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Spring 2019 Volume 13 No 1

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Working towards a goal worth achieving...

2019 could be a big year for our industry. Last year, the UK government launched a major fact-finding mission to help it decide how to decarbonise the emissions from heating off-gas grid buildings. It published a summary of the evidence in December which revealed that there are still some crucial knowledge gaps, with more information needed about the potential to displace oil with electric heating solutions and biofuels.

To fill those gaps, the government has commissioned independent research, but OFTEC has also launched its own comprehensive study into the viability of low carbon liquid fuels for heating. This is essential to overcome all doubts about whether these fuels are an appropriate solution and, if successful, will help us create a roadmap for their introduction.

This is important because the government has pledged to end the use of high carbon fossil fuels – including oil – during the 2020s. It has been hinted that their plans could be implemented as early as 2023 and delivered through a combination of regulation, obligation or incentive.

Both research projects will report by March, in time to influence the next round of heating industry consultations, which the government is already busy planning. But whatever approach the government eventually adopts, it's likely that the 2020s will see some significant changes to the way off-grid homes are heated.

This creates uncertainty which isn't helpful, but with every change comes opportunity, and that is certainly true of decarbonisation. Whether it's a change of fuel, a new appliance, advice on energy efficiency or helping consumers tap into financial support, there's a chance for heating technicians to get involved, support the transition towards a low carbon future, *and* make money.

Getting the right solutions is critical and OFTEC is working hard with industry partners to help achieve the best possible outcome. If the process of decarbonisation is done well, it will mean most off-grid families will live in comfortable homes they can afford to heat – and which, crucially, have much less impact on the environment. To me, that sounds like a goal worth achieving.

Paul Rose,

CEO, OFTEC

You could be missing out on vital information!

Are you receiving a monthly copy of OFTEC's E-newsletter in your email inbox? This is packed with the latest technical notices and industry information.

Keeping your knowledge up to date is an important part of your registration, so if you haven't received a copy of E-news recently, please let us know.

The first port of call is to double check that the email address we have for you is correct. Log into www.ofteconline.com and check your details. If necessary, update your email address – this will ensure you receive your monthly fix of heating news as well as timely reminders about renewing your registration or qualifications. Next, make sure you add latest@oftec-news.org.uk to your safe senders list.

If your details are correct, please contact marketing@oftec.org – you may have inadvertently unsubscribed, or there may be a more technical reason for your E-News 'bouncing' that we can investigate.

Staff update

OFTEC is very pleased to welcome two new members of staff. Becky McPhillips has joined the registration team as an administration apprentice and is enjoying learning the ropes in this busy department.

Maggie Harrington-Brock replaces Tina Peirson in the accounts department and is taking on responsibility for the sales and purchase ledgers. Maggie brings with her plenty of experience working in busy accounts departments in the automotive industry.

If you would like to join the OFTEC team, take a look at our job advert on page 23.

Becky McPhillips

Maggie Harrington-Brock

A day in the life of... OFTEC's compliance team

This is the second in our '*day in the life of...*' series and an opportunity for readers to step into the shoes of the compliance team and discover what makes them one of OFTEC's busiest departments. As the leading organisation representing the liquid fuel heating industry, OFTEC has a duty to uphold standards and the work of the compliance team is essential to ensure this happens.

Paul and Julia – busy members of OFTEC's compliance team

In an ideal world there would be very little need for a compliance team – technicians would install equipment in accordance with regional building regulations, complete all the appropriate paperwork and, where required, notify the installation and leave homeowners pleased with a job well done. However, in the real-world it's not that simple and there are many factors that could influence how work is carried out, and whether a customer is satisfied.

You may be surprised to read that a major part of the compliance team's day is helping people, particularly when they have a reputation for being the rottweilers of the organisation! The over-riding goal of the team is to assist members of the public and technicians to achieve compliant installations that adhere to the manufacturers' instructions.

Correspondence

Every day, the team receives an enormous volume of correspondence relating to inspections, ongoing or new complaints. This must be prioritised and followed up so that each matter can be resolved as quickly as possible.

Your first contact with the compliance team is likely to be after your inspection. They will follow up on any non-conformities reported by the inspector to ensure these have been rectified in line with building regulations. If you fail to put right a non-conformity, the compliance team may need to temporarily suspend your registration.

> Your first contact with the compliance team is likely to be after your inspection

The team are often called upon to mediate on complaints – for example where a home owner is dissatisfied with the work carried out by a registered technician, but the alleged poor workmanship is disputed by the technician.

It can be a complex task getting to the root of the problem, and often involves numerous phone calls and written correspondence between the homeowner, the technician and sometimes even the local inspector and building control department.

Government schemes such as ECO, whilst having the best of intentions to help those most in need improve their living conditions, also add to the work of the department.

The pressures that many ECO installers are under to complete installations quickly, and sometimes the disconnect between those installing and those specifying the jobs, can cause problems. Many of these issues end up on the compliance team's desk.

Safety concerns

Where poor workmanship by non-registered technicians is reported to us, and it raises concerns about the ability of the company to work safely and compliantly, the compliance team will speak to the local building control department, or even regional trading standards departments, who can take further action against the company.

Members of the compliance team probably need the widest range of skills at OFTEC and they certainly manage to rise to the challenge. As well as an in depth technical knowledge, they also need to be aware of consumer law so that they can give appropriate advice.

Mediating on disputes for much of the day, means they need excellent negotiation skills as well as determination, resilience, and a sense of humour.

On top of this, they need to maintain meticulous records and be incredibly well organised. Talking to such a broad range of stakeholders, it helps to have good customer service skills and a deep understanding of human nature.

So, next time you are speaking to one of the compliance team – remember as well as being rottweilers, they are also teddy bears at heart.

> Members of the compliance team probably need the widest range of skills at OFTEC and they certainly manage to rise to the challenge

Want to service solid fuel appliances? – *have we got news for you!*

Since launching its solid fuel registration for installers, OFTEC has been repeatedly asked by technicians whether we could provide registration and develop training for the servicing, commissioning and repair of solid fuel burning appliances such as stoves, open fires or other systems. This also reflects the increase in popularity of wood burning stoves over recent years, so we are pleased to announce the launch of OFT18-108S – OFTEC's latest scope of solid fuel registration.

This new scope covers servicing, commissioning, fault diagnosis and repair of solid fuel domestic appliances and will give technicians the skills they need to assess the condition and safety of existing solid fuel installations. The scope will be of particular interest to chimney sweeps, plumbers and heating technicians – those visiting a customer's premises to carry out other work, who would like to offer this additional service. It would also be useful for property management businesses who are required to check solid fuel appliances.

Registered technicians benefit from free listing on the OFTEC online search facility, which has around 160,000 hits each year from homeowners looking for qualified and reputable technicians to work on their heating appliances. There are a range of other benefits, including discounted products and services, regular technical updates and a technical support team.

This new scope complements OFTEC's existing solid fuel registration scopes OFT15-108D/W which allow installers of solid fuel appliances to use OFTEC's work notification scheme to self-certify that their installation work complies with regional building regulations.

Training centres offering the new OFT18-108S course are listed on www.oftec.org. As with any OFTEC approved training, there are pre-requisites for each course – the local centre will provide further details.

For further information, contact OFTEC's training manager, David Knipe at dknipe@oftec.org

STOP PRESS: As this issue of *Oil Installer* goes to press, the government has issued the Clean Air Strategy 2019. OFTEC will be examining this document closely and will issue guidance in due course.

Specflue welcomes Clean Air Strategy

Wood burning stove supplier, Specflue, has welcomed the comments of environment secretary Michael Gove at the launch of the government's Clean Air Strategy.

Part of the "strong action" Mr Gove said must be taken to improve air quality was to introduce new legislation to ensure only the cleanest wood burning stoves are available for sale by 2022. He also insisted that local authorities should be given powers to increase the rate of upgrades of inefficient and polluting heating appliances.

He added: "Our ambitious strategy includes new targets, new powers for local government and confirms that our forthcoming environment bill will include new primary legislation on air quality."

Jeremy Fry, chairman of Specflue, commented: "I applaud the government's recognition that clean-burning wood stoves have a major role to play in maintaining good air quality. I also welcome Whitehall's commitment to ensuring that clean stoves offer an important way forward in achieving this. This is why the wood burning stove industry's 'ecodesign ready' initiative is so important."

The ecodesign directive is due to come into force in 2022 for wood burning and multi fuel stoves and applies to the whole of the UK. However, members of the Stove Industry Alliance (SIA), which includes Specflue, have already started to release stoves that meet the lower emission limits. www.specflue.com

Van and tool theft – what can we do?

Have you seen the #noVANber campaign advertised on social media over the last few months? If you have been a victim of van or tool theft, or know someone that has, you will be acutely aware of the impact it can have.

In addition to the expense of having to replace tools, victims may have to reschedule jobs and arrange costly van repairs, resulting in loss of earnings. In extreme cases, it has been reported that such unscheduled costs have caused some businesses to fold.

Loughborough based installer Peter Booth (@pbplumber) has started a petition to call on the government to consider what more can be done to tackle the issue – whether it is the introduction of stronger sentencing guidelines or tightening regulations on the reselling of tools.

So far the petition has reached almost 40,000 names, so there is some way to go before the target of 100,000 signatures is reached. However, if all readers of *Oil Installer* sign the petition – along with family and friends, it is certainly an achievable target!

To sign the petition, visit: https://petition.parliament.uk/petitions/231177

#noVANber

Introducing the OFTEC Scheme Committee (OSC)

Not many technicians will have heard of the OSC, the governing committee for OFTEC's registration, training and assessment schemes. In this article OFTEC's registration director, Adrian Lightwood, explains more.

Most registered technicians probably think that OFTEC has full control over its registration scheme as well as the training and assessment scheme. Whilst internal management teams are responsible for the day to day operations of both these functions, a committee has overall governance of the schemes – the OFTEC Scheme Committee (OSC).

This committee is made up of industry experts and interested parties who ensure that the schemes are run with integrity, fairness and impartiality. It is important that no one party dominates, so the terms of reference of the OSC are set out to ensure a range of views are heard and taken into consideration when deciding policy.

Who's who on the OSC?

The OSC is a large committee with representatives from the following organisations:

- The Ministry of Housing, Communities and Local Government (MHCLG) who authorise operators to run building regulation self-certification schemes.
- Local Authority Building Control (LABC) who are responsible for enforcement of the building regulations.
- The National House Building Council (NHBC) who have a particular interest in the new build sector and consumer protection.
- Sector skills who give advice on the standards of skills required by tradespersons at a national level.
- Training centres delivering the OFTEC training and assessment scheme.
- Certification bodies who certify candidates for the OFTEC assessment scheme.
- Regional representatives from Ireland and Scotland who ensure the scheme reflects their local needs.
- Heating equipment manufacturers via the OFTEC trade association.
- Registered heating businesses – who provide vital feedback from technicians using OFTEC's services.

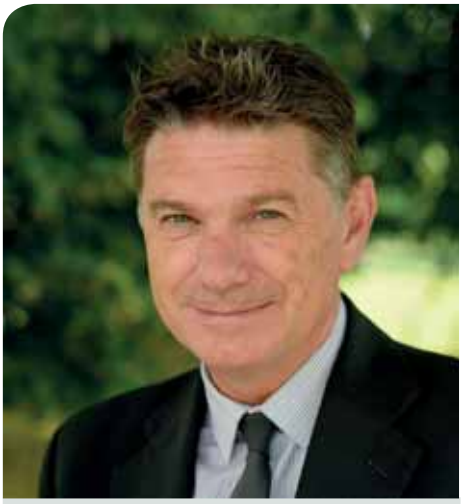
The OSC has a key role in improving standards within the industry and ensuring the assessment and registration schemes are of the highest quality. It also ensures that the interest of thousands of registered technicians who use OFTEC's services are considered and protected.

Your technician representative

If you have any concerns about the OFTEC registration or training and assessment schemes, you can contact us directly, but you may prefer to discuss them with someone impartial. This is the role of Guy Crabb, your technician representative, who can raise concerns on your behalf at the OSC meetings. Guy runs his own heating business in Dorset and has been OFTEC registered since 2003. His business specialises in oil heating along with gas, solid fuel and renewables, which helps us understand matters from the installers' point of view as we expand our registration services.

OSC technician representive, Guy Crabb

Guy's seat on the committee is important to us, as we need to hear what technicians think about the schemes we offer – only then can we make changes for the better. Guy's input has already led to changes to the workmanship warranty scheme in 2016, better information for technicians over inspections and, most recently, better information on fire protection for oil tanks and flexible oil lines.



OFTEC's registration director, Adrian Lightwood

Some of the other recent proposals made by the OSC have been to:

- Freeze the registration fees for 2019.
- Complete a top to bottom review of the assessment scheme taking into consideration new advances within the industry and changes in legislation.
- Analyse the 2018 technician questionnaire and set out an action plan for OFTEC management in line with findings.
- Improve the promotion of apprenticeships to ensure we have skilled heating technicians for future generations.
- Investigate the availability of suitable training courses, so technicians aren't missing out on valuable registration time.
- Look at the level of fault finding in the service and repair courses.
- Use technology better for technical and registration updates and CPD (i.e. webinars).
- Consider alternative payment options for registration and whether the current direct debit scheme could be improved.
- Improve the online area for registered technicians.
- Progress with an OFTEC phone app.

Feedback from technicians and the OSC is essential to improve our services and ensure OFTEC registration remains value for money. There is plenty to do in 2019, but if you have any suggestions that you would like your representative to submit at the next meeting, scheduled for the spring, please email Guy Crabb at RegisteredTechnician@oftec.org

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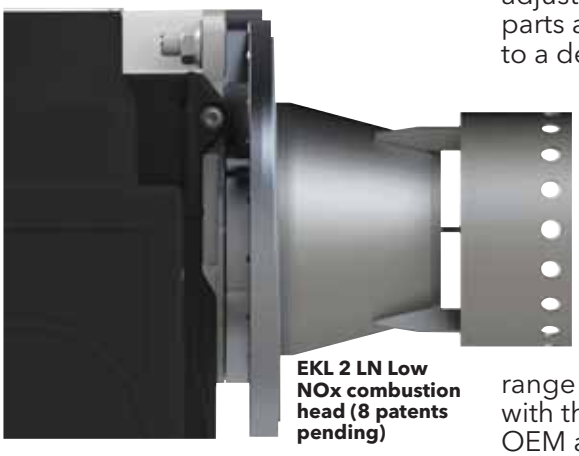
EKL 2/M BLUE fully modulating oil domestic burner

Boasting 90 years' experience in the design and production of burners, ELCO Burners (part of the Ariston Thermo Group) specialises in the development of reliable and technologically advanced Low NOx (LN) and Ultra-Low NOx (BLUE) burners for residential oil appliances.

The introduction of the ErP directive has given ELCO the opportunity to launch a range of superior Low NOx burner solutions into the UK and Irish markets. These meet – and often exceed – the latest and future industry standards. Such technological advances in burner design are the result of 40 years' experience and over half a million Low NOx and Ultra-Low NOx burners operating in the strictest EU emission markets.

Technological advances

ELCO Burners' experience and expertise is reflected in its latest range: The EKL series of low NOx monoblock burners, created especially for the UK and Ireland. Suitable for kerosene, gasoil and bio oil blends, these burners offer outputs from 12kW to 100kW.



EKL 2 LN Low NOx combustion head (8 patents pending)

Plus, the burners' one-piece combustion head (8 patents pending), controls the products of combustion that are formed when a fossil fuel is burnt, resulting in stable and very low CO and NOx emissions. This component is factory set to ensure optimum performance without the need for adjustment.

All burners are factory pre-set (12.5% CO2 when 20°C ambient temperature) in order to achieve the highest level of efficiency, requiring only minor adjustments in fuel pressure and air for particular field conditions. ELCO Burners' models also benefit from improved fan power, to combat increased back pressure across the combustion chamber and head, which forms as a result of using low NOx technology on condensing boilers. This ensures reliable start-up and clean combustion in all possible applications.

The EKL burner has also been manufactured with installers in mind, featuring a design that is straightforward to fit and simple to maintain. A single 4mm Allen Key can be used to remove and adjust key components, while all parts are easy to access thanks to a dedicated servicing position and a simple layout, plus a "plug & play" system for component removal.

Industry changes

In September 2018, the Ecodesign Directive on NOx emissions came into force, introducing a limit of 120 mg/kWh. ELCO's range of LN burners easily comply with this requirement as, in some OEM applications, they have been proven to achieve NOx emission levels as low as 60 mg/kWh.

Plus, to illustrate ELCO Burners' manufacturing expertise and continuous development, both LN and BLUE burners already comply with the most stringent NOx emission targets expected when ErP legislation changes again in 2020. In addition, ELCO can offer OEM boiler manufacturers advanced, efficient burners in the form of modulating Ultra-Low NOx (BLUE) units, in numerous outputs up to 62 kW, all of which have a proven track record in Europe.

However, the Ecodesign directive is not the only legislation that will impact on the burner industry in the coming months. In July 2019, cadmium sulphide-based photocells will be phased out in favour of other types of sensors, in accordance with RoHS2 2011/65/EU.

To ensure only the most robust components are selected, and that burner performance is not compromised, ELCO Burners has undertaken an extensive trial to identify suitable replacements. This will ultimately ensure that a smooth changeover takes place, taking advantage of the July 2019 phase-in, but without causing any inconvenience to OEMs or industry professionals.

Following the introduction of the LN range into the UK and Irish markets during mid-2018, ELCO's popularity with installers, service engineers and boiler manufacturers has continued to increase. Such levels of awareness and confidence in the ELCO brand is evidence that an alternative burner with superior characteristics is more than capable of challenging market perceptions.

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Discrepancies between fuel poverty and clean growth agenda "*continue to hit vulnerable rural households*"

As a new report shows, the number of fuel poor households in England has risen to over 2.5 million. OFTEC says recent revisions to the Energy Company Obligation (ECO) scheme don't go far enough in ensuring that low income homes do not suffer at the expense of the government's clean growth agenda.

The committee on fuel poverty's (CFP) third annual report has found that despite government introducing the fuel poverty strategy 2015, the number of households unable to afford to adequately heat their homes has risen by 210,000 to 2.55 million.

In June 2018, OFTEC welcomed the announcement from the Department of Business, Energy and Industrial Strategy (BEIS) that oil boilers will not, as initially proposed, be excluded from the next phase of ECO (ECO3), which has now come into effect.

This means that under the scheme, fuel poor households who currently rely on oil heating can have a broken oil appliance repaired or replaced and so continue to benefit from using the cheapest fuel for the off-grid sector.

Between 2014 and 2018, the four year average price of heating oil in Great Britain was 68% cheaper than LPG and 85% cheaper than electric (Economy 7), the two other main options available to rural homes.

However, in an attempt to unite fuel poverty strategy with carbon reduction efforts, the inclusion of oil in ECO3 does not extend to first time central heating (FTCH). Therefore, fuel poor households will have no other option than to heat their homes with far more costly LPG (also a high carbon fossil fuel) or electricity. Until the national grid is decarbonised, electricity will also continue to contribute to carbon emissions.

OFTEC CEO Paul Rose comments: "Whilst the limited inclusion of oil in ECO3 was an important win for many low income and vulnerable off-grid households, it doesn't go far enough.

"We fully support government's clean growth strategy and understand aligning the fuel poverty agenda with carbon reduction goals is a tricky balancing act, but carbon reduction policy cannot be introduced to the detriment of the vulnerable and fuel poor. The key objective of ECO must remain providing affordable warmth to address fuel poverty otherwise the number of households who can't pay their heating bills will continue to rise.

"This will in turn take an even greater toll on the NHS and the already unacceptably high number of excess winter deaths in this country as more vulnerable people suffer the health consequences of living in cold homes.

"We are currently discussing with BEIS the most practical and cost-effective low carbon solution for oil heated homes going forward. We believe this to be a liquid biofuel. With a biofuel replacement for kerosene currently being actively developed, we hope very soon to be able to allay any concerns over whether oil boilers should be installed as part of fuel poverty initiatives such as ECO.

> The key objective of ECO must remain providing affordable warmth

"Once a suitable biofuel solution becomes available, we propose a government supported scheme to replace the estimated 400,000 'zombie' oil boilers still in use with modern, high efficiency boilers – a move which would immediately reduce fuel bills and carbon emissions by up to 20%. The upgrade would be free for those eligible for ECO with priority and higher subsidies being made available to struggling households."

OFTEC endorses the emphasis the revised ECO3 scheme has placed on insulation as an important overall step towards improving energy efficiency and therefore reducing fuel bills and carbon emissions. But in practice, this may again be of limited benefit for the rural fuel poor.

Due to the general poor quality of off-grid housing stock, which also tends to be older, an estimated 88% of off-grid homes currently fall into EPC band D or below. This makes these properties far more difficult and expensive to insulate and it may not even be possible to bring many up to the required band C which government aspires to by 2035 under the Clean Growth Strategy.

Paul Rose

Paul Rose continues: "We have to be realistic here and look at the cost effectiveness of relying on insulation, particularly wall insulation, as a key driver to improving energy efficiency in off-grid homes, where fuel poverty is more common. Insulation is an easy win for newer properties but could prove an extremely expensive retrofit measure, as well as being simply impractical for many rural properties.

"We must focus on solutions that will address the unique issues associated with hard to treat rural properties. Our proposed low carbon liquid fuel would provide an easy to implement alternative to kerosene which wouldn't rely on improved insulation to deliver substantial carbon savings. Crucially for the fuel poor, economies of scale as liquid biofuel supplies improve and the fact that a blended fuel would initially be introduced, would also mean our solution remains cheaper than LPG, electric storage heaters or heat pumps into the future."

Elmhurst responds to call for evidence on EPCs

Elmhurst Energy has issued a response to government's 'call for evidence' on how energy performance certificates (EPCs) are currently performing in buildings. The response, where possible, includes the opinions of Elmhurst members, 150 of whom attended the recent Elmhurst 25th anniversary conference, to discuss EPCs.

Central to the Elmhurst message within the response are the following nine points:

1. Energy certificates should always reflect the current state of the building and should be re-issued whenever there is a change that impacts upon the energy performance of the building. To reflect current fuel prices, an EPC should lapse after one year to ensure estimates and recommendations are relevant.
2. The planning and building regulations process often requires a prediction of a building's energy performance before construction starts. It is critical that the quality of such predictions is on par with the EPC and therefore should only be undertaken by accredited energy assessors whose activities are overseen by an approved scheme.
3. Display energy assessments to be required for all buildings that are visited by members of the public including shops and offices, as well as buildings owned by government and local authorities.
4. Occupier engagement is restricted because the EPC is an asset rating for which the occupancy profile is not understood. Each EPC (asset rating) should be supplemented with an occupancy assessment that improves the energy consumption estimates and recommendations particular to the current occupier and their lifestyle. There is a need for independent advice and energy assessors are well positioned to provide this.
5. As EPCs are now being used for setting minimum standards it is important that they are consistent over time. Elmhurst believe that an EPC rating should be based on a fixed standard, such as primary energy, rather than a variable such as cost or carbon.
6. EPC data should, with reasonable controls, be open for stakeholders to use to demonstrate possible improvement, and to improve enforcement authorities by linking to Land Registry and Trading Standard systems.
7. Investment is required in the SAP, RdSAP and SBEM methodologies to ensure that results of real world testing is fed back, in a closed loop model, to constantly improve accuracy.
8. The approach to assessing Houses of Multiple Occupancy (HMOs) should be simplified as most can be assessed using RdSAP as a single dwelling.
9. No building should be exempt from requiring an EPC. PRS/MEES, and other legalisation, can then be amended to allow exemption based upon the restrictions placed by planning and conservation restrictions.

"We hope the message is clear that government needs to build upon the excellent work of EPCs and energy assessors, and move into areas such as encouraging more action," says Martyn Reed, managing director, Elmhurst Energy. "We trust that the feedback they receive is quickly analysed and new initiatives come through to ensure that buildings are warmer, cheaper to run and cleaner for the environment."

www.elmhurstenergy.co.uk

Website to fill oil storage info gap

Since 2014, OFTEC and FPS have worked together to provide consumers with useful information about oil heating via the Oilsave website. Following a recent review, it has been agreed that, during 2019, the website will be altered to focus exclusively on tank issues.

The aim is to review all the material on the site and integrate the information that isn't about tanks into the consumer areas of either the main OFTEC or FPS websites. A new website will then be launched to provide a one-stop-shop for all tank-related topics.

The focus on tanks reflects the need to ensure that owners understand their responsibilities, take appropriate steps to ensure that their tanks receive regular inspections and replace their tank once it reaches the end of its working life. The guidance will also cover useful advice on security, dealing with leaks and what to do if they receive a warning about the tank's condition.

An additional aim of the site will be to ensure that it includes consistent advice from both installation/servicing technicians and fuel suppliers so that information for both industry audiences is available. Progress on the site will be featured in future editions of *Oil Installer*.

Forthcoming events...

OFTEC is exhibiting at several trade events during 2019 and, following feedback from the recent technician questionnaire, is also hoping to set up some regional seminar events.

Attending trade events is a great way for registered technicians to keep updated on industry news, discover new products and to meet the OFTEC team to discuss any ideas, issues or challenges.

If you are considering diversifying your business into solid fuel – as either an installer or service and maintenance technician – the first two shows may be of particular interest:

- The Guild of Master Chimney Sweeps Guild Trade Exhibition from 1st to 2nd March at The Chesford Grange Hotel, Kenilworth.
- The National Association of Chimney Sweeps Show from 12th to 13th April at the Crowne Plaza Hotel, Stratford upon Avon.
- Installer, the national heating and plumbing show, at the Ricoh Arena, Coventry from 7th to 9th May.
- Self-Build, Dublin from 13th to 15th September

Details of all OFTEC's events, including booking information, are listed on www.oftec.org. Please check the website regularly and look out for updates in the monthly E-newsletter.

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"All UK homes must be renovated to meet climate targets" concludes report

The UK cannot build its way to a low-carbon future without retrofitting the UK's old, cold homes to meet 2050 climate targets, concludes a new report from the Institution of Engineering and Technology (IET) and Nottingham Trent University.

Energy used in homes accounts for about 20% of UK greenhouse gas emissions and three quarters of that comes from heating and hot water. 80% of the homes people will inhabit in 2050 have already been built, meaning it is not possible to rely on new builds alone to meet legal energy-saving targets set in the 2008 Climate Change Act.

Deep retrofitting is a whole-house approach to upgrading the energy efficiency in one step as opposed to a series of incremental improvements over a long period of time. This includes: Adding solar panels and local micro generation, insulation and ventilation, and sustainable heating systems.

Rick Hartwig, IET Built Environment lead, said: "If we are to meet the 2050 targets of the Climate Change Act, then all housing in the UK must have zero carbon emissions from space and water heating, and space cooling.

Reducing costs

"New and innovative products will always assist in reducing costs and improving energy performance, but sufficient work has already been done in research and pilot studies, to show that massively reducing the carbon emissions and energy requirements of current housing is achievable and needs to be done. Retrofitting has other benefits too, making cold homes warmer, healthier and reducing bills.

"There is considerable practical experience in financing deep retrofit projects, managing them, and engaging with the householders. We need to build on that experience to create a national retrofit programme to deliver our 2050 goals."

Professor Marjan Sarshar, Nottingham Trent University, said: "Achieving retrofits to 2050 standards is technically challenging and currently too expensive. New knowledge-based supply chains, advanced manufacturing techniques and better business models are necessary to reduce costs."

Current barriers to the development of a national programme include: lack of customer demand – the proposition is still not attractive enough; no effective policy driver for change; costs per home are too high as there is not yet a supply chain that can deliver deep retrofits cost effectively, in volume and at speed; and a lack of initial financing.

The report calls for both national and local government to take the lead in encouraging and supporting the necessary changes, which include:

- Create clear, consistent policy objectives and a national programme for deep retrofit and climate resilience, with an initial focus on social housing.
- Reduce costs and build the supply chain capacity by developing more pilot projects and demonstrators. This will bring the cost-per-property to below 30-year repair, maintenance and refurbishment budgets. This is a big economic opportunity for the supply chain.
- Engage with the home owners by identifying the best ways to discuss the benefits of deep retrofit and developing trusted intermediaries to be a single point of contact for owners and tenants.
- Encourage investment by creating larger projects that are more attractive to investors, by aggregating smaller retrofit projects into bigger blocks and introducing more flexible ways for local authorities to borrow and invest in retrofit programmes.

The full 'Scaling Up Retrofit 2050' report is available on the IET website: www.theiet.org/retrofit2050

Grant heat pump nominated for major accolade

Grant UK's Aerona³ R32 has been shortlisted in the category for 'Heat Pump Product of the Year' at the National ACR & Heat Pump Awards 2019.

For the second year running, one of Grant's air source heat pumps has been shortlisted at the National ACR & Heat Pump Awards. At the awards ceremony, which takes place as this edition of *Oil Installer* goes to press, the Aerona³ 12kW R32 air source heat pump has been shortlisted for 'Heat Pump Product of the Year'. This new R32 heat pump from Grant is following in the footsteps of the existing Aerona³ range which was a finalist at the 2018 National ACR & Heat Pump Awards when it was awarded highly commended in the same awards category.

The Aerona³ 12kW R32 model is the latest addition to Grant's inverter driven air source heat pump range.

"Grant UK is thrilled with this awards shortlist," comments Anna Wakefield, head of marketing and data protection at the company.

"The Aerona³ R32 is an exciting product as it marks a new generation of even greener heating technology available from Grant.

"Installer friendly and incredibly efficient, this heat pump delivers benefits for engineers and homeowners alike so it is great to have the product recognised as a finalist at the National ACR & Heat Pump awards."

www.grantuk.com

Hydrogen report is *"a positive step forward"*

The admission by the Committee on Climate Change (CCC) that hydrogen is a viable option for the decarbonisation of heat in the UK has been welcomed by a major player in the indudstry.

Responding to the publication of 'Hydrogen in a low-carbon economy', Neil Schofield, head of government affairs at Worcester Bosch, has welcomed the CCC's conclusion that 'hydrogen has potentially valuable roles in replacing natural gas'.

Neil Schofield, head of government affairs at Worcester Bosch

Neil commented: "The CCC, for almost all of its existence, has been a very pro-electrification organisation, promoting the flawed idea that only heat pumps are the future for the UK's domestic heat market. This report does little to counter that view, recommending that hybrid heat pumps powered by a hydrogen fuel electrical generation system are deployed at scale in the near-future.

"Despite this, it is positive to see that the committee has relaxed its stance on electrification slightly and recognised the potential of hydrogen in the decarbonisation of the UK grid."

The report acknowledges the role of hydrogen in meeting the emissions reductions required by 2050 under the Climate Change Act and the way in which it can be used to heat buildings and provide back-up power generation to meet peak demands.

Neil said: "Renewables such as heat pumps certainly have a role to play in the UK's energy future, however this role is largely confined to applications where you have control over the entire fabric of the house and the heating system within it. "

The CCC's ambition to rollout hybrid heat pumps powered by a hydrogen fuel electrical generation system are ambitious and achievable for new-build properties."

Neil concluded: "We are now on the cusp of change in the domestic heating market. Instead of promoting the wholesale distribution of electrically powered heat pumps, we should be putting our efforts towards transitioning to a 100% hydrogen-powered gas network, beginning with blending a proportion of hydrogen gas into the existing grid."

Worcester has recently published its 'The Fuel of the Future' guide, which lays out considerations and recommendations for the development of a hydrogen-fuelled gas network.

www.worcester-bosch.co.uk

Housing professionals debate the future of UK energy

Worcester Bosch partnered with the Housing Forum recently in a bid to tackle future challenges relating to quality construction and heat provision in the UK amongst housing professionals.

Featuring key speakers from across the housing and construction industry, attendees of the Housing Forum's energy summit event discussed where energy might sit amongst a drive towards quality and sustainable housing and ambitious construction targets.

With increased governance on carbon emissions, heat is arguably the UK's biggest challenge when it comes to decarbonising and phasing out carbon fossil fuels in new build housing. As such, Worcester Bosch and spokespeople from the Department for Business, Energy & Industrial Strategy (BEIS) and Energy Utility Alliance (EUA) addressed how the country might best transition from fossil fuel boilers to more sustainable alternatives, while causing minimal disruption.

Shelagh Grant, CEO of The Housing Forum, comments: "Worcester Bosch has been a member of the Housing Forum for a considerable number of years, so when it came to deciding on who to partner with for this event, the company immediately sprang to mind.

Ambitious targets

"It has been a year of important announcements in this sector, not least with the setting of ambitious targets to build 300,000 new homes every year until the mid-2020s and increased funding for housing associations and local authorities. Housing and construction are complex processes involving many parties, from housebuilders and subcontractors to manufacturers and planning advisors, so events like these are crucial to demystify the current state of play and future ambitions for the sector.

"I believe great opportunity lies ahead for the housing and construction industries to work collaboratively in building a sustainable future."

Martyn Bridges, director of technical communication and product management at Worcester Bosch, comments: "We are delighted to have hosted this year's Housing Forum event, particularly given its focus on the future of energy. While there is a lot of work to be done, events such as this are crucial to facilitate healthy debate and innovation across the sector.

"With challenges ahead, it will only be through collaboration and quality design and workmanship that we will be able to meet housing demand effectively.

"The way we heat our homes is a huge part of this strategy to ensure quality of housing that is both sustainable and practical for end users."

The Future of Fuel: What the future holds for the UK's mains gas network, is now available to download in full via the Worcester Bosch website at: worcester-bosch.co.uk/hydrogen.

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OFTEC wins *Effective Voice of the Year* award

OFTEC has received national recognition at the UK and Ireland Association Awards 2018.

The awards, organised as part of the Association's UK Congress, showcase the achievements of trade associations that have improved or advanced their sector. OFTEC won the 'Effective Voice of the Year' Award for its work to secure a sustainable future for the oil heating industry and positively influence the debate on decarbonisation, energy efficiency and fuel poverty.

The accolade also recognises OFTEC's lobbying to champion the interests of rural households affected by fuel poverty, which helped secure the continued inclusion of oil heating in the new ECO3 fuel poverty scheme. The government had initially sought to exclude kerosene from the policy despite the fact it is by far the cheapest fuel available to off-grid homes.

It also reflects OFTEC's ongoing work to promote a positive case for the development of a low carbon liquid fuel to directly replace heating oil in support of the government's Clean Growth Strategy.

OFTEC is working closely with BEIS and has rallied support within the industry, providing an effective voice to help secure the most cost effective, practical solution for consumers.

Commenting on the award win, OFTEC CEO Paul Rose said: "We are delighted to have won this award and see this excellent outcome as welcome independent recognition for the way we have and continue to contribute and influence the agenda around decarbonisation, energy efficiency and fuel poverty.

Malcolm Farrow, marketing and communications manager with Paul Rose, chief executive of OFTEC

"We will continue to highlight the strong potential for low carbon liquid fuels and highlight the opportunities and challenges that exist around decarbonising heat in the off-grid sector."

At the UK and Ireland Association Awards, which took place in London during December and was attended by 180 associations, OFTEC also took part in a 'success story' seminar session to present its campaign and share experiences and advice with other trade bodies.

Paul Rose concluded: "Alongside our award win, we also had the opportunity to engage with trade associations from a broad range of industries to share the work we have been doing and discuss how we can all make a positive impact, not just within our own respective sectors, but society as a whole."

Grant's new website nominated at ACR News Awards

Grant UK has announced that its new website has been shortlisted for 'Website of the Year' at the ACR News Awards 2019.

The nomination comes less than a year since Grant UK unveiled its updated website which was redesigned to incorporate several new features developed with visitors in mind. This 2019 awards shortlist is the first for Grant UK's new website but the company has won 'best website' accolades with its previous sites.

In May 2018, Grant launched its new website. Alongside its updated styling, the website was also restructured to improve visitors' user experience. With homeowner and professional sections, the website now delivers tailored product information suitable to a visitor's specific needs. The website also has a product selector tool, designed to assist homeowners in identifying the most appropriate heating product for their home, as well as improved 'find an engineer' and 'find a merchant' search facilities.

"Grant UK is really pleased with this award shortlist," comments Anna Wakefield, head of marketing and data protection at the company.

"The development of our new website was a large project for Grant UK which was many months in the making. We worked closely with a local digital agency to develop a website which provided visitors with an enhanced experience, enabling them to access the most relevant information.

"The new Grant UK website not only looks great but it has improved functionality which increases the company's level of service to customers."

If you would like to vote for Grant UK's website to be 'Website of the Year 2019' at the ACR News Awards, follow this link: www.acrnewsawards.com/vote/

Celebrating with cake – the team at Teddington Systems

Teddington: Ninety years in business and still going strong

Thriving in business these days is no mean feat, yet Cornwall-based engineering and manufacturing specialist, Teddington Systems, is doing just that.

From the humble beginnings of two brothers designing post-World War I thermostat technology, the company has grown over the last 90 years into a global brand.

Against general market conditions, during 2018, Teddington increased its sales performance by almost 17%. James Henderson, managing director of Teddington, based in St Austell, told *Oil Installer* the reasons behind this. "Our custom-designed electronic and control systems still remain a market leader in the services we provide and that includes our products and solutions for clients," he said.

Kenny Maxwell, Teddington's sales manager, added: "The bulk of the increase has been down to continued improvements in manufacturing, leading to better deliveries and satisfied customers."

Today, Teddington supplies electronics to defence, aerospace and commercial markets from Canada to the Middle East – and recently went into space with the European Space Agency.

The manufacturing specialist's expertise and capability is based on its ability to provide reliable products over decades to both the heating and automotive markets.

This includes a number of major manufacturers, and it continues its long relationship, which stretches back to the Second World War, with the defence industry updating frigates and submarines.

Today, its products for the plumbing, heating and ventilation market are sold nationally and internationally and include:

- The KBB fire-safety valve for oil tanks, now in its 60th year
- Its award-winning CombiSave product, which can help a household of four save up to 28,000 litres of water a year whilst using their heating systems
- And, its latest product is the PressureSentry, which can prevent boiler breakdowns by alerting the home dweller, via a small alarm, to a drop in pressure in the heating system

British Thermostat Company

Back in 1928 the firm was known as the British Thermostat Company, and was a pioneer in the development of the automatic thermostat in domestic refrigeration, heating and cooking appliances. A device that is still commonly used today.

It was set up in Teddington, Middlesex, by two brothers: chairman Captain Matt Payne and his brother, managing director William Payne.

Over the past 60 years the business as a whole, or its divisions, have moved from Teddington to Sunbury on Thames, Methyr Tydfil in Wales and St Austell, Cornwall, where the firm's headquarters are located.

During the Second World War it established relationships with the defence industry, returning to producing domestic controls following the war.

By the 1960s, the firm was developing, manufacturing and installing cooling and hydraulic control systems on Royal Naval ships and submarines, and commercial control systems were developed for companies such as British Nuclear Fuels and Harrods.

James added: "UK businesses have experienced challenging times with the uncertainty over Brexit but we are pleased to look back on a productive year and ahead to an order book that is already healthy for 2019."

www.teddingtonsystems.co.uk

Teddington timeline fact box

- 1928, Teddington sets up in business and is called the British Thermostat Company, based in Teddington, Middlesex
- 1933, the firm moves to Sunbury on Thames when it outgrows its Middlesex site
- 1940s, the company starts producing thermostats for the Merlin engines used in the Spitfire and Lancaster bomber.
- 1944, a railway station Halliford Halt was built to service the factory as it was producing torpedo heads for submarines
- Post WWII, the firm reverts to producing domestic controls and the aircraft business transfers to a purpose-built factory in Methyr Tydfil
- Late 1960s, the firm relocates to St Austell, Cornwall and becomes Teddington Controls
- Early 2000, saw the start of a new era for Teddington establishing development partnerships with JCB, the world's biggest privately owned construction equipment company, and other major original equipment manufacturers

TEDDINGTON

The old production line, circa 1975

The British Thermostat Company's VE celebration vehicle shouts about the firm's role in the victory

Aerial view of old St Austell factory in 1975

In January Grant UK presented Julia's House with a cheque for £3000

Air ambulance is Grant's chosen charity

Grant UK has announced that it will be supporting Wiltshire Air Ambulance throughout 2019. The Air Ambulance provides a vital emergency service in Wiltshire and surrounding counties.

For a number of years, Grant's employees have participated in a wide variety of fundraising events to support local causes, raising money for organisations such as Julia's House which has been the company's chosen charity since 2016.

In 2018 alone, Grant UK staff raised £3,000 for Julia's House, and a cheque was presented to the charity in January. Fundraising activities varied from specialty lunches and bakesales through to a staff raffle held prior to Christmas.

The company recently invited members of staff to cast their vote to select Grant UK's charity of choice and for 2019, Wiltshire Air Ambulance received the majority of support.

The airbase is located near Melksham which is less than ten miles from Grant's headquarters in Devizes. Alongside its principal helicopter, Wiltshire Air Ambulance also has a fleet of rapid response cars.

Since the charity started, the crew has flown more than 17,000 missions. Its central airbase enables the helicopter to reach anywhere in Wiltshire within just eleven minutes and in 2018 they completed 1,103 missions. All of the paramedics at Wiltshire Air Ambulance are trained in critical care skills and the charity also has the facilities to carry blood. Wiltshire Air Ambulance's resources therefore allow its team to provide an essential medical service, delivering life-saving care to those involved in critical incidents including road traffic collisions, child-related emergencies and cardiac arrests.

"Grant UK is proud to support local charities," says managing director Paul Wakefield. "As our employees are central to the fundraising activities that we organise here, it was important for them to be part of the selection process.

"Our 2019 charity schedule is already underway so we hope that our fundraising will help keep their vital air ambulance flying for many more years to come."

www.grantuk.com

HETAS wins key Defra clean air contract

Defra has appointed HETAS as a contractor to provide technical support to enable it to meet its legal obligations under the Clean Air Act 1993. The "assessment of appliances and fuels" contract will run until 31 March 2020, covering the requirements of sections 20 and 21 of the Clean Air Act 1993 and other associated sections. Following this period, there will be an option to extend the contract for a further two years.

Bruce Allen, CEO of HETAS, says: "We are delighted to have won this contract, allowing us to extend our work alongside Defra. The Clean Air Act 1993 is vital in addressing the needs of environment in the UK, and the assessment of appliances and fuels is something HETAS places in high regard.

To be managing this in conjunction with Defra is extremely important to us. We would also like to acknowledge the excellent work of the outgoing contractor Ricardo Energy and Environment, who has done a great job."

HETAS operates several registration, certification and approval schemes covering solid fuel, wood and biomass installers, fuels and appliances.

www.hetas.co.uk.

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www. **rielloburners**.co.uk

It's better bunded.....

Oil remains the premier choice for home heating in Ireland with 40% of homes in the Republic and 68% of homes in Northern Ireland using liquid fuel.

Storing home heating oil on-site provides added benefits over other fuel sources: ensuring your own supply, and refilling when needed and when market prices are lower. Modern plastic storage tanks are tough and resilient, however, many across the island are well over twenty years old and beyond the end of their intended design-life.

There is a clear need for technicians to advise consumers that their tank, like their boiler, will require upgrading as part of maintaining and future proofing their central heating system.

Nowadays, we are seeing a move towards the installation of bunded tanks as the norm. This is because legislation, throughout the whole of Ireland, requires a risk assessment to be carried out when placing a liquid fuel storage tank. If this assessment is carried out correctly, a bunded tank will be required in the majority of cases. Technicians are reporting that it is easier and less hassle installing a bunded tank in a new build or replacement situation and not having to worry about the possibility of a single skin tank giving trouble at a later date.

A constant threat

The risk of pollution is a constant threat, particularly to our water environment. The 2017 report from the Environmental Protection Agency (EPA) reports that river quality in Ireland continues to deteriorate and oil incidents are a contributing factor.

While domestic spills rarely make headlines, OFTEC insurance partner, Arachas, advises that the average cost of clearing up a domestic oil spill is €60,000, but can range from €400 (very minor spill) to €800,000 (extensive oil spill at a domestic property).

Arachas report that a large proportion of these incidents are the result of failures in the oil storage installations, usually due to poor support, inadequate work practices at time of installation and lack of inspection/ servicing during the tank's lifetime.

If we want consumers to continue using a liquid fuel in Ireland, we need to provide them with products that are efficient, environmentally friendly, give them extra protection from potential spills and avoid the potential for expensive clean-up costs.

The benefits of bunded tanks are clear:

- they provide secure and safe liquid fuel storage
- they are environmentally friendly
- the extra wall provides further protection from fuel theft
- they future proof customers' overall heating installation

There is little doubt that oil, as a future heat source, is coming under pressure in Ireland. Other European countries have begun to legislate against oil as part of their carbon reduction strategies. Oil's wider environmental credentials will also come under scrutiny and improvement to tank standards will strengthen our ability to demonstrate environmental responsibility.

OFTEC is making a concerted effort in 2019 and beyond to promote best practice in the liquid fuel storage sector. We plan to promote the clear benefits of bunding to consumers, technicians, merchants and insurance companies, to encourage a change of attitude and buying habit. As the benefits are fully understood, the market will be transformed. The environment will benefit from less pollution, and the industry will see benefits in terms of better installation standards and fewer warranty issues.

Look out for activities promoting 'Better Bunded' during the year and see how your business could benefit from the opportunities/rewards available for installers of bunded tanks.

OFTEC highlights the dangers of CO poisoning within NI households

OFTEC gave its full support to Carbon Monoxide Awareness Month throughout November.

Research from Northern Ireland Statistics and Research Agency (NISRA) has shown that carbon monoxide (CO) has claimed the lives of 49 people in the past six years.

Further research from the all-party parliamentary carbon monoxide group has shown that only 50% of consumers are aware of the potential risk with oil heating.

Described as the silent killer, CO is a colourless, odourless gas and poisoning can result in severe long-term health complications, or even death. Critical symptoms to watch out for include tiredness, dizziness and headaches, with younger and older people most at risk.

OFTEC has issued a simple ABC safety checklist to guide households in NI on the key steps to reduce risk:

- **A**larm – purchase a CO alarm (approximately £20) for every room which has a fuel burning appliance such as a boiler, wood burner or open fire. Where a new or replacement combustion appliance (solid fuel, gas, oil), is installed in a dwelling, a carbon monoxide detector/alarm should be provided in the room where the appliance is located.
- **B**atteries – regularly ensure all the alarms are functional by holding the 'test' button.
- **C**heck – households with incorrectly installed or poorly maintained appliances are at a greater risk of exposure to CO. It is crucial to have your boiler serviced at least once a year by an OFTEC registered technician to check it is in working order.

In a statement to consumer media, David Blevings, OFTEC Ireland manager, said: "An annual service of the boiler by an OFTEC registered technician is your first line of defence.

The technician will check the appliance to make sure it is operating efficiently and safely. It's extremely important that householders realise that there is potential risk from all fossil fuel appliances and take sensible safety measures. By supporting Carbon Monoxide Awareness Month, it was OFTEC's aim to reduce the potential risk to homeowners across Northern Ireland through our checklist. We hope other organisations will support such an important campaign to help save lives."

Pressure valve misuse *"the cause of boiler breakdowns"*

Boiler breakdowns caused by the incorrect use of the pressure relief valve (PRV) component to drain a heating system down, could be avoided indefinitely, says Martyn Bridges, director of technical communication and product management at Worcester Bosch.

"It's not unusual for PRVs to last the lifetime of a boiler if used correctly, as a PRV isn't a wearable part," comments Martyn. "If a PRV is used incorrectly though, it can quickly become irreparably damaged and lead to a breakdown."

Martyn Bridges, director of technical communication and product management at Worcester Bosch

Martyn, explains: "Unfortunately, PRVs are frequently used erroneously to drain heating systems down. This isn't what they are designed for and can cause complications, yet due to PRVs being situated at the bottom of a boiler, in addition to being attached to a permanent pipe, it can be tempting to drain a system this way."

When using a PRV to drain a system, any contaminants in the heating system are drained through the valve itself and end up on the seating of the valve where the valve should re-seal and shut off again.

Martyn continues: "The most noticeable sign of this is apparent when the heating system is put back into operation and you can see water dripping periodically from the valve outside.

"For the homeowner, this means they must re-pressurise the heating system from time-to-time, but ultimately, the PRV needs to be replaced."

He concludes: "The system should contain drain-off valves at all low points in the system, and all drops to radiators from above. These are the only places that a system should really be drained from."

www.worcester-bosch.co.uk

Barlo Radiators appoints new southern sales director

Barlo Radiators has welcomed back Julian Reed, who returns to the company as southern sales director.

With more than 25 years of experience in the plumbing and heating sector, Julian Reed makes the move back to Barlo after a three-year stint working for boiler manufacturer Vaillant.

In his new role, Julian will help to boost Barlo's presence in the south of England and Wales – strengthening relationships with key players at all levels of the building supply chain, from merchants and contractors, right through to housing associations and local councils. He will become their first point of contact, providing expert advice on Barlo's range of designer, panel and low surface temperature emitters, as well as start-to-finish project support.

Julian Reed, newly-appointed southern sales director with Barlo Radiators

Julian says: "I'm excited to be returning to a company that's both renowned and respected as an industry pioneer. I'm also proud to be representing Barlo's market-leading product portfolio, which is completely unparalleled when it comes to heating performance and efficiency. I'm looking forward to further cementing the company's position in southern regions, as well as being part of the continued success of a sales team which is truly second-to-none."

Lee Kenney, managing director, commercial, at Barlo Radiators, adds: "Julian is perfectly placed to champion Barlo in the south. He has a deep knowledge of the sector, an enviable black book of industry contacts in South Wales and England – and most importantly knows our extensive product range inside out. This region continues to be a growing market for us, so it's an exciting time to have such an expert taking the helm. We're delighted to be welcoming Julian back on board!"

www.barlo.co.uk

Firebird launches filter

Boiler manufacturer Firebird has added a filter to its extensive boiler accessories range. The new Envirofilter is compatible with all Firebird boilers and comes as part of a pack which includes cleaner and inhibitor.

The filter has been designed to comply with the requirements of the various Firebird warranty schemes and is available with 22mm or 28mm fittings – both of which retail at the same price. Fitting an Envirofilter in conjunction with all Firebird boiler installations will ensure that warranty criteria are met.

Commenting on the launch of the new Envirofilter, David Hall, UK director of Firebird Products Ltd, said: "The launch of this new filter range underlines Firebird's ongoing commitment to make life easier for the heating engineer. In our ever-increasing claim culture anything that simplifies compliance with warranty criteria is definitely a bonus for all concerned."

For further information on the new Envirofilter range and how to become a Firebird VIP Installer, contact Firebird Products Ltd on: tel:01752 691177 or email: sales@firebird.uk.com

Schiedel appointments

Schiedel Chimney Systems, manufacturers of flue ducting, stoves and ventilation systems, has made two new appointments in its management team.

Phil Lowe, who was responsible for customer service, training and OEM sales, has been promoted to sales director, and David Wright is now product and export sales manager, moving from his role as residential sales and marketing manager.

In his new position as sales director, Phil will take the lead in the development of sales in both the residential and non-residential sectors, continuing to work with existing customers, as well as exploring new markets driven by Schiedel and Ontop's combined offering.

David has worked for Schiedel for 35 years and will be using his experience to help rationalise the new product range, as well as introducing innovations to the UK market. With five languages under his belt, David is also the ideal candidate for dealing with export sales.

www.schiedel.co.uk

Phil Lowe (left) and David Wright

Loyal installers boosted by addition to Greenstar rewards

Following extremely high demand since its launch, Worcester Bosch has added the new Bosch EasyControl to its Greenstar Rewards programme. The decision to add the popular internet-connected smart control to the list of qualifying products will help installers to collect even more points, which are redeemable against a range of exclusive rewards.

The Bosch EasyControl, Worcester's first generation of smart heating and hot water controls with zoning capability, is worth five reward points and can be used towards the purchase of products such as workwear and Bosch professional power tools.

Martyn Bridges, director of technical communication and product management at Worcester Bosch, said: "The Bosch EasyControl, which replaced the Worcester Wave earlier this year, is an ideal addition to our Greenstar Rewards initiative. Now, loyal installers have even more opportunities to get something extra back whenever they fit our products."

To start collecting points, installers need to register for a free Greenstar Rewards account, install any qualifying product, and then finally register the product's guarantee on the Worcester Bosch website.

www.worcester-bosch.co.uk/Greenstar-Rewards.

Worcester Bosch has added the new Bosch EasyControl to its Greenstar Rewards programme

Riello introduces new flame sensors

EU legislation (RoHS 2011/65/EU), that must be complied with prior to July 2019, has driven changes in flame sensor technology from the previous photoresistor. To ensure compliance, Riello has now implemented the introduction of new compliant cells into all of its oil burner models affected by this legislation.

Particular attention is needed for Riello RDB models. The old photocell was a very simple component that could be used with both analogue and digital burner control boxes. However, the new cadmium-free technology incorporates both a sensing cell and a PCB, contained within the flame sensor itself.

Different cells are now needed for RDB burners, dependent on which control box is in use – analogue or digital – and selecting the right spare part is essential. If the wrong cell is chosen the burner will not work and may lead to incorrect diagnosis that the new cell has failed.

www.rielloburners.co.uk

The burner models affected are as follows:

CURRENT SPARES CODE	CONTROL BOX TYPE	BURNER SERIES	NEW SPARES CODE	HOUSING TYPE	NOTE
3002280	ANALOGUE	PRESS, RIELLO 40	**20132573**	STANDARD	DIRECT REPLACEMENT
3007839	ANALOGUE	GULLIVER	**20132566**	SHORT	DIRECT REPLACEMENT
3007541	ANALOGUE	RDB	**20132553**	SHORT	THE CORRECT REPLACMENT DEPENDS ON THE CONTROL BOX TYPE – ANALOGUE OR DIGITAL
	DIGITAL	RDB	**20132574**	SHORT	
3008646	ANALOGUE	RDB	**20132526**	STANDARD	
	DIGITAL	RDB	**20132550**	STANDARD	

Barlo Radiators launches augmented reality app

Installers have been given a new way to specify designer radiators, thanks to the launch of an industry-first augmented reality app by Barlo Radiators.

The Barlo designer radiator app, gives consumers the opportunity to virtually 'try before they buy' – using advanced augmented reality (AR) technology to help them visualise how different designer radiators would appear, in situ, in their home. The app has been created specifically with installers in mind, presenting them with a new sales tool when communicating with customers.

Richard Wheeler, product strategy manager at Barlo Radiators, said: "Designer radiators are an easy and cost-effective way to inject colour, style and character to any space, and here at Barlo we're seeing a growing trend in consumers looking into designer heating options for their homes. As the industry becomes more design-focused, it's vital that installers and their customers choose products that not only look impressive, but deliver on functionality and performance too – and our Barlo designer radiator app has been created to help them do just that."

Available for download on both android and iOS devices, the Barlo designer radiator app gives installers access to the Barlo design portfolio, including its popular Slieve, Adagio, Forza and Plaza designs. Users can simply point their device's camera at their chosen wall space and the app will use pioneering AR functionality to display a fully scaled, 3D mounted image of their selected Barlo radiator. They can then choose different designs, sizes and colours, before saving images and sharing them directly via the app.

The Barlo designer radiator app is now live on the App Store and Google Play store. Installers can request a starter pack through the app or by contacting Barlo Radiators on 01633 657 000 or by visiting barlo.co.uk/app.

Double awards success for myWorcester app

Worcester Bosch is celebrating a double triumph having seen its innovative myWorcester app land two major accolades at the Digital Impact Awards 2018.

Worcester's installer-focused app won gold for '*Best digital employee communication*' having established itself as an invaluable on-the-job tool for installers, and also picked up the gold award for '*Best use of digital from the engineering and manufacturing sector*'.

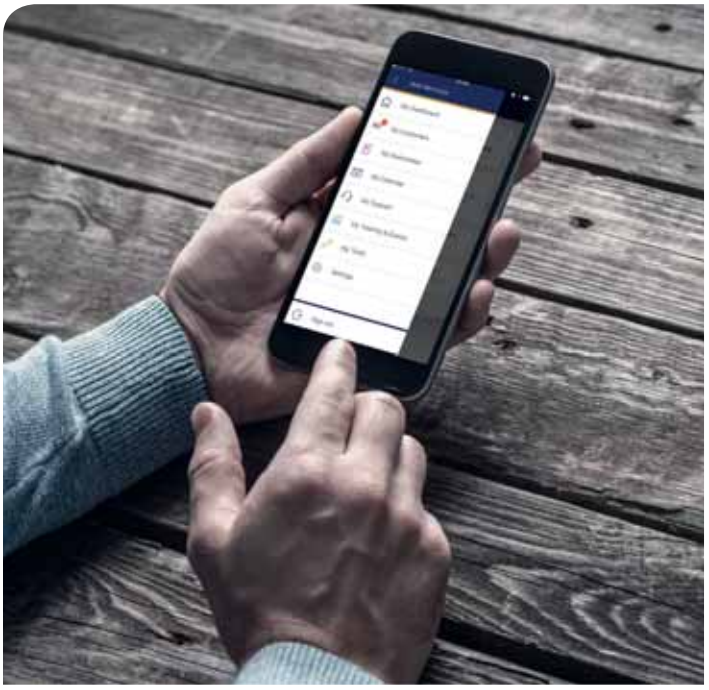
The awards' judges were full of praise for the myWorcester app, describing it as "the perfect example of user-friendly, time-saving and innovative design, benefitting both installers and the business bottom line".

The myWorcester app was launched in 2017 and is now being used on a daily basis by thousands of installers nationwide, all of whom rely on its seamless assistance with boiler guarantee registration, management of customer appointments, and access to invaluable technical literature. The result is instant access to up to date information and significantly less time spent on unnecessary admin.

Martyn Bridges, Worcester Bosch's director of technical communication and product management, commented: "To win two highly-esteemed awards in the digital communications sphere further highlights just how committed we are to making the working lives of installers as straightforward as possible. Through our myWorcester app, we have done just that by giving installers access to countless useful tools and resources they can access using their smartphone.

"Not only will we be looking to further enhance the app over time, but we're also exploring other ways we can use digital channels to enhance the way installers interact with our products and services in the future."

The myWorcester app is free to download via the App Store and Google Play.



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Secure remote oil fill points from unwanted attention!

In oil heating installations where the oil tank is situated in a location that is difficult for the fuel delivery driver to access, pipework is often run from the tank to a remote fill point that they can easily deliver fuel to. Problem is, if it's easy for the delivery driver to access, it's also easy access for unwanted trespassers, says Centre Tank Services Ltd, distributors of fuel dispensing, oil heating and storage tank equipment.

When this is the case, often a fill point cabinet is installed to secure the fill point behind a lockable metal door rather than leaving it exposed to theft and tampering.

With the fill point locked away, fuel is unable to be easily siphoned, saving the homeowner a potentially huge insurance claim for stolen oil and the inconvenience of being left with no heating! However with a big sturdy door in the way, the other contents of the fill point cabinet are also locked away…

After listening to feedback from the market, the CTS fill point cabinet has been developed with a partial glass door.

This feature means that, unlike alternatives on the market, any tank level gauge installed in the cabinet can be viewed by the homeowner without them having to open it up to check

As the glass front is only partial, the fill point is still secured out of sight and reach, behind the lockable cabinet door in a position so that even if the tempered glass is broken, no syphoning fitting can be attached.

www.centretank.com

New fire-protected tank range from Tuffa

Tuffa UK has developed a new patented fire-protected range of heating oil tanks. A factory-fitted fire barrier means that the tank can be located adjacent to a property or in a garage or out-building while still meeting all local authority building control (LABC) regulations.

There is a choice of 30 or 60 minutes fire protection, allowing time for the building to be evacuated while the fire is controlled and extinguished.

Recent OFTEC advice suggests that some fire-boards may no longer be compliant. Tuffa tanks meet the code of oil firing standards to BS5410 and, thanks to the fire protection, are delivered with LABC certification. All Tuffa tanks conform to the requirements for tanks as set out in OFTEC OFS T 100: Issue 6 July 2008. This makes them suitable for domestic use where space can be restricted or for the replacement of older tanks that no longer comply with current regulations.

No additional fire barrier or building work is needed which helps to keep the cost down for the customer – and aids quick and easy installation.

Tuffa oil tanks are bunded, with the outer "bund" a minimum of 110% of the capacity of the inner tank. This helps in the event of overfilling and spillages meeting all legal requirements on secondary containment.

Tanks can be produced in various standard capacities from a slim line 1,350 up to 20,000 litres in plastic and from 900 up to bespoke 200,000 litres in steel, for both domestic and non-domestic use. Tuffa can arrange a nationwide and overseas delivery service if required or tanks can be collected direct from the factory.

The company also offers a full range of spares and accessories available for delivery next working day.

Tailor-made tanks

Tuffa UK recently supplied a 600 litre steel, bunded fire-protected heating oil tank to a domestic property in Staffordshire. The customer wanted to locate the tank in an existing external store area, so Tuffa manufactured a bespoke tank to the exact dimensions to fit. The tank measured just 750mm in depth, allowing it to be neatly housed in the store. The vent was offset on the front of the tank, with the fill point countersunk into the top of the tank by the fuel gauge. This would allow the precautionary option of an elbow pipe to fill, although the tank was designed to fit the height and the space to take a conventional fill.

The tank was installed by Richard Bates of KK Tanks Ltd who commented: "Tuffa's fire-protected tanks are ideal for both the customer and me as an installer. The fire-protection enables the tank to be placed either alongside the property or in an out-building. It's safe and tidy for the customer and makes the install easier as there is no additional building work required. It's a win-win situation."

Tuffa UK's general manager, James Shenton, was pleased that Tuffa was able to produce a bespoke tank to meet the customer's exact requirements. "We have our own steel workshop on site and our team of skilled fabricators designed and manufactured this tank to a specific capacity and size. We pride ourselves on being able to work with installers to help them give their customers exactly what they want."

www.tuffa.co.uk

Tuffa designed and built a steel bunded fire-protected tank to fit into an existing store to meet a customer's exact requirements

Q&A with Rachel Groves, senior design engineer, Kingspan

What led you to focus on fuel/oil tank design as a career?

I knew I wanted to do something that allowed me to challenge both my creative and analytical skills. Becoming a design engineer was the obvious career path for me.

When designing a new tank, such as the Slimline Edge, where do you start?

There are many key objectives in a project like this, however the needs of the customer and end user must be at the forefront.

In the design and development of this new tank for AdBlue containment, a collaborative approach was taken. How was this achieved?

From the outset we had open lines of communication with the end customer focus groups which continued throughout the process. This was key and pivotal to the overall success of the product to date.

What was the reason for electing to have a triple-walled construction for the new Slimline Edge?

To create a beautiful, high shine outer shell whilst keeping a technically feasible construction, we introduced a third layer of containment. The tank also needed a structural bund for the AdBlue, offering protection in case the outer tank was damaged on the forecourt, thus ensuring continuity of sale as well as minimal downtime. This is how 'Tri-Comp' was born.

What prompted the 'make it your own concept' with the option of personalised branding?

This concept was a direct result of customer feedback where we simply had to ensure that the end product was flexible enough to reflect customers' branding if it was to feature within the forecourt environment.

In your opinion, just how 'intelligent' can tanks become in the future?

The Slimline Edge already uses intelligent technology to allow the user to manage their AdBlue stocks. I see this type of technology advancing into mobile phone applications and cloud data bases, allowing users to access information about their tank contents remotely and securely.

Do you believe the tank industry has the scope to advance even further? If so, in what ways?

We are already working on scoping out the next phase of SlimLine Edge! The retail market is fast-paced, ever-changing and hyper-competitive so it's important that we stay on top of our game in supporting our forecourt retailers.

Is it possible for the fuel/additive storage sector to reinvent itself? And, if so, how?

Absolutely! Kingspan works closely with local universities, trade bodies and leading industry experts to constantly challenge our value propositions, service offerings and portfolio of products. We see technology as the catalyst to enable change with the likes of voice activation, next generation ePOS systems, advanced touch ID and integrated hybrid solutions in the very near future!

Tank designer Rachel Groves sees technology playing an increasing role in future tank design

New EKL burner training courses at ELCO

ELCO Burners has welcomed more than 200 installers and service engineers to its manufacturing facility in Resana, Italy, to receive in-depth training on the company's new range of highly efficient low NOx EKL burners.

They were the first industry professionals to attend the new course, which includes both theoretical and practical hands-on training, and has been specifically designed for ELCO's new class of low NOx EKL burners, highlighting their unique features and benefits. The course also includes a guided tour of ELCO's state-of-the-art manufacturing facility, providing detailed information on the assembly process, as well as the company's comprehensive testing methods prior to a burner leaving the factory.

Commenting on the new training course, Giuliano Conticini, managing director at ELCO Burners, said: "We were delighted to welcome installers and engineers from the UK and Ireland to our facilities in Italy, in conjunction with Firebird Heating Solutions. It's incredibly important to educate the marketplace on the changes to ErP legislation, and the most effective way of achieving this is through an in-depth course that offers a comprehensive blend of practical and theoretical learning objectives.

"The feedback received from installers and service engineers has been very positive, so we are looking forward to running additional courses with our customer."

www.elco-burners.com

In-depth training on ELCO's new range of low NOx EKL burners

New electrics course provides heating engineers with skills for safe working

A new training course from Worcester Bosch aims to give installers the knowledge and understanding needed when confronted with electrics when working on boilers.

The 'Basic electrics for heating engineers' course is designed to cover everything demanded of a heating engineer when they attend a boiler. Installers will learn the different terms used in electrical theory, while gaining hands-on practical experience.

The practical course covers all electrical scenarios which could be encountered by a heating engineer, including: how to safely isolate an appliance prior to undertaking a service or repair, how to conduct an earth loop impedance test, the use and measuring of resistances and voltages on a range of components, and the basic checking of components.

To gain entry on to the course, no previous experience is required. The course however, is particularly suitable for installers who have ACS or OFTEC qualifications, as it will allow them to expand upon any existing knowledge. The course is also accessible for those on approved apprenticeship schemes.

Nick Fothergill, Worcester's national training manager, said: "Electrics for those without the required knowledge can be fraught with danger. We've therefore developed this course, which covers everything from basic checks, to explanations of the terms used in electrical theory, to provide heating engineers with the knowledge they need to feel confident when working on heating systems. The course will be invaluable to those who routinely find themselves carrying out maintenance and repair work on heating appliances.

'Basic electrics for heating engineers' – a new training course from Worcester Bosch

"In an increasingly competitive market, installers must be proactive. This course not only provides heating engineers with the necessary electrical safety knowledge, but it is just one more way in which they can instil confidence in their customers."

Completion of the course, which is verified by Logic Certification Ltd, requires heating engineers to pass a practical and theoretical assessment on the subjects covered.

The course takes just one day to complete and can be taken at Worcester Bosch's, Worcester and West Thurrock Training Academies. Courses cost £50.00 per person.

www.worcester-bosch.co.uk/training

Practical skills vs business skills: Why tradespeople must use technology to boost their business

As many a tradesperson has learnt the hard way, a great tradesperson doesn't automatically make a great business person, says training specialists, Tradify UK. This should come as no surprise when you consider that fact that most business owners have spent at least four years learning the technical aspects of a trade without spending a single day learning how to start, run and grow a successful business, says the company.

On top of that, according to recent research, around 30% to 50% of new businesses fail within their first year of start up. Worse still, 50% of those who survive year one fail within five years and 66% fail within the first 10 years of operation.

In the construction industry, it means a tradesperson has to not only learn the skills to be great on site, but also the business acumen to start a business and grow it too.

"Unfortunately, very few industry resources are focused on equipping the modern tradesperson with the skills they need to run and grow a productive, reliable, reputable and successful business" explains Rob Mark, managing director of Tradify UK. "This lack of training and support inevitably leads to significant issues for business owners, their employees, their families and the industry in general. That is where technology can be used to help address any gaps while you establish your business, and to help it survive and prosper for years to come.

"There are a lot of great trade companies out there but few tradesmen are formally trained in how to manage and grow their business," says Rob. "Using the right digital tools can really drive your business forward and it doesn't have to be complicated or scary. By cutting down the admin we free up our customers to focus more of their energy on the things that matter, whether that's growing the business or spending more time with their friends and family."

Tradify is offering a free trial to all small business owners.

www.tradifyhq.com

Fuel additives – is there a Marmite factor?

Neil Ryding, managing director of Fuel Additive Science Technologies Ltd., shares his opinions with *Oil Installer* readers...

Amongst the boiler servicing and boiler manufacturing fraternity, our experience is that the very mention of the word 'additive' can elicit extremes of reaction. These reactions vary from the downright hostile and dismissive to the all-embracing, born-again convert. This is very frustrating.

Those of us currently in the business of fuel additives must admit that history is not in our favour. Even additives bearing reputable oil company brands from 25 years ago were found wanting and came a cropper, which has left a nasty taste for those old enough to remember, and a legacy for the rest of us to overcome.

The problems then were due to a poor understanding of the unique needs of domestic equipment at a time when fuel technology centres were devoting all their efforts to petrol, diesel and even heavy oil. Regrettably, one or two opportunists remain, content to bottle 'me-too' or 'catch-all' products, having scant chemical or application knowledge. In this regard, we can understand a certain reticence. But rest assured, there exist those within the industry who have taken the time to understand the ground-level issues, to assess what is required and to provide dedicated products.

We estimate that approximately 20+% of the UK's domestic kerosene supply currently contains additive, either sold as a constituent of a premium fuel or as a discrete bottle. Interestingly, a similar percentage of people buys premium petrol and diesel from a forecourt. This percentage increases year-on-year and the number of litres of additised kerosene burned in the UK now runs into the many billions.

The reputable suppliers of domestic fuel additives are all industry stalwarts and additives are formulated on a 'no-harms' basis. That is, they are blended and tested to ensure no chemical or mechanical damage to equipment or the combustion process will ensue as a result of their use. We challenge anyone to prove otherwise.

Many fuel suppliers now use additives as part of their technical and commercial offering, seeking both to eliminate or address operational problems and to 'future proof' their businesses as we move towards decarbonisation, something with which OFTEC is intimately involved. Additives have a key role here too.

Good emissions are dependent on good quality fuel and the best possible combustion – both are enhanced by the correct use of additives. Always assuming that tank housekeeping and filter maintenance are up to scratch (see *Oil Installer* Spring 2015, p35), then a good kerosene additive will maintain the fuel quality in storage whilst at the same time optimise fuel atomisation leading to more complete combustion.

The importance of fuel quality in storage was highlighted during last summer, which was hotter than normal. Many domestic fuel tanks, filled during the early spring, did not require top up until October. Consequently, the fuel was over six months in storage, for much of that time being 'baked', leading to rapid ageing and micro-deposit formation – and operational problems from September onwards.

There is much current talk too about bio-kerosene. Let's be very clear on this, domestic kerosene supplied as BS2869:C2 does not and cannot contain fatty acid methyl ester (FAME) – the bio-component used in diesel. Other alternative paraffinic-type hydrocarbons can be used, however, provided that they don't alter the overall fuel standard.

There is still much work to do here. Like it or not, additives will play an increasingly important part of a fuel blend as the introduction of a bio-component is likely to alter the cold flow characteristics, the rate of fuel ageing (storage stability), atomisation characteristics, fouling tendencies (especially in vaporising burners) and water pick-up issues.

This is not to be a prophet of doom, but just to fix the position of additives as an inherent part of the industry as they now are in the automotive world. Indeed, the latest edition of the fuel standard (2017) recommends the use of appropriate fuel additives to maintain equipment operability, ameliorate emissions and improve equipment durability.

Endorsements for Exocet fuel additive

"Around the time of 2009/10, our normally quiet aftersales phone lit up like a beacon and we fielded calls from long-standing ESSE oil burning customers who were complaining their appliances were sooting up and smoking out.

We spoke to contacts in the trade and found out there had been changes to the composition of the fuel delivered from the refinery. One customer reported he only ever cleaned his cooker and chimney out once a year, normally before the start of every heating season. Since the fuel had changed, he was now cleaning his cooker out every six weeks!

We contacted Fuel Additive Science Technologies (Exocet) who quickly arranged a meeting here on site to discuss their oil additive products. We listened to their very knowledgeable conversation regarding the changes to the fuel and how their additive performed to combat the new problems.

We tried a sample of their product in a local customer's cooker and witnessed the effectiveness first hand. Since this experience, ESSE has always recommended using Exocet oil additive and now the aftersales phone is again sat happily gathering dust again!"

David Randlesome, technical and after sales manager, Esse Engineering

"We have used Exocet products in oil appliances for a few years now and have really noticed the difference in reduced combustion deposits when returning to service the same appliance a year later. Especially good on AGA wick burning cookers."

Rob Barton, Barton Oil Burner Services

exocet

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Nett and gross efficiency – what's the difference?

Servicing and commissioning technicians completing an OFTEC CD/11 'oil firing servicing and commissioning report' or OFTEC CD/51 'commercial oil firing service report' will be aware that combustion efficiency can be recorded as either a gross or nett figure. Also, depending on the age of the appliance, some manufacturers quote their efficiency ratings as either nett or gross.

Why are these options available and what is the difference? It is all to do with whether the calculations are based on the gross or nett calorific value of the fuel.

The amount of heat released when a unit quantity of fuel is completely burnt is referred to as its Calorific Value (CV). There are two calorific values used, gross and nett.

Gross CV refers to the total theoretical amount of heat that could be produced by a unit of fuel, with nothing taken off. Nett CV is always a lower value because it assumes that some of the heat produced via combustion is lost. Here's a little combustion science to help explain this:

Kerosene contains approximately 14% hydrogen. During the combustion process the hydrogen (H) combines with oxygen (O) to create water (H^2O). We all know that flames are not wet, so what happens to the water created in the flame? Some of the heat of the flame is used to convert the water from a liquid into an invisible gas (steam). Interestingly, it takes a lot of heat energy to convert the liquid water into a gas and keep it that way (see box "Converting water from a liquid to a gas"). The heat energy contained in this steam is called 'latent heat'.

In a standard efficiency appliance, this steam exits the boiler and flue system and takes its latent heat with it. The latent heat is lost to the atmosphere as there is no means to capture it.

Capture latent heat

A condensing boiler is specifically designed to capture this latent heat, so it can be used. Within the secondary heat exchanger, the steam is cooled down to the point where it converts back into a liquid (condensate). When this happens, the heat-energy used to convert the water into steam is released and now becomes useful heat again. It is this ability to recover latent heat by condensing steam back into a liquid that gives a condensing boiler its efficiency advantage over a non-condensing boiler.

Gross CV *includes* all the latent heat released by the condensation of the steam in the flue gases. As this heat is not lost out of the flue, we get the benefit of virtually all the fuel's potential heat.

Nett CV assumes that this heat is lost out of the flue. Therefore, gross CV is always higher than nett CV.

Historically, it was standard practice to use the gross CV of the fuel when determining an appliance's efficiency. However, to conform with European standards for appliances, in the United Kingdom and the Republic of Ireland manufacturers give an efficiency calculated using the nett CV of the fuel.

These calculations give efficiency approximately 6%-8% higher than that obtained using gross CV, which can be misleading when comparing test results. For this reason, care must be taken to ensure that efficiencies are compared like-for-like i.e. gross v gross or nett v nett.

Which should a technician use when completing a CD/11 or CD/51, gross or nett? Although it would seem more practical to use gross calorific value when calculating combustion or appliance efficiency for a condensing appliance, as this type of appliance will recapture the latent heat, on the basis that all declared efficiencies are now calculated as nett, technicians should generally record their results as nett. However, there is no harm in recording both nett and gross figures for comparison purposes.

Converting water from a liquid to a gas

Unusually large quantities of energy (heat) are needed to turn water from a liquid into a gas. To illustrate, at atmospheric pressure, to raise the temperature of 1 kg of water by 1°C requires approx. 4.2 kJ of energy. By contrast, to convert 1 kg of water at 100°C to 1 kg of steam at 100°C requires approximately 2260 kJ! We all experience this phenomenon daily. Your kettle at home might take a minute or two to raise a litre of water to 100°C but would take considerably longer to evaporate every last drop of water into steam.

Disposing of trade waste

In the UK there are legal obligations for all trades, including heating technicians, to properly dispose of trade and/or hazardous waste (referred to as 'special waste' in Scotland). So, when disposing of items such as: old appliances, tanks, nozzles or packaging, you need to consider how these will be removed and disposed of.

These are the checks that should be carried out prior to disposing of waste, whether you are using a third party to transfer the waste to an appropriate facility or handling yourself: whether the next waste holder is authorised to take the waste; where the waste will be taken; that the intended destination is authorised to accept this type of waste.

In England and Wales, the government's "Waste duty of care code of practice" explains that tradesmen are defined as waste producers and the code applies to everyone that imports, produces, carries, keeps, treats, disposes of, or, as a dealer or broker, has control of, certain waste (similar codes apply in Scotland and Northern Ireland).

Regional codes of practice explain that technicians have a duty of care in dealing with any waste and failure to comply with these requirements could lead to prosecution.

If you are transporting and disposing of waste, you need to hold an "upper tier waste carriers' licence" (referred to as "waste carriers' licence" in Scotland).

Further information and licence applications are available here: England and Wales – bit.ly/oft-eng-wales; Scotland – bit.ly/oft-scotland; Northern Ireland – bit.ly/oft-NI. Guidance in the Republic of Ireland is less clear so OFTEC recommends you discuss your obligations with your local authority.

BS 8303:2018 solid fuel standard – summary of changes

BS 8303 is an important standard for solid fuel technicians. Technicians can demonstrate compliance with Building Regulations by following the guidance in Approved Document J (ADJ) of the Building Regulations 2010. However, ADJ states that technicians can adopt the recommendations in BS 8303 as an 'alternative' approach that will achieve an equivalent level of performance.

Following the recent publication of a completely revised BS 8303:2018, OFTEC's technical team are currently drafting updates for the solid fuel technical book. Ahead of the release of these updates, we have issued technical notice 024 summarising the significant changes included in the newly released standard. Technicians holding a solid fuel scope of registration will need to review this technical notice, because changes to the standard are already in force. Some of the key changes to the standard include:

- Guidance for the specification, risk assessment, air supply, installation and testing of dedicated external air supply (DEAS) appliances
- Guidance allowing certain outputs of freestanding appliances, not within a builder's opening or fireplace recess, to be installed closer to walls containing combustible material if the walls are protected by correctly installed metal sheeting
- Guidance for the installation of hearths serving appliances placed or built into a raised fireplace recess
- Allowance to fit shallow bends within the first 600mm of vertical flue pipework above a top outlet appliance
- Allowance for the use of a swept 90° bend incorporating a debris trap for appliances with rear exit flues
- Installation guidance for fireplace surrounds
- Clearer guidance on the use of, and appropriate connection methods for, the installation of closure plates, registered plate and raft lintels

The above list is not exhaustive, and technicians should only adopt new 'alternative' installation methods after ensuring they have either read the new guidance or spoken to OFTEC's technical team. Technical notice 024 can be found on the technical notice board found in the registered technicians' area at www.oftec.org

ASK OLLIE!

– Ollie responds to the latest questions received by his friends in OFTEC's technical team

I have been asked to install an external appliance at a domestic property. How close can I install this to an oil storage tank?

British Standard 5410-1 does not specify a distance between the appliance outer casing and an oil storage tank. However, the standard does require the flue terminal to be a minimum of 1.8 metres from the oil storage tank, unless a 30-minute fire protection barrier extending 300mm higher and wider than both ends of the tank is erected between the two. The appliance manufacturer's literature should be consulted to ensure that a more onerous requirement is not specified. Where provided, a fire protection barrier should not contravene any other flue separation requirement (e.g. the specified distance from an opposite facing surface). In the ROI, external appliances need to be 1.8m from oil tanks unless a fire barrier as described above is installed.

Can I install a fire valve on its side or on a vertical pipe, or does it always need to have the 'reset button' facing downwards?

Fire valves should be installed to manufacturers' instructions; this is usually with the 'reset button' facing downwards. This is to prevent water ingress which could damage the fire valve body, preventing it from operating correctly.

I have been approached to relocate an existing oil storage tank to a different location, what requirements should I be working to?

The relocation of an existing oil storage tank to a new location is deemed a 'new' installation and needs to comply with current environmental and fire protection requirements found in regional Building Regulations and British Standards. The risk of tank failure is increased when moving an existing tank, so it is prudent to consider a new tank to mitigate that risk.

I have a room sealed appliance which requires a plume management kit to be installed. Do the flue outlet siting requirements apply to both the air intake and the terminal of the plume kit?

The separation distances for flue outlets are applied to the lip/rim of the flue where the products of combustion are emitted.

Whilst completing a TI/133D form for a domestic tank during a routine service visit, I identified that the tank is within 760mm of a low-level brick wall marking the boundary line. Although the wall does not extend 300mm higher than the tank, is this still classed as a fire rated boundary?

No. To be classed as a fire-rated boundary, the boundary must offer a minimum 30 minutes fire protection and extend a minimum of 300mm wider and higher than the widest and highest parts of the tank. Further information on definitions of non-fire rated boundaries can be found in OFTEC Technical Book 3, section 1.6.

Replacement burners and ErP

For some months OFTEC has been seeking clarification on the approach technicians should take when they need to replace a burner (or, as they are referred to in European legislation, "heat generators") on an existing appliance. Confusion has arisen because the text of the European Commission Regulation on ErP states that replacement burners should be "identical" to the existing burner. Although it is often possible for a technician to source an "identical" burner, it is not unusual to find that some older burners are now obsolete. In such circumstances, is it permissible to replace the obsolete burner with one of a similar performance via burner matching or does the whole appliance need to be replaced because an "identical" burner is no longer available?

Following discussions with the government's Office for Product Safety and Standards (OPSS), which is the market surveillance authority for ErP, OFTEC can report that the term "identical" should be interpreted as "the same design characteristics" and this would not necessarily mean the exact same make and model of burner originally fitted to a boiler at the time of manufacture. The OPSS have further stated "Unless further guidance is forthcoming, our [OPSS] interpretation would be that the same design characteristics would indicate that there would be no detrimental impact to the performance".

To clarify, OFTEC would recommend that if the same burner originally fitted by the appliance manufacturer is still available, it should be replaced on a 'like for like' basis, i.e. with the same make and model of burner originally fitted at the time of manufacture. However, if the original burner is now obsolete, technicians may take advice from appliance and/or burner manufacturers to select an alternative burner that will match the same design characteristics of the original burner and will not negatively affect performance or efficiency.

DON'T MISS

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Whatever your role in the off grid energy sector, now is the time to visit our website and reserve your place.

For full details of the event, the venue and how to register, visit www.fpsshow.co.uk.

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Peter Hughes
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Williams Tanker Services

Share your snaps – and win a special fleece!

In recognition of the ever-growing popularity of *Oil Installer's* regular "Gallery" pages, OFTEC Direct has opted to sponsor the section by awarding each OFTEC-registered technician whose photographs are featured in the magazine with a special OFTEC-logoed, Snickers A.I.S. fleece jacket, retailing at almost £40.

So, when sending in your snaps for the Gallery page – whether they show the good, the bad or the ugly side of oil-related installations – include your full name, address, OFTEC registration number, and your garment size preference. And, if your photographs are published, you will receive this very special gift from OFTEC Direct! Below are the first two lucky winners of this special prize!

Send your pictures, together with a brief description of your business and where you came across the subject of your snaps, to jane@oilinstaller.co.uk

When **Matt Willis** of Matthew Willis Domestic Plumbing Services in Litton, Derbyshire, arrived to undertake a routine service on a top-of-the-range oil boiler, he immediately discovered three faults with the fire valve installation. Firstly, a faulty valve pin had been forced open with a piece of bent copper tube; secondly, the sensor capillary wire passed through the same duct as the fuel supply pipe, making it impossible to change without disturbing the fuel line; and thirdly, the sensor tie was wrapped to the fuel line next to the boiler, thus rendering it useless in the event of a fire within the appliance casing.

The homeowner was a new client for Matt who had been recommended by another plumber who did not work with oil heating. Naturally Matt put right all the problems and, by doing so, gained several other jobs from the homeowner and his neighbour! A good day for all concerned!

David Hadlow is a vastly experienced OFTEC registered technician with Rugby-based family heating company, Custom Heat. Recently he was called out by a new customer to service an oil boiler before they moved house and to provide evidence of a boiler service for the new owners.

David explained his unexpected findings to *Oil Installer*... "When I removed the combustion panel, the boiler was in a terrible state and the baffles had gone rotten and were rusted in. They had never had the boiler serviced before and the condensate trap had blocked up, causing condensate to back up in the boiler.

"It was touch and go whether I could get this boiler going again, but I managed to remove all the old baffles – using a crowbar! The whole thing needed a good clean and new baffles, combustion panel and seal. Eventually I had it running smoothly again and the customer was happy that he did not need a new boiler! Moral of the story: get your all boiler serviced every year!"

Custom Heat specialise in the installation, service and breakdown of oil and gas boilers. David himself has been involved in plumbing and heating since leaving school at the age of 16 and has been in the trade for 26 years – 20 of which have been with Custom Heat.

Fuel price commentary

How do you make a fair comparison between the running costs of different types of heating? It is a question we have often wrestled with when discussing the pros and cons of the competing heating options. The data we use is supplied by independent fuel price analysts, the Sutherland Tables. Every quarter, they provide a huge range of price comparisons, based on average fuel costs over the previous quarter. Their statistics are extremely detailed, robust and authoritative and we use only a small amount of the information they supply. For example, we only compare the costs for one house type – a typical medium-sized pre-1980 house – and we provide an average figure for the whole of Great Britain rather than comparing the costs regionally.

One particularly contentious element is how we compare heat pump performance to traditional heating. Up to now, we've chosen to compare the systems on a like-for-like basis, with all systems using conventional radiator-type heat emitters. This provides a level playing field but places heat pumps at a disadvantage because it reduces their system efficiency quite dramatically. More seriously, it doesn't provide a very realistic real-world comparison because heat pumps are often installed with part-underfloor heating and must achieve a Seasonal Performance Factor (SPF) of 2.5 to qualify for RHI payment – a significantly higher figure than the Sutherland Table's radiator modelling.

We supply the fuel price data here in Oil Installer because we hope it will be useful to you – for example, when talking about costs to your customers. We would very much welcome your suggestions for improvements. For example, would you like us to include ground source heat pumps as well as air source? Would it be more useful if we just provided the current cost for each useful unit of energy (pence per kWh) – enabling you to easily calculate and compare the annual running cost for any heat demand? Would you prefer us to model more typical installation configurations or are you happy with the level playing field approach?

Comparative space and water heating costs for a three-bedroomed home in Great Britain, Northern Ireland and the Republic of Ireland

GREAT BRITAIN

	4-yr avg: Jan15-Jan19	January 18	January 19	12 month price change
Anthracite Grains	1143	1159	**1127**	-32
Electricity (Economy 7)	1757	1910	**2004**	94
Gas (British Gas – condensing)	1009	967	**1025**	58
LPG (condensing)	1554	1553	**1625**	72
Oil (condensing)	934	1048	**1143**	95
Wood Pellets	1375	1381	**1538**	157
Air source heat pump radiators	1573	1681	**1771**	90

NORTHERN IRELAND

	4-yr avg: Jan15-Jan19	January 18	January 19	12 month price change
Anthracite Grains	987	973	**1034**	61
Electricity (Economy 7)	1563	1518	**1871**	353
Gas (Phoenix – condensing)	929	885	**1050**	165
LPG (condensing)	1930	2219	**2219**	0
Oil (condensing)	896	1017	**1191**	174
Wood Pellets	1113	1065	**1131**	66
Air source heat pump radiators	1489	1459	**1654**	195

REPUBLIC OF IRELAND

	4-yr avg: Jan15-Jan19	January 18	January 19	12 month price change
Anthracite Peas	1528	1510	**1628**	118
Electricity (Urban Night Saver)	2035	1977	**2114**	137
Gas (Bord Gais condensing)	1334	1337	**1399**	62
LPG (condensing)	2201	2213	**2574**	361
Oil (condensing)	1283	1367	**1606**	239
Wood Pellets	1341	1281	**1398**	117
Air source heat pump radiators	1788	1743	**1852**	109

Notes
The tables above are based on quarterly data published by the Sutherland Tables. They show the annual average cost of a range of heating options for a typical pre-1980 three bedroomed semi-detached home with a heat requirement of approximately 16,000 kWh.
Prices are shown in pounds sterling (£) for Great Britain and Northern Ireland, and euros (€) for the Republic of Ireland.

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In a recent TÜV Rheinland test, 34% of the most common oil-burner nozzles failed.
Danfoss burner nozzles scored best in test!

100%

of Danfoss nozzles passed the spray distribution test

TÜV Rheinland recently tested the six most common nozzle brands against the DIN EN 293 norm.

The results showed that:

- 34% of all nozzles failed the test
- 3 of the 6 brands tested failed in 40-62% of cases

Danfoss nozzles scored best in test - and achieved a 100% pass rate for spray distribution.

Oil burners need to be serviced every year. Imprecise nozzles are unreliable and can easily use up to 10% more oil. Precision Danfoss nozzles use less oil and require minimal servicing.

Download the full TÜV Rheinland report (no: S 221 2014 S4) directly at burner.danfoss.com

The tested nozzles do not represent the full spectrum of all oil nozzle types. But the test reflects what is believed to be the most common nozzle types and brands used in residential burners.

ENGINEERING TOMORROW

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