



687. Sustainability & Climate Action - Carbon, Energy & Resources - Carbon Emissions & Energy Use Monitoring

Category:	Sustainability & Climate Action
Subcategory:	Carbon, Energy & Resources
Status:	Statutory
Type:	Competent Person
Priority:	Core
Commonality:	Common

Note: This document provides guidance to support compliance but is not a substitute for professional advice.

Why This Task Matters

Your diligent monitoring of energy use and carbon emissions plays a critical role in protecting pupils and staff from the impacts of climate change while ensuring the organisation meets its legal obligations. By tracking this vital data accurately, you demonstrate accountability for environmental performance, support informed decision-making, and build confidence in the school's governance systems while recognising the essential contribution facilities staff make to creating sustainable learning environments that safeguard future generations.

Task Summary

Statutory: This task involves quarterly monitoring and reporting of energy consumption and carbon emissions across the estate. The process requires collecting meter readings from all energy sources, analysing consumption patterns, calculating carbon emissions using appropriate conversion factors, and comparing performance against targets. Staff should ensure data accuracy, identify trends or anomalies, and prepare reports for management and regulatory purposes. The monitoring should cover electricity, gas, oil, and any other energy sources used by the organisation. Data should be stored securely and used to inform the Climate Action Plan and identify opportunities for efficiency.

improvements. This regular monitoring supports statutory reporting requirements and helps demonstrate progress towards net-zero commitments.

Relevant Legislation & Guidance

- **Climate Change Act 2008:** Requires monitoring and reporting of greenhouse gas emissions.
- **Environment Act 2021:** Establishes requirements for environmental monitoring and reporting.
- **Public Sector Decarbonisation Scheme:** Requires quarterly reporting of energy use and emissions data.
- **Streamlined Energy and Carbon Reporting (SECR):** Requires large organisations to report energy use and emissions.
- **DfE guidance on carbon reporting in education:** Specifies requirements for educational institutions.

Typical Frequency

This task should be completed quarterly, aligned with financial quarters and regulatory reporting cycles. The frequency could vary if more frequent monitoring is needed for compliance purposes or if significant changes in energy use are detected. In education settings, quarterly monitoring provides regular oversight of seasonal variations in energy consumption while meeting statutory reporting requirements.

Applicability

This task is core and common, applying to all schools and colleges as part of statutory climate action and reporting requirements. Every educational establishment must monitor and report on its energy use and carbon emissions to meet regulatory obligations. The task applies regardless of organisation size, though larger establishments with multiple sites may require more complex monitoring systems. There are no circumstances where this monitoring would not be required, as it forms a fundamental part of statutory compliance for climate action.

Responsible Persons

- **Task Type:** This is a Competent Person task that can be carried out by trained facilities or administrative staff with access to energy systems.
- **Contractor Requirements:** Not applicable as this is a Competent Person task.

- **In-House Requirements:** Staff should have basic training in data collection and analysis. Familiarity with the organisation's energy systems and billing processes is essential.
- **Permit to Work:** No permit to work is required for this task.
- **Delivery Model:** This task is normally completed in-house by trained staff, often combined with other administrative or facilities duties.

Key Considerations

Important factors include ensuring meter access and accuracy, maintaining consistent data collection methods, and protecting sensitive billing information. The task should be planned to coincide with billing cycles for accuracy. Consider seasonal variations in energy use when analysing data. Risk assessment should focus on data security and the implications of inaccurate reporting for regulatory compliance.

Task Instructions

Prerequisites & Safety

- Access to all energy meters and billing systems
- Understanding of energy units and carbon conversion factors
- Secure data storage and handling procedures
- Basic spreadsheet skills for data analysis

Tools & Materials

- Meter reading sheets or electronic logging systems
- Calculator or spreadsheet software
- Carbon conversion factor references
- Secure data storage systems
- Energy monitoring spreadsheets

Method (Step-by-Step)

1. **Meter Reading:** Collect readings from all electricity, gas, and other energy meters.
2. **Data Collection:** Gather energy bills and usage data from all sources.

3. **Consumption Analysis:** Calculate total energy consumption for the quarter.
4. **Emissions Calculation:** Convert energy use to carbon emissions using current conversion factors.
5. **Trend Analysis:** Compare current data with previous periods and targets.
6. **Reporting:** Prepare quarterly monitoring report with key findings.
7. **Data Storage:** Securely store all data for regulatory and audit purposes.

Measurements & Acceptance Criteria

Energy consumption should be measured in appropriate units (kWh for electricity, kWh or cubic meters for gas) with carbon emissions calculated using DEFRA or equivalent conversion factors. Data should be accurate and consistent with billing information.

If Results Fail

Follow instructions on the Compliance Pod task completion form to record remedial/follow up actions and generate Reactive Task Tickets as required. If monitoring identifies significant deviations from targets, immediate actions should include investigating causes and developing corrective measures.

Reinstatement & Housekeeping

No reinstatement required. Ensure meters are left secure and data is stored appropriately.

Completion Checks

Confirm that all meters have been read, data analysed, report completed, and evidence uploaded to Compliance Pod.

Record-Keeping & Evidence

- **Upload Process:** Upload any required statutory or supporting evidence to the corresponding task form in Compliance Pod.
- **Statutory Evidence:** Meter readings, energy bills, monitoring spreadsheets, and extracted reports from energy management systems.
- **Supporting/Good Practice Evidence:** No Supporting/Good Practice Evidence is required for this task.

Common Pitfalls & Best Practice Tips

Common mistakes include inconsistent meter reading schedules, using outdated conversion factors, or failing to account for all energy sources. Best practices include establishing fixed reading dates, maintaining historical data for trend analysis, and cross-checking meter readings with billing data. In educational settings, coordinate monitoring with term dates to account for usage variations. Warning signs include unexplained spikes in consumption or inconsistencies between meter readings and bills.

Quick Reference Checklist

- [] Collect readings from all energy meters
- [] Gather current energy bills and usage data
- [] Calculate total energy consumption
- [] Convert to carbon emissions
- [] Analyse trends and compare to targets
- [] Prepare quarterly monitoring report
- [] Upload evidence to Compliance Pod

Grouped Tasks

Grouping is feasible; align with related tasks of the same frequency and contractor visit.

Related Tasks

- Sustainability & Climate Action - Carbon, Energy & Resources - Energy Efficiency Service & Inspection
- Sustainability & Climate Action - Carbon, Energy & Resources - Energy Efficiency Visual Check
- Sustainability & Climate Action - Carbon, Energy & Resources - Waste Generation & Recycling Monitoring
- Sustainability & Climate Action - Carbon, Energy & Resources - Water Consumption & Efficiency Monitoring
- Sustainability & Climate Action - Policy & Governance - Climate Action Progress Report to Governors & Trust Board

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Users must ensure that all tasks are carried out in line with current legislation, manufacturer instructions, site-specific risk assessments, and organisational policies. Where necessary, professional advice should be sought from competent and accredited specialists — for example, fire risk assessors, water hygiene consultants, electrical engineers, gas safety contractors, or health and safety advisors.