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Winter 2023 Volume 17 No 4

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Green light for HVO?

The news for the liquid fuel heating industry has been very positive recently. It seems that, quite suddenly, the Government has started listening to us and, as a result, we have taken some important steps forward. The promise of a consultation on HVO for heating, and the pushing back of the deadline for phasing out oil heating are significant wins for the off-gas grid community, and I would like to thank everyone who helped by writing letters or supported our work in other ways.

Although we welcomed the prime minister's announcements, it might come as a surprise to hear that OFTEC never actually campaigned for the 2026 date to be changed. We have always taken the view that action to tackle carbon emissions needs to start as soon as possible, so we supported the need for ambitious plans. What we told the Government was that they needed to give consumers more choices and to make certain that the options available were affordable. Forcing off-grid households and businesses to install heat pumps would have been extremely unfair and could have done lasting damage to support for decarbonisation. Fortunately, the Government has listened to our advice and that threat has receded.

However, it's critical that we don't take it easy or becomes less ambitious in delivering our plans. The liquid fuel industry has been given an important vote of confidence, and we now need to make good on our claims that HVO can deliver low carbon heating at scale, and for reasonable cost. To do this, we will work closely with the Government as it develops plans for how this can happen, ahead of a consultation which we hope will take place early next year. Nor should we think that the Government has abandoned its support for heat pumps, which will be a critical technology in the transition to net zero. Look out for more announcements soon.

Paul Rose

Paul Rose,
CEO, OFTEC

OFTEC Heat Pump Training

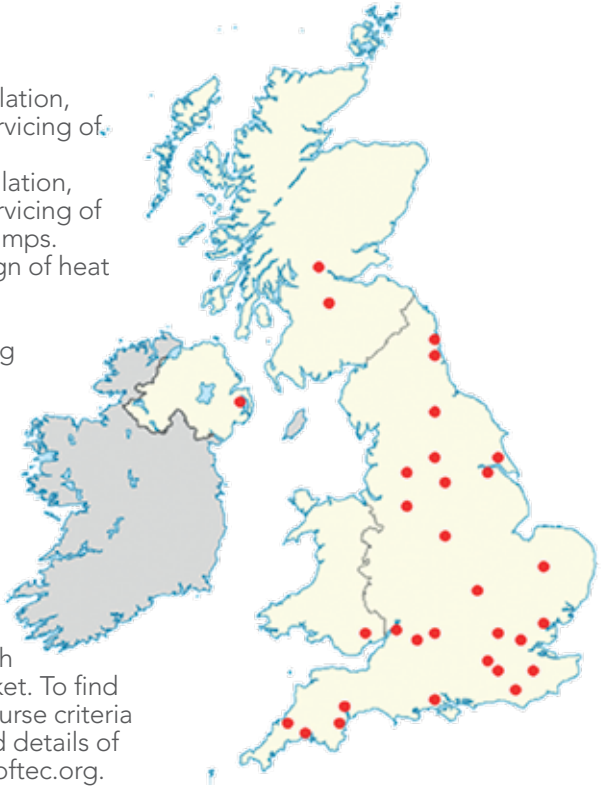
Over 1,000 people OFTEC heat pump trained

OFTEC has recently been notified from the certification bodies that over 1,000 technicians have now taken an OFTEC heat pump training course. With over 30 training centres in the UK now offering the heat pump training courses, there is plenty of opportunity to diversify and grow your business. Demand for heat pumps has increased since the Government announced that the Boiler Upgrade Scheme grants would increase to £7,500, so now is the perfect time to take full advantage with OFTEC's heat pump training courses.

Scopes of registration:

- OFT21-504A - Installation, commissioning and servicing of air source heat pumps.
- OFT21-504G - Installation, commissioning and servicing of ground source heat pumps.
- OFT21-504D - Design of heat pump systems.

On completion, heating businesses can access OFTEC's heat pump CPS and MCS registration schemes, allowing you to undertake installations funded by the Boiler Upgrade Scheme and putting your business in prime position to benefit from the growth of the heat pump market. To find out more about the course criteria and where you can find details of training centres go to oftec.org.



Major boost for liquid fuel heating industry

Government scraps proposal to phase out fossil fuel appliances off the gas grid by 2026 and commits to consult on use of renewable liquid fuels for heating!

In September, Prime Minister Rishi Sunak set out the Government's new approach to net zero. His announcement included some positive news for the liquid fuel heating industry - existing proposals to ban the installation of oil and LPG boilers, and new coal heating, in off-grid homes will be delayed from 2026 to 2035. While the announcement focused on homes, OFTEC understands that the decision to delay the off-grid phase out will also apply to non-domestic buildings.

The prime minister also confirmed that beyond 2035 there will be an exemption for households who will most struggle to make the switch to heat pumps. This is expected to cover about a fifth of homes and includes homes both on and off the gas grid. It is likely they will still need to reduce their carbon emissions, but by using other more practical options such as HVO.

The announcement came shortly after another positive development for the industry when, after a long campaign by OFTEC and UKIFDA and pressure from off-grid consumers and rural MPs, the Government amended its Energy Bill to include a requirement to consult on an obligation for HVO for heating. This would have the effect of reducing the price payable by the end user, effectively incentivising its use in heating. Following the speech, DESNZ issued clarification that they will explore the potential low carbon heating options for off-gas grid properties that are not suitable for heat pumps by issuing a consultation, in line with commitments the Government made during Parliamentary debates on the Energy Bill. The consultation is likely to take place during 2024.

Alongside the changes, the Government announced an increase to the Boiler Upgrade Grant in England and Wales from £5,000 to £7,500 to help households install both air source and ground source heat pumps. That wasn't enough to prevent criticism of the changes, including from the influential Climate Change Committee, but the Government reiterated that the UK's target to achieve net zero emissions by 2050 remains unchanged.

OFTEC and UKIFDA issued a joint statement welcoming the announcements, which follow several years of intense campaigning and field trials on behalf of the liquid fuel heating industry.

A key theme of Prime Minister Sunak's speech was that the transition to net zero can only be done with the consent of the British people, must be properly explained and be fair and affordable. This closely aligns with OFTEC's lobbying campaign messages. Policies such as the proposed 2026 deadline, which unfairly targeted off-grid households that were largely oblivious to the plans, were problematic politically and risked a loss of support for the transition.

While the debate about which low carbon heat technologies should be supported will no doubt continue, understanding this point will be important for the development of successful decarbonisation policies going forward.

OFTEC's autumn/winter webinar series was a hit!

OFTEC has now concluded its successful autumn webinar series. But if you missed them, don't worry, because the recordings are available on the OFTEC website.

The first webinar in October provided valuable insight into the regional rules relating to energy efficiency requirements and heat loss calculations. The webinar also had an in-depth discussion with the team behind the heat loss calculation software, Heat Engineer, and how this can aid technicians and their businesses.

The final webinar in November was titled 'what's next for off-gas grid heat decarbonisation', where we unpacked the implications of recent government policy announcements, what the Energy Bill amendments means for HVO, and how OFTEC's new heat pump training and registration options can help diversify businesses.

All webinars are still available to view through the OFTEC portal, an exclusive benefit for OFTEC registered technicians.

Welsh heat strategy published

An over-reliance on heat pumps at the expense of a technology inclusive approach may not be successful, says OFTEC.

Two years on from the publication of heat strategies for the UK and Scotland, the Welsh Government now has one of its own. As might be expected, it's big on ambition, but OFTEC has concerns that the range of preferred technology options is too limited.

The housing stock in Wales presents some serious challenges, and the new strategy acknowledges that Wales "has some of the oldest and poorest energy-performing buildings in Europe, and 'hard-to-treat' homes are widespread". It's concerning then that it states a strong technology preference for heat pumps but has little to say about the other low carbon heat technologies that are also likely to be needed – and nothing at all about renewable liquid fuels such as HVO.

It's understandable that heat pumps are seen as a key technology, but the virtual exclusion of other options could be problematic and may even lead to slower progress. With incomes lower in rural areas, not to mention the effects of the cost-of-living crisis, off grid households need affordable options, rather than something that will be difficult, expensive, and disruptive to install in their homes. Supporting the use of liquid fuels for rural areas - where the housing stock is less well suited to heat pumps and where a workforce and fuel distribution network already exists - would have been a more sensible and pragmatic option.

This could also help reduce the cost of upgrading the electricity grid, which the Welsh Government accepts will require substantial investment costing many billions of pounds to make it heat pump and EV ready. Prioritising liquid fuels in more remote rural locations reduces the need to make grid upgrades where the costs will potentially be highest – saving taxpayers a considerable amount of money.

It's become increasingly clear that the support of citizens for net zero policies is essential if they are to succeed, and this support can't be taken for granted. Households and businesses are more likely to embrace low carbon heating if they are given a choice of affordable options and feel that the policies are fair. Unfortunately, few Welsh citizens will read the new Strategy or be aware of these plans – so their support is far from guaranteed. Worse still, the idea of technology inclusion appears not to be something the Welsh Government supports. Instead, it effectively wants to dictate what most households must choose – a one size fits all approach.

What OFTEC says

In our response to the consultation, OFTEC has highlighted the need to minimise cost and provide consumers with appropriate choices – including HVO for off gas grid areas. We also highlighted the important role that competent installers can play in supporting the transition, by ensuring customers receive good advice and high-quality outcomes.

Remembering Tony Brunton 1939-2023

OFTEC is saddened to hear of the passing of Tony Brunton. Tony, who hailed from Kinross, Tayside, was a committed contributor to the heating sector having roles in SNIPEF and CIPHE. Between 2005 and 2007 Tony was also an OFTEC inspector, visiting heating businesses throughout his beloved Scotland. If you ever had the pleasure of meeting Tony, it's likely you'll have never forgotten him due to his passion for the industry he spent his long career serving.

OFTEC sends its condolences to his family and friends.

Staff news

Emma Adams has joined OFTEC as an administration officer in the busy technical department and will play a crucial role in dealing with all administrative needs on behalf of the team.

Emma has worked in various roles over the last 10 years while raising three children.

Now that all her children are at school, she is looking forward to spending more time working.

During any spare time, she enjoys spending time with her family, eating out, and long walks with her border terrier, Norman.

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Important changes to Building Regulations - duties and competence

A new Part 2A has been inserted into the Building Regulations (Amendments etc.) (England) Regulations 2023. This contains detailed requirements on clients to appoint designers and contractors who are competent, and new duties for the clients, designers and contractors which came into force on 1st October.

The new Part 2A of the Building Regulations should be urgent and compulsory reading for everyone involved in the construction sector who has any responsibility for procuring building work of any kind, or for designing or building it. Part 2A introduces a whole series of new regulations, 17 in total, covering the duties, competence and behaviour of clients, designers and contractors. Part 2A also creates the new roles and duties of the principal designer and contractor for every project. These were first called for over five years ago in Dame Judith Hackitt's landmark review of Building Regulations and Fire Safety.

New regulation (11E) sets out in some detail the considerations that must be addressed before appointing a designer or contractor. They apply to ALL building projects and all those appointed, requiring them to be competent. Chapter 3 of Part 2A of the amendment regulations addresses the competence requirements in some detail. There are four new regulations, under 11F – I, covering competence. These are a general regulation, one each for the principal designer and contractor, and one giving requirements should either principal be unable to meet the competence requirements.

Chapter 4 of Part 2A sets out the general duties of all duty holders as well as additional legal duties of principal designers and contractors. These include sharing information and communicating effectively with other parties on the project.

Chapter 5 at the end of Part 2A is a regulation that defines a "necessary behaviour" of anyone claiming to be competent, which is a willingness to refuse to carry out work which is not compliant with any relevant requirement, or to undertake design work that effectively cannot be built in compliance with regulations. Co-operation is now also a necessary behaviour, along with saying no to doing things beyond their skills, knowledge or experience.

This means that OFTEC technicians involved with installation work must ensure that the service provided is undertaken only by a competent person. This affects all parts of the work from design, installation, commissioning, and handover which means the whole installation must be compliant with the requirements set out in the Building Regulations. This means starting with calculating the building heat loss all the way to handover and the final works notification.

While some may feel that this is short notice, the new regulations have been coming for over five years and should not come as a surprise. With consumer safety vital, a statutory duty to appoint only those who are competent to do design and construction work is a welcome and sensible development.

The Building Regulations etc. (Amendment) (England) Regulations 2023 are available online.

OFTEC compliance

OFTEC's compliance team works hard to ensure that all registered businesses and technicians uphold the highest standards. However, each quarter a few are suspended or have their registration revoked. This can be for various reasons and means they no longer have the right to display themselves as OFTEC registered.

From the 4th July 2023 -10th October 2023, a total of 21 businesses had their membership revoked*.

The revoked businesses are:

Company No.	Business Name
501160	A Job Done Wright!
102193	Bampton Heating Ltd
101764	Concept 360 Ltd
103509	DB Plumbing and Heating
500414	ECO 2020 STOVES LIMITED
103571	Harbour Heating Ltd
10072	Ho'ton Heating Ltd
501367	Ideal Plumbing Ltd.
104451	Kings Gas and Electrical Ltd
101355	Norton Energy Services Limited
501165	Oak Tree Stoves
501024	PJ Home and Gardens
500133	PJD Electrical Ltd
500534	Richard Verry
101570	Robin Warner
104395	Smith Heating Services
501072	South Wales Logburners Ltd
500145	TAW Plumbing and Heating
500237	Todd Trussler
104270	Tom Woodward Ltd
501255	Weatherwise (NE) Ltd

*Businesses do have the right to appeal decisions regarding their status made by OFTEC.

Want your views to be heard? Join the new OFTEC technician committee!

One of the areas we believe OFTEC can improve is to open up more to the views of registered technicians. You are the ones at the coal face of the heating industry, and we need your feedback to provide the best service we can, delivered in the way you need it. We currently take ad hoc feedback through our registration / technical helplines, and also through our regional inspectors and online forums, but we feel it is time to create a more formal channel for your views.

We already have an OFTEC Scheme Committee (OSC), which is responsible for the impartiality and integrity of the registration schemes, and two registered businesses are members of that committee. One business holds Competent Person Scheme (CPS) registration in liquid fuel and the other holds MCS registration in the renewable sector. We plan to set up a new technician committee which will offer ideas and feedback to the two OSC representatives, who will communicate the outcomes to the main scheme committee regularly on your behalf..

The requirements of membership of the new technician committee are yet to be fully decided but will be based upon:

- Holding OFTEC registration throughout your term.
- Being willing to attend regular online meetings via Teams (these will be coordinated conveniently).
- Representing the views of all fellow technicians, not just serving your own agenda.
- Agreeing to sign a confidentiality agreement.

We would like to have at least one technician representative from England, Scotland, Wales, Northern Ireland, Republic of Ireland and Channel Islands. If interest is high, more than one from each region can participate, but participation will be capped at two from each region. The chair and vice-chair of the technician committee will get a seat on the main OFTEC scheme committee.

Our plan is for the technician committee to meet for the first time early 2024 so, if you have an interest in participating, please contact Adrian Lightwood alightwood@oftec.org detailing your registration number.

What next for net zero?

OFTEC's head of public affairs, Malcolm Farrow, takes a deep dive into the recent announcements from the Government and what it could mean for the heating industry.

Has the Government really abandoned some of its key net zero policies? From the reaction to Prime Minister Sunak's speech in September, where he set out the Government's new approach to net zero, you might be forgiven for thinking so. The speech met with considerable criticism and was widely condemned for watering down the policies needed to achieve net zero – effectively making a difficult task even harder.

At first glance the criticism looks justified. Sunak's announcement appears motivated more by short-term political need than strategic policy thinking. With a General Election due next year, the Conservatives need to shore up their support, so delaying policies that will be unpopular with motorists, or householders in Conservative-held rural areas, seems like an obvious self-serving move.

Excessive cost

Sunak's explanation, that it is unreasonable to expose households to excessive cost and that policies needed the consent of the public, were largely overlooked in the wave of criticism that followed. Yet these are important considerations. If tough action is needed – and it clearly is – it's vital that citizens support the plans. If they don't, things can quickly unravel, as we've seen with the protests about extending the ULEZ scheme in London. Indeed, that issue seems to have been the catalyst for at least some for the recent heat policy rethink.

What does this mean for the future of the renewable heating industry? The Government appears to be pivoting to an approach designed to minimise the impacts on consumers but has retained the target of 600,000 heat pump installs a year by 2028. How can both these aims be possible?

Clearly, without new regulations, net zero targets will be more difficult to achieve, so more financial support will be needed to encourage action. The Government has already announced an increase to the funding available through the Boiler Upgrade Scheme (BUS). The grant for a heat pump is now £7,500 - which is likely to be attractive to consumers – so does that mean the changes are good news for heat pump installers?

Unfortunately, the funding pot for BUS has not been increased, so fewer installations will be supported overall. Other policies targeting new build and fossil fuel appliance manufacturers may help, but significant additional funding support will be needed if heat pumps are going make significant inroads, let alone reach what most agree is a virtually unachievable target. And it's difficult to see where the money can come from.

How does this affect heat pumps?

This might all seem like bad news for the heat pumps sector, so it's worth pausing for a moment to consider if the roll back of the proposed 2026 off-grid phase out date might not be such a bad thing as it seems. Are enough heat pump installers likely to be ready to take on 60,000+ new installations each year in just two years' time? Many of these would have been distress purchases in old, poorly insulated rural homes, all requiring a fast response and a good outcome. What could possibly go wrong? Problems could have quickly multiplied and some in the industry have privately admitted that the potential fallout might have dealt a terminal blow to consumer confidence in heat pumps, so perhaps it's just as well that the plans were scrapped.

Amid all these changes, it's easy to forget that making progress with decarbonisation is what matters, so it is vital that the Government gets its act together quickly. That means completing the consultation on renewable liquid fuels, so that HVO can be offered to the public at an affordable price. It also means a long-term commitment to funding energy efficiency measures and heat pumps, and reforming the bureaucratic requirements on installers to encourage more small businesses to enter the market. By now adopting a more pragmatic, technology inclusive policy approach, rapid progress could be made if the Government seizes the opportunity.

A change of government

What impact could a General Election in 2024 or a change of government have? If the Government drags its feet with the renewable fuel obligation consultation, it could become held up by the General Election and delay plans to deploy HVO, so OFTEC and others within industry will push hard for the consultation to happen quickly. Until Labour publishes its manifesto, it's hard to predict what impact a change of government could have on heat policy – but any significant changes will be designed to accelerate progress. However, contacts with Labour so far suggest they are unlikely to bring the off grid phase out date forward again, but that remains to be seen.

Keeping central heating systems efficient

Preventing sludge and limescale build-up is important in maintaining the efficiency of central heating systems, as well as avoiding callbacks and breakdowns. The Trappex range of domestic filters and inline scale reducers from Arctic Hayes is designed to combat build-ups of these harmful particulates, which can lead to reduced efficiency, increased energy consumption and even central heating system failures.

Sludge consists of a mixture of dirt, debris and corrosion products that gradually accumulate in the system's pipework and radiators. Limescale on the other hand, is composed mainly of calcium and magnesium deposits, often found in hard water areas. Both substances can obstruct the flow of water, reduce heat transfer efficiency and eventually lead to system breakdowns if left untreated and may even mean the central heating system

has to be power-flushed, which can be a lengthy and disruptive process for the homeowner.

The Trappex range includes the 'Centramag 2' nylon filters (22 and 28mm), the Genesis brass filters (22mm available with or without valves) and the Quantum mini brass filter (22mm) providing multiple installation options for heating engineers. The Trappex filters work by controlling the water flow and maximising the non-magnetic particle capture, while the Trappex inline reducers use electrolyte principles to prevent the build-up of scale. The range easily fits and operates in tight spaces and is quick and easy to install.

By consistently capturing and removing sludge and limescale, the filters prevent these substances from settling within the system and causing blockages. This ensures that the heating system continues to operate efficiently and the Trappex filters and magnets both carry hefty manufacturers' warranties (25 years on the Genesis brass filters), bringing peace of mind to both installers and homeowners.

Grant and Bath Rugby extend the Kick the Carbon campaign into local schools

Throughout the 2023/24 season, Grant UK and Bath Rugby will be delivering a Grassroots Community Sustainability Programme to ten local primary schools. The Programme will build upon the Kick the Carbon campaign that they launched last year, raising awareness about sustainability and educating local schoolchildren about the changes we can all make to be more environmentally friendly.

Both Bath Rugby and Grant have been transforming their day-to-day operations to reduce their carbon footprint with Bath Rugby making significant progress in reducing the amount of plastic used at the Rec and Farleigh House, and Grant launching its Grant Project Zero carbon reduction programme. As the official grassroots partner of Bath Rugby, Grant wants to support its local Premiership Rugby Club to raise awareness of sustainability in the local community and schools.

Through their Grassroots Community Sustainability Programme, Bath Rugby and Grant will be hosting a combination of classroom-based activities with rugby-based activities at ten schools local to Bath and Grant's headquarters in Swindon. The sessions will include an hour of classroom learning followed by an hour of

physical activities. The overarching theme of these educational sessions will be Kick the Carbon, with them raising awareness of climate change and showing schoolchildren how we can work together to lower carbon emissions.

"Here at Grant, we're striving to not only provide our customers with low carbon, renewable solutions to heat their homes with, but we're also working incredibly hard to become a more sustainable business throughout our operations," comments Anna Wakefield, Grant's head of marketing. "Part of this involves supporting our local community with developing their understanding of sustainability and the changes they can make to be more environmentally friendly, whether that be recycling more, improving our home insulation or investing in low carbon technologies within the home.

"As the official sustainability and grassroots partner of Bath Rugby, we are looking forward to rolling out our Kick the Carbon campaign into local schools, educating the next generation about the importance of reducing our impact on the environment and making small changes which will make a big difference in the future. The Programme will combine fun-filled activities with key learning objectives which we hope will be both enjoyable and educational for local schoolchildren."

Head of business development at Bath Rugby, Tom Giles, added: "At a time when we're all trying to make more eco-conscious decisions in our day-to-day lives, bringing Grant on board as both our sustainability partner and grassroots partner will allow us to teach the next generation the importance of sustainability.

"Our grassroots team delivers some of the most premium rugby coaching in the south west region, so to be able to now add an extra element with the help from Grant only bolsters the offering from the Club. We have a strong and long-standing relationship with Grant we're very much looking forward to continuing this partnership for seasons to come."

Save time, money and hassle with Arctic Hayes' Pipe Freeze kits

Arctic Hayes is encouraging professional heating and plumbing engineers to save more time, money and hassle on-site with its range of Pipe Freeze kits, which enable installers to repair pipework without draining down the whole system.

Trusted by professionals for 57 years, since its original patent in 1966, Arctic Hayes' Pipe Freeze kits can reduce job time by an average of 85%, based on a two-hour drain down and refill. Based on a standard 15mm copper pipe, Arctic Hayes Professional Pipe Freeze kit can also freeze pipes in just one minute.

The easy-to-apply Freeze Spray forms a temporary ice plug in the pipe so that work can be carried out with a minimum of disruption. There is no need to locate a stop-cock or service valves and it also reduces the potential for water spillage and property damage. There are three different types of kit in the range; 'Aero', 'Professional' and 'Electric', each kit caters for a range of pipe sizes and a number of applications and choosing the right one for the job at hand is easy.

Pipe Freezer 'Aero' is a disposable kit, containing enough refrigerant to perform one or two freezes on pipework up to 28mm and can be used for jobs such as changing a radiator valve, replacing a stop-cock or other service valves.

With specific kits for domestic, commercial and industrial pipework, the 'Professional' range comes with extra features such as re-useable components and dual freeze options and is designed for plumbers and engineers who carry out regular pipework repairs and maintenance such as replacing stopcocks, radiator valves, heating pumps, zone valves and installing magnetic filters.

These kits are simple to use and can freeze pipes in just four simple steps. Firstly, select the insulated jacket and wrap it securely around the pipe that needs freezing. Fasten the jacket using the zip ties provided in the kit to ensure a snug fit and optimal freezing. Allow the refrigerant to flow into the jacket, freezing the pipe in just a matter of minutes. Finally, once the pipe is frozen, turn off the refrigerant flow and proceed with repair or installation work without draining the system - resulting in remarkable time and effort savings.

Ideal for professionals engaging in a large-scale contract and commercial plumbing jobs, the 'Electric' range of Pipe Freeze Kits delivers mains-powered pipe freezing and therefore an indefinite freeze time when used with a continuous power supply. Electric Pipe Freeze Kits range from the 'Mini' to 'Commercial' and 'Industrial' versions, each supplied with appropriately sized head clamps and reducers, freeze cream, gloves and instructions.

Arctic Hayes has a 'Find Your Freeze' selector tool on its website to make finding the right Pipe Freeze product even easier.

Talon helps tackle the skills gap

Talon, a UK manufacturer of pipe clips, collars and covers, has announced its continued support for the HIP Student Plumbing Competition and the HIP Female Skills Competition in 2024. The commitment is a testament to Talon's dedication to bridging the growing skills gap in the plumbing and heating industry and encouraging more young individuals, regardless of gender, to pursue careers in the trade.

Recent figures from the Chartered Institute of Plumbing and Heating Engineering (CIPHE) reveal an 'alarming' skills gap engulfing the construction sector, with over 70,000 new plumber recruits needed by 2032.1 The HIP Student Plumbing Competition, now in its 15th year, has established itself as a platform for apprentice and student plumbers to showcase their skills, gain confidence, and receive recognition for their hard work.

Level 2 and 3 plumbing students from across England and Wales will compete in six regional heats throughout January and February 2024, demonstrating their expertise in various practical tasks. Jerry Whiteley, technical manager from the CIPHE, will serve as the competition's head judge, ensuring fair and expert evaluation. Regional winners will advance to the grand final, where they will have the opportunity to secure a range of coveted prizes. Talon is contributing to these initiatives by donating thousands of its popular pipe clips and fittings for the entire competition, including the regional heats and finals.

In addition to the HIP Student Plumbing Competition, Talon is also proud to support the HIP Female Skills Competition, a competition dedicated to recognising and celebrating the skills of female plumbing and heating learners.

"We're proud to support the HIP Student Plumbing Competition once again in 2024. We believe in nurturing young talent and providing them with the tools they need to succeed in the plumbing and heating industry. This competition not only recognizes their skills but also helps them kickstart their careers," says Mike Morris, Talon's marketing manager.

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Grant welcomes a trio of new starters

Three new starters have joined Grant UK – two area sales managers and a sales support engineer.

Jim Moody and Terry Townend join the company's field-based sales team to deliver sales support to heating engineers, installers, merchants and other customers in their areas. As the area sales manager for central and southern Scotland, Jim will be covering the counties between the Scottish Borders and Dumfries and Galloway up to Stirling and Argyll and Bute. Meanwhile, Terry will be the new area sales manager for the Midlands, as well as covering Merseyside, Manchester, South Yorkshire and Lincolnshire. Both Jim and Terry have backgrounds steeped in the heating industry, each having extensive experience with traditional and renewable home heating systems.

"I'm excited to get out on the road again," comments Jim. "Travelling over the most beautiful parts of the UK and chatting with some of the best heating engineers and customers are the best perks of the job. I'm looking forward to building relationships with existing customers as well as meeting new customers looking to work with Grant's extensive product offering."

Terry adds: "With my experience of low carbon heating and my knowledge from working in the merchant network, I want to help make the transition into renewables as simple and easy as it can be, supporting existing and new customers. Not only does Grant have a great depth of quality products, it also has the support to back its products."

Steven Paton is the company's new sales support engineer for the North of England and Scotland, providing technical sales support to customers and assisting their renewable heating projects.

Steven first joined Grant in May 2022 as the area sales manager for the North of Scotland, during which time he has worked closely with installers, merchants and developers to provide sales support for all of Grant's products. In his new role, Steven will be assisting installers and heating engineers with tailored technical support for Grant renewable installations, in particular helping with air source heat pump projects. From carrying out site surveys and assisting engineers with heat pump set-ups through to supporting customers with system design enquiries, Steven will be on hand to support installers with the technical advice they need for their Grant renewable heating installations.

"My new role is an exciting new chapter," comments Steven. "I thoroughly enjoy working with installers and engineers, supporting them by answering any queries or by being on-site to provide technical assistance. As a sales support engineer, I'll get to work with our existing G1 installer network and look forward to helping these engineers and new customers as they embark on their route to renewables."

New appointment for Arctic Hayes

Arctic Hayes has announced the addition of two key professionals to its team: Richard Musgrave joins as marketing manager, while Emma Telfer takes on the role of business support manager.

With a proven track record in strategic marketing and brand management, Richard's role will be pivotal in creating and innovative marketing campaigns, fortifying the company's market presence and engaging with plumbing professionals nationwide. Richard's extensive experience includes product management and retail roles at Arco, Willberby, Stephenson and Wren Kitchens.

Emma, meanwhile, brings a wealth of experience in operational management and customer support. Her primary focus will be on improving operations, enhancing customer experiences and streamlining internal processes to support Arctic Hayes' ongoing growth. Emma's experience includes office management positions at Aston Chambers, Infinity Works and Core Consulting.

"We're delighted to expand the team with Richard and Emma," says Lee Parsons, CEO at Arctic Hayes. "These appointments enable us to better meet the needs of our customers while maintaining our commitment to delivering high-quality products and exceptional service. Richard's marketing expertise and Emma's operational acumen will undoubtedly contribute to our continued success in the plumbing industry."

Celebrate the festive season with Talonmas!

With the festive season just starting, Talon is celebrating once again with its traditional 'Talonmas' giveaway promotion. For 12 days in December, Talon's social channels will be crammed with goodies as the pipe clip specialist is giving away prizes galore.

All installers have to do is follow the post's instructions and answer a simple question for a chance to bag some fabulous prizes. Past Talonmas gifts have included Talon Workwear, KNIPEX tools, Velocity bags, Makita power tools and even a CT-1 Christmas Hamper.

"Talonmas is all about fun and a chance to win some fabulous prizes, thanks to the generosity of the companies who also get involved," says Mike Morris, Talon's marketing manager. "Some of the questions you could be challenged to answer include, 'What is your favourite Christmas cracker joke?' or 'What is your Christmas breakfast?' Be ready with some fun answers and the prizes could be yours."

New project to reduce carbon emissions at Longford CC by 87%

Last year, in September 2022, The Alliance for Zero Carbon Heating (TAZCH) met in the offices of Longford Council, Northern Ireland with Paddy Diffley, the buildings and facilities manager of the Council and deputy Joe Flaherty, TD for the Longford–Westmeath constituency since 2020.

The meeting was to discuss whether we could offer a simpler solution to decarbonisation of the Council HQ rather than a major retrofit programme. The answer of course, was yes, we could convert the oil-fired boiler that heats the main office building to Hydrotreated Vegetable Oil (HVO), a biofuel offering an immediate c.87% reduction in carbon equivalent emissions.

David Blevings (OFTEC). Nick Hayes (UKIFDA) and Kevin McPartlan (FFI) outside the Council offices.

In principle, the solution was straightforward, but we had a few steps to get here, and the conversion only went live in May 2023. Sean McBride, the ROI local inspector carried out the initial site survey and then, through the Council's tendering process (all OFTEC registered businesses), Brendan Earley, Premier Energy Storage, was engaged to replace the tank and carry out the necessary works to convert the existing boiler to run on a biofuel. The boiler,

The team of technicians who oversaw the conversion.

which is now running on HVO, will see a reduction in its emissions by 87% - paving the way to achieving heating emissions savings in a timely and affordable fashion.

Samantha Healey from Longford County Council was interviewed for RTÉ News and said: "Before we could even look at putting in a heat pump system for example, we would need to make some significant deep retrofits to the fabric of the building. HVO presented an excellent opportunity to bridge that gap."

The Council will be monitoring the emissions reductions achieved by the fuel switch and it's anticipated that the project will demonstrate the scale of carbon reductions that can be achieved in both commercial and residential settings in a way that is quicker, cheaper, and more universally applicable than retrofitting.

Speaking about Longford County Council's aspirations for the project, executive engineer David McNiff said: "We're very pleased for Longford County Council to play such a strong role in the move towards the use of biofuels. The process itself was

Checking the conversion.

seamless and, by utilising existing equipment, this move has saved the Council money, reduced our capital outlay and given us an immediate 87% reduction in carbon emissions. Looking towards the future, we plan to invest in more adaptations and add further controls to achieve additional savings."

OFTEC and TAZCH will be using the project to demonstrate how the switch to low-carbon liquid fuels can accelerate Ireland's journey towards hitting its emissions reduction targets by 2030. The Government's Climate Action Plan commits Ireland to a legally binding target of achieving net-zero greenhouse gas emissions by 2050 and achieving a reduction of 51% by 2030.

The HVO arriving on site.

Win big this Christmas with Warmflow

Christmas is a time for giving and generosity and, in keeping with these sentiments, Warmflow is running an amazing promotion giving away fantastic prizes to both customers and social media followers in the run-up to Christmas.

Customers will have a chance to win some incredible prizes including a toolbox, Smyths toy voucher and even an Ooni pizza oven every week from the 14th November right up until Christmas.

Known for an extensive product range including the high efficiency Agentis oil boiler and Zeno air source heat pump as well as many other home heating products, this promotion, run exclusively on social media is another way in which Warmflow is giving back to its customers this Christmas.

Following Warmflow on Facebook & Instagram keeps you up to date with their latest news, products and promotions, and all that is needed to be in with a chance of winning is to simply follow Warmflow on social media platforms, tagging a friend in each post and sharing the competition.

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Maximise performance for customers with Navien's oil-fired boilers

The oil boiler ban has been delayed by nine years, meaning that households won't have to struggle to afford to make the switch to heat pumps or other low-carbon alternatives imminently. But the poorest households will not have to switch, as announced by the prime minister in his televised statement in September, which set out his new strategy to achieve net zero by 2050.

Homeowners will not have to make the switch to low-carbon alternatives such as heat pumps until such time that their oil boiler needs replacing after 2035, however, for those that want to make the switch now, the Government has increased cash grants for the Boiler Upgrade Scheme by 50% up to £7,500.

While this delay provides the industry with an opportunity to educate itself and its customers about the sustainable and efficient alternatives that can be used once the ban is in place, now is also a good time for installers to show their customers how they can best maximise the performance of their oil-fired boiler.

Sean Keleher, technical director at Navien UK, discusses the benefits of oil-fired appliances and how installers can help their customers maximise performance.

Yellow or blue flame

Oil-fired boilers are an efficient way of providing heating and hot water throughout the home and are often found in more rural areas where gas infrastructure is non-existent. In fact, as oil burns at a higher temperature, oil-fired boilers can heat homes more quickly than alternative options while using less fuel to do so, making them more efficient.

The two main types of oil boilers on the market are yellow and blue flame. Yellow flame indicates incomplete combustion, while blue flame indicates complete combustion, producing a much hotter and cleaner flame. Not only this, but blue flame oil boilers have a much lower NOx emissions rate compared to yellow flame, meaning they are more efficient and have cheaper running costs.

Maximised performance

For homeowners with an oil-fired heating system, there are several ways installers can help them to maximise the performance of the boiler, reduce their running costs and their energy bills.

Most combi boilers will reach temperatures as high as 80^{0}C for domestic heating circulation. However, regardless of the fuel used to power the system, these temperatures are too high for appliances to maintain an A+ ErP rating. It is only when flow temperatures are below 60^{0}C that the boiler can reach the desired rate of higher efficiency.

By reducing the operational flow rate temperature and giving the boiler a chance to run in condensing mode, installers can help homeowners maximise performance and reduce their energy bills.

Navien's LCB700 Blue Flame oil-fired combi boiler is the UK's first oil boiler to offer an A+ energy rating when installed with a Navien Smart Plus Controller or equivalent, producing a NOx emission rate as low as 57.2mg/kWh – one of the lowest in the industry. With a built-in flow adjustment valve, the boiler ensures hot water is available on demand but won't preheat the system until it has recognised the homeowner's usage habits.

In addition to its zoning capabilities which allow individual spaces to be heated to a specific temperature, the Smart Plus Controller houses a Smart Forecast and Geofencing tool, both of which ensure that the boiler only uses energy when needed.

Smart Forecast harnesses data from OpenWeatherMap to respond intuitively to the current local weather conditions to ensure the home remains at a comfortable temperature, without user interaction. Its Geofencing capability allows users to switch the boiler on or off, purely based on their proximity from their home which can be set up to a maximum of 5km – a particularly useful feature when returning home from work.

The LCB700 is also designed to use the store first until it is required to add heat – reducing fuel usage and delivering stable and consistent hot water to the customers' desired temperature.

Fine-tuning

Navien's oil boilers come with an up to 10-year warranty as standard, giving customers peace of mind over the longevity of the boiler. And one key element to help maximise performance throughout the 10–15-year lifespan of an oil boiler is through fine-tuning the internal oil burner.

Moreover, the boiler can choose the closest output required for the property, for example, the 28kW unit can have an output of 21kW or 28kW, depending on the needs of the homeowner. This is also supported by the boiler's blue flame burner which requires less fuel during the combustion process.

To maximise performance, regular tuning is required to ensure the combustion process is optimised, safe and efficient. Without this process, installers can uncover a number of issues including increased fuel consumption and reduced performance, which can pose safety issues for customers and increase emissions. However, completing this service once annually can increase the

longevity of the boiler and reduce energy costs for the customer.

Introducing HVO

HVO is a fossil-free fuel, a sustainably produced, renewable paraffin that comes from used cooking oil and vegetable oil processing waste. Converting properties from the use of heating oil to HVO is a simple process and much cheaper than the cost of installing a brand-new, low-carbon heating system, which is ideal for the more informed consumer who is looking towards more sustainable options in line with the delayed boiler ban.

It is vital for manufacturers and industry groups to join and embrace HVO as a more environmentally friendly fuel. Committed to the UK's net zero targets, reducing carbon emissions, and lowering NOx levels, Navien's LCB700 Blue Flame range is fully HVO compatible, and the manufacturer is also planning to develop an HVO model that reduces carbon emissions in 2024. As well as diversifying its product range, Navien is also working with OFTEC to encourage the Government to lower the tax implication for HVO to help contribute to a cleaner environment.

Warmflow helps to raise £162K for Cancer Charity

Warmflow, a manufacturer best known for its high quality Agentis oil boilers and state-of-the-art Zeno air source heat pumps, has helped Friends of the Cancer Centre raise £162,000 to fund vital care to those who need it.

Director of GB Sales & Marketing, Brian Beattie, commented: "Friends of the Cancer Centre is a charity that is very close to our hearts. As a responsible business, we are pleased to be able to support the charity to make a difference in the lives of thousands of families every year. This year was no exception, with the amazing amount raised through engaging events throughout the year."

Warmflow partnered Friends of the Cancer Centre on their Slieve Donard Walk and Abseil of the Hospital Tower Block events. The funds raised will go towards providing patient care, patient comfort and vital research.

To find out more about the charity and to contribute, visit Friends of the Cancer Centre at www.friendsofthecancercentre.com

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Exploring the efficiency and comfort of the Warmflow Agentis Combi Oil Boiler

The demand for efficient and reliable heating solutions is now higher than ever. For those living in areas without access to natural gas, oil-fired boilers remain a popular choice for their heating needs. Looking to meet the current demands, the innovative Warmflow Agentis combi oil boiler has been developed with a range of modern features to deliver maximum efficiency and comfort.

Here we take a closer look at the Agentis, exploring its key features and benefits to find out why it is such a popular choice for homeowners seeking a dependable heating solution.

Efficiency and performance

The Warmflow Agentis combi oil boiler is renowned for its impressive energy efficiency, ensuring homeowners can stay warm while keeping heating costs under control. The Agentis combi is the only AA-rated combi oil boiler in the UK & Ireland, meaning that it's A-rated for hot water and A-rated for heating and its high-effciency design allows it to save homeowners up to 5 litres of fuel per week! One of its standout features is its rapid hot water delivery, it not only heats your home efficiently but also provides instant hot water on demand - a feature that is particularly beneficial as it eliminates the need for a separate hot water cylinder, saving space and energy.

Modern control and connectivity

To cater to the modern homeowner, the Warmflow Agentis offers advanced control options. It has a user-friendly control panel, so that homeowners can easily adjust the temperature and settings to meet their comfort preferences. It can also be integrated into a smart home system, allowing users to control their heating remotely using a smartphone or tablet. This level of control ensures your customer's home is always at the perfect temperature.

Reliability and durability

This boiler is one that is built to last with robust construction and high-quality materials to make it a reliable heating solution for the long term. The stainless steel heat exchanger and smart insulation contribute to the boiler's durability and thermal efficiency, and, with proper maintenance and care, this boiler can offer dependable heating for many years.

Installation friendly

The Warmflow Agentis combi boiler has been designed with the heating engineer in mind, with a 24-litre hinged expansion vessel, for easy access when servicing and availability as a professional model with factory-fitted accessories such as an Adey Magnaclean filter, Teddington fire valve and much more.

Offering highly efficient heating and hot water capability without compromising on performance or eco-friendliness, it's easy to see why the Agentis is a popular choice for installers and customers alike.

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HVO: addressing the issue of sustainability

For fuels like Hydrotreated Vegetable Oil (HVO) to be a realistic solution, they must tick the right sustainability boxes. It's vital that, in trying to do the 'right' thing, we avoid unintentionally doing a 'wrong' one. Fortunately, for fuels like HVO, the rules around the proper use of raw materials and how carbon intensities are calculated are enshrined in law.

Verified sustainability

There is a legal obligation on fuel suppliers to be able to evidence that the fuel they have supplied is the fuel they have committed to providing. To do this, they must be able to verify each stage in the supply process.

In the EU, the Renewable Energy Directive (RED) describes the raw materials that can be used when manufacturing a renewable fuel and the way in which overall final carbon loadings should be calculated. RED requires both raw material suppliers and renewable fuels producers to be registered with an approved validation scheme, to ensure formal audit trails are in place, culminating in the presentation of a Proof of Sustainability (POS) for each batch of fuel manufactured.

In the UK the Government largely mirrors the requirements of RED. Unlike first-generation crop-based biofuels - which raised concerns over land use - the HVO imported into the UK is now derived from waste feedstocks, almost entirely used cooking oil (UCO). Producers and consumers of renewable liquid fuels such as HVO, recognise that waste feedstocks are the future for these fuels, or a move to synthetic production if that becomes viable. Non-waste feedstocks are being phased out and it is possible that other fuels with similar positive traits to HVO, but utilising other waste streams, will become available in the coming years.

The use of palm oil is not allowed in the UK. However, concerns have been raised that palm oil may be used in local markets to replace UCO that is exported for HVO production. Robust steps are being taken to ensure this is prevented - there is little value in the feedstock being derived from UCO unless it leads to a genuine reduction in emissions. Monitoring has also been strengthened to reduce the risk of counterfeit fuels – which are derived from feedstocks that are not genuinely renewable - being placed on the market and passed off as sustainable.

For renewable liquid fuels intended for heating use in the UK, the process is independently audited under the International Sustainability and Carbon Certification (ISCC) system. The British Research Establishment (BRE) has calculated the carbon intensity of HVO manufactured from UCO for the purposes of the Standard Assessment Process (SAP) for buildings at 88% lower than the carbon intensity of fossil fuel heating oil (kerosene). Additionally, OFTEC has secured publication of a new Publicly Available Specification (PAS 5420) to assure the sustainability of renewable liquid fuels. It sets out that fuels must be wholly derived from waste sources such as used cooking oil, have robust audit trails to maintain sustainability and traceability, and the next generation renewable liquid fuels to be evaluated for suitability for fixed combustion applications.

All HVO is currently imported into the UK. However, waste oil capture in the UK is improving and analysis has shown that, if used cooking oil collection in the UK was up to the standards of other countries, it would provide enough UCO feedstock for at least 10% of our HVO requirements for off-grid heating.

Whatever feedstock is used going forward, it's hoped that these checks and processes will ensure the genuine sustainability of the fuel can be measured and verified, offering end consumers the peace of mind that their heating has moved from being part of the problem to being part of the solution.

Safety first with oil tanks - using fire protection barriers

In the quiet corners of homes and businesses across the UK, tucked away in gardens and yards, sit the unsung heroes of winter warmth - fuel oil tanks. These tanks silently fuel our heating systems, providing comfort, hot water and cosiness during the chilly months.

Thousands of households and businesses rely on oil-based heating systems. However, the convenience and efficiency of such systems come with a necessary caution: the risk of fire.

While rare, the consequences of a fire involving an oil tank can be severe, posing a threat not only to property but also to lives… and this is why regulations are tight concerning where oil tanks can be sited.

Of course, different restrictions apply to siting tanks near buildings and boundaries, but the constraints can mean that choosing the right location without compromising on outdoor space or aesthetics, is tricky for your customers.

To help to solve this problem, the industry developed fire protection barriers for oil tanks. When installed correctly, they provide an efficient and economical way to comply with regulations, improve the appearance of the tank location and, of course, keep property and people safe.

Insulated fire protection barriers act to mitigate the potential damage that can arise in the unfortunate event of a fire. They act as a shield, creating a protective zone around the oil tank and slowing down any fire that ignites. They come in a kit form, so can usually be erected quickly with minimal tools.

Rob Butler from Barton Oil Burner Services Ltd had this to say: "We decided to use fire protection barriers a couple of years ago. Although we weren't sure if installing the panels would be easy or effective before we started, we quickly found it was!

"The barriers are supplied in various sizes in a kit that has everything you need for the installation, making it easy to do with just a few tools. In fact, it's very simple: you just fix or lay a guide rail on the floor and clip the barrier sections in.

"The panel sections are 500mm high and come in different lengths to suit any tank size and project needs. The panels are made of an insulating material with a metal covering. They're very easy to cut and light to handle. Once you've got them up, you add the end panels, fit the top section and add the corners. The whole thing is fixed together with self-tapping 8 mm-headed bolts. The panels are finished in green, and the kit even had green caps for the bolts, so the final results look very professional and neat.

"If your project demands that your fire protection be free-standing rather than attached to another structure, such as a wall, you can get angled brackets that fix to the floor and fully support the panels. They're about 100mm thick, so you need to accommodate this when you're making your concrete base.

"The kit was packaged really well. The sheets came fully protected with a film covering that you pull off during installation.

"All in all, we are really impressed with how quickly we can erect fire protection barriers for our customers. You can put a 2.5 x 2.0m wall up, from start to finish, in 1/2 hour."

Atlantis Tanks' fire protection barriers are one of the company's most popular products. The company's sales director, Kieran Mytton, explained: "We've seen sales of our fire protection barrier kits increase a lot over recent years. We put that rise down to the kits being simple to use and quick to erect. Installing these barriers also means that you've got lots more choice about where to put an oil tank… and it's going to look better, wherever it's located. To help our customers calculate the right size of kit for a project, we now have a kit size calculator tool on the website, which makes the job even easier."

In a world where safety matters most, fire protection barriers help your customers to keep warm without compromise.

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DESIGN FUNCTION PERFORMANCE

Diversifying heating solutions for an eco-conscious market

For decades, traditionally fuelled appliances have been the staple for both domestic and commercial applications. While there will always be a market for boilers, cookers and open fireplaces, the high environmental impact of these appliances has come under scrutiny in recent years as the market has gradually evolved to have an environmentally conscious mindset.

With this evolution heightening demand for renewable tech, Sean Keleher, technical director for Navien UK, explores how the boiler and heating appliances manufacturer is investing in reducing the impact of traditionally fuelled appliances and discusses how it is diversifying its product offering.

Blue flame technology

Rather than yellow flame, Navien only uses blue flame technology to produce a cleaner and more efficient burn of fuel that delivers superior efficiency and ultra-low NOx emissions. The LCB700 Blue Flame range of oil boilers are the first in the UK market to offer an A+ energy rating and produce low levels of CO and NOx.

A blue flame is produced by an oil boiler where the combustion gases within the blue flame burner recirculate. This recirculation process burns off high concentrations of NOx emissions, giving low NOx, better fuel consumption and a soot-free blue flame.

A yellow flame, on the other hand, is cooler and produces more soot and carbon monoxide. Navien only sells blue flame oil boilers in the UK market, providing consumers with an existing, superior technology without the premium price tag. The LCB700 Blue Flame range is available as either a regular, system or combi boiler in both internal and external models, is designed with stainless steel heat exchangers for optimum durability and efficiency and is HVO compatible.

HVO – 'The green liquid fuel'

Many people are still reliant on oil-fired boilers, but it is vital for manufacturers and industry groups to embrace HVO as a more environmentally friendly fuel. HVO is a fossil-free fuel, a sustainably produced, renewable paraffin that comes from used cooking oil and vegetable oil processing waste. Converting properties from the use of heating oil to HVO is a simple process and much cheaper than installing a brand-new, low-carbon heating system.

A recent amendment to the Energy Bill, suggests that the Government has listened to concerns around the proposed 2026 oil boiler ban as the amendment allows for the introduction of a Renewable Liquid Heating Fuel Obligation, setting annual obligations on fuel suppliers to ensure the supply of recognised low-carbon renewable liquid fuels for domestic and commercial heating. This scheme would mirror the Renewable Transport Fuel Obligations Order (2007) and offer off-gas-grid properties the option to switch to renewable liquid fuels.

Navien's LCB700 Blue Flame range is fully HVO compatible, and the manufacturer is also planning to develop an HVO model that reduces carbon emissions in 2024. As well as diversifying its product range, Navien is also working with the OFTEC to encourage the Government to lower the tax implication for HVO to help contribute to a cleaner environment.

Prepared for a hydrogen future

Earlier this year, the Government announced the inception of the UK's net zero hydrogen fund, to drive the growth of low-carbon hydrogen gas. The £240 million investment is intended to pave the way for new green hydrogen production projects and the first hydrogen homes and villages are currently being trialled to establish the simplicity of charging existing boilers and appliances to hydrogen ready alternatives – a project Navien is heavily involved in.

Hydrogen boilers are ready for the 20% blend and Navien is working on trials for 100% hydrogen gas-powered boiler which will start in 2024 and run into 2025. Launching next year, Navien has developed its H2 100% hydrogen boiler which is designed to burn exclusively hydrogen gas once the necessary infrastructure is in place across the country.

Ensuring that homeowners in need of a new boiler can make the switch when hydrogen gas is available nationwide, the H2 100% Hydrogen boiler is a good example of the future of heating and hot water applications. Hydrogen-powered appliances such as this, have a crucial part to play in what will be a revolutionary and more efficient new power source.

Heat pumps and hybrid systems

Air source heat pumps are becoming increasingly popular and are one of the most eco-conscious solutions on the market, helping to reduce carbon emissions and energy bills in properties across the UK.

In early 2024 Navien will also launch its first monobloc air source heat pump. Navien's heat pump uses an eco-friendly, hydrocarbon propane refrigerant with a low Global Warming Potential (GWP) of three, to offer a future-proofed system capable of delivering hot water comfort and higher flow temperatures of 75°C. The heat pump also has two outputs in the range 8kW or 14kW and boasts an A+++ ErP rating, making it one of the most energy-efficient products to join the market.

The heat pump can also be used alongside Navien's leading range of boilers to create a hybrid system, which will provide consistent hot water to meet the demands of the property, especially during the colder months.

Navien's products are designed to work together seamlessly. Its NCB ON Combi Crossover range of boilers featuring its ON technology to cleverly maximise the recirculation of domestic hot water (DHW) to reduce

delays in hot water delivery while significantly reducing water wastage.

The heat pump and hybrid system can also work with assistive technologies such as Navien's Smart Plus and Smart Plus ON AI controllers.

Upskilling and futureproofing

With a rapidly growing eco-conscious market, it's crucial for manufacturers to start diversifying their product offerings to keep up with changing demands, and changes to the industry.

While we recognise and fulfil our responsibility as a boiler and heating appliances manufacturer to ensure that our solutions have the lowest emissions and highest efficiencies, Navien also strives to design future-proof technology that can make the lives of our customers easier and more comfortable.

We're developing a revolutionary new technology that uses artificial intelligence (AI) to help homeowners use their heating system more efficiently and help installers with diagnostics and preventative maintenance.

Launching in 2024, ON AI will incorporate seamlessly with our Smart Plus and Smart Plus ON AI controls to help make home heating simpler. With Smart Diagnostics, boiler faults are flagged in the app and an engineer is notified immediately to identify the problem with all of the necessary parts required.

As the middle point between manufacturers and homeowners, installers have a responsibility to make the changes happening in our industry seamless for all – and most importantly for themselves. In an already competitive market, it's important for installers to upskill and understand renewable technologies in order to future-proof their business. Navien provides E-training and face-to-face sessions across the UK.

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THE QUEEN'S AWARDS FOR ENTERPRISE: INNOVATION 2022

Heat loss calculations – OFTEC technical notice 38

Introduction

This technical notice explains a change to building regulations guidance that requires appropriate detailed heat loss calculations to be undertaken when installing a heating appliance. This notice applies to installations at domestic and non-domestic buildings.

Building regulations guidance

Governments in all regions issue building regulations guidance documents, such as Approved Documents in England and Wales. These documents set out what is reasonable provision for compliance with building regulations. Technicians who follow the guidance in these documents benefit from a presumption of compliance with the building regulations.

Beginning in 2021, building regulations guidance documents in England, Scotland, and Wales have been amended to require that appliances and heating systems should not be significantly oversized, as this reduces energy efficiency. New guidance states that the specification of heating systems (including appliances) should be based on both of the following:

- An appropriate heat loss calculation for the dwelling.
- A sizing methodology that takes account of the properties of the dwelling.

For many years, technicians have carried out detailed room-by-room heat loss calculations and used the results to specify new heating systems, including the heating appliance and emitters. However, for appliance replacements, many technicians used a simplified method - "The Energy Saving Trust's CE54 Domestic Heating Sizing Method" (often referred to as the 'whole house' method). As explained below, this method is no longer considered appropriate.

In England, before publishing the final version of Approved Document L Vol 1 2021 (ADL), the Government published a draft version for industry and the public to comment on. The draft version listed the CE54 'whole house' sizing method as one suitable option for boiler sizing. However, this method was not included as a suitable method in the final published version of ADL. Explaining why, government stated: "In response to concerns that CE54 may lead to oversizing, it is no longer referenced as a method"[1].

The Welsh and Scottish governments have subsequently published the same guidance for sizing heating systems in their equivalent versions of ADL. Other regions are highly likely to follow suit.

It is therefore evident that regional governments expect more detailed heat loss calculations to be undertaken to ensure that boilers are not oversized.

Appropriate method

There are many room-by-room heat loss calculation tools available to technicians. Some are robust and accurate, while others include many assumptions about the property and are as likely to lead to oversizing as the 'whole house' method.

OFTEC is happy to endorse the room-by-room heat loss calculation method found in the Domestic Heating Design Guide[2], as this is based on the recognised standard for calculating the heat load of a building – BS EN 12831-1.

However, many prefer the use of digital tools. To ensure that a room-by-room digital heat loss calculator is appropriate, technicians should verify it complies with BS EN 12831-1.

Records

Technicians should keep records to demonstrate that their installation work complies with building regulations. Such records act as a protection against claims of poor workmanship and may be asked for by a building control officer or an OFTEC inspector. As part of OFTEC's rules of registration, OFTEC registered businesses are required to maintain records of works for a period of no less than six years from the completion of works. Such records include system designs and heat loss calculations.

1. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040925/Future_Buildings_Standard_response.pdf
2. Domestic Heating Design Guide – Published by the Domestic Building Services Panel

Grant heat pump training now available at Combined Heating Services Training Centre

Product training on the Aerona³ air source heat pump range is now being delivered by the Grant UK Training Academy at Combined Heating Services Ltd, a training centre in Norwich.

Combined Heating Services Ltd is a training and assessment centre for domestic and commercial heating engineers. As a training provider, it delivers a selection of industry qualification courses for gas, LPG, oil and unvented hot water systems and Combined Heating Services Ltd is an approved centre for OFTEC, LCL Awards and GasSafe. Earlier this year, the opportunity arose for renewable products to be added to its purpose-built facilities which included the installation of air source heat pumps.

Grant Aerona³ air source heat pump units have been installed at the centre. Engineers and installers who attend the LCL Awards low temperature heating system course at Combined Heating Services will have the opportunity to complete the hands-on elements of the course using these heat pumps. In addition, Grant's own trainers will be delivering the two-day Aerona³ air source heat pump product training course at the centre, making the course more accessible to installers and heating engineers based in the East and South East of England.

The Grant Aerona³ Air Source Heat Pump course is intended for heating engineers wishing to develop their knowledge and understanding of air source heat pumps and the Aerona³ range. The course combines theory and

practical training which covers an in-depth look at the Aerona³ construction and principles of operation as well as the electrical wiring and controller settings. The course also includes heat pump sizing and the key considerations affecting installation, set-up and commissioning. The VortexAir Hybrid technology is also covered during the two-day course. Installers and engineers who successfully complete this course can then apply to become G1 accredited for Grant heat pumps.

"We're very pleased to be able to deliver our heat pump product training course at Combined Heating Services Ltd," comments Phil Stanley, Grant's training manager. "Demand for renewable training, and particularly for air source heat pump training, is growing month on month so the use of Combined Heating Services as a venue for the delivery of Grant product training is a welcome addition to our offering as a Training Academy."

Fuel price commentary

Are we going back to 1973 again? An unstable world is generally bad news for energy prices – as we've seen already with covid and the crisis in Ukraine. And political instability in the Middle East is potentially the worst instability for users of fossil fuels. As readers who can remember the Arab Israeli conflict of 1973 will know, any signs that the supply of oil from that region could be affected means that the price of oil usually rises – often significantly.

Crude oil prices have already increased since June because Russia and OPEC had deliberately reduced production. The impact of this can be seen in the gradually rising cost of heating oil, but prices had begun to slip back when the conflict in Palestine erupted. This pushed crude oil prices back to close to a year-high by mid-October. However, they've since slipped back again. In 1973 the price of crude oil rocketed by 300%, leading to blackouts and a three-day week in the UK, so could this happen again?

There are actually two forces in play today. The conflict and political uncertainties are pushing prices up, but fears of economic recession and reduced demand, particularly in Europe, are pushing prices down. Unless oil exporters impose an embargo to punish countries that support Israel, which is what happened in 1973, it's unlikely we'll see price increases of that level, although it's likely that crude oil will stay relatively high for the next few months – bad news for oil heating customers. But hopefully, we won't see excessive increases.

But why has the price of natural gas fallen in Great Britain? The 25% fall is really striking in a quarter where most other prices are stable or increasing. It's due to the impact of the Government's Energy Price Guarantee, which was reduced in July, and again in October, which impacted gas and, to a lesser extent electricity in Great Britain.

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

GREAT BRITAIN (average)

	Sep-22	Sep-23	Price change	% Difference	4 year average
Electric storage heaters	3882	**3320**	-562	-14%	2688
Gas condensing boiler	1414	**1591**	177	13%	1190
LPG Condensing boiler radiators and DHW cylinder	1630	**1850**	220	13%	1580
Oil condensing boiler, radiators and DHW cylinder	1846	**1323**	-523	-28%	1155
Wood pellets	2249	**2514**	265	12%	1864
Air source heat pump radiators	3111	**2935**	-176	-6%	2361
Air source heat pump underfloor	2606	**2456**	-150	-6%	1933

NORTHERN IRELAND

	Sep-22	Sep-23	Price change	% Difference	4 year average
Electric storage heaters	3206	**3675**	469	15%	2303
Gas condensing boiler	1970	**2215**	245	12%	1258
LPG Condensing boiler radiators and DHW cylinder	2293	**2166**	-127	-6%	2049
Oil condensing boiler, radiators and DHW cylinder	1783	**1238**	-545	-31%	1108
Wood pellets	1715	**1991**	276	16%	1446
Air source heat pump radiators	2679	**2875**	196	7%	2035
Air source heat pump underfloor	2215	**2377**	162	7%	1648

REPUBLIC OF IRELAND

	Sep-22	Sep-23	Price change	% Difference	4 year average
Electric storage heaters	3387	**4516**	1129	33%	2937
Gas condensing boiler	1955	**2937**	982	50%	1751
LPG Condensing boiler radiators and DHW cylinder	2758	**2783**	25	1%	2525
Oil condensing boiler, radiators and DHW cylinder	2386	**1780**	-606	-25%	1548
Wood pellets	2020	**2311**	291	14%	1664
Air source heat pump radiators	2878	**3798**	920	32%	2522
Air source heat pump underfloor	2878	**3187**	309	11%	2121

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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