

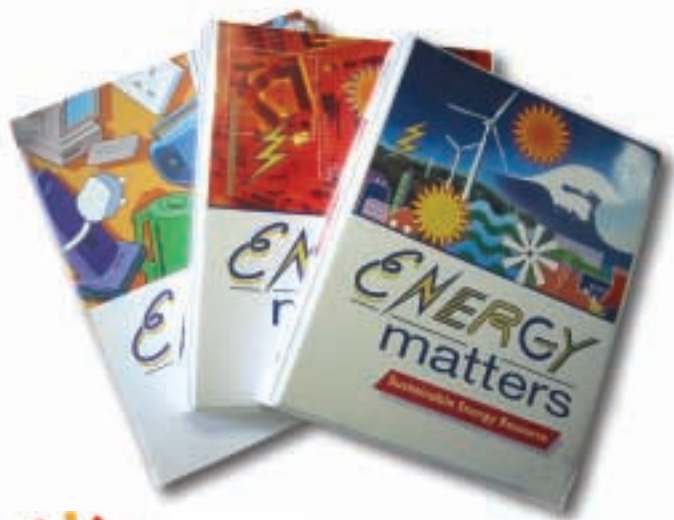
ENERGY EDUCATION HITTING HOME

A SUMMARY OF THE EVALUATION REPORT INTO THE IMPACT OF
THE ENERGY MATTERS PROGRAMME



“ [Our son] was very good at explaining how energy efficiency could save us money and make our home more comfortable...the information he brought home was very concise and backed up. It made us think about these things.

– Parent of Energy Matters pupil ”



CENTRE FOR
SUSTAINABLE
ENERGY



“ I came [to the school] about three years ago, was contacted and went to the Energy Matters meeting and picked up a pack. It’s highlighted the issues entirely. We had all the lights replaced with energy-saving lights and energy-saving switches throughout the whole school. – Head Teacher, Buckinghamshire ”



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Well-designed and supported energy education programmes can have a significant and lasting impact on school energy usage and, in particular, on energy-saving behaviour in pupils' homes.

Independently supported evaluation of the Centre for Sustainable Energy's Energy Matters programme shows the positive energy-saving and educational benefits which can result from its involving, curriculum-linked approach.

ENERGY MATTERS

Energy Matters is a unique energy education programme which, since its launch in 1999, has been used by over 18,000 school pupils in 500 schools in the UK, in partnership with 86 local authorities. It provides curriculum-linked education resources for primary and secondary schools, with training and ongoing support from local Energy Educators.

Developed and run by the Centre for Sustainable Energy, Energy Matters resources cover Home Energy, Sustainable Energy and School Energy. Activities link to a wide range of National Curriculum subjects, including Education for Sustainable Development, Literacy, Numeracy, PSHE and Citizenship.

THE PRINCIPAL FINDINGS

Independent researchers New Perspectives and the Centre for Sustainable Energy (CSE) conducted research into the impact of the Energy Matters programme.

- 76% of parents have changed their behaviour to save energy as a result of their children's involvement in Energy Matters.
- 54% of parents have subsequently installed energy-saving measures, including low-energy light bulbs, energy efficient appliances and home insulation improvements.
- Benefits reported include reduced fuel bills, improved warmth and reduced ill-health.
- These results match those achieved by professional energy advisers. The exception was the lower take up among pupils' families of grant-funded energy efficiency measures. This indicated a potential to develop additional resources to support pupils identifying suitable grants.
- Parents rated their children and Energy Matters as almost twice as influential on their behaviour as other sources of information on energy saving.
- Schools participating in Energy Matters took action to save energy: turning off lights, computers and other appliances when not needed; closing doors and windows to stop heat loss; making energy improvements to the school buildings, heating and hot water systems and controls.
- The Energy Matters programme appeared to be most effective when it was supported by senior members of staff and when it involved the whole school community (teachers, governors, caretakers, parents and pupils).
- 90% of teachers who delivered Energy Matters and completed evaluations will continue to use Energy Matters and recommend the programme to other teachers.

BACKGROUND



Previous research by CSE showed that young people can play an important role in influencing energy efficiency behaviour in the home.¹ Involving young people in the study of energy not only raises their awareness as future energy consumers, but also encourages energy efficiency improvements and energy-saving behaviour in their homes now.

Energy Matters is designed to fit curriculum initiatives, promote the involvement of young people as environmental decision-makers and build home-school links.

Originally developed around the theme of Home Energy, the resources were extended to look at School Energy and Sustainable Energy, addressing Education for Sustainable Development across Curriculum 2000, including Literacy, Numeracy and Citizenship, with links to the Qualifications and Curriculum Authority's (QCA) Schemes of Work.

The Resources

The Home Energy Resource is for Key Stages 2 and 3 (7–14 years). Students complete a Home Energy Survey, analyse data in the classroom and take home energy-saving recommendations.

The School Energy Resource starts the process of managing school energy use with teaching materials for Key Stage 1.

¹ *Young People's Influence on Home Energy Efficiency* (CSE, 1999).

The Sustainable Energy Resource for Key Stage 3 Geography covers local and global aspects of energy sourcing and the environmental, social and economic impacts.

Delivery

Energy Educators, trained and accredited by CSE to deliver Energy Matters at a local level, recruit schools, train school staff and provide ongoing support. A CSE project manager is a point of contact for support and additional resources for Energy Educators and schools.

THE EVALUATION METHODOLOGY

THE EVALUATION SET OUT TO ANSWER THE QUESTION:

“ What effect has the Energy Matters programme had on energy efficiency in the schools and homes of participating pupils? ”



In spring 2003, New Perspectives undertook a telephone survey of 148 parents of participating pupils to assess the impact of Energy Matters on home energy use. The survey was similar to that used to evaluate the impact of professional energy advice provided through the national network of Energy Efficiency Advice Centres.

CSE, with advice and guidance from New Perspectives, undertook semi-structured interviews with staff in 14 participating schools and with pupil groups in 12 participating schools.

In addition, each element of Energy Matters was evaluated as it progressed, with teachers giving feedback on the programme's resources and support, and with progress reports from the Energy Educators in the field.

THE IMPACT OF ENERGY MATTERS

INVOLVING THE SCHOOL COMMUNITY

Energy Matters had a positive impact on reducing energy waste in schools and homes by involving all members of the school community.

SCHOOL STAFF

Teachers took action to reduce energy waste in their classrooms.

“Turn off lights as we leave the room – I try and get [pupils] to do that. The computers are on all day as they use them all the time...we do switch them off at the end of the day.” – Teacher

Staff involved in management thought energy saving of value and would continue to find opportunities for action.

“In our school building plan, [we] budget every year, for planned maintenance, emergencies and servicing equipment and site services. [We’re now] going through, looking forward to what will need to be replaced in future or what can be more efficient in future.” – Bursar

Site and support staff were included in energy-saving activities.

“[Teachers] need to lead by example. The cleaning staff are also very committed.” – Head Teacher

PUPILS

Energy Matters activities were considered a success.

“I couldn’t believe how much energy we were using, before I did the survey – I thought we were quite energy saving but when I did it, I realised we weren’t at all.” – Pupil

Pupils were involved.

“School council [was] routinely used for communication of issues [and we] try to include children in policy-making and action-planning.” – Teacher

Pupils took energy-saving action.

“[We] used to leave doors open and lights on when going to assembly, now [we] shut the doors and turn lights off.” – Pupil

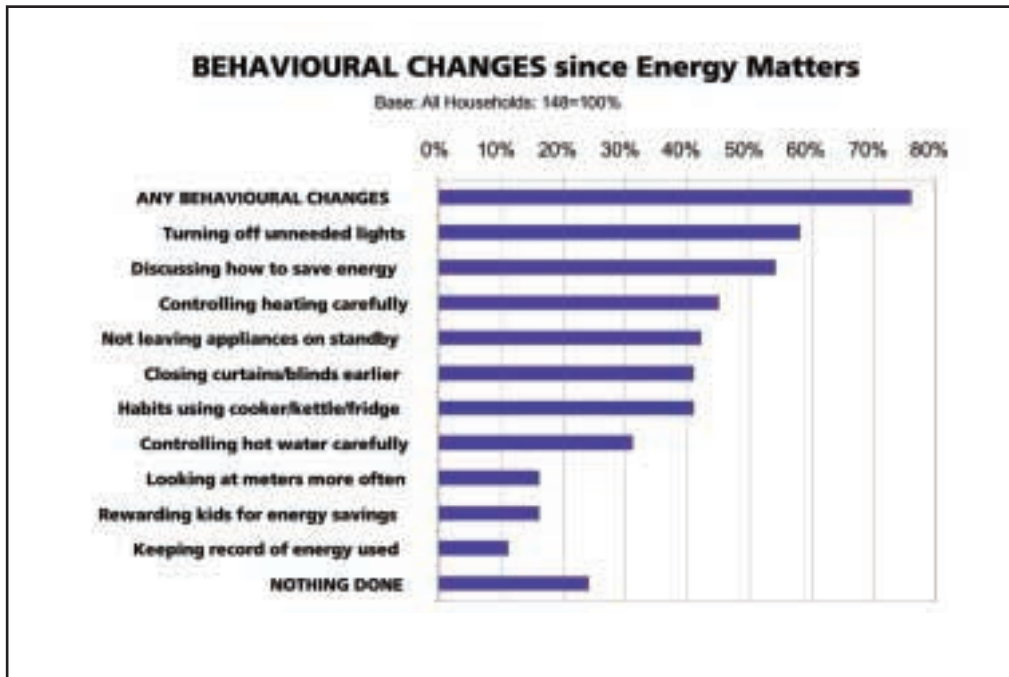
Pupils played a part in saving energy at home.

“I turn everything off properly like the TV and my stereo. I don’t leave it on standby.” – Pupil

Pupils involved families in reducing energy waste at home.

“Closing the door when you walk out of the room and the TV – walking out and leaving it when nobody’s watching it. They’re always on to us about doing that.” – Parent





FAMILIES

Families rated the influence of their children and Energy Matters as almost twice that of other sources.

"[Our son] was very good at explaining how energy efficiency could save us money and make our home more comfortable...the information he brought home was very concise and backed up. It made us think about these things." – Parent

Families responded to children's input.

"It's influenced me into realising that, by switching off the lights and putting the heating down and keeping doors closed, the energy will be used more efficiently." – Parent

Families installed energy-saving measures.

"It's made me more aware and to think more about saving energy and the ways I can save energy. We have energy-saving light bulbs and we are replacing our radiators and we are going to put on thermostats." – Parent

Families considered environmental issues.

"Without a doubt, an awful lot we do, parents see it. [Now] we don't do things that are not environmentally friendly – like at the school fair, [we] used to have smashing pianos [and] sending up balloons. [And we] chucked all the rubbish out. Now it's separated [for recycling]." – Teacher

GOVERNORS AND OTHERS

Schools mentioned activities of governors and the wider community.

"[We've] done a lot of work on consultation, with pupils, staff, local community, working closely with the [local environment] group, who form a vocal part of committee including students and pupils." – Business Manager

"There's an association, with teachers involved, called the Greening [the] School Committee – they've been proactive in what's going on here, more than the Governors who have been supporting them, in terms of what they'd like to see here." – Head Teacher

GETTING THE MESSAGE ACROSS

EDUCATION FOR ALL

Energy Matters actively involved families.

"[It's] good that Energy Matters targets pupils and parents and homes. Parents get more involved and not many resources work in that way. I was surprised by the number of returns." – Teacher

Families and teachers learnt from the work pupils were doing.

"My parents were very pleased that I brought home the questionnaire and very interested in what mark they got and to see where they could have improved, because it doesn't just help in saving energy, they're quite interested in saving money." – Pupil

Families responded to the interest their children showed.

"I think that [the best thing is] the enthusiasm they've shown, the fact that he's come home with ideas and brought it to our attention, and is very keen and aware of energy saving." – Parent

HAVING AN IMPACT

Energy Matters was effective in encouraging action.

"I came [to the school] about three years ago, was contacted and went to the Energy Matters meeting and picked up a pack...since then it's highlighted the issue entirely. We had all the lights replaced with energy-saving lights and energy-saving switches throughout the whole school." – Head Teacher

Schools which had only used the Home Energy resource also reported improved energy-saving behaviour within the school.

INVOLVING ALL

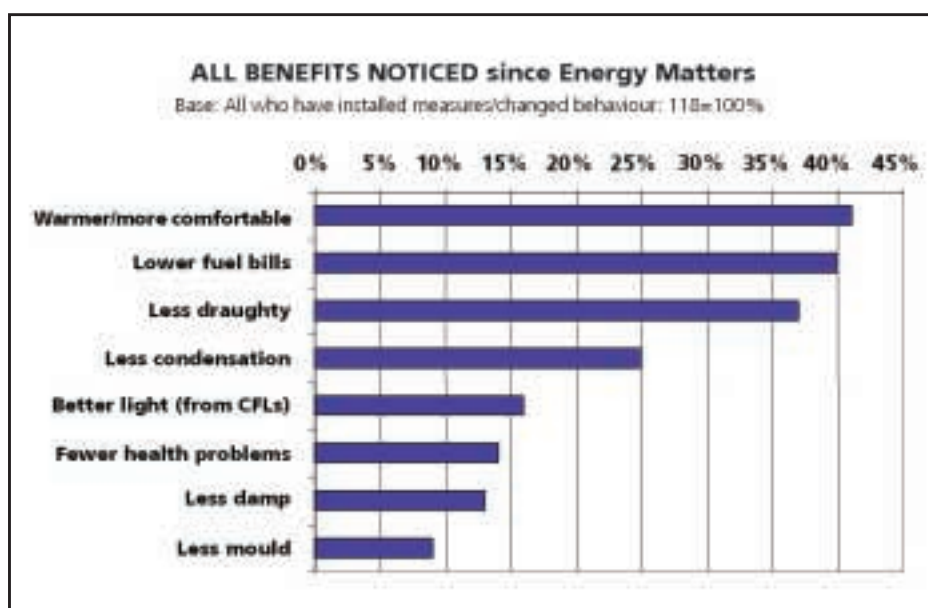
Family involvement was an effective mechanism for getting a message across. Energy Matters activities allowed those involved to learn about the facts and make their own decisions. They did not 'tell you what to do'.

"[Energy Matters is] not structured on high moral ground, these are the options – children made decisions from work sheets, information and resources...if done as a 'should' it would have been ignored." – Teacher

Staff were aware of the school's role in sending out specific messages.

"I expect parents to understand that we are educating their children to be custodians of the future planet." – Teacher

"[Schools can have] quite a lot of power, it's frightening the power...parents here are very cooperative, so [are] more likely to take notice of what you are saying rather than just bin it all the time." – Teacher



MORE THAN ENERGY SAVING

Energy Matters encouraged schools and families to take energy-saving action and reduce fuel bills. Energy Matters provided benefits over and above financial savings.

Energy Matters increased knowledge and understanding of sustainable energy issues.

“[We found out] there are renewable and non-renewable sources. We will have to use renewable sources sooner or later.” – Pupil

Energy Matters encouraged environmental decision-making.

“With School Council, they do take responsibilities seriously and they could take it on board at the end of school to go round and check things were turned off.” – Teacher

Energy Matters encouraged home-school links.

“[Taking part was] no problem – [we] wrote a letter [to the parents], why [the survey was] being done, [how they would be] helping with research and why they would be interested in things their children were doing [and] learning at school [and how] could they follow on at home.” – Teacher

Energy Matters encouraged schools to look at ongoing energy issues.

“Future areas include turning TVs/computers off stand-by and turning the heating down. But once you alter the thermostat, it takes a long time for the heat to go down. We just need to keep on flagging the issues, ensuring a whole school approach. We plan to keep on promoting it every half-term.” – Head Teacher

Energy Matters resulted in warmer homes and improved health. Nearly half the households thought they were warmer and over a third said it was less draughty. 14% of families reported reduced health problems such as coughs, colds or asthma.

“It has cut down on the cost of electricity and the house is being kept warmer.” – Parent



BEST PRACTICE IN SCHOOLS

The evaluation drew out specific findings that provide signposts to achieving best practice in school energy education and management:

■ **The involvement of representatives from a range of the groups of a school's community, teaching and management staff, governors, pupils and parents in plans and actions aimed at energy saving.**

■ A positive approach to the empowerment of pupils and their involvement in school management, for example, through a school council.

■ **Use of energy education materials which highlight the effects of energy use, and the benefits of energy-saving actions. The Energy Matters Home Energy Resource was valued for its focus on actual energy use in the home as a basis for the educational work.**

■ Links between any energy management planning and activities and other ongoing building-related programmes, such as health and safety inspections or routine maintenance.

IMPLICATIONS AND NEXT STEPS

■ Energy Education can Help to Deliver Energy Advice Targets

This evaluation indicates significant potential benefits of using well-designed and supported energy education programmes to help to deliver national energy advice objectives. With the school energy savings and the educational benefits for the next generation of householders also taken into account, there is clearly great value in using such programmes to achieve energy-saving behavioural change.

■ Additional Resources can be Developed to Improve Grant Take Up

The Home Energy resource activities carried out by pupils in their homes resulted in lower take up of grant-funded energy-saving measures than that achieved through professional energy advice (even though the behavioural changes were similar). To rectify this, CSE has secured funding to develop additional resources (under the Citizenship curriculum) to engage pupils in the identification of grant availability and consideration of concepts of eligibility.

■ Experience Gained from Delivering Energy Matters can be Used to Promote Best Practice in Schools

The experience of delivering Energy Matters in schools points to a clear set of conditions under which such programmes are most effective. The role of the local energy educators is key and the development of a network of local educators supporting a range of Energy for Sustainable Development programmes would increase the viability of a national network.



■ Sustainable Energy has Great Potential as a Cross-Curriculum Theme

CSE recommends that, at the next review of the National Curriculum, appropriate mechanisms are developed for the inclusion of sustainable energy, and similar broad topic areas, to enable teachers to return to project-based teaching to allow for cross-curricular links.

CENTRE FOR SUSTAINABLE ENERGY

The Centre for Sustainable Energy (CSE) is a national charitable company, established in 1979. CSE's mission as an independent charity is to advance sustainable energy policy and practice. CSE seeks energy solutions which engage people and communities to meet real needs for both environmentally sound and affordable energy services. CSE has been working with schools on environmental issues for over 15 years, delivering energy education programmes in nearly 2000 schools across the UK to date. CSE encourages young people to act as environmental decision-makers and promotes the study of energy issues in the school, the home and the wider community.

NEW PERSPECTIVES

New Perspectives is a social and market research consultancy, founded in 1982 and specialising in evaluating the effects and opportunities afforded by changes in society, by the growing awareness of the need to protect our environment.

THE EVALUATION STUDY REPORTS

Energy Education Hitting Home: Monitoring the Impact of Energy Matters
(CSE, April 2003)

Energy Matters Home Energy Resource: Its Effects on Energy Efficiency in the Home (New Perspectives, April 2003)

These are available to download from CSE's website at www.cse.org.uk/csepublications or can be ordered by sending £5 payment to CSE for each copy of each report to:
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CSE is also very grateful to the participating schools and the staff, pupils and parents who generously gave their time and provided valuable feedback from their experiences.

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