



July 2015

AECB News

AECB Annual Conference and AGM



building knowledge

2015 Annual Conference | 19-20 June 2015 | Sheffield

This year's conference was run with the support of the University Of Sheffield's School of Architecture. This link up worked very well with long term AECB member Fionn Stevenson who now heads the department opening the conference. This kind of link up works very well as it helps widen the areas of discussion Fionn suggested speakers from the school and these went down very well.



As always we would like to thank all the speakers for their presentations and honesty during discussions. Special thanks should go to Tina Holt who stepped in at the last moment to work with Andy in launching the AECBs CarbonLite Retrofit package.

Thanks should also go to Karen Purvis and the staff of The Edge Conference Centre who were excellent at every level and a pleasure to deal with.

Informally the feedback has been very positive but as usual we will be sending out a feedback survey and the results will be published on the AECB web site and a summary will go out in Network.

We will be putting as many of the presentations as possible up on the website in the coming weeks.

Unfortunately the numbers were lower this year especially when compared to last year's sell out. We try to put the conference on in a range of venues around the country but whenever we go even slightly north the numbers drop. It would be good to get some feedback from those who did not come as to why. This will help with our planning for future events.

AECB Website

We are keen to increase a range of suitable images for use on the AECB website and other marketing/promotional material. In particular we are looking for images inspired by the following categories:

- Water (project incorporating water/reflecting the theme of water)
- Biodiversity (eg living roof)

- Energy efficiency
- Generation of heat and power
- Materials

Please send your high resolution image(s) in a JPG format to gill@aecb.net. If appropriate we will credit the image to the AECB member/project (or please specify credit).

Welcome

A warm welcome to the following new members who have joined the AECB recently;

Lois Hurst	Lancashire
Juan Carlos Fornino	Bath
Coventry University	Coventry
Building Energy Consultancy	Powys
Frame Concepts	Somerset
Kate Morland	North Yorkshire
Jenny Patient	South Yorkshire
Graham Mann	Essex

To ensure you are making the most of your membership, please visit <http://www.aecb.net/membership-benefits>. In order to have full access to our website, you will need to log in with your username and password. If you need a reminder of these, please email emma@aecb.net. If you have joined as a company, you can then enhance your member profile listing on the popular Member Directory at <http://www.aecb.net/services-directory/search/>. Both members and non-members are able to browse or search this directory of products and services provided by our membership.

We are also keen to hear from AECB members wishing to share a news item about themselves or their company to include on the AECB News Platform/Member News at <http://www.aecb.net/category/aecb-member-news/>. This could be an award you have recently won for a project, a product or your service. This is strictly an area for promoting AECB member news only and we will therefore not be able to publish any items which AECB considers to be purely advertising of products or services. AECB retain the right to reject straightforward advertising items.

Please send your short item (max 200 words) plus a link to your website and one picture, to AECB Business Operations Manager, Gill Rivers – gill@aecb.net.

AECB Member Testimonial

“I joined AECB for several reasons, the designer of our upgrading work, Paul Mallion, of Conker Conservation, is also the organiser of local AECB events, so joining meant I could meet other like minded improvers and practitioners. Also the push for improving new and existing homes needs support. The newsletters and magazines provide updates of progress as well as useful information, and also enable informed lobbying of my MP, and councils. Last but not least, it helps me be an informed customer of the practitioners carrying out work or supplying products.

Hence I found out that there were more gaps in my knowledge than I realised!”

Chris Lowe

Pedalhaus: Le Tour de Huddersfield

Green Building Store organised an AECB Pedalhaus cycling tour of four of its Passivhaus and low energy retrofit projects on Sunday 21 June 2015, the day after the AECB conference. Approximately 18 people took part in the day, including AECB members Paul Testa and Nidhi Shah and a number of self-builders, local cyclists and environmental campaigners. The Tour was led by Chris Herring, Green Building Store Director and former AECB Chair.



The cycle started at Denby Dale, Green Building Store's first Passivhaus project, and ended at its most recent, the Golcar Passivhaus. In between the cyclists also visited the ongoing Cumberworth radical retrofit project and Stirley Farm EnerPHit project. The tour covered approximately 16 miles of very hilly terrain and the combination of Haus and Pedal seemed to work very well!

AECB CarbonLite Passivhaus Designer course in Hereford, September

Early Bird Rate until Friday 7th August!

Our next course is coming up on the 7th September. Archtype, an inspiring architectural Practice, will host our September course at their restored and sustainable office in Hereford.

Secure your place now with 10% deposit and get the early bird rate! The full course for £2000+VAT* . Contact Ingrid Bravo on 01752452546 or email training@peterwarm.co.uk

Passivhaus and Low Energy Building Design is rapidly becoming an essential skill for Architects, Consultants and Self-builders. Our course will give you the confidence to tackle UK low energy projects along with more specific guidance on achieving the standard of air tightness and thermal bridge free construction required by the Passivhaus standard. Our course is delivered by highly experienced UK professionals and leads to international accreditation as a Certified Passivhaus Designer or Consultant.

Why AECB Carbonlite? www.aecb.net/carbonlite/carbonlite-programme/training-courses/

- Obtain an international accreditation as a **Certified Passivhaus Designer or Consultant**.
- Our Course is the only one developed specifically for the UK and uses **UK building examples**, rather than the European CEPH material taught by others.
- This course is written and taught by leaders in UK Passivhaus development, They are the experts who are actually successfully designing/ building Passivhaus in UK: amongst others, **Bill Butcher, Alan Clarke, Sally Godber, Nick Grant, Eric Parks, Marine Sanchez, Mark Siddall, Will South, Peter Warm** and the WARM staff who have supported over 200 buildings in low energy design as well as being Passivhaus certifiers.

Our Hereford Course Programme:

	dates	Cost+VAT	for AECB/PHT members
Week 1	M 7 th Sept	£300	Fundamentals of Passivhaus
	T 8 th Sept	£600	Science of Passivhaus
	W 9 th Sept		
	T 10 th Sept	£300	Construction of Passivhaus
	F 11 th Sept (am)*	£300	Introduction to Psi values
	F 11 th Sept (pm)*		designPH**
Week 2	M 21 st Sept	£600	Building Services of Passivhaus
	T 21 st Sept		
	W 21 st Sept	£600	PHPP**
	T 21 st Sept		
	F 25 th Sept/10 th Oct	£600	Revision and exam

*Additional modules are not included in the full CEPH course price.

**needs suitable laptop for this module

Another Passivhaus course this year: LONDON B

Week 1	2 nd – 6 th Nov
Week 2	16 th -20 th Nov
PHI Exam	4 th Dec

Find out more at <http://www.aecb.net/carbonlite/carbonlite-programme/training-courses/>

UK Passivhaus Conference 2015: 20th October 20th 2015 Business Design Centre, London



The 2015 UK Passivhaus Conference, organised in partnership with the Passivhaus Trust and BRE, will offer an exciting and concentrated update of what has happened in the UK Passivhaus movement over the past year. Delegates will have a chance to learn about the development of large-scale UK housing projects and the challenges this provides. This one day conference will be held on October 20th 2015 at the Business Design Centre, London

For the first time, there will be a mini trade show in the exhibition area, which will also include demonstration sessions on special feature product models. The trade show will also be open to non-conference attendees - we will promote free tickets in advance through our media partners, exhibitors and selected media or tickets can also be purchased on the door.

Tickets are now available for the 2015 UK Passivhaus Conference. Book now to receive 10% early bird discount! As an AECB member you will also receive the partner discount.

To find out more and book your ticket please visit <http://www.ukpassivhausconference.org.uk/home>

Passive House Planning Package (PHPP) 2013 Version and SketchUp Design plugin: design PH

The English version of the 2013 issue of PHPP (PHPP8) has been released and is available to purchase at £125 plus VAT online from: www.aecb.net/carbonlite/carbonlite-programme/phpp-software.

If you already have a copy of an earlier version of PHPP (eg PHPP7) you can upgrade to PHPP8 at the reduced price of £105 plus VAT. This can now be done online at www.aecb.net/carbonlite/carbonlite-programme/phpp-software

The AECB has entered into a contract with the Passivhaus Institute (PHI) to sell the new SketchUp plugin designPH (English version). You can buy it now at the AECB member rate discounted prices online via the AECB website at: www.aecb.net/carbonlite/carbonlite-programme/phpp-software

Prices are listed below. Please note these exclude VAT and depend on the version of PHPP you have. For full details of the new designPH please visit: www.designph.org/

- Upgrade from PHPP7 to PHPP8.5 PLUS designPH plugin: £210
- **NEW** PHPP8 PLUS designPH plugin (includes latest upgrade for PHPP8 to PHPP8.5): £280
- If you have a copy of PHPP8 you can have the designPH plugin only : £170
(including upgrade to PHPP8.5)

Please note that if you do not have a copy of PHPP you cannot purchase DesignPH on its own.

The above prices are for AECB members only.

Online Therm Course

How bad are your thermal bridges? Thermal bridges are one of the key ways that buildings lose much more heat than expected. Understanding them is critical to designing low energy buildings. Learn how to use the (free) software "THERM" with the experts from the AECB CarbonLite team. The new online Therm course allows people to learn at their own speed and in their own time.

Watch our 2 min promotional video here: www.carbonlitetraining.co.uk

To sample the course you can log in as a guest and use the set up instructions “Setting up THERM for Use in Thermal Bridge Calculations” that will guide you step by step to install Therm on your computer. The initial set up of Therm can be a bit tricky and as part of the course we offer assistance if you get stuck.

The on-line course cost is £200+VAT for one year’s access to the Moodle course and a nominal 2 hours support by email. Contact training@peterwarm.co.uk for more details.

Omnisense Remote Monitoring System

The AECB has negotiated an ongoing rate of benefit to members and can offer the Omnisense remote monitoring system at significantly preferential terms to AECB members for projects that would benefit from environmental condition monitoring. The Omnisense system is a web-based remote monitoring system for buildings that measures relative humidity, temperature and moisture level. Currently members who have taken up this offer are monitoring various internal wall insulation constructions, insulated suspended timber floors, conditions within brickwork that has been externally insulated, etc

To obtain a quotation for the Omnisense Remote Monitoring System please contact gill@aecb.net. A forum board has been set up for discussion – Go to <http://www.aecb.net/forum/index.php/topic,3713.0.html> to read more.

AECB Member News

Westgate Community Hall, Canterbury, wins RICS Award

“The RICS Awards showcase the most inspirational regional initiatives and developments in land, property, construction and the built environment”

Conker Conservation Ltd, chartered surveyors and long term AECB members, were part of a community led team that won the RICS South East ‘Community Benefit’ award category on 14th May. The Westgate Hall in the heart of Canterbury was threatened with closure and demolition in 2011 by the council after decades of neglect, to make way for more parking spaces. This shocked the community into action and led to the creation of a community trust that fought to save the First World War former Royal Engineers drill hall.

After 3 years of negotiations the council agreed to handover the hall on a 99 year lease, the Trust then managed to sub-let part of the building to Curzon cinemas in return for a lump sum, which was match funded by the Social Investment Business fund, and other grants from Viridor and Kent County Council, totalling nearly £900k.

The refurbishment is a combination of conservation and sustainable improvements- new cast iron windows replaced those removed by Canterbury; the roof structure that had been concealed by a suspended ceiling for 50 years was exposed and covered with Steico I joists and insulated with 300mm of sheeps wool; Visionvent wind catchers provide natural ventilation and a nod to the Kentish oast house vent.

Conker collaborated with architect Tim Ellis, on the design and project management of the works, but project owes most to the countless hours of effort put in by numerous members of the community. The hall and neighbouring cinema are now a vibrant part of Canterbury’s community.



Westgate Hall (exterior and at night)

The University of Bradford’s Bright Building: achieves top BREEAM Outstanding rating

The University of Bradford’s Bright Building, home to the Re:Centre, has achieved the highest ever BREEAM Outstanding rating for a University.

The Bright Building (<http://www.bradford.ac.uk/recentre/inspirational-building/>) is the latest building on the City Campus to achieve a BREEAM (<http://www.breeam.org/>) ‘Outstanding’ rating, which firmly places it within the top 1% of UK buildings in terms of sustainability and reducing environmental impact.



BREEAM (Building Research Establishment Environmental Assessment Methodology) is the world's longest established method of assessing, rating, and certifying the sustainability of buildings.

The Bright Building is at the cutting edge of sustainable construction, the vast majority of the building products being either natural or recycled. It is the world's largest building built of monolithic hempcrete, a mixture of hemp shives and natural lime. Like other plant products, the hemp crop absorbs carbon dioxide gas as it grows, retaining the carbon and releasing the oxygen.

The £6.5 million part EU-funded building, designed by Leeds-based architects Farrell and Clark, achieved a Post Construction BREEAM credit score of 95.2% the highest BREEAM score for a University Building in the UK, surpassing the adjacent BREEAM Award-winning 'The Green' Student Accommodation (<http://www.bradford.ac.uk/student/accommodation/the-green/>), which achieved 94.95% in 2012.

This project has been funded by [ERDF](#), [HEFCE](#) and the University. The project has attracted £2.32 million capital grant investment from the European Regional Development Fund, as part of Europe's support for the region's economic development through the Yorkshire and Humber ERDF Programme.

STEM Building: The University of Bradford



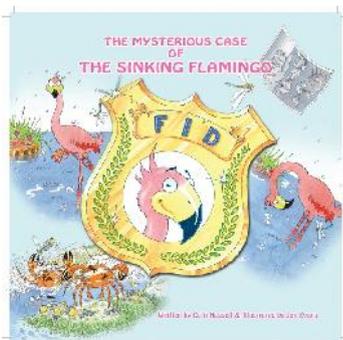
STEM at The University of Bradford will provide a creative and unique learning environment. Set within a highly sustainable building designed to meet BREEAM 'Outstanding'. A new build multi-use lab space with associated prep rooms. The building's main aim is to promote science, technology, engineering and mathematics at the University.

The new £1.5million Science, Technology, Engineering and Maths (STEM) Building will provide an inspirational learning space with high quality laboratory facilities creating exciting opportunities for local schools and colleges.

STEM has made the shortlist for the UK Passivhaus Awards for more information visit http://www.passivhaustrust.org.uk/passivhaus_awards/awards2015/

The Mysterious Case Of The Sinking Flamingo.

Cath Hassell



'The mysterious case of the sinking flamingo' is a brilliant illustrated children's book about why crabs hate combined sewer overflows and why flamingos love four minute showers! Written by Cath Hassell of ech2o, you can back it on kickstarter right now <https://www.kickstarter.com/projects/2012468981/the-mysterious-case-of-the-sinking-flaming-childre>

There are loads of tweets about the book at @CathHassell if you are on twitter and want to forward tweets. But the most important thing is to actually go onto the kickstarter site and back us!

Energy Performance: the Power of Knowing

A new analysis of the difficulties experienced in using transparency about the actual energy performance of non-domestic buildings to drive energy efficiency has just been published in Building Research and Information. "*Mandating transparency about building energy performance in use*" by Robert Cohen and Bill Bordass explores the issues through the lens of Display Energy Certificates (DECs), one of the policy measures triggered by the 2002 Energy Performance of Buildings Directive. The paper provides a timely critique following the controversial consultation by the Department for Communities and Local Government earlier this year which appeared to favour the DECs being abolished.

The paper reviews the history of UK Building Regulations and European building energy efficiency policies to identify what helped and hindered progress towards buildings that use less energy in operation. It looks at the impact of building energy certificates based on asset and operational ratings. It identifies a split of government ownership of the topic between multiple ministries and agencies, limited policy integration and follow-through and a political rhetoric that favours an abdication of central government responsibilities to market forces. It contrasts the success of operational rating schemes in the US and Australia and identifies lessons for future UK policy making.

Download the paper for free here: <http://www.tandfonline.com/doi/full/10.1080/09613218.2015.1017416>

How to Design and Build Passivhaus



Steel Farm Passivhaus has succeeded in getting through to the final round of the UK Passivhaus Trust Awards. To celebrate this occasion AECB Member Mark Siddall, the architect, has created a short 3 part video series about the project. Watch the videos and you will discover:

- How to build a Passivhaus in an Area of Outstanding Natural Beauty, and overcome onerous planning restrictions
- Why integrating a dashboard into the Passivhaus Planning Package is the fastest and most cost effective way for your architect to test whether your project can satisfy the Passivhaus Standard
- An easy way to create a home/office that maintains a professional appearance and maintains your family's privacy
- A lasting change that has transformed Judith's life - simply because she lives in a Passivhaus
- A critical strategy for saving money and reducing risk
- Whether or not building a Passivhaus has to break the bank
- The real cost of heating a Passivhaus, and which heating system is best suited to a remote rural location
- Whether insulation really causes overheating and how much overheating really occurs in a Passivhaus located in the North East of England
- The results from almost 12 months of measuring and monitoring - and how the analysis will inform the next design
- Whether or not the air in a Steel Farm Passivhaus is too dry ...and whether the harsh North East climate increases the risk of dry air discomfort
- Why Trevor is now wondering what his new hobby should be ...and how living in a Passivhaus could leave you with the same dilemma
- How you can experience what it is like to live in a Passivhaus (for free)
- The one thing that your building contractor cannot do without
- The two things that your architect should avoid doing ...in any building

To gain free instant access go to www.PassivhausSecrets.co.uk

Work Completes On The UK's Greenest Commercial Building: Adapt Low Carbon Group

The Enterprise Centre at the University of East Anglia is open for business following the completion of work on the highly innovative building, which sets the standard for sustainability.

The building forms a new gateway to the University and has achieved record-breaking sustainability credentials. It is one of the first buildings to target both BREEAM Outstanding and Passivhaus accreditation. It exemplifies the use of low embodied carbon materials and is designed to achieve a 100-year life span.

The vision was developed by the Adapt Low Carbon Group and delivered by Morgan Sindall plc, with a team including architects and Passivhaus designers Architype, structural and building services engineers BDP, and Churchman Landscape Architects.



Ceremonial thatch trimming

Completed in June, the building features an innovation lab, a 300-seat lecture theatre, flexible workspaces, teaching and learning facilities, as well as business hatcheries and incubator units for SMEs and start-ups in the low carbon sector. By placing academic and commercial users side by side, the centre's purpose is to foster innovation, stimulate smarter ways of working, promote industry standards and create new supply chains.



Lecture theatre exterior

The building features a number of 'world-firsts'; key among these is the use of prefabricated and vertically hung straw thatch panel cassettes, which have been used to clad the building. The straw was sourced locally, to fill timber cassette modules off-site in barns across Norfolk. The prefabricated thatch cassette panels were erected onto the façade of the building, creating a striking, and highly innovative sustainable envelope.



South Elevation

The project is also supporting innovation in the construction sector across the East of England, by helping professionals in the sector to understand how to design, build and operate class leading buildings such as The Enterprise Centre. The scheme is looking to assist over 300 small and medium sized companies with advice, bespoke support, practical tours and demonstrations. Other outcomes from the project will include over 200 jobs created or safeguarded, 35 businesses locating to eco-efficient high quality workspaces, which will be supplied with low carbon energy, and 200 businesses integrating new products, processes or services.

Strawbalehouse -Scottish build

After two very wet days at Loch Sunart the main structure of the first (of two bought by Robert) of my straw bale insulated homes was completed. I am pleased to say just Robert and a couple of neighbours provided the man power, because my health reduced me to a mainly supervisory role, and it was drama free.



A few days later the weather had obviously improved enough to provide the lovely photos showing the stunning location. My client Robert and Justine Dunn are looking for volunteer help at various stages.

<http://www.thepoosh.org/buildproject/robert-dunn/sunart-strawbale>.

All the best everyone.

Brian

www.strawbalehouse.co.uk

AECB Member Offers

Centre of Refurbishment Excellence (CoRE) – Masterclasses on domestic retrofit

CoRE is the not for profit, national centre of excellence for green building retrofit. Our mission is to transfer practical retrofit knowledge to support excellence in retrofit projects across the domestic and non-domestic sectors. CoRE's network of Fellows is the UK's largest bank of retrofit expertise, drawing together leading practitioners from construction, design and academia. They not only shape the CoRE agenda, but also share their knowledge with the growing number of active retrofitters through events, bespoke training and information sharing. Based in Stoke-on-Trent, CoRE is itself an example of refurbishment excellence, an international standard conference and training venue.

We have pioneered dozens of new courses on domestic retrofit, all designed and delivered by leading experts (our CoRE Fellows). We offer these as CoRE Diploma Programmes, currently available for Retrofit Coordinators and Retrofit Asset Management. For more information please see www.core-skills.com/training/

CoRE Masterclasses usually cost £200+VAT but AECB members will only be charged £100+VAT subject to the completion of appropriate paperwork to obtain Government subsidy.

If for any reason AECB members are not eligible for the subsidised funding CoRE will be happy to honour a discounted price of £125+VAT. Please contact Gill Rivers by email gill@aecb.net to obtain the promotion code.

Need phone and broadband at home? Make it greener

The **co-operative**
phone & broadband

By choosing The Co-operative Phone and Broadband, you are supporting an organisation that is committed to minimising its impact on the environment while still offering the best possible service to its customers.

The Co-operative Phone and Broadband is provided by The Phone Co-op, an independent consumer co-operative which:

- Invests in solar photovoltaic installations – over the last 18 months, it's put £622k into solar energy generation, saving 140 tonnes of carbon dioxide emissions per year
- Supports community energy – in 2013, it put £45k into renewable energy projects
- Offsets its carbon footprint by paying a levy on the CO2 emissions resulting from its activity
- Promotes the use of more sustainable transport modes – 91% of business miles travelled in 2013 were by train, bus, bike or on foot
- Uses electricity from renewable sources
- Recycles 100% of its waste

The Co-operative Phone and Broadband offers everything you need to stay connected; including mobile services.

Members of AECB get a £10 credit on their first bill; 6% of their spend goes back to supporting AECB's work - just quote unique code AF0130 when switching. Find out more on <http://www.thephone.coop/aecb> .

To switch today (or to register your interest if you are stuck in a contract with a different provider), call 01608 434 040 or click here: <http://www.thephone.coop/home/schedule-reminder/>

Local Group News

For full details of the events listed below and forthcoming events please visit www.aecb.net/events/ for up to date information on all of these events including dates, times and venues or email debbie@aecb.net to request that your name be added to a Local Group mailing list.

Forthcoming Local Group Events in July 2015:

- **Mud Brick Making and Designing Building Envelopes with Unfired Earth as an Internal Component – Penmount Crematorium, Truro, Cornwall TR4 9AA**

Friday 17th July 2015 @ 5:00 pm

Cornwall earth construction expert and AECB member Mat Robinson will be hosting this AECB event as part of the Dor Kemmyn Interfaith Centre Project at Penmount Crematorium, Truro, TR4 9AA. Mat will introduce the project and discuss the role of the earth brick walls in regulating moisture and providing thermal mass. We'll then spend an hour or 2 preparing earth from the site, mixing earth and straw and making bricks for use in the building. Gear farm pasty and drink £5. Attendees are also kindly asked to make a donation to the Dor Kemmyn project (<http://www.dorkemmyn.org.uk/>).

If you'd like to attend please email Nick Donaldson (non-members welcome) nickdonaldson@arco2.co.uk .

Bring old clothes, wellies, and a coarse sieve if you have one. The brick making is inside a polytunnel so it's an all-weather event.

"The Dor Kemmyn interfaith centre is a heroic project to create a Sacred Space for One and All to be built at the County's crematorium at Penmount just outside Truro. It's a Religious Space for the 21st. Century to be used by different Faiths (Jews, Muslims, Baha'i, Buddhists, Pagans, Hindus) as well as those of no Faith. The building is elliptical in shape with an emphasis on radial geometry realised in local low impact materials and using Cornish craftspeople. For more information about the project, go to www.dorkemmyn.org.uk and look at the building page."

- **Brighton Local Group**

Jim Miller and Tim Small of the of the Brighton Group hold regular meetings that provide an informal opportunity for individuals to discuss sustainable building practices and techniques – concentrating on the technical issues. It also provides a forum for commercial networking and socialising.

Time and Date: **Every second Tuesday** of the month, from 7.00 pm until about 10.30

Venue: **The Battle of Trafalgar**, 34 Guildford Road, Brighton BN1 3LW (just up the hill from Brighton Station)

The evening is likely to be useful for architects, building contractors, and associated trades, people looking to have sustainable building works carried out (new build or renovation). However, all are welcome, including skilled self-builders and DIYers.

Full details of all Local Group events can be found at www.aecb.net/events/

News

Transport refrigeration engines '29 times more polluting than diesel'

Keeping food and drink cool in transit could be generating almost 50,000 tonnes of CO₂ a year in London alone, a cold-technology company has warned. Dearmans - a company which has developed its own zero-emissions cooling technology - claims that transport refrigeration units are "disproportionately polluting".

In a recent report, Dearmans argued that the unregulated units could emit up to 29 times more potentially carcinogenic particulate matter than a modern truck engine. The company said that making all transport refrigeration units in London zero-emission would save the same amount of particulate matter as taking 327,510 diesel cars off the city's streets. London's air quality has been the subject of much debate, with air pollution in the capital now estimated to be causing the early deaths of more than 4,000 people a year.

Back in February, the Carbon Trust urged the Government to embrace the 'cold economy' – the burgeoning market for low-carbon cooling technologies. The Carbon Trust estimated that the global demand for cooling could grow to three times the current UK electricity capacity by 2030, due to the world's expanding population and the growing middle class demographic in emerging markets.

In March's budget, George Osborne set aside funding for the creation of an Advanced Cold Manufacturing Centre, which will focus on the industrialisation of clean cold technologies and its applications such as zero-emission transport refrigeration.

Infographic - London's Hidden Polluter can be found at <https://www.scribd.com/doc/270380201/Infographic-London-s-Hidden-Polluter>

Source: <http://www.edie.net/news/6/Transport-refrigeration-more-polluting-than-diesel-dearmans/>

DECC budget cuts threaten ability to 'keep the lights on'

The Department of Energy and Climate Change (DECC) could face staff budgets cuts of up to 90% under Conservative austerity measures, threatening the department's ability to deliver on its key energy and climate policies. Conservative manifesto pledges equate to a 3.3% cut in public spending over the course of the next parliament. However, health, international development and education have been ring-fenced, meaning cuts must fall harder on other departments, including DECC.

Making matters worse, almost 70% of DECC's budget is 'locked in' over the next five years, largely for cleaning up old coal and nuclear projects. As a result, the budget for resource spending, which is mainly spent on staff costs, could fall from £402m in 2014-15 to just £40m by 2018-19. But these reductions could represent a "false economy", warns a new report from the Green Alliance. The report also warns that policies such as smart metering and carbon capture and storage, will also be stripped back.

Chancellor George Osborne announced a package of cuts at the start of June, including £70m from the DECC budget, but the Green Alliance said it was unsure if this was in addition to, or instead of further cuts in next week's Budget. DECC played down the idea that its effectiveness could be diminished, telling edie: "Through making savings from underspends last year we have been able to protect spend on priority areas for 2015/16 including keeping the lights on and reducing greenhouse gas emissions.

The Green Alliance report has already seen support from a group of eight influential energy academics, who have written to the minister for government policy, Oliver Letwin, urging him to consider its findings.

Source: <http://www.edie.net/news/6/Budget-cuts-threaten-UKs-ability-to-cut-emissions-and-keep-the-lights-on/>

Sustainable product revenue growing six times faster than alternatives

Revenues from sustainable products or services are growing up to six times faster than 'normal' equivalents, according to new research from the Investor Responsibility Research Center Institute (IRRCi). The Institute, which provides data-driven information to investors, analysed 12 companies listed in the S&P 100 that sold and tracked 'sustainable' products and services. The study found between 2010 and 2013, revenues from these portfolios grew by 91% – around six times faster than the rest of the companies' products. The study also found that sustainable products have grown as a share of major firms' portfolios from 17% in 2011 to 26% in 2014.

The report defined sustainable products as "items that have an explicit environmental advantage over equivalent existing products" The twelve companies profiled include Allianz, BASF, Caterpillar, Dow Chemical, DuPont, GE, IBM, Johnson & Johnson, Kimberly-Clark, Philips, Siemens and Toshiba.

The companies surveyed within the report said that a driving force for their range of sustainable products was "customer demand" for solutions that address global sustainability challenges, such as climate change and resource scarcity. The companies also suggested that the success of a sustainable range required broad stakeholder support, including getting the CEO on-board, and clearly communicating the green benefits to customers.

The IRRCi stipulated that its research was a relatively small sample, and held back by the 'wild-west' nature of the nascent sustainability sector, where companies operate under their own guidelines and methodologies, leading to limited and unstandardised data.

In May, consumer goods firm Unilever revealed that its 'Sustainable Living' brands accounted for half of the company's growth in 2014 and grew at twice the rate of the rest of the business. Cosmetics giant L'Oreal has also committed to a target for all products to have positive environmental or social impact by 2020

Source: <http://www.edie.net/news/5/Sustainable-products-grow-six-times-faster-alternatives/>

Environmental case for new Heathrow runway has 'Airbus-sized holes'

The Airport Commission's recommendation to build a third runway at Heathrow Airport has been labelled a "hugely damaging decision" and a "backward step on climate change" by green groups. The Airport Commission, led by Sir Howard Davies, released the report, recommending that a new runway at Heathrow should be built because it would offer "the greatest strategic and economic benefits" compared to other London airports. The report also said the new runway should come with severe restrictions to reduce the environmental and noise effects and would be therefore be compatible with UK climate change and air pollution targets.

However environmentalists were quick to dismiss the Commission's calculations. Greenpeace UK chief scientist Dr Doug Parr said: "When it comes to carbon emissions the Davies' analysis has holes big enough to fly an Airbus through. His claim that a new runway could be compatible with the UK's climate targets is based on the unrealistic assumptions like the need for a 6,600% rise in carbon taxes, rose-tinted estimates about improvements in aircraft efficiency, and false solutions like biofuels. This is just a smokescreen to hide the obvious fact that a new runway will almost certainly derail our legally-binding climate targets. In the year the world is coming together to tackle climate change, we should be talking about how to manage demand, not where to store up a new carbon bomb."

Air travel emits more than 650 million metric tons of carbon pollution each year - nearly the amount emitted by 136 million cars. The aviation industry has committed to hold its carbon emissions steady after 2020 and cut net carbon emissions to half of the 2005 level by 2050.

Friends of the Earth's head of campaigns Andrew Pendleton commented: "The UK will be a laughing stock if it turns up at crucial climate talks in Paris later this year, claiming global leadership while at home having nodded through new runways, killed its onshore wind industry and foisted fracking on communities that don't want it."

Friends of the Earth also claimed that the Government's case for expanding airport capacity at all is "extremely weak".

The Aviation Environment Federation, which represents community groups around the UK's airports, said that all options considered by the Commission would "breach CO2 limits and have unacceptable local environmental impacts".

Cait Hewitt, AEF's deputy director said: "The recommendation to expand Heathrow will be fiercely resisted by local authorities, MPs, communities and environmental organisations. Every government that has ever considered Heathrow expansion has ruled it out once the full scale of the environmental impacts has become clear. The UK has a legal obligation to meet EU air quality legal limits and despite its last minute consultation on the issue the Airports Commission still cannot say confidently whether or not expansion would be legal."

From a business perspective, the CBI claimed that growing airport capacity in the South East is critical to the whole of the UK's economic future.

John Cridland, CBI director-general, said: "It simply isn't an optional 'nice to do'. Each day the Government delays taking the decision, the UK loses out as our competitors reap the rewards and strengthen their trade links. Creating new routes to emerging markets will open doors to trade, boosting growth, creating jobs and driving investment right across the country. Our research shows that eight new daily routes alone could boost exports by up to £1 billion a year.

Downing Street officials say they will take their time considering the report's suggestion, wanting to avoid making "a snap judgement".

Source: <http://www.edie.net/news/6/Environmental-case-for-new-Heathrow-runway-has--Airbus-sized-holes-/>

Events

SuperHome Open Days – September 2015

Visit the old houses transformed into homes of the future

You can get the inside story on some exceptional home improvement projects this September as SuperHome Open Days return. SuperHomes are older homes refurbished by their owners for greater comfort, lower bills and far fewer carbon emissions - at least 60% less! These are some of the UK homes most improved for energy use. They are fit for the future.

SuperHomes have superior insulation; many have alternative heating sources and some produce their own energy. In every SuperHome you can learn about a range of installed technologies. Tours and Q&A sessions will let you quiz the owners, so you can discover what worked and get frank feedback on anything that didn't. Refurbished Victorian, Edwardian and post-war properties

are amongst those open to the public. Entry is free. To find out more or to pre-book a place on a free tour, visit www.superhomes.org.uk

Decarbonising Buildings 8 Day Innovator Catalyst

Birmingham 18th - 25th November

Organised by Climate-KiC

This is an interactive 8 day workshop looking at problems and barriers around decarbonising buildings with an emphasis on the participant's case studies and particular problems and linkage to transition thinking. Participants will bring their experiences from all over Europe and international speakers have been invited.

The first edition of this catalyst held last year was very successful, see <http://www.innovationbham.com/2015/02/04/climate-kics-innovator-catalyst-a-reflection/>

For more details of the course see <http://www.climate-kic.org/programmes/innovator-catalyst/> or contact Dave Green (AECB member and lead coach on the catalyst), dave.green@climate-kic.org.

There is a fee of €2,000 for the workshop but an early bird of €1,000 applies and discounts for SMEs.

The AECB have been a host on the Climate KiC Pioneers programme and Tim Martel who was a Pioneer in 2013 now works with Andy Simmonds.

Situations Vacant

Green Building Store



- **MVHR Design Engineer**

£20,000 - £25,000 Golcar, Nr Huddersfield Permanent, Full Time

Experienced services engineer with interest in low energy building required for specialist Passivhaus ventilation team. Tasks will include MVHR system technical advice, commissioning, trouble shooting and designing using Green Building Store's Auto-CAD bolt on.

Prior knowledge of MVHR not essential, but interest in low energy building, prior knowledge of CAD, good communications skills and ability to think around engineering/ physics all essential. Specialist training will be provided.

We deliver a specialist MVHR design service, supply MVHR systems and offer commissioning services for the systems we have designed. Increasingly we are also providing consultancy support to projects where we have not been involved as the designer. Specialising in houses built or refurbished to Passivhaus standard, and specifying the most efficient units available, Green Building Store's MVHR services are national recognised and we have growing demand.

Green Building Store's MVHR department is nationally recognised for its Passivhaus expertise in this fast developing field.

Green Building Store specialises in ultra low energy / Passivhaus product supply and has been established for over 16 years. This innovative, ethical company has a friendly and creative working environment with a supportive team ethos, alongside an expectation of commitment and motivation. Our offices are located in peaceful rural surroundings with free parking, excellent transport links and a strong cycling culture.

Benefits include flexi-time by arrangement, 28 days holiday entitlement, including 8 Public Holidays. Office based, permanent.

Applications by before 13 July.

For more information see Green Building Store Job Vacancies at <http://www.greenbuildingstore.co.uk/page--job-vacancies.html>

- **Trainee MVHR/Services Design Technician**

£17,118 trainee rate Golcar, Nr Huddersfield Permanent, Full Time

Trainee CAD designer required by friendly specialist team, designing Mechanical Ventilation with Heat Recovery systems for low-energy buildings.

Communications with customers and some associated administration also involved. CAD skills and ability to think around engineering/ physics essential, specialist training provided.

The core task is to design mechanical ventilation with heat recovery (MVHR) systems for new build and retrofit dwellings using CADvent, a bespoke CAD based 3D design package for ventilation systems.

The role also involves:

- Liaising with customers over their design requirements and constraints and generally providing customer support, via telephone and email.
- Administrative tasks related to the design and specification process.

We are looking for someone with the skills and aptitude to grow into this role. AutoCAD competence, an understanding of physics/engineering and the ability to think in three dimensions are all required. Practical knowledge of building and or building services is desirable as well as a methodical approach and good communications skills.

Green Building Store's MVHR department is nationally recognised for its Passivhaus expertise in this fast developing field.

Green Building Store specialises in ultra-low energy / Passivhaus product supply and has been established for over 16 years. This innovative, ethical company has a friendly and creative working environment with a supportive team ethos, alongside an expectation of commitment and motivation. Our offices are located in peaceful rural surroundings with free parking, excellent transport links and a strong cycling culture.

Benefits include flexi-time by arrangement, 28 days holiday entitlement, including 8 Public Holidays. Office based, permanent.

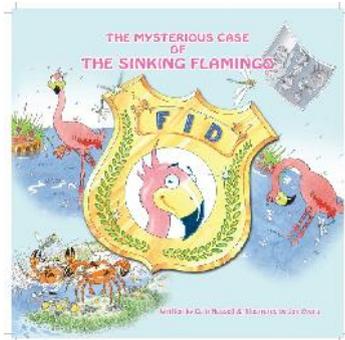
Applications by before 13 July.

For more information see Green Building Store Job Vacancies at <http://www.greenbuildingstore.co.uk/page--job-vacancies.html>

Publications

The Mysterious Case Of The Sinking Flamingo.

Cath Hassell



'The mysterious case of the sinking flamingo' is a brilliant illustrated children's book about why crabs hate combined sewer overflows and why flamingos love four minute showers! Written by Cath Hassell of ech2o, you can back it on kickstarter right now <https://www.kickstarter.com/projects/2012468981/the-mysterious-case-of-the-sinking-flaming-childre>

There are loads of tweets about the book at @CathHassell if you are on twitter and want to forward tweets. But the most important thing is to actually go onto the kickstarter site and back us!

If you have any news, events or courses you would like to publicise in Network then please email details to network@aecb.net.