

energise

Tackling the threat of climate change and ending the misery of cold homes

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Follow us on Twitter | @cse_bristol

CSE publishes energy data for 40,000 public buildings

Energy data for over 40,000 buildings in England and Wales placed in public domain at cse.org.uk/data

CSE has published the full Display Energy Certificate (DEC) Register for all public buildings in England and Wales, making it publicly available in one place for the first time.

The dataset includes the address, floorspace, heat and power consumption, carbon emissions, and energy efficiency rating of 40,000 sites. Until now, the information could only be obtained for one building at a time, and only in PDF format, making strategic assessments and estate-wide analysis almost impossible.

We obtained the data (which is not personally or commercially sensitive) from the Department for Communities and Local Government (CLG) under the Environmental Information Regulations, building on the efforts of BBC journalist Martin Rosenbaum who obtained a partial dataset in 2009.

CSE's Head of Research Joshua Thumim explains why we took this step:

"This data belongs in the public domain. It took a lot of time and effort to persuade CLG to release it to us, and we are now pleased to be able to share it so no one else has to jump through all of those hoops.

"We hope that researchers, policy-makers, public agencies and others working in the field of sustainable energy can make effective use of the full dataset now that it is finally available."

News of the release of the DEC data spread quickly around the internet and traditional media with numerous websites, radio stations and local papers reporting on the findings in their areas.

The Guardian newspaper's DataBlog integrated the data with a mapping tool allowing the public to easily find the energy rating of buildings in their neighbourhood online for the first time.

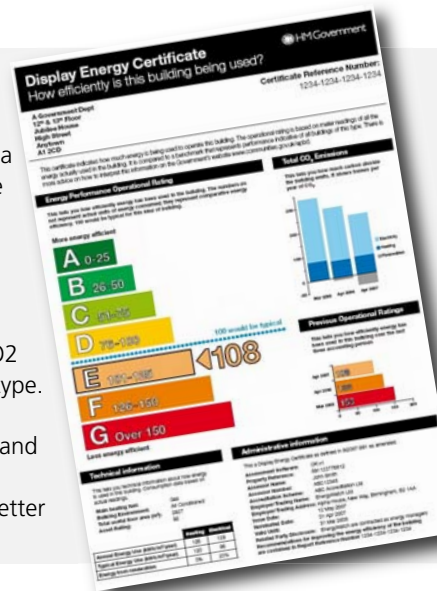
CSE's website experienced its heaviest day of traffic ever as a result.

• For more on this story, and more data, see cse.org.uk/data

'Operational rating'

The Display Energy Certificate information has been collected by CLG following the introduction in 2008 of a law requiring all public buildings of over 1,000m² to be assessed for their energy performance. Each building is also required to display this information in the form of these now-familiar certificates (right).

A building's DEC presents its energy performance as an 'Operational Rating' which compares its attributable CO₂ emissions to a benchmark figure for a building of that type. The comparison is expressed as a percentage, so if a particular public library emits 50 tonnes of CO₂ a year, and emissions from a typical library are 100 tonnes, the Operational Rating is 50. So the lower the rating, the better the energy efficiency performance.



‘You just have to get by’

A study of the coping strategies of low-income households in Great Britain reveals the cold truth about fuel poverty

“I’m disabled ... My hands get pretty cold so I have to try and heat them up. I put the fire on for five minutes then I’ve got to turn it off again because it costs too much... if I put it on my husband goes mental”

These are the words of Joyce, a middle-aged woman living in fuel poverty with her husband and son. They are some of the millions of Britons struggling to cope with falling incomes, rising fuel prices and poor housing.

To get a picture of what life is like for the individuals and families affected by fuel poverty – many of them elderly, disabled or otherwise vulnerable – CSE interviewed 50 households. What emerged is a disturbing insight into the realities of living on a low income in a British winter.

CSE’s Will Anderson was the study’s principal researcher. “Mostly, the debate around fuel poverty focuses on numbers: how many people are living in fuel poverty, what percentage of income is spent on fuel and so on,” he said. “But what about the

people themselves? How do those facing fuel poverty feel about their situation? And what strategies do they use to cope?”

We surveyed 699 UK households living below the official poverty line, and followed this with in-depth interviews of selected households like Joyce’s.

What we revealed was that families or individuals on low incomes were, in 2010, fearing the onset of winter as rising energy bills and looming welfare cuts threatened to push them beyond the limits of their already hard-pressed budgets. As it happened the winter of 2010-11 was a cold one.

Headline finding

Among households with an annual income of £6,000 or less, nearly two-thirds said their homes are cold in the winter, with single-adult and lone-parent households hit especially hard

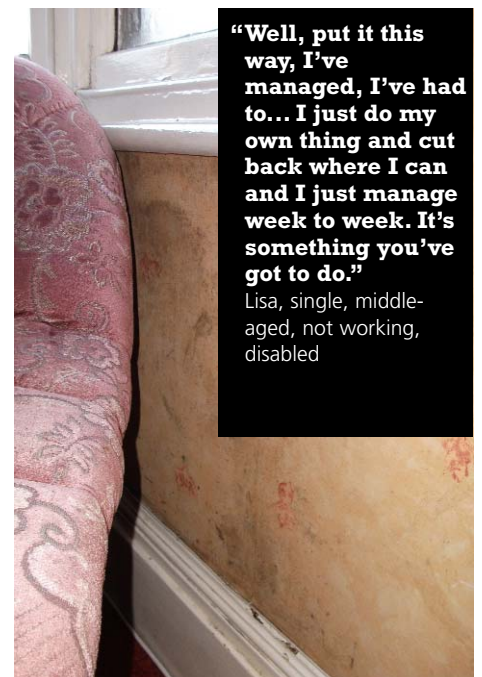
Despite a determination to make ends meet, for many households the cost of avoiding debt is going cold and hungry. Our study found that low-income households with highly constrained budgets typically cut back their spending on both fuel *and* food.

But, while shopping around is an effective cost-saving measure for food, it doesn’t work for energy. Most interviewees doubted that the deals being offered by energy com-

panies could deliver real savings. What’s more, low-income households are not only *debt-averse*, they are also *risk-averse*, preferring to stay on a higher energy tariff that they have learnt to cope with – albeit by drastically reducing their energy use – rather than risk switching to a tariff that may not be all the energy supplier claims it to be.

The message for government, says Will, is that policy makers should always consider the consequences for the most deprived households, who are already struggling with energy and living costs. “Welfare cuts and higher energy prices will not only increase the number of households in fuel poverty but also the severity of their hardship.”

The study, ‘You just have to get by’ is downloadable from cse.org.uk/have-to-get-by



“Well, put it this way, I’ve managed, I’ve had to... I just do my own thing and cut back where I can and I just manage week to week. It’s something you’ve got to do.”

Lisa, single, middle-aged, not working, disabled

More voices from ‘You just have to get by’

“I would put the heating on just when my boy got home from school. About half three, I’d perhaps have it on till he went to bed. If it was just me, if I could manage not to, I did so. I had three blankets sometimes. I’d just go to bed early, snuggle up in bed just to keep warm... Like I say, if you have to go out to walk the dog and then you come in and the house is cold, you think, bloody hell, it’s just made things worse really.”

Emily, young single mother, not working, living with her one son

“We were freezing. Sometimes we slept in the living room because I can’t afford to heat up every single room. If you put your central heating on that can use, just for a couple of hours, two or three pounds. I put ten pound on each meter every week and that has got to last me from week to week. There is no extra money to go and put extra on it, do you understand what I’m saying?”

Lucy, not working, single, living with 12 year-old granddaughter

“If it gets far too cold, I go to bed. Last winter I spent more time in bed than downstairs.”

David, widowed, retired

“I put the heating on and then suddenly realised how much it was costing so turned it off at the wall. At the moment I’ve got a quilt around me on the sofa because it’s bloody cold... To be honest with you, I haven’t had a meal in the last four days and I’ve still got to wait till Saturday because I don’t have any money. I just have to, I do without.”

Brendon, young, single

“In terms of juggling money, my bills always get paid. Yeah, my heating, my rent, my what have you. They always get paid. It’s sort of socialising and stuff like that that falls back.”

Matthew, single, middle-aged



Can Bath make its buildings fit for the 21st century whilst retaining its unique character and heritage? The Bath-stone coloured paint can't disguise some familiar energy infrastructure (top). Whilst planning restrictions on vents like these (above, left) mean that many of Bath's listed buildings are heated by expensive and carbon-intensive electricity. Above, right, solar panels on a Georgian home.

Low-carbon Bath

Is there a place for solar panels on an elegant crescent of Georgian housing? A CSE project suggests that preserving heritage and tackling climate change are not mutually exclusive

How does a city like Bath, known around the world for its beauty, historic and cultural importance (and a designated World Heritage Site to boot), retain the integrity of its architectural gems while at the same time bringing them up to 21st-century standards of energy efficiency?

This is the issue at the heart of **Low-Carbon Bath**, a project managed by CSE in partnership with the Bath Preservation Trust and supported by the district council.

Feelings on this issue run high. Some argue that no changes at all to the fabric of the city's architectural heritage should be allowed, whilst others point out that buildings and settlements have always adapted to change, that many of Bath's listed buildings are uncomfortably cold and expensive to maintain, and that the city cannot consider itself a special case when it comes to tackling carbon emissions.

Low-Carbon Bath aimed to find common ground and a way forward.

Will Anderson led the project for CSE. "National targets commit the UK to reducing carbon emissions by 80% by 2050, and

Bath is not exempt from this. It is critical that the city looks at how it can make its contribution."

What do the people of Bath think?

The first step in the process was a series of focus groups in which various stakeholders (including conservation bodies, green groups, developers and landowners, planners, young people and residents in general) came together to share their views.

Perhaps unsurprisingly, the general consensus is that the city's heritage is indeed important and should be protected. But at the same time participants identified the need for *clearer guidance* on what low-carbon improvements are both possible and effective in traditional homes and public buildings in Bath and a greater flexibility in the interpretation of existing conservation guidelines.

The consultation was widened at the beginning of this year with an online survey exploring people's views on the acceptability, or otherwise, of different low-carbon adaptations to Bath's most protected buildings, such as double glazing, ventilation,

draft-proofing, insulation, heating systems and solar panels.

Among the many findings was that over 75% of people living in listed buildings in Bath feel the cold in the winter, and almost half of them are much colder than they want to be – four times the rate for Bath residents that live in unlisted buildings.

"I was shocked by this", said Will. "Is it acceptable that so many people are going cold in listed buildings in the city?"

The next step in the project is the publication of draft guidance bringing together the learning so far and presenting both the measures that householders can currently install, as well as the results of a city-wide survey on proposed further measures.

The final stage, which will be undertaken over the next 6-9 months, is to carry out wider consultation with the community in partnership with the council, to determine which elements of the guidance can be adopted as a Supplementary Planning Document for the district.

The Bath Preservation Trust hopes to present the project process and outcomes to UNESCO as a model for reaching community consensus on climate change and heritage in other World Heritage cities.

- **Low-Carbon Bath is part of PlanLoCaL (see over). For more information see cse.org.uk/low-carbonbath, where you can download reports into the findings of the consultation and online survey. To receive notification of publication of the draft guidance, sign on to our enews at cse.org.uk/enews**

PlanLoCaL: helping communities shape their own low-carbon future

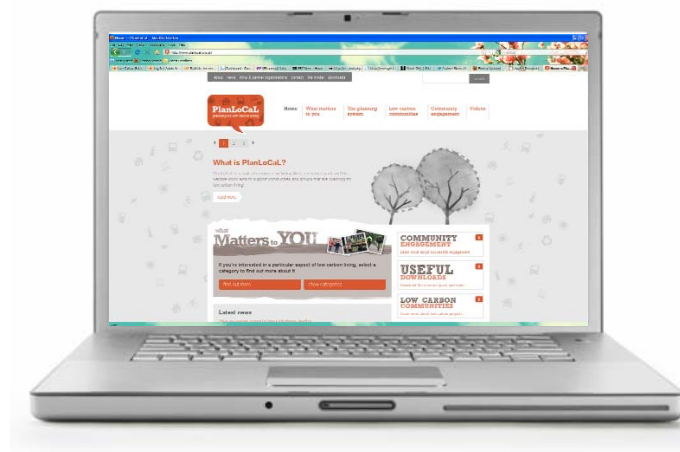
A new website, DVD set and resource pack aim to give local communities the knowledge and confidence to influence local planning policy and contribute to a low-carbon future

Paul Thurston and his friends in the Portishead and Pill Energy Group are keen on developing a renewable energy project for their community in north east Somerset.

They are typical of hundreds, if not thousands of groups around the country looking to make a contribution to a low-carbon future and improving their neighbourhood. And now they have a resource to help them.

PlanLoCaL ('Planning for Low Carbon Living') is a website (planlocal.org.uk), a hefty folder of materials and a pair of DVDs containing nearly 50 short videos (also viewable via the website and on YouTube).

Together, these resources are designed to get communities engaged with their local planning department, particularly in order to identify and promote low-carbon initiatives. So far, the response from community groups and community develop-



www.planlocal.org.uk contains a wealth of information, resources and links for communities looking to cut carbon, either through their own renewable energy projects or by working hand in hand with community initiatives in other fields such as transport, housing, local services, leisure, young people etc

ment officers is very positive indeed (see box right).

But it's more than this, too, as Rachel Coxcoon who manages the project explains.

"PlanLoCaL is, above all, an 'approach', and one that recognises that a community is the best judge of the most appropriate low-carbon options in their neighbourhood. But for them to identify, plan for, and

implement the best low-carbon solutions for their local area, they need various strands of support."

A collective endeavour

PlanLoCaL also recognises that there needs to be a sense of 'joint agency' on tackling climate change: between and within communities; and between communities, local

government and society more widely.

Understanding that there is no 'opt-out clause' when it comes to tackling climate change is a key PlanLoCaL aim. But it also seeks to demonstrate that tackling climate change is an *opportunity* for communities, and that, with the right inputs and support, communities can:

- Take greater control over shaping the place they live in and its low-carbon future
- Have direct and meaningful influence on planning policy
- Explore the integration of low-carbon measures into existing local buildings, businesses and lifestyles
- Reap the financial rewards (typically feed-in tariff income) and the social rewards that come from owning and managing low-carbon assets

"The project will succeed", says Rachel, "if it establishes within communities a genuine sense of responsibility for taking action on national and global issues at the local level.

"And this doesn't have to be a case of 'all pain and no gain'. The PlanLoCaL videos include case studies of local communities that are, or will be, contributing to the national low-carbon effort but at the same time benefitting financially from their renewable energy projects [see right].

"The same is true for many other communities in the UK and could be true for hundreds more. Given the right inputs,

The two PlanLoCaL DVDs (right) contain 45 videos. As well as the case studies (opposite) they cover a huge range of topics including introductions to the different renewable energy technologies, project management, funding, dealing with planning, consulting with the community and heritage issues. They are presented by CSE's Will Anderson and writer, actor and presenter Manon Eames. See them online at planlocal.org.uk. Below, the PlanLoCaL resource pack.



they could be welcoming renewable energy projects as 'enabling infrastructure' that will generate cash for other local services and schemes that local people decide they want."

Communities and community-support organisations who would like a free copy of the DVD resource pack can order one by completing the order form that can be found on the downloads page of the website.

PlanLoCaL (planlocal.org.uk) is a three-year programme devised by CSE and funded by the Department for Communities and Local Government's Empowerment Fund which encourages greater public engagement with the planning process.

Another PlanLoCaL asset is a striking 4m, 1:250-scale model of a typical British town showing examples of where renewable energy or other low-carbon developments may be introduced. It has proved an excellent engagement tool for public consultation events in Bath, and is seen below at the Green Alliance conference in London, February 2011.



The faces of successful community renewable energy projects. From top: Barbara Hammond (West Oxford Community Renewables); Marion Briggs (Hoathly Hill); Rev Michael Brierley (Gulworthy parish church); Simon Tilley (Sustainable Hockerton); Adrian Sargood (Bovey Climate Action); and Ann Harding (Settle Hydro Ltd). Video case studies of all these projects can be found on planlocal.org.uk

PlanLoCaL is 'really damn good'

Fifty people attend PlanLoCaL training day in Bath and give the resource the thumbs-up

"It's just really damn good," was one of the more succinct responses from those attending a national training day at Bath's Guild Hall to find out more about the new PlanLoCaL resource pack, DVDs and website.

The new resources were thoroughly road-tested and came through with flying colours.

Attending the event were representatives of many local and national organisations with an interest in community action and renewable energy.

They included the Department of Energy and Climate Change; national bodies like the Energy Saving Trust and Local Government Association; eight local authorities; several national parks and AONBs; and dozens of other national NGOs and local community groups.

More than 80% of attendees said the resource pack would allow them to give more in-depth support to communities on planning and developing renewable energy projects.

"The event has shown there is a real need for this kind of resource," said Rachel Coxcoon who is managing PlanLoCaL, "not least because it brings together in one place the many types of guidance community groups who want to get a project off the ground need, namely technical information; guidance on project planning and funding; case studies; group exercises to help understand and plan initiatives and other materials."





Warm Families Lifting families out of fuel poverty in North Somerset

The family is at the heart of a new CSE project that aims to support North Somerset households struggling with fuel poverty.

'Warm Families' is a two-year project funded by the ScottishPower Energy People Trust and will see CSE work alongside existing agencies in areas such as Clevedon, Nailsea, Portishead and Weston-Super-Mare, and surrounding villages.

Project manager, Louise Rutterford, explains further. "The families we aim to help are those who are generally quite hard to reach due to their isolation or marginalisation. We'll be working with organisations that are already engaging this group such as housing and welfare groups, citizens advice bureaux, job centres and so on."

The project will offer families a range of support and advice at home, such as:

- Basic energy awareness like how to use heating controls and cut electricity and gas bills;
- Working with householders and their energy suppliers to find solutions to fuel debt;
- Home energy audits to see where savings can be made;
- Helping ensure households receive all appropriate entitlements (e.g. welfare benefits and grants for home insulation and heating improvements);
- Directing clients to other sources of support, such as Citizens Advice, debt advice, local authority etc, and helping them apply to grant-schemes like Warm Streets.

See cse.org.uk/warmfamilies or contact louise.rutterford@cse.org.uk for more information

BEAN turns 10

One of CSE's longest-running advice projects, the Bristol Energy Action Network (BEAN), has celebrated its tenth anniversary. BEAN has been addressing fuel poverty and promoting affordable and sustainable energy use across Bristol since 2000.

"The figures speak for themselves," said

project manager Bridget Newbery. "Over the course of the last decade, we've offered advice to tens of thousands of people in Bristol. This includes at events like the Festival of Nature and the St Pauls Carnival and at workplaces such as Airbus, local hospitals and Horfield Prison."

A significant element of the project continues

to be in-depth home visits, to vulnerable householders suffering from high bills, fuel debt, damp, billing issues and a lack of energy awareness.



A bulb swap at a BEAN event in 2007

I am
10

Renewable energy in the Levels and Moors

CSE is midway through a primarily-EU funded project that aims to help communities in the Somerset Levels and Moors area develop community-scale renewable energy and low-carbon schemes.

Bridget Newbery is a project manager at CSE. "What we were hearing from people in the area is that, whilst there is enthusiasm aplenty for renewable energy developments, there is a lack of specialist knowledge to get them going. What we can offer is help identifying renewable energy projects that are technically and financially sound, and the development experience to get them up and running."

Project ideas could be led by community groups, village halls, community buildings, and potentially also small businesses with strong local community roles (such as cafes or local food stores).

"We are already working with six groups on a number of different low-carbon ideas" said Bridget "and are actively looking for other groups in the Levels and Moors area to support".

CSE provides a package of support, including help with: identifying the options; investigating finance; technical input; community buy-in; and project planning.

The second selection phase will begin later this year. For more information, see cse.org.uk/levelsandmoors



Community shops like this one, with its roof of solar tiles, is the kind of initiative that the Levels and Moors energy project seeks to promote

Help for hard-to-treat homes in Somerset West

New project 'insulates the parts other insulation schemes cannot reach'

More than a third of all homes in the UK – around 10 million – are solid-walled.

This means that current energy-saving schemes that focus on cavity wall insulation are simply not relevant to them, and the huge potential to cut carbon emissions from these homes remains untapped.

To address this, a new project developed by CSE in partnership with three district councils in Somerset (Sedgemoor, Taunton Deane and West Somerset), will offer a grant of 25% of the value of works for solid wall insulation, more complex loft insulation and floor insulation – up to a maximum of £2,500 per household.

It builds on the success of a similar scheme called 'Freedom from Fuel Poverty' which CSE ran in partnership with Bath and North East Somerset Council (www.cse.org.uk/ffp).

The **Somerset Hard-to-Treat scheme** is open to all,

and low-interest loans will also be available to customers who are able to satisfy low-income eligibility.

Phillip Morris is the scheme manager at CSE. "Our own advisors have been telling us that there is little they can offer people in hard-to-treat homes from existing energy saving home improvement schemes," he said. "With this initiative we feel we are able to give more people real options for home improvements."

One reason why energy efficiency schemes for solid-walled properties have attracted interest is that the initiatives that promote loft and cavity wall insulation have been so successful that it is becoming progressively harder to find unfilled cavities and uninsulated lofts.

As Phillip says "We now need to start the work on the more challenging housing stock so that as new national initiatives come forward, Somerset is ready to scale up."



Most energy-saving schemes are aimed at properties with cavity walls that can be insulated, and not at solid-walled properties. CSE's hard-to-treat scheme, however, will be able to help hard-to-treat homes like this one.

- This scheme will run throughout 2011 (subject to funding). To find out if you are eligible call us at the National Energy Advice Service in the South West on **0800 512 012**. See also cse.org.uk/swhtt

New series of advice leaflets

CSE has produced a range of energy advice leaflets aimed at helping the general public, and based on our extensive experience in providing domestic energy advice in non-technical language that people easily understand.

There are 16 leaflets in the range: Cavity wall insulation | Central heating controls | Damp and condensation | Economy 7 | Feed-in tariffs | Lighting | Loft insulation | Reading your gas or electricity meter | Room heaters | Secondary Glazing | Solid-wall insulation | Switching tariffs | Understanding your gas bill | Understanding your electricity bill | Using your storage heater.

- Download them free from cse.org.uk/adviceleaflets



Warm Streets: still Somerset's leading loft and cavity wall insulation scheme

Since kicking off in 2008, Warm Streets has helped achieve a 'step change' in the take up of energy

efficiency measures in Somerset.

Funded by Scottish and Southern Energy, and supported by seven district and unitary councils in Somerset, the project has so far insulated over 7,200 lofts or cavity walls.

CSE's Philip Morris heads the team. "One of the strengths of Warm Streets is that it couples insulation with the provision of benefits advice. It is available to all households across the council areas, though we focus our efforts chiefly on vulnerable

households in, or at risk of, fuel poverty."

The scheme offers a basic home energy survey; free cavity wall and loft insulation measures for households meeting certain income criteria; significantly discounted cavity wall and loft insulation for all other households; heating system upgrades (for eligible groups); and free benefits checks.

For more details, including eligibility criteria, see cse.org.uk/warmstreets

energise

Centre for Sustainable Energy

We are an independent national charity that shares our knowledge and experience to help people change the way they think and act on energy. *Switched on since 1979*



Students raise nearly £2,000 for CSE

A huge and snappily dressed 'thank you' to students from Bristol's two universities whose annual dance and fashion extravaganza, Fuze, raised thousands of pounds for local charities – including £1,950 for us. The others charities who benefitted from the students' generosity were Hope and Homes for Children and the Children's Liver Disease Foundation.



Dash for tache cash

And just to show that we at CSE can do our bit for charity too, how about this: a dozen men from the office spent the month of November growing a moustache, or 'mo', in aid of The Prostate Cancer Charity. Tens of thousands of people worldwide did the same (see movember.com), and feeling a little self-conscious we raised an impressive £3,050. Splendid effort chaps! (NB Prostate cancer kills one man an hour in the UK alone: see prostate-cancer.org.uk).

Follow us on Twitter | @cse_bristol



CSE is now on Twitter where we post short and timely messages on our work and other energy-related issues. To sign up visit www.twitter.com and follow @cse_bristol.

2010 annual review now out

This year we've gone for a double-sided poster-style format printed on a single large (500 x 657mm) sheet that folds into twelve. Because it's all about the folding, reading it on-line is a slightly odd experience so why not get your hands on a real copy? Email info@cse.org.uk with your name and address and we'll put one (or more) in the post for you.



Staff news

We welcome (back) **Danielle Barrett** and **Chloe Lemoult-Wasserman** who both return to CSE after sojourns elsewhere, **James Mullen** who brings technical knowledge to the Research & Analysis team and **Dr Nick Banks** and **Ruth Cole** who join our Development team. But it's farewell to **Sarah Davies**, **Simon Lewin**, **Jane Harris**, **Will Anderson**, **Madlen Hutton**, who move on with our best wishes.

Our vision is a world where sustainability is second nature, carbon emissions have been cut to safe levels and fuel poverty has been replaced by energy justice.

Why not join the 2,700 people who receive our monthly enews? Sign up at cse.org.uk/enews

Energise is produced a couple of times a year and distributed free. Request a copy from newsletter@cse.org.uk or download copies from cse.org.uk/energise

Who's who at CSE

Chief Executive

Simon Roberts

Household Energy Services

Sarah Jeffrey Head of Household Energy Services | Danni Barrett Energy Advisor | Liz Dagger Community Outreach Worker | Helen Grimshaw Energy Advisor | Chloe Lemoult-Wasserman Energy Advisor | Michael McClelland Senior Scheme Administrator | Phillip Morris Senior Scheme Manager | Lisa Pinchen Senior Energy Advisor | Pauline Sandell Fuel Poverty Advisor | Verity Saunders Senior Project Manager | Mark Tyler Energy Advisor | Jamie Walters Energy Advice Team Leader | Paul Winney Energy Advisor

Local & Community Empowerment

Rachel Coxcoon Head of Local & Community Empowerment | Heather Crane Energy Advisor | Morgan Griffin Energy Advisor | Louisa Haines Project Manager | Bridget Newbery Community Projects Manager | Louise Rutterford Community Projects Manager | James Watt Energy Advisor | Anna Watts Lead Trainer (on maternity leave)

Research & Analysis

Joshua Thumim Head of Research & Analysis | Toby Bridgeman Senior Research Project Worker | Martin Holley Senior Technical Project Manager | James Mullen Technical Officer | Ian Preston Senior Analyst | Zoe Redgrove Researcher | Vicki White Researcher

Development and Communications

Janine Michael Head of Development | Dr Nick Banks Senior Development Manager | Ruth Cole Senior Development Manager | Matthew Rees Communications & Publicity Officer | Jonathan Twomey Senior Development Manager | Tim Weisselberg Communications & Publicity Manager

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