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Moulton
COLLEGE

Sustainability Strategy 2023-2030

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Executive Summary

Moulton College is strongly committed to addressing the global climate emergency through our operations, curriculum, and community engagement. As a specialist land-based college, we recognise our unique responsibility to be leaders in environmental sustainability and climate action within the Further Education sector.

This Sustainability Strategy establishes ambitious goals for Moulton College to achieve net zero carbon emissions across all scopes by 2030. We will accomplish this through comprehensive strategies targeting carbon emissions reduction, renewable energy generation, curriculum innovation, sustainable procurement, biodiversity enhancement, staff and student engagement, and community partnership.

Key targets include:

- Reduce scope 1 and 2 emissions 50% by 2026 and 100% by 2030 from a 2023 baseline.
- Reduce scope 3 emissions 25% by 2026 and 65% by 2030 from a 2023 baseline.
- Source 100% renewable electricity by 2025
- Install on-site solar PV generation capacity of 500 kWp by 2026.
- Reduce waste going to landfill by 95% by 2026.
- Integrate sustainability across 100% of courses and modules by 2025.
- Convert 20% of the farm to regenerative agriculture practices by 2026.

Through ambitious climate action anchored in our core mission and values, Moulton College will become a sustainability leader and climate-positive force within our community.



Introduction

Climate change is an existential threat facing current and future generations. As an educational institution, Moulton College has a profound obligation to equip our students with the knowledge, skills, and experience to understand this crisis and drive solutions.

As a specialist land-based college situated on a 456-hectare working farm, our operations and curriculum are intrinsically tied to the natural environment. The increasing impacts of climate change – including heat waves, droughts, flooding, and extreme weather – directly threaten the landscapes we steward and livelihoods we foster. Urgent and sustained climate action is needed to avoid catastrophic environmental breakdown.

Moulton College has taken initial steps to improve our sustainability performance, including LED lighting upgrades, rainwater harvesting, energy efficiency assessments, and curriculum developments focused on green skills training. However, a systematic and ambitious strategy is now required to align our goals and operations to the global imperative of rapid decarbonisation.

This Sustainability Strategy provides a comprehensive roadmap for Moulton College to achieve net zero emissions and meaningfully contribute to climate change mitigation through our education, operations, supply chain and community influence. Through mission-driven climate leadership, we will enable our students and partners to participate in an equitable and sustainable future.

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Governance and Leadership

Implementing an ambitious Sustainability Strategy requires dedicated leadership and effective sustainability governance. Ultimately this responsibility will be owned by the Senior Leadership Team and Governing Body. Moulton College will establish robust organisational structures to provide oversight and accountability in the delivery of our net zero strategy.

A Sustainability Committee will be created with cross-functional representation from curriculum, operations, procurement, and students. This committee will convene monthly to review progress against the plan, address any roadblocks, and instigate continuous improvement. Committee members will act as sustainability champions within their respective departments, driving engagement and ensuring alignment with college-wide goals.

The committee will be chaired by a senior manager appointed as Sustainability Lead. The Chair will be responsible for overall coordination of the Sustainability Strategy including managing stakeholders, tracking performance metrics, and reporting to senior leadership. Appointing a dedicated role at this senior level embeds

sustainability as a strategic priority and enables consistent execution of our net zero roadmap.

Comprehensive training on sustainability basics, climate change, net zero concepts, and everyday green workplace practices will be delivered to all college staff. This will provide a critical foundation of climate literacy across the workforce, empowering everyone to contribute towards our mission through their individual actions. Additional specialised training will be provided to members of the Sustainability Committee tailored to their area of responsibility.

Sustainability will also become a standing item on the agenda for the college's governing body. The Sustainability Lead will provide quarterly updates on plan progress including a data-driven review of performance against targets. Tracking and discussing sustainability metrics with governors on a regular basis will assist with effective oversight of the net zero strategy, as well as helping to maintain momentum.

The college will report annually on its sustainability performance through a published report accessible to all staff, students, and external stakeholders. This report will track progress against our targets and Key Performance Indicators (KPIs) in a transparent manner, holding the college accountable for delivering on our climate action commitments.



Moulton College's leadership recognises that reaching net zero requires sustainability to be embedded institutionally from oversight and governance through to grassroots action. Our holistic approach encompassing top-down accountability, broad-based training, and transparent reporting aims to drive the systemic change needed to align our entire college with the urgency of the climate crisis.

Baseline Assessment

In order to chart our decarbonization journey with rigor, it is essential for Moulton College to accurately quantify our starting point through a comprehensive baseline assessment. This will enable targeted measurement and validation of emissions reductions progress.

A complete carbon footprint analysis will be undertaken across Scope 1, 2 and 3 emissions. This will account for all direct and indirect greenhouse gas outputs resulting from our operations, including:

Scope 1: Direct on-site fuel combustion and processes, e.g. natural gas used for heating, fuel consumed by college-owned vehicles, fertilizer emissions from farm activities.

Scope 2: Indirect emissions from purchased electricity used on campus.

Scope 3: Other indirect emissions across our value chain, including student and staff commuting, waste disposal, upstream supply chain impacts, business travel, water consumption, and investments.

Quantifying Scope 3 emissions is particularly important as they represent the majority of any institution's carbon footprint. We will utilise greenhouse gas accounting methodologies tailored for the education sector to ensure comprehensive inclusion of all emission sources and using whole life carbon assessments.

In parallel, we will carry out detailed energy audits across all buildings and major energy-consuming equipment on the estate. This will establish current baselines for our overall energy usage and identify the largest energy drivers and efficiency opportunities. Historical data will be analysed where available to capture trends and seasonality impacts.

Major sources of energy demand such as heating systems, catering facilities, lighting, IT servers, and farm machinery will be sub-metered to gain granular visibility into consumption. This regular energy use data will feed into our sustainability data platform where it can be consolidated, analysed, and tracked to inform reduction initiatives.

Finally, the college's water use and waste generation profiles will also be established. As with energy, historical data will be gathered, major sources identified, and ongoing measurement systems put in place to enable continuous monitoring and optimisation.

This extensive baseline assessment will provide Moulton College with a robust understanding of our current environmental impact. Critically, this will enable validation of carbon reduction progress, ensuring our climate actions are evidence-based and rigorously measurable against targets. Ongoing data collection will facilitate regular re-evaluation of baselines as we continue to enhance our sustainability journey.

“This extensive baseline assessment will provide Moulton College with a robust understanding of our current environmental impact.”

Goals and Targets

Ambitious yet achievable sustainability goals and targets are essential to drive meaningful progress within a constrained timeline. Moulton College has established a robust set of goals and targets informed by the baseline environmental impact assessment of our current operations.

Our overarching goals are to achieve net zero carbon emissions across all scopes by 2030, and to reduce total emissions 50% by 2026 from a 2023 baseline. These goals align with the UK's legally binding national target to reach net zero greenhouse gas emissions by 2050. By aiming to surpass the national timeframe, Moulton College can provide leadership in rapid decarbonisation.

We have also set a goal to source 100% renewable electricity for our campus by 2026. This will involve procuring certified renewable energy from external providers as well as installing our own on-site solar generation capabilities. Removing fossil fuel electricity from our operations will make a significant contribution to reducing overall emissions.

In addition, we aim to achieve Zero Waste to Landfill certification by 2025 to minimize the broader environmental impacts of the waste we generate as a college. This will involve maximize recycling, composting and reuse to divert 100% of waste from landfill disposal.

Supporting these overarching goals is a set of targeted percentage emissions reduction objectives across Scope 1, 2 and 3. By striving for a 50% total reduction by 2026, we aim to make substantive early progress to build momentum towards net zero by 2030. Our Scope 1 and 2 goals reflect planned initiatives around energy efficiency, electrification of heat and transport, and renewable power installations on campus.

For Scope 3, a 25% target has been established recognising the complexities of influencing indirect supply chain emissions; ongoing supplier engagement will aim to drive greater reduction here.

These targets will be reviewed and updated annually as appropriate when new data-driven insights into reduction opportunities emerge. The college recognises that iterative enhancement will be key to pushing the boundaries of our ambition to maximise our contribution towards climate change mitigation.

The targets and goals established in this Sustainability Strategy aim to balance purpose-driven aspiration with practical deliverability based on our specific context. Through a collaborative effort across departments and the wider college community, Moulton will enact a climate leadership role within the FE sector.

Scope 1

- 2023 Baseline: TBC
- 2026 Target: 50% reduction
- 2030 Target: 100% reduction

Scope 2

- 2023 Baseline: TBC
- 2026 Target: 100% renewable electricity
- 2030 Target: 100% renewable electricity

Scope 3

- 2023 Baseline: TBC
- 2026 Target: 25% reduction
- 2030 Target: 65% reduction

Action Plans

Achieving our ambitious sustainability goals will require comprehensive efforts across Moulton College's operations, curriculum, community engagement and governance structures. We have developed action plans structured around five key areas:



1 Curriculum Integration

As an educational institution that seeks to equip students with knowledge and skills for the future, integrating principles of sustainability and climate action throughout our curriculum is a critical priority. We will pursue curriculum greening strategies across three areas: implementing a core sustainability module, reviewing and enhancing existing course content, and developing new offerings focused on climate-aligned disciplines.

Sustainability Module

A foundational module on sustainability will be incorporated into all courses and programs to provide students with sustainability literacy and carbon management basics. This module will cover core concepts including the scientific mechanics of climate change, the predicted impacts, and the role of human activity and industry. Content on the social impacts of climate change and importance of climate justice will foster holistic understanding. Students will gain practical knowledge on calculating and reducing carbon footprints of individuals and organisations. Assignment work will allow students to apply learnings by assessing their own lifestyles and the college itself. Making this module mandatory for all students will equip every graduate that passes through Moulton College with crucial sustainability knowledge, empowering them to embed climate action in their personal and professional lives.

Course Content Review

A systematic review of all existing course content across college departments will be undertaken to identify opportunities to incorporate sustainability concepts and practices. This may entail enhancing aspects like teaching on sustainable and regenerative agricultural techniques within land management courses, low carbon construction methods within construction programmes, or marketing strategies for green brands/products within business courses. Curriculum Staff will be provided training to support them to effectively integrate sustainability principles into their subject areas. By undertaking this broad review, we aim to mainstream sustainability across all courses rather than siloing it to standalone modules. This will provide students with skills and knowledge to apply the lens of sustainability within their core disciplinary context.

New Courses

Finally, new dedicated courses and vocational programmes will be developed focused on equipping students with skills for the green economy. Potential offerings include courses in renewable energy installation and maintenance, sustainable construction methods, regenerative agriculture, environmental policy and advocacy, and green technology. Offering progressive new sustainability-

focused courses will allow Moulton College to lead the way in developing talent for the jobs and industries that will underpin a net zero future. Our specialist resources as a land-based college with on-site renewable energy generation and regenerative agriculture will provide a unique opportunity to design forward-looking applied learning.

By pursuing curriculum greening through both integration and specialization, Moulton College will meaningfully act on our responsibility to equip all graduates with sustainability literacy while also developing specialists to lead the climate action vanguard.



2 Estate Decarbonisation

As a sizable estate with extensive facilities for teaching, farming, catering, accommodation and offices, our campus operations generate substantial greenhouse gas emissions that must be aggressively reduced. We will implement initiatives across four key areas - energy efficiency, solar PV installation, electrification of transport, and water conservation.

Energy Efficiency

Our first priority will be pursuing low-cost efficiency measures to reduce energy demand across campus. Following detailed energy audits, initiatives will be implemented such as improved building insulation, installation of smart heating controls, replacing inefficient equipment, and transitioning all lighting to LEDs. Operational changes will also be targeted, for example adjusting heating and ventilation runtimes to minimize waste. Staff and student engagement campaigns will also encourage everyday actions to reduce consumption. Targeting energy efficiency is the most cost-effective first step to slash emissions.

Solar PV Installation

500 kWp of rooftop solar photovoltaic systems will be progressively installed over vacant roof spaces on campus buildings. This will provide a source of zero carbon renewable electricity helping to reduce grid electricity consumption. Where possible, solar PV will be installed in parallel with LED lighting overhauls to maximize the utilisation of generated energy on-site. Battery storage may also be considered to allow solar energy to be used during non-generation hours. Our solar capacity will both reduce carbon emissions and provide students with applied learning on renewable technologies.

Transport Electrification

All college-owned petrol/diesel vehicles will be replaced with electric vehicles and charging infrastructure installed. This encompasses the estate management fleet, minibuses and agricultural vehicles. For larger vehicles where EV options are still maturing, use of hydrotreated vegetable oil (HVO) fuel will be considered as a lower emissions alternative to diesel. Electrifying transport will significantly reduce local air pollution on campus in addition to lowering carbon outputs.

Water Conservation

Water saving initiatives will be implemented across campus including low flow plumbing fixtures, drought tolerant landscaping, rainwater harvesting and advanced irrigation controls. Reducing water consumption will not only decrease emissions associated with water pumping/treatment, but also enhance the resilience of our ecological resources.



3 Travel and Transportation

Student and staff commuting, along with college-related business travel, represents a major source of greenhouse gas emissions that Moulton College must take concerted action to reduce. Our initiatives will target three areas: active travel incentives, remote working and fleet efficiency.

Active Travel Incentives

To promote low carbon and healthy modes of transport, incentives will be introduced to encourage walking, cycling and public transport usage for commuting and short on-campus trips. Secure bike storage, subsidised bike purchases, free bike safety checks and maintenance training will make cycling more accessible. Improved footpaths will link key parts of campus to facilitate more walking. An annual active travel week celebrating and incentivising sustainable transport will foster enthusiasm. Over time, a wholesale culture shift can be achieved.

Remote Working

Expanding remote and hybrid working opportunities for staff will reduce daily travel while also improving work-life balance. Investments will be made in technologies like video conferencing and secure VPN access to enable seamless remote collaboration. Guidance will be developed for teams and managers to productively coordinate offsite work, backed by change management training.

Where on-campus presence is essential for teaching or facilities operation, flexible scheduling will be supported to avoid peak congestion times. Enabling remote work where practical will achieve a long-term drop in commute levels.

Fleet Efficiency

Our college fleet including minibuses, agricultural vehicles and tractors will be optimised to ensure maximum efficiency and reductions in fuel use. Route planning tools will help ensure miles travelled are minimised through consolidated loads and optimised routing. Driver training will promote fuel-efficient driving techniques. As vehicles come up for replacement, new acquisitions will prioritise high efficiency models including hybrid, EV or hydrogen options where these meet operational needs. The combined impact of better utilisation, driving practices and efficient vehicles will incrementally improve our fleet emissions footprint.

Adopting this combination of incentives and engagement, virtual mobility and fleet improvements will enable Moulton College to meaningfully reduce the climate impact of necessary student, staff and business travel.



4 Sustainable Procurement

The goods and services procured by Moulton College across all functions represent a significant proportion of our overall carbon footprint when considering their full lifecycle impacts. We will implement a sustainable procurement strategy focused on supplier engagement, circular procurement and local sourcing.

Supplier Engagement

A comprehensive sustainable procurement policy will be developed outlining minimum environmental standards required from key suppliers. Criteria may cover aspects like certified ethical sourcing, commitment to science-based carbon reduction targets, and provision of carbon footprint data for supply chain transparency. Suppliers will be required to report regularly on sustainability KPIs. We will also actively collaborate with regular suppliers to identify efficiencies like reduced packaging, lower carbon deliveries, and product innovations. This engagement aims to drive environmental responsibility through our supply chain.

Circular Procurement

Applying circular economic principles to sourcing will enable reductions in raw material usage and waste. Our procurers will be trained to evaluate the full lifecycle impacts of purchases using tools like carbon footprint calculators and material

flow analysis. This will identify opportunities to improve efficiency, extend product lifespans through standardisation, refurbishment and redeployment, and recapture resources through recycling and safe disposal. Considering total lifecycle impacts will lead to better choices that minimise both expenditure and natural resource consumption.

Local Sourcing

Procuring goods and services from local suppliers will be prioritised where possible to reduce transport emissions from long-distance haulage. Food for campus catering is a prime example where sourcing locally from regional producers, or indeed our own farm produce, can drastically lower food miles while supporting the local economy. Expertise and services will also be procured locally where available to capitalise on proximity. Databases of local suppliers will be maintained to encourage purchasing teams to choose local options. However, sustainability factors like ethical practices will remain the overriding priority.

Through conscientious procurement aligned with our net zero goals, Moulton College can positively influence environmental responsibility across our supply network while developing local circular economic opportunities.



5 Biodiversity Enhancement

As a land-based college estate spanning 456 hectares, Moulton has a unique opportunity and responsibility to protect and revitalise the biodiversity of our land and the surrounding region. Enhancing natural habitats and species diversity will strengthen the resilience of ecosystems against climate change while providing educational opportunities. Our initiatives will focus on habitat restoration, expanding regenerative agriculture and monitoring species health.

Habitat Restoration

Degraded natural habitats across the estate such as woodlands, wetlands and meadows will be restored through native species planting, introduction of green spaces and revitalisation of waterways. Restoration will be planned in partnership with conservation organisations and informed by biodiversity assessments. Habitat connectivity will be enhanced by establishing wildlife corridors. Students will be able to actively participate in restoration activities as part of their learning. Restored habitats will provide natural carbon sequestration and bolster ecosystem services like water filtration, flood mitigation and pollination.

Regenerative Agriculture

The area of college farmland under regenerative agriculture practices will be expanded annually.

This encompasses techniques like no-till farming, permanent soil cover through crop rotation, intercropping and reduced chemical inputs. These methods enhance soil health, prevent erosion, increase soil organic carbon and protect waterways. Students will gain hands-on experience with regenerative techniques through farm activities. As the market for carbon farming matures, the sequestered carbon can potentially also provide an income stream for the college.

Species Monitoring

Ongoing ecological surveys will be conducted across the estate in partnership with conservation organizations to monitor indicators of ecosystem health like species diversity and presence of keystone species. Trail cameras, habitat sampling and drone mapping will provide longitudinal data to track the impact of our habitat enhancement initiatives. Findings will in turn inform adaptive management strategies for conservation. Furthermore, involving students in survey activities will provide enriching learning experiences in applied conservation practices.

Protecting and revitalising biodiversity across our estate enhances Moulton College's education offering while providing wider benefits to climate adaptation, carbon sequestration and the local community.





Monitoring and Evaluation

To track progress and enable agility, Moulton College will implement robust monitoring and evaluation of our Sustainability Strategy centred on four initiatives: annual performance reviews, quarterly plan reviews, monthly data tracking, and external verification.

Annual Performance Review

A complete carbon footprint assessment and sustainability data analysis will be conducted annually. Performance will be evaluated against our emissions reduction, renewable energy, waste diversion and other sustainability targets. Shortcomings will be addressed through enhanced actions for the upcoming year. Annual public reporting through our sustainability report will provide transparency on progress to all stakeholders.

Quarterly Plan Reviews

The Sustainability Committee will meet quarterly to thoroughly review plan delivery and address any roadblocks or issues. Progress on key initiatives like solar installation and curriculum updates will be tracked. Committee members will report on sustainability outcomes within their departments. Course corrections will be enacted based on data-driven insights from the reviews.

Monthly Data Tracking

Key metrics like energy, water and waste volumes, and renewable generation will be tracked on a monthly basis once monitoring systems are in place. Monthly analytics will identify abnormal consumption, performance gaps and opportunities for optimization. Data will feed into a central sustainability platform providing live visibility.

External Verification

Independent third-party auditors will be engaged to objectively evaluate both our emissions inventory and overall plan execution on a biennial basis. Auditors will critically assess if our carbon accounting and reduction claims are accurate based on rigorous measurement and validation of evidence. They will also benchmark our plan's scope and progress against recognised best practices. Findings will feed into enhancement of our strategies and provide external credibility to our reporting.

By coupling rigorous internal tracking and review with regular external auditing, Moulton College will ensure disciplined measurement, verification and improvement of sustainability performance against targets. This will enable credible communication of progress and strategic adjustments to maximize Sustainability Strategy delivery.

Engagement and Communication

Achieving our sustainability goals requires the participation of the entire Moulton College community. We will foster engagement across students, staff and external stakeholders through multiple initiatives:

Student Sustainability Ambassadors

A cohort of Student Sustainability Ambassadors will be recruited annually to take ownership of promoting sustainability amongst their peers. The ambassadors will represent all courses and year levels. They will drive student-led environmental projects, organise awareness campaigns, deliver peer training, and provide a youth voice on the Sustainability Committee. An ambassador role will offer fulfilment from enacting change while building leadership capabilities.

Staff Green Teams

Voluntary cross-functional green teams will be formed to champion sustainability actions relevant to their roles. Initiatives may include minimising paper usage, reporting lighting faults, hosting meat-free days in canteens or improving recycling practices. Teams will undergo carbon literacy training and submit ideas to the Sustainability Committee to seek funding for implementation. This engages all staff in contributing directly to campus sustainability.

Community Partnerships

Partnerships will be initiated with local government, businesses and community groups to expand the college's climate impact beyond just our estate and operations. This may encompass partnerships on initiatives like local renewable energy projects, habitat restoration, sustainable procurement alliances or embedding climate action in school curriculums. These partnerships can achieve greater collective impact.

Annual Sustainability Report

The college will publish an annual sustainability report openly communicating our ESG performance, carbon footprint trends and progress towards Sustainability Strategy targets. The report will provide data-driven transparency on current performance as well as strategies for continuous enhancement. Wide accessibility of the report as well as regular media communications will advertise our commitment to students, staff and the public.



Holistic engagement across our college community is integral to the success of our Sustainability Strategy. By providing fulfilling sustainability participation opportunities and transparent communications, Moulton College will build shared ownership of our net zero journey.



Financial Planning

Implementing the initiatives outlined in this Sustainability Strategy will require significant investment to enable the transition of Moulton College to sustainable net zero operations. We have identified several potential funding sources:

Capital Investment Budget

A percentage of the college's central capital investment budget will be earmarked annually for high-impact carbon and energy reduction projects. This will be targeted at major infrastructure projects including renewables installation, building efficiency retrofits and fleet electrification. Applications will be evaluated based on emissions reduction potential and return on investment.

Government Grants

Relevant government grants for sustainability will be actively pursued at both national and local levels. This includes programmes such as the Public Sector Decarbonisation Fund which has previously awarded over £1 billion to public bodies for green upgrades. Other funds for eco-innovation, biodiversity, active transport and climate adaptation may align with specific initiatives within our plan.

ESFA Funding

Applications will be submitted to the Education and Skills Funding Agency for capital works funding towards high-impact decarbonisation projects. Previous sectors awarded funding include boiler upgrades, lighting overhauls and insulation. ESFA funding can enable initiatives that reduce both carbon and costs.

Ensuring adequate resourcing is essential for executing planned initiatives at the pace and scale required to achieve our ambitious decarbonisation goals.

We will pursue a diverse yet prudent funding strategy to support delivery of impactful sustainability outcomes.

The following high-level timeline outlines our approach over the next seven years:

2023-24

Establish baseline emissions inventory

Launch sustainability governance structures

Develop goals, targets and action plans

Begin staff engagement and training

2024-25

Implement no/low-cost efficiency actions

Develop curriculum integration strategy

Install initial solar PV capacity

Develop engagement programming

2026-29

Continue delivery against plans

Perform annual reviews and enhance actions to reach goals

Implement remaining major capital projects

2025-26

Achieve 50% carbon reduction milestone

Complete curriculum content review

Source 100% renewable electricity

Expand solar PV capacity to 500 kWp

Develop regenerative agriculture trials

2029-30

Achieve net zero target across scopes

Complete independent performance validation

Develop 2030-2040 carbon negative strategy

By following this milestone-driven roadmap, Moulton College will lead the Further Education sector in our response to the climate emergency. Through mission-aligned strategy and disciplined delivery, we will provide our students with a blueprint for climate-positive living while equipping them with the knowledge and capability to drive a just and sustainable future.



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