



Bristol

Carbon neutral city by 2030?

A new evidence base, drawn from a CSE-led study for Bristol City Council, reveals that there is a route to achieving net zero by 2030 for the city

In late February, Bristol City Council published a study led by CSE exploring key aspects of how the city could achieve its declared ambition to be carbon neutral by 2030, twenty years ahead of the legally binding national target of 2050.

The detailed study focused on cutting to near zero by 2030 the carbon emissions associated with the city's use of fossil fuels (like gas, petrol and diesel), the electricity

it consumes and the waste it produces. CSE partnered with Ricardo (on transport) and Eunomia (on waste) to undertake the analysis.

Separate studies were commissioned to explore the carbon emissions associated with consumption – from food to flying – by Bristol's residents and businesses and the city's resilience to climate change. Together they form the evidence base for a new Bristol One City Climate Strategy.

Inside energise ...

p3 More jazz than Mozart: a music analogy for achieving net zero ...



p4 Neighbourhood Planning in a Climate Emergency: new edition ...



p6 "Without this support I don't know what I would have done"

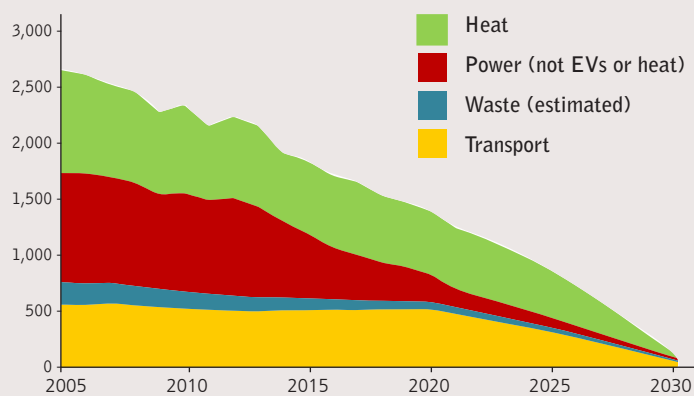


energise is produced twice a year and distributed free. **This edition (Summer 2020) is a PDF version only.** To request a copy, please email info@cse.org.uk. To opt out of receiving copies, email privacy@cse.org.uk. You can sign up to our enews at www.cse.org.uk/enews or follow us on Twitter [@cse_bristol](https://twitter.com/cse_bristol)

Working through
Covid-19,
see p8

GOING DOWN ...

We have a job on our hands: For Bristol to achieve net zero, the rate of carbon reduction required between now and 2030 is 1.6 times what was achieved between 2005-2017 (see p13 of the report).



Simon Roberts OBE, CSE's Chief Executive, led the study: "Bristol council asked the right questions for this research: What changes will be needed in the city for Bristol to meet its declared ambition to be carbon neutral by 2030? What are the conditions for success which will need to be in place for these changes to prove possible? What are the key interventions and initiatives

which will be needed to create these conditions?

"The detailed analysis we undertook reveals that there is a route to achieving net zero by 2030 for the city. And it also describes the nature, scale and speed of the huge transformation that will be required, covering how the city heats its buildings and uses energy, how people and goods get about, and how we

reduce and treat our waste."

The Bristol One City Climate Strategy sets out the radical changes needed across the city and more widely to achieve net zero by 2030. These include:

- Phasing out gas for heating (replaced by individual electric heat pumps and heat networks serving much better insulated buildings).
- The decarbonisation of electricity nationally, supported by far smarter use in the city (plus growth in roof-top PV).
- No more petrol or diesel vehicles in the city (with a major modal shift to public transport and active travel to cut vehicle miles and switch to electric vehicles for the remaining vehicles).
- No net carbon emissions from all new-build developments.
- A significant reduction in waste, greater re-use and

recycling, and the removal of plastics from residual waste.

Each of these areas was explored in depth in the study to understand both the nature of technical changes involved and the conditions required for success, including political and regulatory aspects, commercial and funding needs, capacity and skills, and socio-cultural conditions. It also describes the potential benefits of action, including significant employment and business development opportunities, cleaner air and the potential to tackle fuel poverty.

Drawing on this detailed analysis, the study report outlines ten key interventions which are needed to establish the conditions in the city in which achieving net zero by 2030 becomes possible (see below).

Download CSE's evidence base and the Bristol One City Climate Strategy from www.cse.org.uk/news/view/2435

Ten key interventions to make net zero by 2030 possible



A city for net zero:

Fostering shared purpose and enabling active participation

- 1 Sustained and extensive public and business engagement to create shared purpose and secure participation from the whole city in net zero initiatives.

A city empowered to achieve net zero:

Securing powers and capacity

- 2 New powers to organise and require action and raise levies.
- 3 An extensive skills and capacity development programme to enable delivery at scale and create jobs.
- 4 Powers to set and enforce local planning policies and building standards to ensure all new developments achieve meaningful net-zero carbon standards.

A city with net-zero infrastructure:

Installing the technology we need

- 5 City-wide programmes for insulation and heat pump retrofit and for district heating installation.
- 6 An electricity distribution network upgrade programme.
- 7 Investment in public transport and active travel infrastructure.
- 8 A controlled approach to EV charging infrastructure.

A city enabled for net zero:

Sector-specific initiatives to enable change

- 9 A significant drive to reduce, re-use and recycle, with particular focus on food waste and plastics.
- 10 A programme to involve businesses and households in smart energy initiatives, sign-up for genuine 100% renewable tariffs, and install PV.



◀ **LEFT**, members of Bristol's One City Environmental Sustainability Board launching the new strategy in February 2020. **RIGHT**, Bristol net zero by 2030: The evidence base ▶



Bristol's One City Climate Strategy is rooted in CSE's analysis

The One City Climate Strategy agreed in February sets out a shared vision for Bristol in 2030 and a clear pathway of action on how the city can become carbon neutral and climate resilient.

Building on work already underway, the strategy looks at how to accelerate climate action in the next few years, describing the challenges and opportunities for investment and job creation (more critical than ever after Covid-19) as Bristol moves towards clean energy and away from fossil fuels.

Marvin Rees, Mayor of Bristol, said: "Bristol is an incredibly environmentally conscious city which is reflected in the way we're leading the response to one of the most complex challenges humanity has ever faced. We are proud of the fact Bristol has inspired others to recognise the importance of the climate emergency. We need our city to come together like never before and it's encouraging that people from organisations across the city have made this unique approach a reality.

"This strategy is an important step in the process because it shows that we need to make widespread and radical changes to the way Bristol and the UK operates. It shows what needs to happen nationally, regionally and locally, including changes to legislation, finances and infrastructure. But it also

shows that we can use this change to create thousands of jobs and create a fairer and better city in the process.

"No single organisation alone is enough to drive the transformation that's

“We can use this change to create thousands of jobs and create a fairer and better city in the process

needed. We must respond as a city – involving everyone in Bristol.”

CSE's Simon Roberts led the development of key elements of the strategy's evidence base: "This strategy is firmly rooted in the evidence about what needs to be done in Bristol to achieve net zero carbon emissions by 2030 – from technology upgrades and skills development to regulatory changes and public and business engagement programmes. The strategy doesn't shy away from the huge challenges involved, but instead rises to them, setting out a comprehensive programme of work and calling on the whole city to join in and contribute.



Bristol mayor, Marvin Rees



"More jazz than Mozart"

Simon Roberts has a musical analogy for approaching the challenge of achieving net zero ...

Now Bristol has published its ambitious new One City Climate Strategy, underpinned by CSE's analysis, it raises the question of how the city needs to organise itself to make the radical changes the strategy sets out. What do I need to do? When do I need to act? Whose permission do I need? Who decides? Who else needs to be involved? When does it all start?

Many people expect specific answers to these questions, as if, along with the strategy, there's a detailed plan in which each player is allocated a role and is told when to act – like an orchestra performing a great Mozart symphony.

Indeed, strategies are often presented as if they were a musical score for an orchestra to perform. And the more complicated the issue, the more intricate the orchestration and the bigger the ensemble. Each instrument has all its own part written out, from overture to finale. Everyone from first violin to second bassoon knows what bar they should come in on and what notes to play. And with a flick of a baton, the

conductor cues in the players, sets the tempo and establishes the mood.

It's a satisfying analogy, not least because it suggests coordination and harmony and that someone is in charge.

But tackling the climate emergency and getting to net zero in ten years (or even 30) isn't a symphony anyone has written yet. Or ever could. It's too complex with too many uncertainties – and far too much for a single conductor to manage.

The Bristol One City Climate Strategy doesn't even begin to pretend to be that symphonic score.

So if it's not a symphony, what is it? I find it helpful to think of it as more like jazz than Mozart, and here's why.

In jazz, we know roughly what it needs to sound like. There's a structure and an underlying chord sequence that guides the musicians and provides harmonic shape. But there's no written score and no conductor.

The One City Climate Strategy does something similar. It sets out a broad approach (replacing gas



boilers, phasing out petrol and diesel cars, reducing waste, cutting back on meat and flying etc), but leaves the detail – the notes and the timing – to the commitment and creativity of each member of the band.

It's jazz because everyone, having got their heads round that chord sequence, can make a contribution, from a single bass note to the most sophisticated and soaring refrains.

It's jazz because it works best when people listen to what others are playing and respond and build on each other's contribution.

And it's jazz because there isn't actually anyone in charge who gives permission to join in and tells you what to play –

“Many people and organisations are already in the groove with more picking up their instruments and joining in by the day.

so we have to improvise, and each take responsibility for what we play and when we start.

In Bristol, it's a jazz session that started some time ago. Many people and organisations are already in the groove with more picking up their instruments and joining in by the day. Now the chord sequence is laid out in the strategy, it's up to everyone to add their own contribution.

As jazz legend Miles Davis once said “Jazz is the big brother of revolution. Revolution follows it around.” Given the scale of transformation required to get Bristol to net zero by 2030, let's hope so.



Latest edition of our neighbourhood planning guide now out

The 3rd edition of our guidebook for people wishing to shape their locality and take action toward cutting carbon through a neighbourhood plan was published in February.

This popular guidebook - called Neighbourhood Planning in a Climate Emergency - receives lots of very positive feedback and hundreds of downloads from our website a month.

Neighbourhood plans provide communities with direct planning powers to develop a shared vision for their neighbourhood, and they are recognised by Parliament under the Localism Act 2011. This includes the ability to safeguard biodiversity and develop positive and ambitious sustainable development strategies.

Over 1,900 pioneering towns and villages have already been designated as neighbourhood plan areas with input from the whole

community. Many others are in the process of doing so. Some plans - but by no means all - are quite explicitly aimed at making the transition to a low carbon infrastructure, energy and transport system.

But drawing up a neighbourhood plan is no easy matter. They require a considerable amount of time and effort and an engagement with the local planning system that can be, at times, quite a challenge.

CSE is currently funded by the Esmée Fairbairn Foundation to provide support to neighbourhood planning groups across England to help make sure their plans contribute to a more sustainable, low carbon future.

Dan Stone is the chief author of the guide. “A good neighbourhood plan can achieve multiple goals: a greener and more pleasant living environment, a stronger community and reductions in our carbon emissions. We hope that this guidebook

will inspire and encourage more groups to explore how engaging with their local planning department can help transform their neighbourhoods for the better.”

As before, the guide has a foreword from Hugh Ellis, Director of Policy at the Town and Country Planning Association, who writes “This publication explores the huge potential of neighbourhood plans to plan for and build a positive future for local communities, through addressing and responding to [climate change], the most challenging issue of our times. ... The Town & Country Planning Association welcomes this guidebook.”



Download Neighbourhood Planning in a Climate Emergency here:
www.cse.org.uk/news/view/2430

You can read more about our neighbourhood planning work at www.cse.org.uk/local-energy/neighbourhood-plans

Futureproof tools help builders and homeowners plan home improvements

Now in its third year, our home retrofit project, Futureproof, offers a suite of services to help homeowners and builders in the West of England carry out energy saving improvements and refurbishments. Covid-19 forced many of us to spend more time at home and builders to pause on-site work, so we adapted our services to provide new types of support and reflect the new challenges and opportunities.

Interactive home tools

The new tools bring together advice and information to help homeowners and builders explore possibilities for energy saving improvements. There's one version, for homeowners and another for builders.

The homeowner tool (www.futureproof.uk.net/homeowners) is a valuable resource to refer to at any stage of planning home improvements – from consideration, planning application, research, to engaging with a builder.

The builders' version offers guidance on incorporating energy saving measures into existing projects and what suggestions can be made to customers (www.futureproof.uk.net/interactive-house-builders). All the featured topics – which include airtightness, ventilation,

windows, water management and renewable technologies – are supported by Futureproof training courses.

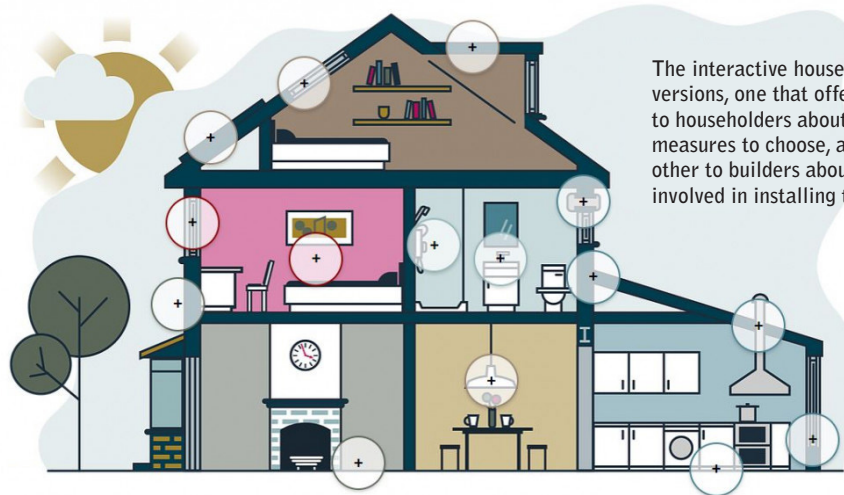
Online training for builders

The Futureproof training programme (delivered by The Green Register) has seen huge demand since launching in January with 100s of builders and trades in the West-of-England receiving free peer-led training in sustainable building practices. This video summarises what's on offer: www.bit.ly/futureproof-video.

Training had previously taken place on actual building sites, but as many of these were forced to close in response to the Covid-19 lockdown, it moved online. This has proved popular, with early feedback suggesting many builders have appreciated the chance to turn downtime into an opportunity to expand their skills in areas such as low-carbon building materials, renewable energy, ventilation, moisture control and airtightness.

One attendee from South Gloucestershire said: "Futureproof is nothing less than an oasis in the desert" and a Bristol-based builder added: "I think what you're all doing is superb, especially the focus on practical application."

For more about Futureproof training, see www.futureproof.uk.net/builders



The interactive house has two versions, one that offers advice to householders about which measures to choose, and the other to builders about what's involved in installing them.

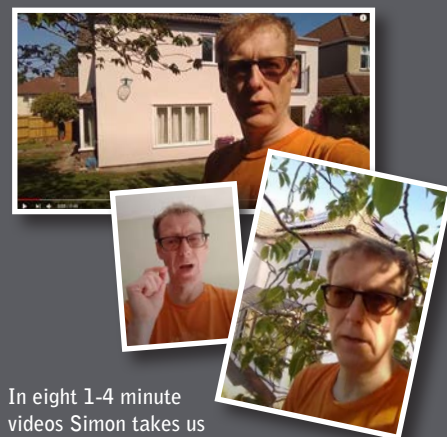
New: online 'Retrofit stories'

After the success of last year's Bristol Green Doors weekend (www.cse.org.uk/news/view/2351), we looked forward to doing the same again in 2020. But circumstances meant we had to find another way way to run the event that didn't involve actually visiting the many homes that opened their doors to the public last year.

So we developed Bristol Green Doors Retrofit Stories - a series of free online home tours in which home owners give a guided tour of their homes and show the features they've installed to reduce heat loss, save energy or generate their own, explaining as they go their motivations and the challenges they faced.

The first of these was held on 18 June, and featured Simon and Vicky, who have undertaken an extensive retrofit of their 1950's family home in Sea Mills, Bristol that includes solar PV, electric car charging, cavity wall insulation and LED lighting.

Simon has recorded a series of short videos guiding viewers around the various measures installed in his home. You can watch it here: <https://bit.ly/BGD-Simon>. You can also download a case study here: www.bristolgreendoors.org/case-study/29722



In eight 1-4 minute videos Simon takes us through the improvements he made to his home to make it more comfortable and cheaper to run. He even climbs into a tree at one point! (Bristol Green Doors events are delivered as part of our Futureproof initiative.)

Webinar series to share community energy knowledge and experience

The end of June sees the first of a year-long series of 12 webinars looking at some of the UK's most innovative and financially viable community energy initiatives.

Each 90-minute webinar will feature a particular community group, six of which are participating in the Next Generation Innovation fund, while the other six are drawn from the wider community energy world. The webinars will be a chance to hear in detail about the progress, challenges and successes, as well as an opportunity to ask

questions and provide a space for learning and problem solving.

First up on Friday 26 June (10:30–12:00), Brighton Energy Coop will be presenting on their Next Generation funded project that looks at electric vehicle charging as an additional revenue source for large-scale solar. (More information about their project can be found at www.next-generation.org.uk/grants.)

The webinars will take place roughly once a month from June 2020 to May 2021. They are free and you can register for as many or as few as you like. But you will need to register in advance where there'll be the opportunity to submit questions.

For details go to www.cse.org.uk/news/view/2466

Climate emergency workshops for town and parish councils

CSE has designed a one-day workshop for town and parish council officers to support their climate action planning.

Since 2018, scores of town and parish councils have passed Climate Emergency declarations. Our workshop is designed to make these declarations meaningful and effective and also be useful for councils that haven't made a declaration yet but are working towards one.

Two workshops were held at the beginning of the year, before the Covid-19 outbreak forced the cancellation of the rest of the series. But in June we successfully ran an extremely effective virtual session for parish councillors in Worcestershire using the online platform, Hopin, and

and have already booked more workshops using this format.

Rachel Coxcoo who designed the programme says: "Town and parish councils are in a unique position to take a leadership role and provide a focal point for practical action. This programme provides targeted support that will help them make sense of the scale of the issue, and take action in the way that is most appropriate to their area and spheres of influence."

For more details, see www.cse.org.uk/news/view/2440



Online hub will make energy data more accessible

Presumed Open Data (POD) is an initiative that seeks a faster decarbonisation of the energy system and improved system infrastructure through maximising both the visibility and value of energy data, particularly that held by electricity network operator Western Power Distribution (WPD).

A large amount of useful data about the energy sector exists and has been published both online and in written form. But it's difficult to find, or access, or make use of. POD will make these datasets accessible to businesses, academics, the public sector, and community and voluntary sector organisations through the development of a new data hub.

So far 61 unique datasets have been identified and tested and their potential value for stakeholders assessed.

We're anticipating a range of benefits to come from the opening up of these datasets", said CSE's Bridget Newbery who manages the project. "These include better flexibility response behaviour, a more strategic deployment of community-owned renewable energy projects, lower customer bills and better system security."

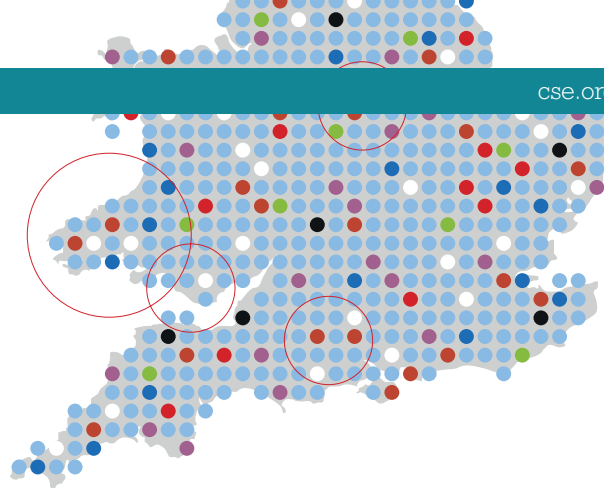
In May, two fully-booked online workshops were held to explain the aims of POD and to explore further uses to which the data can be put and the benefits that will accrue. They covered:

- An overview of the initiative, the types of data that have been identified to date and some use case examples.
- A chance to comment on existing use cases and generate ideas on how WPD's data might be used.

CSE's Graham McGrath facilitated the workshops. "Both sessions were very encouraging", he said. "It was particularly useful to hear the ideas and suggestions of stakeholders including what datasets they'd like to see made available. The next step is to establish technical requirements and user testing, to ensure that we design the hub in a way that maximises its usefulness.

"We got great feedback from participants and it was good to know that we are able to flip from face-to-face workshops to online with hardly a step missed."

Presumed Open Data is a Western Power Distribution project being delivered by CSE in partnership with Energy Systems Catapult (<https://es.catapult.org.uk/>).



“Without this support I don't know what I would have done”

WHAM (Warmer Homes, Advice & Money) is an innovative multi-partner* project that supports Bristol and North Somerset's most vulnerable residents, like Jane Lowe from Clevedon. Led by CSE, the project gives advice on energy, money and benefits and carrying out home repairs.

“I was very impressed with the professional way WHAM dealt with my heating problems. Joe Pitt was always easy to talk to and got all the problems sorted out. Without this support I don't know what I would have done. Being diagnosed with a life changing illness was awful, but the support I received was amazing”

Jane Lowe, Clevedon



Jane Lowe from Clevedon was referred to WHAM by Citizens Advice last winter. Jane suffers from severe osteoporosis and needs a warm home, but when we went to visit we found her boiler was intermittently breaking, most of her radiators weren't working, she had no hot water and her gas bills were high.

WHAM caseworker, Joe Pitt (below, right), takes up the story. “In all, I visited Jane three times. The in-depth support we offer through WHAM is time-intensive, but necessary to get results that are genuinely life-changing and significant to service users.

“On my first visit to Jane, I looked at her energy bills. She was on a prepayment meter with British Gas, but because of her lack of mobility she found it hard to get to the shops to top up. We called British Gas and arranged to have a new smart credit meter installed that would allow her to pay by direct debit. At the same time I found her a new fixed tariff, saving her £230 a year, and applied on her behalf for the Warm Home Discount for low-income households, worth £140.

“I later referred Jane to our partners We Care for a free boiler service. This got her hot water back on but it left the heating on constantly - not OK for Jane who's on a low income and was already stressed about high bills! Major boiler repairs were needed which aren't covered by the service, though I did get our partners AMS Electrical, to fix the radiators.

* WHAM is funded by Bristol City Council, Bristol Energy and the Warm Homes Fund. It is delivered by CSE, Talking Money and We Care Home Improvements, Bristol and North Somerset councils, Citizen's Advice, Bristol Energy Network and AMS Electrical.



Jane with her new boiler that costs less to run and keeps her warmer

“I also referred Jane to the Energy Company Obligation (ECO) scheme for a new boiler. We were partly successful: a grant covered most of the cost of the boiler, but Jane couldn't afford the householder contribution of over £700. Luckily, WHAM has an emergency fund through which the difference could be paid. The new boiler was installed after Christmas and I visited again to explain how to use the programmer and thermostat.

“It's great to hear that Jane is happy with the service she got from the WHAM project.”

www.cse.org.uk/wham



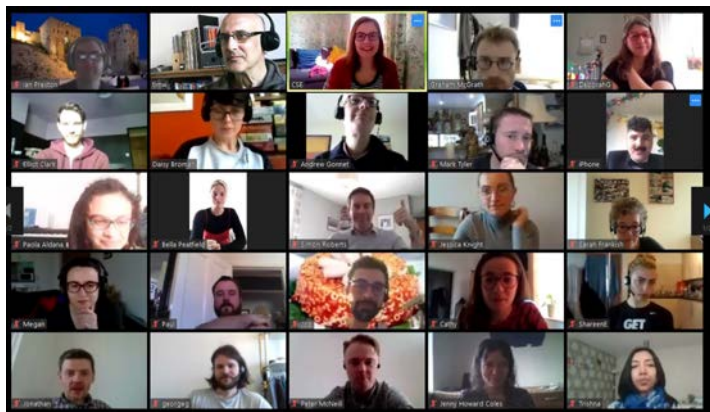
Covid-19: Changing the way we think and act ...

ALONG WITH tens of thousands of other charities, businesses and government offices, and in line with government advice, CSE closed its office at the end of March. At the time of writing all our staff are still working from home with the exception of just a few who are servicing our most vulnerable customers who don't have internet access and rely on the postal service to request and receive our support.

We're currently looking at ways for some staff to return to the office – while observing

social distancing and hygiene guidelines – if they are finding working from home difficult.

We're using video conferencing and other platforms to keep us in touch with partners, clients and each other. And thanks to the flexibility, imagination and cooperative ethos of our staff, we're not merely functioning but have even in some areas improved the way we work, delivering projects for clients and funders, tackling the climate emergency (which hasn't gone away) and supporting vulnerable people.



It's the regular CSE Monday morning staff meeting, only different ...

Marking a milestone with client #100,000

BACK IN APRIL, Mr Wood of Plymouth became the 100,000th client to whom our advice team has given free energy saving advice since 2012 (when the government-funded service was cut).

It's a huge milestone and a moment of hope and positivity during what was then (and still is) a period of extraordinary uncertainty

and upheaval.

Mr Wood was referred to us on 6 April 2020. Like many people during the Covid-19 lockdown, he was struggling to access essential services.

"When I was told to stay at home and self-isolate I had concerns for my family's income and wasn't sure where to turn. Lorna [Wilcox, CSE energy advisor] helped me understand what support and benefits were available. She also gave me support with managing my finances and ensured that I had access to whatever I needed."

Extra support for vulnerable households

THE COVID-19 pandemic is impacting every person in the UK. But for those who are vulnerable - due to age, ill health or loss of income - the impacts are particularly severe: increased energy costs from being at home during lockdown, isolation from support systems and community, loss of access to basic necessities and constantly changing benefits advice.

CSE's advice team has rapidly re-prioritised and evolved to support vulnerable households during this period of unprecedented need. In the South West of England this includes helping with issues

such as topping up prepayment meters, water and energy bills, switching supplier, benefits and debt advice, housing, food banks, food and prescriptions delivery, befriending services and signing up for utilities' priority services register. There's a secure referral form here: www.cse.org.uk/covid-support.

We're also maintaining a page (www.bit.ly/supplier-support) summarising what each of the UK's gas and electricity suppliers are doing to protect their customers, such as providing emergency credit and easier repayment terms.



St James Court
St James Parade
Bristol BS1 3LH

0117 934 1400
info@cse.org.uk
www.cse.org.uk

TWITTER @cse_bristol
YOUTUBE csebristol

COMPANY 2219673
CHARITY 298740
FOUNDED 1979

energise

This newsletter is produced twice a year and distributed free. Request a copy by emailing info@cse.org.uk. To opt out of receiving copies email privacy@cse.org.uk. We also have a fortnightly enews: sign up at www.cse.org.uk/enews

What, no hard copy? This is a PDF-only version of Energise - the first one ever! We'll hopefully be back in print next issue ...

