



Action on
Carbon &
Energy in
Schools



School Energy Efficiency Checklist



This School Energy Efficiency Checklist serves as a comprehensive guide for schools to evaluate their energy consumption patterns, and identify areas for improvement. Schools play a vital role in their communities – so help yours lead the way, by taking action to cut your energy use.



ace-schools.org



Achieve quick wins

Schools have complex buildings, equipment of various ages, and limited resources. The quick-win actions listed here will save you energy – as well as set the stage for a more long-term, sustainable approach to better energy management. How many of the following statements can your school reply ‘yes’ to?



ACES
works with
schools across
Oxfordshire, getting
them started on
their energy
saving journey.



Get data

To start your energy efficiency journey, you need data – the more, the better. Any information about how much energy you use now will help give you a baseline to measure the difference your efficiency changes make. This data will also be really useful for setting long-term goals and planning for bigger improvements down the line.

Current energy use

Get hold of actual data (not estimates) of energy used, in units like kWh, such as meter readings/bills. Some smart meters can provide half-hourly meter readings which will help you measure energy usage throughout the day.

Most Oxfordshire schools can now monitor and measure their electricity consumption online using Automatic Meter Reading (AMR) devices.

For further information email energy.team@oxfordshire.gov.uk who can provide you with online access to your data and discuss metering options if you do not have a smart meter already installed.

Checklist

- Do you know the school's recent annual kWh for electricity and fossil fuels (gas, oil, LPG)?
- Do you know the school's current electricity and fossil fuels costs, including price per kWh?
- Do you record or confirm meter readings regularly?
- Do you know the school's recent annual tonnes of CO₂e (carbon dioxide equivalent) from energy consumption?

Analyse energy use

Set up a routine to gather and check your energy data. It's best to do this regularly, such as once a month, to take account of seasonal patterns. With more detailed data, you can analyse energy use patterns based on building usage on various months, weeks, days or even the periods when your school is closed.

Checklist

- Do you compare the school's annual kWh and CO₂e year on year, noting changes?
- Do you know the school's annual kWh per m² and compare this year on year?

Notes

List any other way of collecting or measuring your energy usage data



Get organised

Think about what you want to achieve. Focus on defining your energy management approach. This will help ensure effective communication, tracking, and continuous energy efficiency improvements.

Checklist

- Do you know the insulation levels in the school's walls, roofs, and floors?
- Do you review controls for external lighting to ensure they are off when not needed?
- Do you know how the school is heated, including the different systems and where controls are located?
- Do you know the set temperature and heating times?

Set goals

- Develop an action plan, with clear targets for managing your school building's energy use going forward.
- Have documented procedures to manage day-to-day energy use, including logging any improvements made, so you can check them against the data collected.
- Agree whose responsibility it will be to oversee day-to-day energy use, for example, a building caretaker.
- Decide how to measure overall progress against your targets and set up regular reviews – this can also help with communications.
- Agree whose responsibility it will be to lead on strategy and reviews, for example, a school governor or trustee, an interested teacher, a member of the management team, or the building caretaker.

Notes

List any other ways you can embed regular checks and actions



Get people onboard

When implementing any energy efficiency measure, the most vital element to remember is people – from management and governors to teaching staff and sometimes even the students. Effective communication about your goals and the reasons behind them is essential, as **their active involvement will be the driving force for success**.

Internal communications

Getting teaching staff on board is one of the simplest ways to implement energy-efficient behaviour – they are the people working in the school every day, so if they all make small changes, they will help to create bigger results.

- Ensure your management committee regularly reviews the strategy for making the building work more efficiently when it comes to energy and move towards Net Zero carbon emissions as soon as possible.
- Ensure that training is regularly updated and repeated when necessary. This might occur when new people join, when new technologies are adopted (such as new heating), or even when a reminder just proves beneficial.
- Share any targets you have set with those using and helping run the building, as well as updates on how it is going – say ‘thank you’ when improvements are made or targets met.
- Include people who are in the school out-of-hours, such as cleaners.

Communicating your successes

It can be useful to have evidence of your building’s environmental impact to demonstrate to your team and the public your commitment to reducing energy usage and being part of the fight against climate change.

- Highlighting the positive environmental impact of your school’s efforts is not only valuable for internal motivation but also serves as a powerful tool for communicating your commitment to the wider community.

Notes

List any other communication ideas, such as social media etc

**Don't
forget to
share and
celebrate your
successes!**



Get implementing!

Once you have your data at your fingertips, an energy strategy, and all people on board, it is time to start on some improvements.

Small actions, big results

There are lots of measures that help you take control of energy use:



Insulation

- Do you have double glazing on all school windows and exterior doors?
- Do you annually review draught proofing around windows & external doors, replacing as needed?

Lighting

- Do you replace old-style lighting with LED lights? They use 60% less energy and have an extended lifespan.
- Do you encourage switching lights off when not needed or have sensor controls that automatically turn them off when no one is present?

Heating

- Do you actively revisit heating settings throughout the winter to reduce overheating?
- Do you reduce or switch off heating overnight, on weekends, and during half terms & holidays?
- Do you encourage people to turn off radiators before windows are opened?
- Do you investigate rooms that are frequently too hot or too cold, adjusting local heating settings where possible?
- Do you have thermal blinds or curtains installed to help retain heat in cold weather and prevent overheating from direct sunlight? Thermal blinds can offer 20-40% reduction in heat loss in the colder months, as well as reducing heat entering your building in the summer.

Water

- Do you have all hot pipework in the boiler room(s) insulated? This includes adding covers for valves, flanges, etc.
- Do you review hot water used in your building, including boilers for drinks, so they are well-managed and not left on 24/7?
- Do you have timers on electric hot water heaters / drinks boilers set to be off outside of school hours?

Electronics

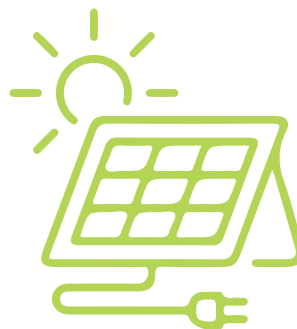
- Do you make sure laptop trolleys use no electricity when recharging is complete?
- Do you switch off electronic items that are unnecessarily on standby (including printers and photocopiers), and actively manage other appliances? Timers or smart plugs can be useful controls to help you stop wasting energy.



Further improvements




- Has your school considered installing solar PV panels to generate renewable green electricity that could be used by the school?
- Has your school allocated a budget for energy efficiency improvements where possible?
- Has your school investigated financial support for installing energy efficiency measures, such as zero interest loans, funding via PTA, etc?
- Has your school got a plan to replace fossil fuel heating with an alternative and to prepare for this when possible?
- Has your school got a carbon & energy reduction committee reviewing the school's progress & reporting to governors?
- Has your school engaged with students and staff on your carbon and energy plans?
- Has your school got an energy or environment student group actively promoting energy efficiency in the school?

Notes





We offer free energy efficiency support to schools in Oxfordshire

-  **Free energy assessment** to assess the changes that would benefit your buildings
-  **One-to-one support** creating bespoke energy efficiency plans for your school
-  Access to **webinars, workshops**, and other **events** to help you

Get started

If you're interested in accessing our services, do write to us at info@ace-schools.org, and a member of the team will get back to you as soon as possible.



Meet our team

ACES in a partnership between:



OXFORD
BROOKES
UNIVERSITY



OXFORDSHIRE
COUNTY COUNCIL

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