

Energy Saving Guide

A guide to good energy housekeeping for schools in East Sussex

The climate emergency requires rapid action now, to protect our environment, our society, and our economy for future generations. In response East Sussex County Council has committed to cut our carbon emissions by 13% per year and become carbon neutral as soon as possible.

This guide is intended as an aid for Good Housekeeping and Energy Management in schools, aimed at head teachers, governors, premises managers, bursars, school energy managers and eco teams.

Start saving energy today

The way in which staff and pupils use a school has a significant effect on its energy bill. Good energy housekeeping is the most cost-effective way of saving energy around your school as it is free and produces savings immediately.

- 1. Form an energy team at your school.** Allocate responsibility to a team of key staff and pupils who can focus the whole school on saving energy. Ideally the team should:
 - **Be supported** by the head teacher and governors
 - **Appoint** a 'school energy manager'
 - **Include** the premises manager, caretaker and cleaning staff
 - **Nominate** pupils to act as energy monitors in each class
 - **Involve** the whole school
 - **Use** the Sigma Energy Viewer or Energy Sparks (see below)
- 2. Find out how much you are spending on energy.** This will give you a base figure to monitor the success of energy saving measures. You can log on to the Sigma Energy Viewer to see the energy consumption data for your school. (See details below.)
- 3. Create an energy action plan.** Review any existing Energy Policy or create one if it does not exist. Make commitments and objectives, assign responsibilities, create a plan and outline what you are going to do and how. Use the list of good housekeeping measures below.
- 4. Compile an energy checklist.** Walk around your school and complete a checklist at different times of day to identify where energy savings can be made using the information here and on the Sigma Energy Viewer. You may want to use the [Carbon Trust checklist](#) as a starting point.

Help on offer from East Sussex County Council

As well as procuring and offering you the most beneficial energy rates through framework contracts, the Energy and Water Management Team offer support and guidance on energy and water management through the EM01 service. They can offer you:

Salix Funding for Energy Saving Projects

Salix is an independent not for profit organisation that provides funding for proven technologies which are cost effective in saving CO₂, such as insulation, lighting and heating upgrades, and many others. Schools take out a Salix interest free loan which is paid back using the savings generated by the project after which the school will retain the savings associated with the carbon reduction project. All upfront costs are paid by ESCC.

The benefits for schools taking action to cut carbon emissions include lower energy bills and with energy-efficient improvements to the building comes improvements to the learning environment such as better lighting, more thermally comfortable buildings, and lower maintenance costs.

The ESCC Energy Team have managed many successful energy-efficiency projects at schools. Find out more on [czone](#), where there are many case studies and feedback from previous projects For example:

"I have been delighted with the results of this project. Not only has there been a reduction in the energy consumption but we have uniform lighting throughout the school and the premises staff do not have to spend time changing light tubes." Ian Fines, Bursar - November 2019.

Display Energy Certificates

The Energy Team offers a central provider for undertaking your Display Energy Certificates (DECs) for buildings with a floor area in excess of 250m² that are visited by the public. We need to work with you and make sure that DECs are used for the purpose that they were intended by improving your DEC rating through better energy management and identifying ways to fund and implement energy saving projects. You can find out more about DECs by contacting the energy team or clicking [here](#).

Energy Surveys

So we can help you save energy we need to have detailed knowledge of how your site is run and what energy saving opportunities there are. From 2011 to 2013, the University of Brighton carried out energy surveys of all our ESCC buildings, highlighting areas for improvement and advice. If you do not have your report, we will gladly supply it for you and go through the findings and offer advice and assistance on how we can use this information to reduce your energy consumption.

TEAM Energy Viewer

[This online platform](#) enables all East Sussex schools to view their gas, electricity, water and oil bills, export monthly energy consumption reports and scrutinise their half-hourly consumption data. This can help you to identify if your school is consuming energy at times when it shouldn't be. This allows you to adjust settings and behaviours to minimise out-of-hours consumption.

Energy Sparks

This is an online energy analysis tool and energy education programme specifically designed to help schools reduce their electricity and gas usage through the analysis of smart meter data. Energy Sparks helps pupils and the wider school community to reduce their school's carbon emissions and make a real contribution to addressing the climate emergency. Further details about what Energy Sparks can offer your school can be found on [their website](#).

ESCC Energy Advice

The ESCC Energy Team is always available to answer any queries you might have regarding energy or water. If you have an energy-saving project in mind or you have a question about your energy bill, contact the Energy Team.

East Sussex Youth Cabinet Schools Energy Audit

Developed by the East Sussex Youth Cabinet, this is a tool for students and decision makers in secondary schools to identify unnecessary energy use and cut energy consumption. [You can find it here to download](#).

Other useful resources

Let's Go Zero

[Let's Go Zero](#) brings together UK schools who want to be zero carbon, are reducing their own climate impact, and demanding greater UK government support to achieve this goal. The campaign will show national government that there is a substantial demand amongst teachers and pupils to become zero carbon, with the potential for schools to catalyse wider change in their communities.

Transform Our World

[Transform Our World](#) is a collaborative online hub that supports teachers in bringing environmental and social action into the classroom through showcasing quality-rated resources, programmes and events available from various organisations.

Green Schools Project - [website](#)

Educate your students about climate change, empower them to take action to tackle it, and help them to build the knowledge, skills and values they will need for a sustainable future. Take your first steps towards becoming a zero carbon school, improve your curriculum and become a community hub for learning about and taking action to tackle the climate crisis. Get support to enhance your teaching by including climate and the natural world, making your lessons more relevant and purposeful.

The Pod

[The Pod](#) is an education programme to promote sustainability and energy saving in schools

Contact the Energy and Water Management Team

If you would like any more information on or sign up to any of the above, please don't hesitate to contact the Energy Team using the details below.

Email: energy.conservation@eastsussex.gov.uk

Phone: 01273 336167

Good housekeeping measures to save energy

Saving energy in school is educational and will save money. There are key energy-wasting hot spots around your school. The main areas you should look at are:

Heating usually accounts for at least half of the school's annual fuel use. Lowering the temperature by 1°C could save about 8% on costs.

- **Keep it closed:** When the heating is on keep windows and doors closed. If it gets too hot, adjust the thermostat or radiator controls instead of opening windows.
- **Keep it under control:** Make sure the heating is timed to switch on and off at the right times to heat your school. It should not be coming on too early or turning off too late.
- **Check the temperature:** Having classrooms at the correct temperature will improve conditions for staff and pupils. The recommended temperature is 18°C. Get feedback from pupils and staff on comfort and make changes.

Lighting uses about 20-25% of the total energy used in schools.

- **Natural light:** Make the most of natural daylight whenever possible. Studies show pupils are more productive working in natural daylight.
- **Switch off:** Encourage everyone to turn off lights when leaving the room.
- **Pupil power:** Appoint pupils to monitor their classrooms and switch off lights when classrooms are empty.

Catering uses about 8% of total energy use in schools.

- **Catering staff:** Energy aware staff can reduce catering energy use by 25%. Create a kitchen energy efficiency plan with them. Following advice in Carbon Trust CTV 035 Food Preparation and Catering.
- **Equipment:** Choose energy efficient equipment when procuring new items.
- **Position** fridges and freezers away from heat sources, preferably in a separate unheated space

Electrical Equipment often accounts for 20% of the energy used in schools, but 50% of the energy costs.

- **Computers:** when computer monitors aren't in use, switch them off. PC monitors account for almost two-thirds of a computer's energy consumption.
- **Large equipment:** Fit 7 day timers to photocopiers etc to turn off out of hours.
- **Small equipment:** Switch OFF (not standby) all AV equipment when not in use e.g white boards, projectors, TVs, sound equipment.

Hot water: wasted hot water = wasted water and wasted heat

- **Drips and leaks:** make sure these are fixed.
- **Insulate** all delivery pipe work.
- **Check timer switches** to ensure hot water only heated when needed.

Swimming Pools: If your school has a swimming pool, fuel costs increase substantially.

- **Control temperatures:** Pools should be maintained at round 29°C. Air temperature should be kept at + or - 1°C of pool temperature. This reduces evaporation and the need for ventilation.
- **Cover it up:** When not in use. This reduces evaporation and the need for ventilation.

Where energy use and cost occurs

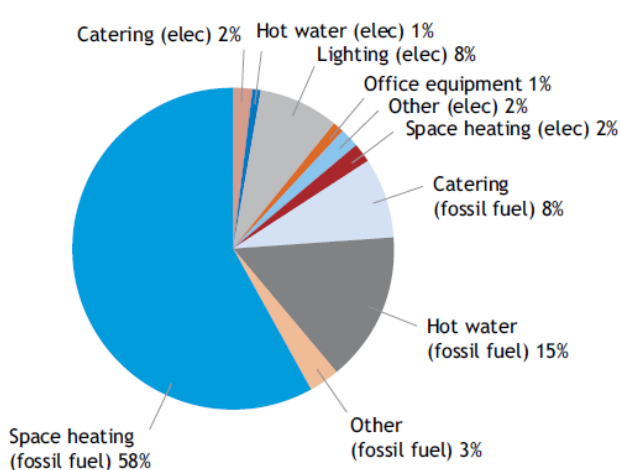


Figure 1 – Percentage energy use in a typical school

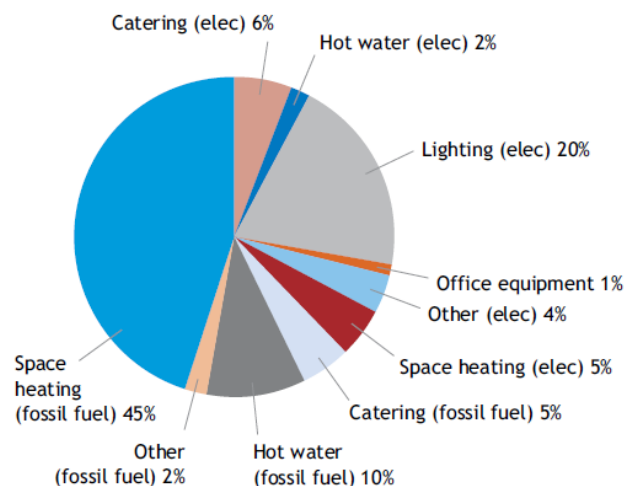


Figure 2 – Percentage energy cost in a typical school

Source: The Carbon Trust CTV019: Schools – Learning to Improve Energy Efficiency

More Useful Resources

The useful Carbon Trust documents below are available for download [here](#).

CTV019: Schools – This gives an extensive overview of the main energy-saving opportunities in schools.

CTV037: A Whole School Approach – This outlines an approach to energy management which involves pupils, teachers and other staff.

GPG057: Conducting an Energy Walk-round in a School – This helps you to identify where energy is being used in your school and where savings can be made.

CTL067: Schools sector walk around checklist – This can be used in conjunction with CTV019 or GPG057 and is a good place to start.

GIL147: Schools Energy Saving Fact Sheet