

# NET ZERO TRANSITION PLAN



*WHERE LEARNING IS UNSTOPPABLE AND ASPIRATIONS HAVE NO LIMITS*

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**Review Date:** Annual

**Signed:**

**Chair of Trustees:** Mayleen Atima

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# 1. Introduction

## Purpose

Orwell Multi Academy Trust (OMAT) is committed to achieving net zero emissions by 2040. This plan outlines our approach to reducing carbon emissions across all seven primary schools, demonstrating our dedication to environmental responsibility and sustainability. By aligning with local and national climate goals, we aim to inspire and educate our pupils and communities about the importance of environmental responsibility.

## Scope

This transition plan covers the following sites operated by Orwell Multi Academy Trust:

- Brooklands Primary School, Brantham
- Grace Cook Primary School and Nursery, Stowmarket
- Grange Community Primary School, Felixstowe
- Halifax Primary School, Ipswich
- Handford Hall Primary School, Ipswich
- Springfield Infant School and Nursery, Ipswich
- The Willows Primary School, Ipswich

This transition plan includes consideration of buildings, facilities, and operational activities that contribute to greenhouse gas emissions.

## Target Goals

- **CO2 Emissions Reduction:** Reduce emissions from gas consumption by 75% by 2030 and achieve 100% reduction by 2040.
  - Phase out fossil fuel-based heating systems by transitioning to renewable alternatives, such as heat pumps.
  - Explore opportunities to further reduce emissions through energy conservation measures.
- **Intensity Ratio:** Reduce tonnes CO2 per pupil to 0.2 by 2030 and to 0 by 2040.
  - Develop programs to actively involve students in carbon reduction activities, such as energy-saving campaigns and waste reduction initiatives.

## 2. Current Emissions Baseline

### Base Year

The base year for measuring emissions is September 2023 to August 2024. This period was chosen to establish a reliable benchmark against which progress can be measured.

### Emissions Overview

Our emissions are primarily generated from:

- **Gas Consumption:** Heating and cooking across school sites.
- **Petrol and Diesel Travel:** Staff mileage claims, school transport, and deliveries.
- **Electricity Consumption:** Although all electricity is sourced from renewables, efforts to optimise electricity use are ongoing.

### Carbon Footprint Assessment

The Streamlined Energy and Carbon Report for Sept 2023 to August 2024 can be found in Appendix 1. Key findings:

- **Total emissions:** 160.56 gross emissions in metric tonnes CO<sub>2</sub>e.
- **Intensity ratio for September 2023 to August 2024:** 0.9 tonnes CO<sub>2</sub> per pupil.
- **Breakdown:**
  - **Gas consumption:** 159.29 metric tonnes CO<sub>2</sub>e
  - **Travel:** 1.27 metric tonnes CO<sub>2</sub>e

### 3. Key Actions and Milestones

| Milestone                         | Description                                   | Action  | Target Date | Responsible Team    |
|-----------------------------------|---|---|-------------|---------------------|
| <b>Energy Efficiency</b>          | Implement energy saving measures in buildings | Install LED lighting at Handford Hall to improve energy efficiency and reduce electricity usage.                | By 2025     | Headteacher         |
|                                   |   | Add insulation (roof and wall) at all schools except Grange and Grace Cook.                                     | By 2026     | Headteacher         |
|                                   |   | Replace older gas boilers with high-efficiency models to reduce fuel consumption.                               | By 2028     | Headteacher         |
|                                   |   | Transition from gas cooking equipment to electric cookers across all applicable schools.                        | By 2029     | Headteacher         |
|                                   |   | Install automatic water-heating systems and energy-efficient taps in all schools.                               | By 2027     | Headteacher         |
| <b>Renewable Energy</b>           | Source 100% renewable energy                  | Source 100% renewable electricity for all sites (currently achieved).   | Achieved    | SST and Energy Team |
|                                   |   | Conduct feasibility studies for additional solar panel installations at three more school sites.                | By 2026     | SST                 |
| <b>Waste Management</b>           | Achieve zero waste to landfill                | Introduce food waste separation systems and partner with waste management firms for composting.                 | By 2025     | Headteacher         |
|                                   |   | Implement comprehensive recycling programmes, including paper, plastic, and e-waste recycling.                  | By 2025     | Headteacher         |
|                                   |   | Reduce paper usage by transitioning to digital resources for teaching and administrative tasks.                 | By 2026     | Headteacher         |
| <b>Supply Chain Collaboration</b> | Engage suppliers on carbon reduction targets  | Work with suppliers to reduce packaging and implement packaging return schemes.                                 | By 2026     | SST                 |
|                                   |   | Include carbon offset and reduction requirements in procurement processes to incentivise sustainable practices. | By 2027     | SST                 |

## 4. Emissions Reduction Strategies

### Energy Efficiency Improvements

- **Lighting:** Transition all schools to LED lighting systems, prioritising high-consumption areas such as assembly halls and classrooms.
- **Insulation:** Improve insulation in buildings to reduce heat loss, targeting walls, roofs, and windows.
- **Heating Systems:** Replace inefficient gas boilers with modern, high-efficiency models and explore transitioning to heat pump systems.
- **Cooking Equipment:** Phase out gas-based kitchen appliances and replace them with electric alternatives that are energy-efficient.
- **Water Heating:** Upgrade water heating systems with automatic and low-energy alternatives to minimise unnecessary energy usage.

### Renewable Energy Adoption

- Install additional solar panels to increase on-site renewable energy generation.
- Maintain current 100% renewable electricity sourcing and explore contracts with local green energy suppliers.
- Expand the installation of electric vehicle (EV) chargers to accommodate staff and visitor needs, encouraging EV adoption.

### Sustainable Transport Solutions

- Promote the use of public transportation, carpooling, and cycling among staff and parents.
- Offer electric vehicle salary sacrifice scheme to staff.
- Organise awareness campaigns to reduce the dependency on personal vehicle use.

### Waste Reduction Initiatives

- Educate staff and students about recycling practices through workshops and campaigns.
- Collaborate with catering contractor to reduce food waste and implement waste tracking systems.
- Invest in durable and reusable teaching materials to reduce single-use items and paper printouts.

### Supply Chain Engagement

- Engage with suppliers to co-develop solutions that minimise packaging waste.

- Establish procurement policies that prioritise suppliers with credible carbon reduction commitments.
- Optimise delivery schedules to consolidate shipments across the Trust and minimise transportation emissions.

## **5. Metrics and Reporting**

### **Key Performance Indicators (KPIs)**

- Annual percentage reduction in total CO2 emissions, aiming for a 10% reduction year-on-year to align with 75% reduction by 2030 and 100% by 2040.
- Percentage of schools using LED lighting, with a target of 100% adoption by 2026.
- Number of solar panels installed and renewable energy generated on-site, with an annual increase of at least 20% renewable energy capacity by 2030.
- Reduction in waste sent to landfill, targeting a 50% reduction by 2025 and achieving zero waste to landfill by 2030.
- Intensity ratio improvement (tonnes CO2 per pupil), aiming for a decrease to 0.5 by 2025, 0.2 by 2030, and 0 by 2040.
- Increase in the number of electric vehicle chargers installed, with a target of 50% more chargers by 2026.
- Supplier engagement metrics, tracking the percentage of suppliers meeting sustainability criteria, with a goal of 75% compliance by 2027.

### **Reporting Frequency**

Updates will be provided annually and shared with Trustees following the completion of the SECR and financial year-end. Reports will include progress on all KPIs and milestone achievements.

### **Data Collection Methods**

- Monthly monitoring of energy usage through smart meters and utility bills.
- Tracking vehicle mileage and emissions through staff claims and fleet logs.
- Waste audit reports from contractors.
- Surveys to assess engagement with and adherence to waste reduction and recycling practices.

## 6. Governance and Accountability

### Leadership Oversight

- **CEO:** Oversees the strategy and ensures alignment with organisational goals, with a quarterly review process to assess progress and address challenges.
- **CFO:** Collects data and produces the annual report by October each year, ensuring data accuracy and compliance with SECR requirements.
- **Trustees:** Receive the annual report in October, review progress against targets, and approve financing for proposed projects for the following year by December.

### Project Teams

- **Executive Leadership Team:** Implements key actions outlined in the plan, with biannual progress meetings to monitor milestones and address roadblocks.
- **Site Teams:** Conduct day-to-day operational changes, such as implementing energy-saving measures and waste management practices, with monthly check-ins to track actions.
- **Shared Services Team:** Collaborates with external partners and suppliers, ensuring procurement aligns with sustainability targets, with supplier engagement reviewed quarterly.

### Stakeholder Engagement

- **Staff Engagement:** Incorporate sustainability practices into professional development programs, with training sessions held once a year.
- **Pupil Engagement:** Incorporate sustainability practices into lessons.
- **Transparency:** Publish the transition plan and annual progress reports on the OMAT website every October to ensure accessibility and transparency for all stakeholders.

## 7. Risk Assessment and Mitigation

### Risk Identification and Mitigation Strategies

| Risk  | Likelihood | Mitigation Strategy  | Likelihood post Mitigation |
|---|------------|--|----------------------------|
| <b>Financial constraints:</b><br>Limited budget for implementing large scale projects.              | High       | Apply for government grants and explore partnerships with sustainability organisations | Medium                     |
| <b>Technological Delays:</b> Availability and affordability of new technologies.                    | Medium     | Conduct thorough research and establish contingency plans for technological delays     | Low                        |
| <b>Behavioural Challenges:</b><br>Resistance from staff or suppliers                                | Medium     | Develop training and incentive programs to encourage adoption of new practices         | Low                        |
| <b>Regulatory Changes:</b><br>Evolving environmental regulations affecting timelines or strategies. | Medium     | Regularly review and adjust plans to align with updated regulations                    | Low                        |

## 8. Continuous Improvement

### Reviewing and Updating Process

- Conduct annual reviews of emissions data, milestones, and KPIs.
- Engage external consultants for independent assessments and suggestions.
- Establish a feedback loop with staff and stakeholders to identify improvement opportunities.

### Innovation and Technology

- Research advanced renewable energy systems, such as battery storage for solar power.
- Research AI optimisation tools to enhance building efficiency.
- Investigate carbon capture solutions for potential application in schools.

## 9. Glossary of Terms

**Net Zero:** Achieving a balance between emitted and removed greenhouse gases.

**Intensity Ratio:** A metric representing emissions per unit of activity (Tonnes of CO<sub>2</sub> per pupil).

**Renewable Energy:** Energy sourced from natural processes that are replenished constantly, such as wind or solar power.

## 10. Appendix 1 – Streamlined Energy and Carbon Report

### Streamlined Energy and Carbon Reporting

UK Greenhouse gas emissions and energy use data for 1 September 2023 to 31 August 2024

|   |                  |
|---|------------------|
| <b>Energy consumption used to calculate emissions (kWh)</b>   | <b>1,289,828</b> |
| Gas [kWh]   | 870,925          |
| Oil [kWh]   | 0                |
| LPG [kWh]   | 0                |
| Electricity [kWh]   | 0                |
| Electricity   Renewables [kWh]                                | 412,189          |
| Transport Fuel [kWh]  | 6,714            |
| <b>Scope 1 emissions in metric tonnes CO<sub>2</sub>e</b>     | <b>159.29</b>    |
| Gas consumption   | 159.29           |
| Oil consumption   | 0.00             |
| LPG consumption   | 0.00             |
| Owned transport – mini-buses                                  | 0.00             |
| <b>Scope 2 emissions in metric tonnes CO<sub>2</sub>e</b>     | <b>0.00</b>      |
| Purchased electricity   | 0.00             |
| Purchased electricity renewables                              | 0.00             |
| <b>Scope 3 emissions in metric tonnes CO<sub>2</sub>e</b>     | <b>1.27</b>      |
| Business travel in employee owned vehicles [petrol / diesel]  | 1.27             |
| Business travel in employee owned vehicles [electric]         | 0.00             |
| <b>Total gross emissions in metric tonnes CO<sub>2</sub>e</b> | <b>160.56</b>    |
| <b>Total number of students within the trust</b>              | <b>1,961.00</b>  |

**Intensity ratio | Tonnes CO<sub>2</sub>e per pupil** **0.08**

### Quantification and Reporting Methodology

We have followed the 2019 HM Government Environmental Reporting Guidelines. We have also used the GHG Reporting Protocol – Corporate Standard and have used the 2023 UK Government's Conversion Factors for Company Reporting.

### Intensity measurement

The intensity measure we are using as a trust assessed the Tonnes of CO<sub>2</sub>e emitted per pupil and in our accounts for 2022 - 2023 the intensity ratio was:

0.09