion meetings
- Help to **communicate** the strategy and keep colleagues informed
- **Respond to project challenges** – understand how challenges affect your team, **gather feedback** and discuss benefits
- Help colleagues and pupils **think differently** about the school and how to use it.

Early engagement will enable us to run online knowledge and attitudes baseline online survey to inform the behavioural change programme and track progress focusing on:

- How climate-proofed and energy efficient stakeholders believe their schools to be.
- Knowledge and attitudes towards net zero including any perceived blockages to change.
- Ideas and suggestions for mitigation measures, in school and more widely.

2. Educating

A key challenge to effect change is how we communicate with senior leaders, staff, pupils and parents. In conjunction with the Behaviour Change Programme, we will provide the how, why and tools to affect positive behaviour through the provision of materials for teaching staff.

Behaviour change: In developing our behavioural change programme, we will apply recognised and established behaviour change model, COM-B (Capability, Opportunity, Motivation - Behaviour). As people experts, we recognise that the key to any behaviour change is motivation, encouraging people to want to make the change. Our focus will be to deliver a depth of understanding of the opportunity, with the motivation to drive sustainable, positive behaviour change.

We will integrate learnings and methods drawn from our human excellence capability - understanding how people interact (processes, systems, situations, environments etc.) and why they interact in the way they do. We will ensure stakeholders will feel part of the process, with their views and feedback reflected in the Decarbonisation Plans – and as such change process are far more likely to be adopted and embraced.

Educational resources: We will deliver a series of 1-hour virtual all school workshops which will be via a recorded Teams delivery and housed on the Teams Resource site. We will work closely with the school coordinators ensure we reach the right audience to affect the greatest impact. The workshops are aimed at providing the schools with the tools and teaching materials to inspire and motivate to affect change.

The following are a selection of proposed workshops we will deliver in the 12-month engagement window.

- The Green Connection** – introduction workshop to connect with local schools, build relationships, and share involvement. Ideas may include: currently blockages to change, current initiatives, what has been tried as successful or having failed.
- Net Zero FM** - premises manager forum. Opportunity for premises managers to share knowledge and form lasting connections, recognising their key role in achieving a green school.
- How Green Are You?** – how to work out what your current emissions are and what can be done to lower emissions and fuel bills.
- Climate Change Anxiety** – AECOM have developed a bespoke training programme to help tackle climate related anxiety young people may face. We will train schools in how they can use this resource to help affect change in pupils.
- Delivering Action** – how to build an effective climate action plan e.g. forming a school Eco council including pupils, parents, or creating a Green hub for the wider school community.
- Grow Yourself Green** - how to create a sensory garden, improve biodiversity by creating no-mow zones, and grow your own food.
- Accessing Funding** – How to secure further support from local and national organisations.



3. Supporting

Nominated Change Champions will be fully supported in their quest to change hearts and minds leading to the adoption of the Basket 2 and 3 deliverables. To do this we will provide:

Monthly 1-2-1 check in: Check-ins will help to maintain positive dialogue, gather actionable feedback on the success of initiatives and ensure stakeholders feel at the centre of the process as maximising buy-in creates the greatest opportunity to affect behavioural change. Where there are challenging behaviours, we can offer bespoke guidance on how to best effect change.

We will meet monthly with the Change Champions to review what actions the schools have implemented; what blockages they have encountered and review the ‘live monitor’ dashboard to see how change has been adopted in real time.

1-2-1 workshops: Where the monthly check-ins highlight a particular problem, our change management team can discuss, at a workshop, strategies to overcome the blockage.

Monthly all schools workshops: Key outcomes and challenges arising in training and 1-2-1 workshops will be shared in all-school presentation to share lessons learnt. By sharing positive outcomes, overcoming blockages to change, and positive feedback, it will promote open discuss, discussion of solutions, and foster comradery.

Evidence

We have delivered seven virtual workshops with the Academies Enterprise Trust, the Bellevue Place Education Trust and Plymouth CAST, including statutory and local authorities; and four cluster workshops with key stakeholders from the schools.

Programme

Month	Description
Month 1	Introductory email: AECOM - our role, goals, data gathering goals, and broad ar- rangements for workshops - introducing the concept of Change Champions.
	Survey questionnaire: to gauge baseline attitudes to change. The data will enable us to measure the stakeholder willingness to engage, communicate, and facilitate dialogue.
Month 2	Change Champions training: we will give change champions the tools to deliver and manage change within their organisation.
	Stakeholder engagement and communication plans: develop the messaging and communication protocols. This will be measured by defined objectives to evaluate stakeholders level of interest and influence.
Months 2 to 8	Communications and Engagement: 1-21 meetings, All school Workshops:
Months 3-12	Education change training materials: We will work with the schools and Climate Ambassadors to determine their exact training requirements, seeking to incorporate bespoke material where needed.
Month 3-12	Behaviour change workshops: we will deliver sustainable behaviour change work- shops using the COM-B model. Actions and outcomes will be tracked, stakeholder journeys mapped with examples of positive behaviour change, and benefits to real life carbon reductions described.
Month 5	Delivery workshop to support decarbonisation plans: share and communicate the decarbonisation plans and the role of Change Champions throughout the schools. To maximise reach we will support through, FAQ documents, lessons learnt, materials specific to proposed interventions, resource library, and newsletter.
Month 12	Final Thoughts Workshop: At the 'end' of the 12-month programme we will host a' final thoughts workshop' for all schools to share experiences, re-enforce successes and ongoing measures, and ensure shared information is available to all.

Management and Report Structure

Monitoring changes: At monthly 1-2-1 check-ins with the Change Champions, we will review completed and in-progress actions, blockages schools have encountered, and will analyse the dashboard to see how change has been adopted in real time. The outcomes will be discussed and evaluated to allow us to feedback for further improvements. Working alongside Energy Sparks we will produce a league table recording all successes, feeding into the monthly all-schools workshop.

Report on effectiveness of change: At monthly 1-2-1 check-ins with the Change Champions, we will review completed and in-progress actions, blockages schools have encountered, and will analyse the dashboard to see how change has been adopted in real time. The outcomes will be discussed and evaluated to allow us to feedback for further improvements. Working alongside Energy Sparks we will produce a league table recording all successes, feeding into the monthly all-schools workshop.

On-going communication: We recognise the time and workload pressures schools face, so our communications will be short, clear, and effective. We will identify primary points of contact, building positive working relationships, and adapt our communication style and method to suit needs and preferences.

Criterion 3: Delivery Programme

Criterion: Detailed and comprehensive delivery programme to meet the project timescales

Question 3: Please provide a detailed delivery programme, in the form of a Gantt chart, detailing how the project will be delivered to meet the timescales, outputs and actions in the Specification. This response is limited to the Basket 1 deliverables.

The delivery programme should include the following elements:

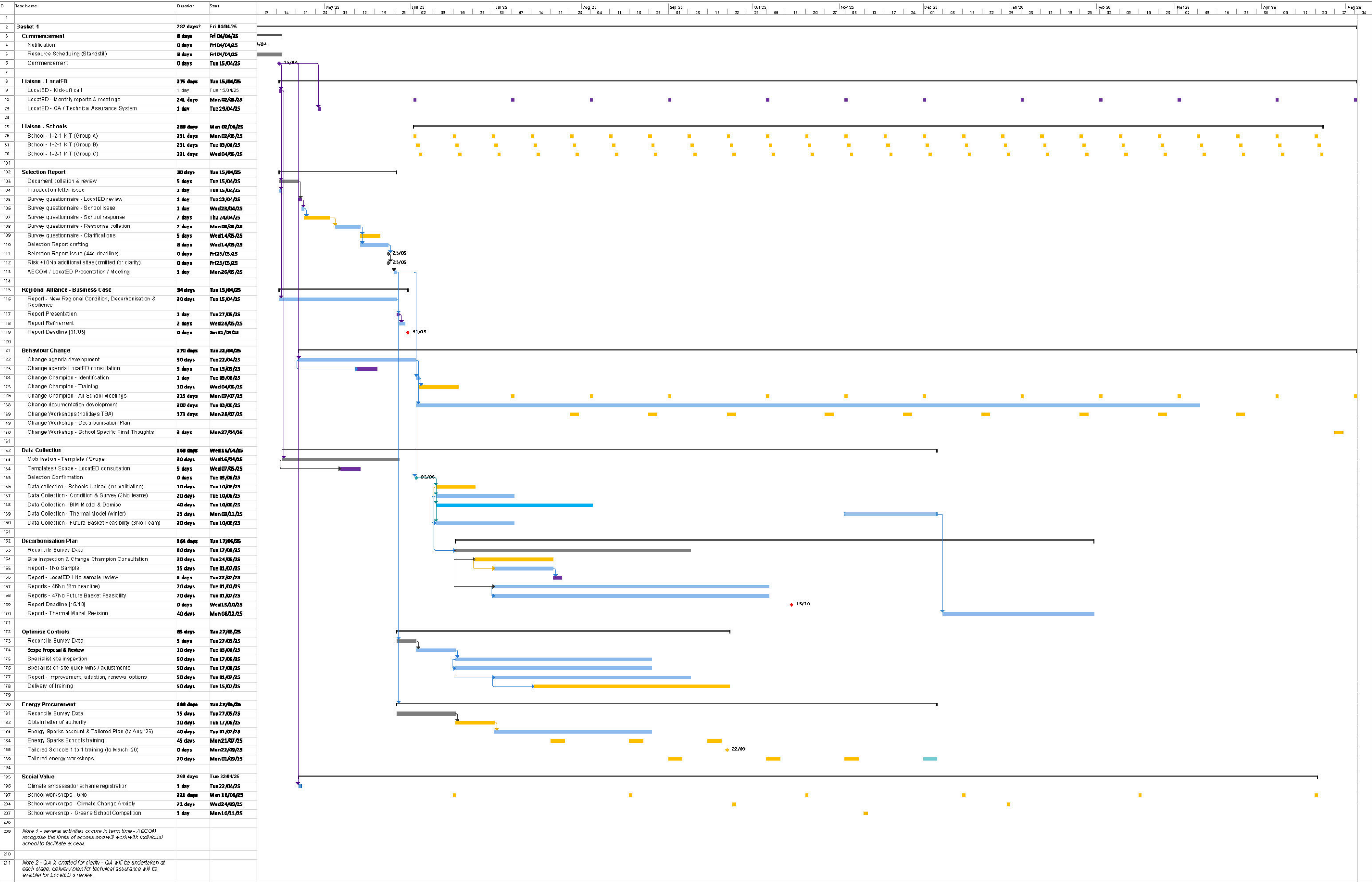
- a. project milestones e.g. key project delivery check points and gateways;
- b. lead in periods e.g. lead in periods of the supply of engineering/optimisation services or building surveys;
- c. procurement and delivery of proposed on site interventions, including where appropriate any statutory consents required and;
- d. operational requirements e.g. consideration for school term dates and operational hours.

One A3 page

Proposed programme

We have included an image of our programme overleaf but for clarity please see the PDF spreadsheet enclosed in Appendix 1.

Outline Basket 1 + Feasibility Basket 2 +3 Programme [Concurrent delivery teams]



Criterion 4: Quality Assurance

Criterion: Provision of quality assurance throughout the delivery period

Question 4: Please explain how you will deliver the project in a way which ensures quality assurance and meets the Authority’s quality assurance requirements during Basket 1 and Basket 2/3.

- The response should include the following elements:
- a. which long-term monitoring systems you will implement;
 - b. how you will provide training to site staff to operate interventions; and
 - c. how you will manage CDM and HSE requirements through the delivery of the interventions.

2,000 words max

A. Quality monitoring systems

Project quality assurance: Our approach places data consistency and quality at its core, enabling us to deliver right first time. AECOM’s Integrated Management System (IMS) is certified under the international quality standard ISO 9001:2015, established in 1986 and certified in 1987 it is now part of our DNA. This has expanded to incorporate environmental management (ISO 14001:2015), occupational health and safety management (ISO 45001:2018 SSIP) and collaborative relationships (ISO 44001).

Our IMS methodology is tailored to our business lines and practice areas to ensure consistency in the desired level of quality for deliverables agreed with our clients. At the delivery level, our Project Delivery System (PDS) governs all phases of projects and programme management; from proposal, to planning, execution, and close-out; with specific focus on environmental and health and safety processes. Day to day, our PDS offers support to project, and discipline leads with access to policies, guidelines, and best practice.

The process for Technical Quality Review (TQR) is embedded within the PDS, tailored to the specific projects, its needs, demands, scale and complexity. We incorporate client milestones and gateways, or policies and procedures as appropriate to the project; whilst swift start is required to maintain programme, incorporation of LocatED gateways and quality assurance requirements will be a key undertaking for us.

Once defined, our TQR seeks to ensure both technical accuracy and completeness at a granular level – applying to all outputs of communications, surveys, reports, drawings, data tables, specifications, fact sheets, figures, logs, and presentations etc. The same procedure will extend to our subcontractors and suppliers to ensure quality and uniformity.

Technical quality review (TQR): The table overleaf outlines our approach to quality assurance – Self-Check, Check, Validate, Verify, and Approve. Each member of the team is collectively responsible, as part of our continuous, collaborative process, to promote quality work, secondly, to ensure outputs are compliant with our standards and finally, they guarantee that deliverables are not released without:

- a. Peer review, this is a technical review from individuals not directly involved with the project, this allows the opportunity to challenge proposals ensuring current trends, metrics and external client benchmarking is captured, the resulting in AECOM delivering the best possible outcomes for a project.
- b. Senior Manager sign off this ensures we not only fulfil a “process requirement”, it reduces the risk of submitting a technical proposal that does not meet the clients’ needs by identifying technical risks, reducing errors, omissions that lead to rework resulting in an unhappy team and an unhappy client.

Our TQR is illustrated in Diagram 1 on the following page:

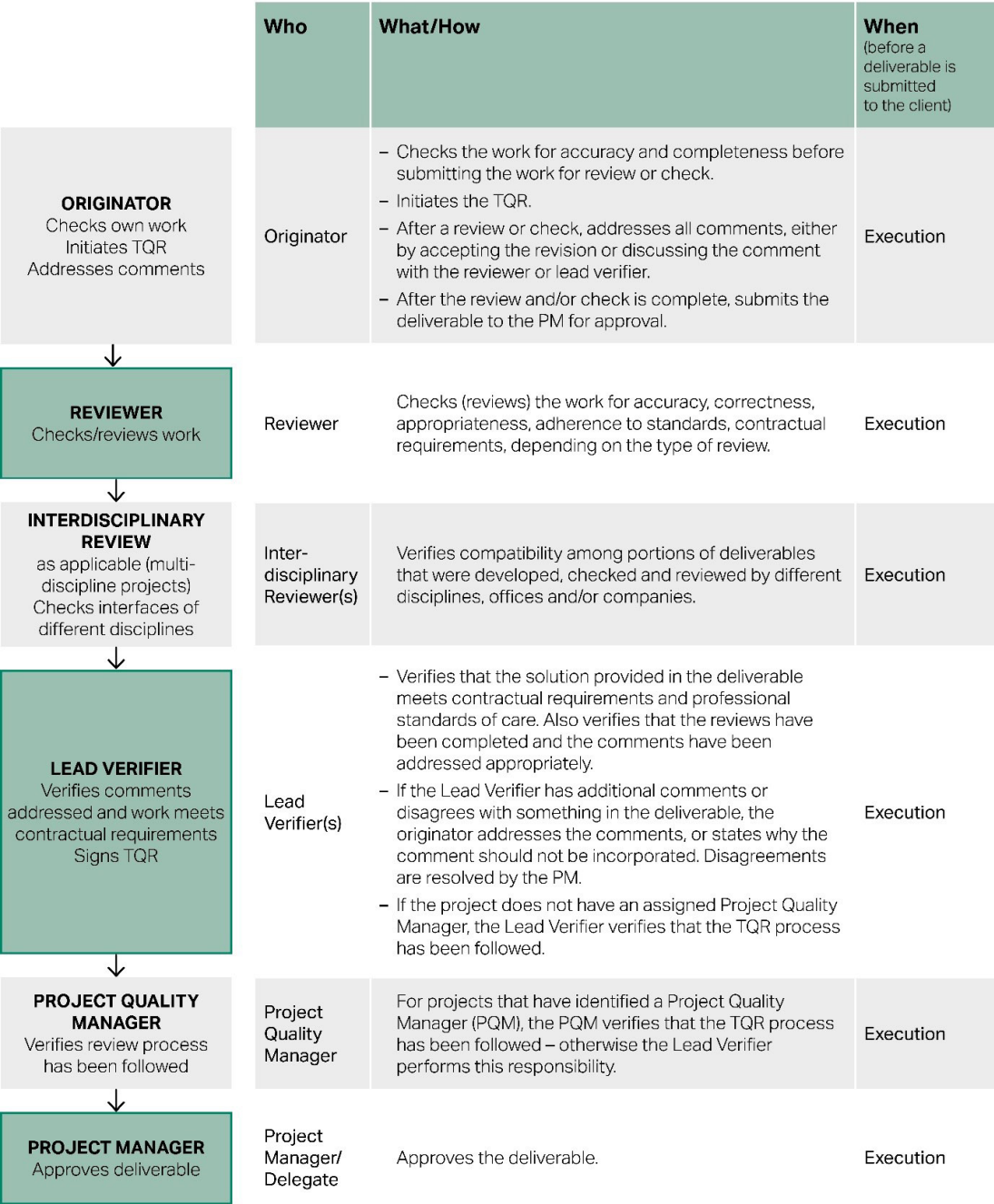


Diagram 1: Technical quality review process

Long term value in delivery: AECOM recognise that the implementation works are little more than a first step in decarbonisation; unless successfully implemented, maintained, and reviewed, the paper-benefits of carbon reduction are at risk of vanishing. Transfer of knowledge and understanding of the measures taken to achieve our outcomes is critical, starting with engagement and on-boarding in a journey for each school, and the wider Trust will make.

Evidence

The survey satisfaction scores given by DfE for Newham College included 9/10 for the following: Effective/timely communications, team accessibility, team responsiveness, team commercial matters, team technical expertise, team understands industry; and 10/10 for team professionalism.

Our commitment is to have an ongoing consultation with the schools and Trusts, requiring a change in our mindset from ‘project delivery’ with clear commencement and completion, to that of initial project delivery with sustained support to realise long-term benefits.

- We recognise the need for ongoing evaluation of performance. This will be supported through regular schools’ engagement with an initial focus on delivery and works, with an embedded message of our purpose to achieve decarbonisation.
- School engagement will transition from project to operation, with our internal engagement team taking the lead in communication. We will identify key staff, establish relationships, maintain continuity in frequency and individuals contacted, responding to site specific considerations.

- Our technical expertise will be coordinated, across differing specialists. We will avoid mixed messages, targeting technical content at those responsible for systems control, with broader in-principal delivery for wider consumption (which can be expanded upon where individual schools calls for broader in-depth knowledge).
- Beyond ‘meetings’ we will issue progress reports, designs, overarching explanatory rationale for the design, datasheets, and leaflets to enable the wider but consistent dissemination of information within both Trusts and schools.
- Parallel to this, social value commitment will be led by the engagement team, in part to reinforce the culture-change message as pupils, teachers, and property staff share common goal.

We recognise that transfer in ‘ownership of decarbonisation goals’ with a sense of understanding to the school and Trust property managers as a key indicator of success. Each school is in part unique, requiring tailoring and responsiveness in our approach. In establishing a robust and continuing process for delivery we open opportunity to generate value through strategic plans, and lessons learnt shared with LocatED to inform Basket 2 and 3 deliverables; and potentially onwards to large-scale roll-out. We promote collaborative working and encourage shared commitment to Basket 1 (plus 2 and 3) with LocatED’s other appointed delivery partner.

A rolling programme of review and check-in between the delivery teams will be maintained; paralleling regular LocatED and schools keep-in-touch calls.

B. Staff training

The project spans a diverse range of technical fields, and we recognise the need to establish common approach with clear communications. We have a structured process for ensuring that all staff and subcontractors deployed on this pilot are suitably qualified and experienced; we intend to evidence this during mobilisation discussions with LocatED, with each facet of our team introduced. Our team (refer to Q1 and organogram); Zac, Matt, Mark, Gemma, and Alastair, have recent experience of delivering retrofit and decarbonisation schemes, benefiting this commission with established working relationships. Each field supporting this commission are aware of the opportunity, and have committed to its resource, as outlined in Q3 project programme.

Our technology is a key aspect of our approach but does not out-weigh our expertise, we understand the existing survey and operational documentation will influence and underpin our design and decarbonisation strategy. As such our staff will be trained to recognise and identify gaps in this data, and where concerns with the accuracy and/or currency of the data is identified, we will agree a means to update and overcome these potential shortcomings.

We have direct experience in all Basket 1, 2 and 3 deliverables; in data acquisition, data manipulation to evaluate potential outcomes, and in dashboard outputs to display and report that can be applied to this pilot. AECOM have project experience of utilising several in-house tools to manage project data, we can use lessons learnt and from deployment of these tools to the benefit of LocatED.

Site staff training to operate interventions: Delivered through our Creating, Educating and Supporting change management programme, will we provide training to our senior delivery team empowering them to effectively advise site staff on effective change management and removal of the blockages to affective change.

Our programme has been designed in four parts enabling a Change Champion to guide staff and pupils through the change process to encourage and embed sustainable behaviour within schools. All resource material will be available within our on-line learning library.

1. Initial training – the train the trainer will provide the introduction to change management.
2. Prepare for change – this will explore the levels of change and provide educational resource materials for teachers to cascade to pupils.
3. FM team changes – the FM teams will be key to the delivery of interventions; this workshop recognises their importance as a measure of mitigating resistance to change.
4. How to overcome a blocker – where there is a blocker to an intervention, the team will support the Change Champions not only through training but ongoing 1-2-1 support with our dedicated change management team.

C. Health and safety

Within Basket 1 we will shape the likely building and services works to deliver the decarbonisation strategy under Basket 2 and 3. These works will necessitate compliance with the Construction Design and Management regulations (CDM), and whilst aspects may not trigger notification to the HSE, the baseline obligations will apply.

Our building surveyors have all completed APS CDM Principal Designer (CDM-PD) training, and act as CDM PDs in refurbishment, extension, retrofit, and new-build commissions in schools and other sectors. The requirements of CDM will be captured as part of our design process, starting in Basket 1:

- We will record inherent risk and/or limitations within the existing building that may impact our proposals. Examples could include roof access, plant room access, service routing, deleterious materials, site access / confined school site, etc.
- In connection with design development, we will consider the buildability of our proposals to facilitate safe construction, considering equity and diversity across all levels of education.
- Regarding maintenance, we will seek to eliminate the need for management procedure to safely maintain the building. New installations, and where possible if incidental improvement to existing shortcoming can be incorporated, will be readily accessible for maintenance and ultimately decommissioning.

A design risk assessment register will be held in a common location for each site, centrally recording each specialisms approach to risk identification, mitigation, sharing this across the whole AECOM team. Disclosed to the contractors as early as possible, our approach will be discussed with the school, and be reported through progress reports to LocatED.

Beyond CDM PD, our teams are rapidly developing, implementing, and refining processed to ensure compliance with the Building Safety Act, and its Principal Designer (BSA-PD) role. The distinction in similarly named roles is understood, and it would be our intention to share our approach with LocatED in the initial stages to ensure this meet expectations of the newly introduced legislation.

Internally AECOM operate a Lifeguard reporting system, and obligate senior staff to contribute via Senior Management Actions, to share both positive and negative occurrences and observations across all disciplines and regions AECOM operate in.

This offers insight to how others operate, with valuable lessons widely shared, enabling our health and safety team to target specific areas and sector with relevant and current guidance.

Evidence

As part of the national education commission, we receive, and have written, technical bulletins arising from clerk of works inspections; identifying post completion defect or health and safety incidents. We recognise the benefit in these bulletins and are expanding this to inform our surveyors as lessons learnt.

Safeguarding : The projects will be coordinated by XXX as part of the school team he is the technical lead in TA commissions. Alastair is aware of the importance of safeguarding, particularly regarding this commission with the volume and breadth of personnel required to deliver the commission. We will adopt systems implemented for delivery of CDC surveys - engaging with each Trust and school to understand their requirements, ensuring those attending hold enhanced DBS, and put in place measures to manage specialists who may not hold DBS.

Safeguarding will be reported upon and form regular agenda in school keeping in touch calls.

We understand the nature of live school environments, sensitive periods around examinations, open days, and the parallel activities of the schools' directly appointed contractors and have experience of survey within and outside of term time. We will clearly communicate the purpose and extent of our visit or survey, permit the school understanding of any disruption, and retain a degree of flexibility.

Criterion: Risk Management Strategy

Criterion: Detailed risk management strategy to manage and mitigate risks

Question 5: Please provide a detailed risk management strategy for the successful delivery of the services

- The risk management strategy should include the following elements:
- a. Risk identification: detail the top ten project risks; and
 - b. Mitigation strategy: detail how risks will be identified, measured, tracked assessed and mitigated throughout the project.

1,500 words max

Our risk management strategy will be specific to NZAP; drawing knowledge from our experience in programme management, detailed understanding of behavioural change, and delivery of Net Zero Carbon roadmaps.

1. Risk Management Process

We follow a four-stage approach:

- **Identification** - Early identification and assessment of risks is essential to mitigate and manage positive outcomes within the Decarbonisation Plans, and recommendations for Basket 2+3. Close collaboration with LocatED and the schools is crucial to identify risks (across all Baskets); permitting coordinated solutions, adapting designs, embracing environmental design, supply chain considerations, and how best to achieve buildability.
- **Analysis** - An important aspect will be the engagement with school stakeholders / maintenance (operational) personnel, to lever their knowledge, and to understand building failings. This will enable solutions that mitigate risk to be developed, realising continual improvement.
- **Management** - The identification of risks, their management and ownership, will be controlled through dedicated workshops, and continual review. In conjunction with the project team and stakeholders, risk assessments of each element will be undertaken, including: quality of existing data, collection of data and analysis, on-site activities, behaviour change, and communications.
- **Review** - Risks will be captured on the risk register, mitigating measures developed, with the risk owner and measures agreed. Financial assessment will be included, developed by our cost consultant, together with likelihood assessment.

2. Basket 2+3 Risks

The live risk register will be maintained throughout the project, reviewed in workshops with all parties, documenting increasing or diminishing risks; ultimately closing out risks with record of outcomes. We recognise differing risks between Basket 1 and implementation Baskets 2+3, we will clearly communicate where the risk sits, with potential mitigation measures for residual risks within Baskets 2+3.

3. Opportunities

Through risk management we will inevitably consider alternative approaches/systems/methods, or re-sequencing, and potentially the involvement of further specialists. This provides the opportunity for improvement, alternative approach, and incorporation of other works (backlog maintenance). Where opportunities arise, the programme, cost, and benefits will be communicated.

Drawing in knowledge from the teaching and FM managers, paired with our internal information sharing, we will hold open dialogue with LocatED and the school - presumptions and strategies can be challenged by all parties, to the benefit of subsequent roll-out.

4. Risk Management

Monthly risk review meetings will capture, score and communicate risks using our understanding of NZAP, stakeholder influence, and net zero carbon delivery experience. Our team has firsthand experience specifying and delivering similar projects, with building surveyors practiced in refurbishment, retrofit, and grant funded sustainability improvements. Risk identification within Basket 1, will avoid delays and costs within Basket 2+3.

Evidence

We have delivered Basket 2+3 projects for East Riding of Yorkshire Council – quick wins: hand dryers and point-of-use hot water systems; through to new windows, air source heat pumps, and insulation.

5. Health and Safety

Safety for Life is a primary consideration in everything we do and our everyday culture. We understand that focus on safety has a direct beneficial effect on our operations and the quality of work. We will seek to gain detailed knowledge of the buildings, existing maintenance challenges, safeguarding, and access; documenting concerns within the Risk Register; in consultation with our Health and Safety team, and CDM specialists who are integrated within the surveying team. Our H+S specialists’ oversight will further mitigate risks, and explore alternatives.

With view towards Basket 2+3, CDM Principal Designer (CDM-PD) will be identified, and where appropriate, the Building Safety Act Principal Designer. All our surveyors have completed APS CDM-PD training, and will works with our technical lead to consider site-specific risk, in view of works execution and future maintenance. This process starts at Stage 1, allowing maximum opportunity to design out hazards, and will be continually reviewed throughout Basket 2+3.

Within the control option, we will develop logistics plans for Basket 2 works; limitations plan to segregate works, define school maintenance access, working hours, noise limitations, etc. The control options will be reviewed to ensure it is constructible and maintainable; and existing maintenance procedures reviewed with propose modifications made by our H&S colleagues.

Evidence

At Barnsley College, the Salix bid Included wall insulation, secondary glazing, and PV. However, the existing access to the roof failed to meet current requirements and was deemed unsafe. Additional works were identified and costed ensuring the PV could be safely installed and maintained; reducing the clients future maintenance costs with simplified access.

6. Key Risks & Mitigations

Tables 1 and 2 overleaf detail ten priority risks and initial thoughts on mitigation. Our full risk register will assign responsibility/ownership, action timeline, risk likelihood, potential cost impact, and developed mitigation strategies.

Table 1 – Basket 1 key risks

No	Risk category and type	Risk description	Control description and mitigation measures
1	Quality	Initial feasibility - erroneous or overly optimistic carbon and energy savings, and/or intervention cost projections.	- Defined brief informed by lessons learnt. - Benchmarking QA process - Consideration of risk and influencing factors on Basket 2+3. - Decarbonisation Plans with clear assumptions, estimations and exclusions
2	Programme	Access & availability - School holidays; the 'right people'; weather (eg. thermal).	- Initial consultation, questionnaire, 1-2-1 contact. - Regular and planned communications with key staff. - Schedule, and follow up all actions
3	Programme	Drop out and staff change – loss of Change Champion	- Appoint deputy-Change Champions - Record all sessions to enable re-cap.
4	Programme	Available timescales and ambitious programme.	- Initial LocatED briefing to understand the pilot lessons learnt. - Sifting to identify willing participants. - Programme development with all disciplines
5	Behaviour change	Inaccessible Information – the functionality and useability of the hosting platform.	Goals of user-friendly, intuitive, and informative to serve the Change Champions in delivering behaviour change will be constantly challenged through development.
6	Behaviour change	Change – decarbonisation savings can be incremental, as opposed to a 'big shift'.	- Training through 1-2-1 meetings, group and dedicated FM workshops. - Appoint and support Change Champions to communicate this message. - Include Inspirational examples where incremental change has worked (eg. British Cycle).
7	Optimising controls	Existing limitations – end-of-life MEP systems, closed protocol, warranty invalidation.	- Questionnaire will help identify closed or restricted systems. - MEP surveys, commissioning record review, testing data; alongside on-site BMS specialists inspections.
8	Energy procurement	Statutory authorities - Installation submetering, where suppliers are unable or unwilling to co-operate.	- Early enquiries to identify existing metering. - Supplier resistance - discuss bulk-buying, identify their policies contradicting our approach, state Government policy directing co-operation.
9	Energy procurement	Fixed energy contracts – risk of long-term fixed contracts limiting options for change.	- Information gathered from questionnaires to identify school likely to be benefited. - We will inform and empower schools to negotiate future contract renewal.
10	Data collection	Inconsistencies / omission – poor data, incomplete, contradictory, inconsistent.	- School communications will ensure access, comprehensive record requests, and follow-up. - Standardised Information gathering mandates, continual review. - All deliverables will be audited in both technical compliance, and in meeting the agreed scope.

Table 2 – Basket 2 and 3 key risks

No	Risk category and type	Risk description	Control description and mitigation measures
1	Quality	Skills shortfall - Shortfall in MEP and retrofit workforce.	- Early market engagement, commitment to supply chain, clear works packaging, and geographical consideration. - Early procurement strategy discussion. - Works oversight to ensure retrofit is understood and delivered.
2	Outcome limitations	Poor condition – eroding carbon savings or restricting potential improvements.	- Building surveyor led, existing record review, survey, and consultation with specialist colleagues to identify limitations. - Mitigation measures presentation. - Potential impact on Basket 2+3 identified.
2	Outcome limitations	Outside influences & restrictions – significant backlog maintenance, deleterious materials, restrictive warranties.	- Deleterious materials, structural, fire safety, and significant backlog maintenance will be highlighted for optioneering. - Consultation with relevant specialists and materials testing etc.
3	Programme	Availability - Long plan lead-times.	- Consult with suppliers and colleagues to understand current delivery constraints - Seek alternatives. - Work with schools to secure early decisions. - Work with schools to define occupation / timetabling, critical facilities, and exam periods.
4	Statutory consent	Statutory consents (Planning, Conservation Area, Listed Building, Building Control, and lease).	- Early consents identification, - Development of consent tracker. - Early consultation.
5	Solar PV	Electrical capacity / feed-in – Obstacles to PV installation.	Initial assessment of the electrical supplies, and where appropriate, enquiries made for additional capacity.
6	Solar PV / ASHP	Plant constraints.	- Survey to identify inadequate access, or insufficient structural capacity limiting placement of plant. - Alternative locations, and required works, proposed.
7	Construction	Contractor selection – works nature, specialisms, geographical split, and works scale all impact selection.	- Strategy development with LocatED identifying potential risks. - Identification of end-of-life elements giving rise to abortive work. - School direct works invalidate improvements, consultation regarding mid and long-term aspirations.
8	Construction	Abortive works – ‘early-win’ may give rise to abortive long-term works.	- Strategy development with LocatED will highlight potential risks - Poor maintenance is the principal concern, risk identification through inspection reported. - Later development of the site by the school may invalidate improvements, discussion of the schools mid and long-term aspirations will be made.
9	Programme	Beyond 20-years – PV outlasting flat roof.	- Integration of maintenance works. - Strategy review for asset retention, disposal, rebuild.
10	Management	Safeguarding	- Safeguarding will be identified as its own risk. - Safeguarding will form cornerstone to site attendance. - Considered with parallel concerns, (CDM, welfare, neighbours).

Criterion: Social Value

Criterion: Social Value - Theme 2: Tackling economic inequality. Policy outcome: Create new businesses, new jobs and new skills

Question 6: Please explain how you will support educational attainment relevant to the Contract, including training schemes that address skills gaps and result in recognised qualifications.

The response should include the following elements:

- a description of activities to support sector-related skills growth and sustainability in the contract workforce; and
- an explanation of how you will actively commit to engaging with pupils in schools for example: careers talks, apprenticeships, work experience and presentations to integrate communities into the delivery of the project

1,000 words max

We are committed to supporting educational attainment relevant to this contract, in particular assisting schools to deliver the skills needed to close the green skills gap. Our Social Value Lead, **XXX**, will work collaboratively with you to develop our SV commitments. Our programme of activities is detailed in Table 1:

Objective	Commitment	Activity
Climate Ambassador	Pledge 3 NZA project staff to the Climate Ambassador scheme	Creating Ambassadors who are excellent at delivering education and skills to prepare young people for a world impacted by climate change through learning and practical experience.
Educational Workshops	Provide educational resources through 1-hour virtual all-school workshops via a recorded Teams session and stored on the Teams Resource site	- The Green Connection – introduction workshop to connect with other local schools, to share ideas on sustainability; such as green initiatives, connecting with nature, reuse & recycling. - Green FM – How we can make buildings greener through maintenance and operation, recognising key roles in achieving a green school. - How green are you? – How to work out your current emissions, and what can be done to lower these. - Green action – how to build an effective climate action plan; eg. a pupil Eco council, parents, a Eco hub for the wider school community, or promoting and supporting greener modes of transport. - Grow yourself green - how to create a sensory garden, improve biodiversity by creating no-mow zones, and grow your own food.
Climate change anxiety workshop	Deliver a recorded online training session	This is aimed at older pupils. Looking after the planet and yourself training workshop. This workshop offers guidance on what anxiety is with a particular focus on climate anxiety and the small changes young people can make a positive impact on. We also touch upon the careers young people could choose which have 'green credentials'
Greenest School competition	Collaboratively set up and run a 'Greenest School' competition Develop a private online platform where an agreed administrator from each school can post the ideas and achievements of pupils and teachers as they develop.	The competition will be linked to, and draw upon, the learning and outputs of each individual school's behaviour change project. Pupils will be encouraged to participate and develop innovative solutions, to showcase and develop their ideas. These will be continually discussed and developed amongst the participating schools to encourage collaboration and innovation across all schools. The focus of this programme will be to drive change across all educational levels, developing skills and confidence in leadership, project management and embed change. Winning School to be decided by a panel appointed by LocatED with technical advice from AECOM. (Subject to LocatED agreement) We propose that the winning school be invited to receive their award and present their project successes directly to the Education Estates conference. We will provide presentation support to the students.

Social Value Net Zero Accelerator School Specific

To enable us to truly tailor our offering to each school, we have developed a brochure allowing each school to choose their own SV activities which will be relevant to their needs. This is broken down into three areas: Tackling economic inequality, fighting climate change, and well-being. Proposed activities are included in the following table:



Objective	Commitment	Activity
Tackling economic inequality		
Green Ambition	12 students for 4 hours	For the younger children - A 'workplace safari' to demonstrate employability focused activities with the students. These include: a guided tour of the workplace with informal discussions with staff undertaking 'Green careers' this will help highlight how they got into their current roles, and will include a presentation about the work undertaken in the Green industry'. We will also include activities such as building spaghetti towers.
Green Careers	12 students for 4 hours	Career guidance workshop to older students hailing from an economically deprived area. Recognising the unique challenges and barriers faced by individuals in deprived communities. The day will comprise of an office tour, meeting employees, and sharing their career journey and an informative interactive session on green skills and Net Zero. Through hands-on activities, students can learn about sustainability principles, renewable energy, and practical steps to reduce their carbon footprint.
Green Careers	8 hours school visit (including prep and travel)	In person support for older pupils to support them into work e.g. CV advice, mock interviews, careers guidance.
Green support	8 hours school visit (including prep and travel)	In person support to younger children helping delivering curriculum support, literacy support, safety talks
Fighting climate change		
Fighting climate change	Net Zero Carbon online training for school representatives and staff	Disseminate Net Zero Carbon training
Climate change careers	1 week work placements. 1 Pupil from each secondary school (max 5 pupils)	Aimed at older pupils to spend time with different 'Green' disciplines; teams The varied teams provided insight in to routes into the industry from higher education to apprenticeships, sharing the multitude of subjects that are valuable to AECOM and other employers. Pupils participate in design activities to understand and develop the skills they need to succeed in the industry. The work experience offers insight into career paths that pupils had never considered and giving them confidence in their career choices.
Well-being		
External environment	1 person @ 8 hours	Landscape team to engage with the school to identify opportunities to enhance the school grounds. Engagement with pupils to generate ideas for improvements and habitat creation
Staff Well-being	11 person @ 4 hours	Present a wellness workshop sharing ideas on how to improve the wellbeing of staff: through fitness, active transport, awareness, and many more.

About AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project life cycle — from planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical expertise and innovation, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a *Fortune 500* firm and its Professional Services business had revenue of \$13.2 billion in fiscal year 2020. See how we are delivering sustainable legacies for generations to come at [aecom.com](https://www.aecom.com) and [@AECOM](https://www.instagram.com/AECOM).

XXX
Director and Head of Schools, EUR - UK & Ireland
M: XXXX
XXX@aecom.com

