OFINSTER OF News and views from an evolving heating world

111

RIELLO ROB

FUTURE READY TODAY

WARMFLOW Agentis High Efficiency Oil Boiler

In association with **www.oftec.org**





www.warmflow.co.uk

HVO

FUTURE READY

Fireproof Walls At last an EASY solution!

A DUMAN PLUE AND

SEE A VIDEO ON OUR WEBSITE

60 MIN RATING

Very quick and easy to install, just build like LEGO!
Current testing to EN-1364 part 1 in progress.

Constructed using high quality mineral wool insulation, sandwiched between steel sheets. Powder coated in an attractive juniper finish.

Visit our website to see our full range of Fireproof panels

Tel: 0330 999 1100 Email: sales@atlantistanks.co.uk www.atlantistanks.co.uk





Contents



Boiler News 25, 27-28, 30-33



Tank News 36-37

Training News 38-39, 41

HVO – your questions answered

Technical Topics

42-43, 44



Ashley & Dumville Publishing Caledonian House, Tatton Street, Knutsford, Cheshire WA16 6AG

Tel: +44 (0)1565 653283 mail@oilinstaller.co.uk

The publishers gratefully acknowledge the support of those firms whose advertisements appear throughout this publication. As a reciprocal gesture we have pleasure in drawing the attention of our readers to their announcements. It is necessary however for it to be made clear that, whilst every care has been taken in compiling this publication and the statements it contains, the publishers cannot accept responsibility for any inaccuracies, or the products or services advertised. Printed by Stephens & George Print Group. Tel. 01685 388888





Advertising Commercial manager: Margaret Major Media pack on request: margaret@oilinstaller.co.uk

News Desk Liz Boardman: liz@oilinstaller.co.uk

Winter 2021 Volume 15 No 4

ISSN 1755 - 3490

The key to the future? Embrace change as the 'new normal'

Anniversaries are a good opportunity to reflect on and celebrate what has been achieved, but they are also a time to think ahead and plan for the future. That, probably more than ever, is what we're doing at OFTEC.



As we reach our 30th anniversary, we're busy preparing for what will be the biggest change in the industry since wet central heating became a mass-market solution and ended the reliance on solid fuel open fires and stoves.

OFTEC should be rightly proud to have had one of the first competent person schemes and to have developed the standards and training that have helped to make oil heating such a popular choice for rural households. However, nothing ever stands still, as I'm sure all readers will be aware, and the challenge now is how to make the transition to low carbon heating work for everyone. So, rather than reflecting on previous success, we need to be ready to play a central role, providing effective low carbon solutions and supporting the industry through what will be a period of profound change.

I'm pleased to say that change is already happening. We've been busy improving our IT systems – and apologies to anyone who had problems with the initial launch of our new website – to make us better-equipped to provide our registration services efficiently. And, as you'll have seen from recent Oil Installer issues, we're working very hard to ensure renewable liquid fuels like HVO are an essential part of a decarbonised future. That said, the expected growth in the heat pump market will offer a big opportunity for existing installers to diversify, so OFTEC is preparing and will launch a new training course and heat pump technical book next year.

It's clear the coming years will not be straightforward – we can expect change to be the new normal – but we'll be ready to meet your needs as we move forward.



CEO OFTEC

Introducing a new OFTEC Inspector

OFTEC would like to welcome Tim Williams as a new inspector.

Tim has been in the industry for over forty years, and an oil technician for thirty years plus. Having run his own business for twenty-three years, Tim brings a wealth of experience to his role and is looking forward to being a team member at OFTEC and working with renewable energy, leading the way towards a better, cleaner future.

And, at fifty years plus, he is still gaining new skills such as learning to play football with his son...on the PlayStation of course!



Tim Williams

Welcoming Stephanie Lloyd to the team!

Stephanie joins OFTEC with a background in marketing and communications and will be assisting in the co-ordination of day-to-day marketing activities, such as the company's social media pages and website. She will be helping to further raise the profile of OFTEC, and the services we provide, while helping to develop and evolve OFTEC's marketing functions.

Stephanie has been a part of the marketing industry for the past six years, since graduating from university. She has worked in the communications technology industry, as well as the house building sector, and will work within the marketing department full-time alongside Malcolm Farrow and Charlotte Bethel.

Other staff changes

Sadly, Tim Lock the former technical director, Andrew Peirson, office & HR manager and Toma Stakutyte, who was



Stephanie Lloyd

Outside of work, Stephanie is also an avid golfer and hopes to one day get some form of reasonable handicap (it's not going well so far) and enjoys crocheting in her spare time – she is currently making a crocheted Christmas tree.

working within the registrations

team, have all left the company.

with their future endeavours.

We wish them all the best of luck

Industry invests £800,000 in HVO home heating demonstration project

The liquid fuel heating industry has announced the second phase of its fossil fuel replacement demonstration programme with the pledge to convert 200 homes across the UK from oil heating to Hydrotreated Vegetable Oil (HVO) this winter, amounting to an initial investment of £800,000.

The programme will mean that the 200 homes will immediately benefit from a near 90% reduction in carbon emissions. The conversion requires minimal changes to their boiler and tank with the conversion taking less than an hour to complete.

This exciting initiative follows a smaller trial last winter across 20 homes, from Cornwall to Scotland, which demonstrated there were no technical limitations to using HVO. This second phase will broaden the geographic spread of the homes and will also, for the first time, allow the industry to test out the logistics of what could be a bigger transition to renewable liquid fuels in the short to medium term.

The scheme includes participants from all sectors of the liquid fuel heating industry. The demonstration is led by the Trade Associations UKIFDA for the fuel distributors and OFTEC for the boiler and technician industry and will be joined by 16 fuel distributors who represent around 80% of the home heating oil market by volume. OFTEC registered heating technicians will carry out regular checks on the appliances to monitor performance.

In a joint statement the CEOs of the



Ken Cronin

trade associations, Ken Cronin of UKIFDA and Paul Rose of OFTEC, said: "We know from our own research carried out over the last 12 months, that our 1.7m off-grid customers want to decarbonise in a manner which causes the least disruption and offers the lowest cost of change. The drop-in fuel being used, HVO, represents a fantastic solution to both of these requirements. Our hope is that following positive discussion with government, and further data from this trial, we can start to consider a roll-out of this fuel next year."

Don't miss out. Register with the OFTEC website today!

Your OFTEC registration gives you access to a useful library of technical information and other material on the OFTEC website. You can manage your registration there as well as using our work notification system if you're an installer.

Traffic to OFTEC's new website and technician hub has increased dramatically since its launch earlier this year and, after a few initial teething problems, we hope most users now agree that it's an improvement on the old online service.

However, although everyone eligible has now received their login invitations for the new site and can now take advantage of this, some people still haven't created an account.

If you're one of them, don't miss out! Take a moment to set one up, it's quick and easy to do. Simply click the link that OFTEC sent you recently and follow the instructions – it only takes a minute! And, if you have any problems, please contact our registration team and we can provide assistance.

The website is being continually updated with new information on relevant topics about the heating industry today and the future – and we have ambitious plans for 2022. We think the new site is a big step forward, but we want it to be even better. If you have any suggestions for improvements, then we'd like to hear from you. Please contact OFTEC's marketing and communications team at marketing@oftec.org.

New Heat and Buildings Strategies published

After many delays and false starts, the UK Government finally published its long-awaited Heat and Buildings Strategy in October. But, just like buses, having waited what seems like a very long time, we didn't get one new strategy but two, as the Scottish Government released its own Heat in Buildings strategy the same month!

Make no mistake, these are landmark documents that will have an enormous impact on our industry and the way we heat our homes. In both cases the offgrid heating sector is targeted for early attention during the 2020s. OFTEC has provided a detailed review of both documents elsewhere in this edition of Oil Installer – see page 15. We urge you to read them to get a full flavour of the governments' plans.

These are the key headlines:

- Massive support to drive up the installation of heat pumps
- Plans to ban new or replacement oil installations from the mid-2020s in England and Scotland
- Recognition that biofuels have a role to play

• Proposals for wide range of new regulations to drive green transition and increase energy efficiency

Get involved now!

Alongside the new UK strategy, the Government simultaneously launched a public consultation on its plans for off grid heat decarbonisation. It's vital that we in industry respond and encourage oil heated households to do the same.

Find out how you can have your say – turn to page 8.



Phasing out fossil fuel in home heating

After almost a year of delays, the UK Government has published its longawaited Heat and Buildings Strategy outlining plans to decarbonise heat and buildings. With the sector contributing 21% of UK emissions, this landmark document and associated consultations will shape the future of the home heating industry.

An initial summary document was published first, detailing some of the more 'headline grabbing' initiatives. This was followed by the full document, which confirmed the headline commitments to focus on the electrification of domestic heating and that, from 2035, all new heating appliances in homes will be low carbon. While little discussed in the media, the proposals for off-gas grid homes are extremely ambitious and likely to be contentious.

The main points of the strategy are highlighted below.

Heat pumps first

The strategy, as anticipated, is very much 'heat pumps first' – achieved through both their deployment in new homes from 2025, new regulation for off-grid homes from 2026 and through financial incentive. A £450m Boiler Upgrade Scheme that replaces the RHI will provide £6k grants for GSHP and £5k for ASHP along with an equalising of energy levies will look to bring the cost of heat pumps for homes in line with that of gas boilers by 2030. Home Upgrade Grants will also be made available for fuel poor off grid households.

One notable absence in the strategy document is the lack of commitment to the use of hydrogen for decarbonising heat in homes. A decision on its potential role is deferred until 2026 so that the hydrogen village trials will be completed, with BEIS stating: "We must take no-regrets action now whilst supporting ongoing trials and other research and innovation on our future heating systems, including hydrogen".

What role for low carbon liquid fuels?

After intense lobbying from those involved in heating the off-grid sector, biofuel remains a potential solution for homes "where low temperature heat pumps cannot be reasonably practicably accommodated subject to minor energy efficiency measures".

BEIS accepts that other low-carbon heating options (such as solid biomass boilers, high temperature heat pumps, and potentially liquid biofuels) may offer an alternative in these cases but also indicates that aviation remains its preferred use of biofuels stating: "The deployment of liquid biofuels for offgas grid heating, like solid biomass, will be limited by constraints on the global availability of sustainable feedstocks. For this reason, government will seek to give priority to sectors which have fewer alternatives to decarbonisation, for example the aviation industry."

Controversially, BEIS anticipates that 81% of off-gas grid homes in England that are heated by high carbon fossil fuels will be able to transition to low temperature heat pumps without the need for any energy efficiency improvements and a further 4% will be able to do so with 'minor energy efficiency measures' This leaves just 15% that will need other approved low carbon options.

There are several consultations launched in parallel with the strategy that run until January 12th, 2022, seeking views on phasing out the installation of fossil fuel heating in homes, businesses and public buildings off the gas grid as well as future support and mechanisms for low carbon heat.

The full strategy document can be read here: https://www.gov.uk/government/ publications/heat-and-buildingsstrategy

THE NEXT GENERATION OF OIL BOILERS







Save up to 5 litres of fuel per week



The UK & Ireland's only AAA-rated oil boiler





Over £150 worth of factory fitted £151+ extras included – saving 2 hours installation time

WARMFLOW

FEDINIC FAMILIES WADA

entis

High Efficiency Oil Boiler

Domestic hot water mini expansion vessel and pressure reducing & pressure relief valve factory fitted



Integrated 7-day programmer

Scottish Heat in Buildings Strategy

The Scottish Government published its own Heat in Buildings Strategy on 8 October, just ahead of the UK version. The Strategy builds on a consultation held earlier this year, setting out how it will achieve its net zero decarbonisation target over the next 24 years.

As in the BEIS version, the Scottish strategy aims to rapidly scale up deployment of heat pumps so that by 2030, over one million of Scotland's 2.5m homes and the equivalent of 50,000 non-domestic buildings are converted to 'zero emissions' heat. The concept of zero emissions at point of use remains a controversial and misleading element of the Scottish Government's strategy because it ignores the upstream emissions that may be caused by power generation.

Targeting energy efficiency is also a priority. However, while 45% of Scottish homes now achieve EPC C or better, off-grid rural homes lag well-behind this average. Until this is addressed – if it can $\breve{b}e$ – the strategy's aim that "the vast majority of the 170,000 off-gas homes that currently use high emissions oil, LPG, and solid fuels, as well as at least one million homes currently using mains gas, should convert to zero emissions heating by 2030" may be difficult to achieve in practice.

To drive the transition in existing buildings, the Scottish Government intends to introduce regulations via an All-Tenure Zero Emissions Heat Standard. This will require the installation of zero or very near zero emissions heating systems in existing buildings, in both the domestic and non-domestic sectors. This legislation will support their commitment to phasing out the need to install new or replacement fossil fuel boilers in off gas properties from 2025, and in on-gas areas from 2030. A consultation on these regulations will take place in 2022.

There is acceptance that many households will require support to make the transition and over the current Parliament £1.8 billion is being made available for heat and energy



efficiency projects. Pragmatically, the strategy identifies a role for biofuels, including bio heating oil, within heat which meet its definition of a "low emissions fuel". An internal Bioenergy Working Group is being set up and a bioenergy strategy is promised in 2023. While the Scottish Government has some scope to act, it is worth noting that many of its plans are subject to technical developments and/or require legislation changes at a UK level in reserved areas over which they do not have powers.

It's time to make your voice heard!

With the publication of the Heat and Buildings Strategies in the UK, and in Scotland, we now know how the Government plans to tackle the decarbonisation of our industry. Whether you agree or disagree with their proposals, the consultation process means you have a chance to make your voice heard and influence the final decision. And not just your voice. By talking to other people in the industry and informing your customers, you can encourage other people to get involved too.

The more people who respond, the more difficult it will be for the Government to ignore their views. The proposed changes will fundamentally change the offgrid heating sector over the next 10 years. But is the Government making the right choices?

We think consumers need cost-effective options and a range of flexible choices to cover all the likely eventualities. That means supporting low carbon liquid fuels alongside other options such as heat pumps. If you agree, take advantage of this opportunity to have your say and spread the word!

What you should do:

- Read the articles on pages 6, 8 and 15.
 Download a copy of the Heat and Buildings Strategy
 Visit the Future Ready Fuel website and distribute information to your customers.

Mavien

Blue Flame

The Navien LCB700 oil boiler range... when only future-proofed will do

Reduced running costs, ultra-low NOx emissions and ErP A+ energy efficiency capabilities; these are just some of reasons why we only manufacture blue flame oil boilers. You don't have to wait for the next generation of oil boilers to arrive. It's already here. Find the LCB700 at your nearest merchant.

LIGHTWEIGHT · LOW NOx · FUTURE-PROOFED

To find your nearest stockist: info@navienuk.com

Havien

Discover more about our range: www.navien.co.uk



Industry responds to the Heat and Buildings Strategy

While Grant UK and Worcester Bosch have broadly welcomed the Strategy, both companies agree that there is still work to be done.

In the plans, households look set to benefit from one-off government grants of £5,000 and £6,000 through a £450 million Boiler Upgrade Scheme to help install air source heat pumps and ground source heat pumps respectively, part of more than £3.9 billion of new funding to decarbonise heat and buildings.

"Grant UK welcomes this step on the journey to net zero for the UK, however there are some barriers to overcome before we can truly begin to roll out some of the Government's proposals," explains Neil Sawers, Grant UK's commercial technical manager.

"Positive steps towards resolving the current skills shortage are being taken with the CIPHE Low Temperature Heating Course, and the Heat Pump Associations (HPA) LCL Heat Pump Training course, both of which will be available from Grant UK towards the end of this year. It is imperative that both the Government's funding initiatives and retraining/up-skilling of the workforce work in parallel.

"We are concerned that as yet there has been no announcement regarding other off-gas heating alternatives, such as biofuels (HVO) and hybrid heating, which would have a major impact on reducing carbon emissions and are more practical in terms of an immediate roll out.

"Grant will continue to work with industry and government to develop affordable solutions that focus not only on new-build and retrofit homes, but on the harder questions such as off-gas and hard to heat homes."

Carl Arntzen, CEO, Worcester Bosch adds: "Although the Government's Heat and Buildings Strategy does look like a clear indication of ongoing investment, it doesn't go far enough.

"When considering a heat pump there are many factors to assess which are not considered here, such as the property's suitability. A home may need to be adapted to accommodate a heat pump, such as resizing radiators and making space for hot water cylinders, which carry cost implications. Therefore, the proposed grants may help with the cost to purchase a heat pump, but there will still be costly investment required from homeowners in existing properties.

"As for boilers, the strategy does not



Neil Sawers, Grant UK

refer to any legislation behind a boiler ban, so it's not surprising that there is confusion among installers and homeowners.

"Whilst it is encouraging to see that hydrogen is still on the agenda and is referred to within the Strategy, it is a shame to see that a decision around hydrogen won't be made until five years from now. With hydrogen-ready boilers already successfully trialled, they could be a strong alternative to fossil fuel boilers on the market today – yet this strategy seems to omit them.

"We are committed to the decarbonisation of heating and hot water in the UK and will continue to work with government and industry to offer a technology agnostic future, while educating and inspiring homeowners to make greener choices for home heating."

New Covid app for Worcester Bosch

With businesses being affected by the 'Pingdemic', Worcester Bosch has been using a new Covid app to help continue its work throughout the UK.

The CSC App provides visibility for both employer and employee, giving peace of mind that the working environment is as safe as possible. The new software allows people to take a quick and easy test and log their result in the app, before heading back to work on the result of a negative test.

Allan Ovington, service engineering manager at Worcester Bosch, said: "We used the CSC App to better control the safe working of field service engineers and apprentices who have had to work in pairs during the pandemic. Giving these colleagues the opportunity to regularly take lateral flow tests, and the ability to demonstrate their negative status to



each other on the App, has given them greater confidence to work together.

"Although we have a number of safe working protocols in place for our engineers operating in people's homes, this added tool for those team members who have to travel in the same vehicle between jobs, and work together, sometimes in close proximity; has been a useful extra benefit during these challenging months. Because I also received a notification each time a test was completed and uploaded onto our company portal, it gave me the visibility that the process was being followed by the field teams, which in turn has supported our confidence that we've been able to continue supporting our customers as safely as possible."

James Hyslop, founder of the CSC App added: "It's great to hear the app has been of huge benefit to Worcester Bosch. It's a massive company that contributes heavily to the British economy and the only way that it will be able to continue to do that is if it can have its full workforce available.

"Businesses have suffered so much since the start of the pandemic and those that managed to survive and pull through were soon hit by the 'Pingdemic'. This is why we were so keen to provide a solution that will allow the UK to fulfil its full potential once again."

Grant tackles sustainability with Bath Rugby

Grant UK is returning to The Rec to support Bath Rugby as one of its official partners. For several years, Grant has supported its local Premiership rugby club and is looking forward to the upcoming seasons, supporting the players during the games and helping raising awareness of sustainable heating solutions off the field.

Grant's association with Bath Rugby started in 2015 and since then, both staff and guests have enjoyed many games supporting the Blue, Black and White. For the upcoming 2021/22 and 2022/23 seasons, Grant will be an official partner with its logo featuring on the players' shirts. With the home of Bath Rugby so close to the company's head offices, supporting this team and its wider work in the local community, closely aligns with Grant's own values.



Grant will also work with the Club to raise awareness of the importance of sustainability. More people and businesses are becoming aware of their carbon footprint and are looking at ways in which they can reduce their impact on the environment. Grant is striving to show homeowners how they can take steps towards a greener future with their home heating systems and with its #TacklingNetZero campaign with Bath Rugby, it is hoped that a greater understanding of sustainable heating can be shared.

"Everyone at Grant UK is looking forward to what the next season has in store for Bath Rugby," comments Anna Wakefield, Grant's head of marketing. "As an official partner we will not only be there to support the players at The Rec, but we also hope to work with the Club off the field. Bath Rugby's ethos to support homegrown players, back local causes and the development of the women's game are just some of the ways they are being progressive, and we would like to help them develop new green initiatives, paving the way to make sustainable changes for the future."

www.grantuk.com/tacklingnetzero.

Sustainable Homes & Buildings Coalition launches first report into decarbonising heat options in the UK

The Sustainable Homes and Buildings Coalition, consisting of Worcester Bosch, NatWest, British Gas and Shelter, has released its first comprehensive report at the end of October entitled 'Home is where the Heat is'.

The report directly engages with consumers, going into clear detail on how the UK can decarbonise homes and buildings across the UK. The aim is to place consumers at the heart of the conversations and ensure they have a better understanding of the technology options available to them, and which are most suitable for their home needs.

As part of this, the report recognises that each consumer journey will be different, due to personal levels of awareness, readiness to act and the diversity of the UK's building stock. It lays out six distinct customer pathways, helping every household identify with a particular journey.

The pathways will help people and policymakers alike, to better visualise the physical steps and process to follow to achieve the ambition of a net zero built environment, while guaranteeing more comfortable homes and buildings. More broadly, the report calls for government and the wider business community to address the following challenges in order to better support consumers.



Carl Arntzen, CEO of Worcester Bosch said: "There is no silver bullet to reach net zero emissions from home and building heating, it instead requires a mix of technologies working together. For homeowners, it is vital to have an understanding of what would work for their property and what support they can receive.

"This is why we are fully in support of the Coalition and its first report. We believe it is a firm step towards educating and empowering consumers and installers to make greener choices when it comes to their home heating.

"We look forward to continuing our work with our Coalition partners as we move towards a sustainable future."

Lloyd Cochrane, head of mortgages at NatWest Group added; "Through our partnerships in the Coalition, we want to drive a better understanding of what can be done across the industry and government to raise awareness among consumers and building owners, provide relevant information and appropriate support. We know that making greener choices in the home can often be complex and expensive and there's no 'one size fits all' for individual customers.

"As the principal banking sponsor supporting COP26 in Glasgow, we want to support customers in making greener choices. This ranges from improving their carbon footprint through our partnership with CoGo, discounts through our green mortgage range and work to ensure customers can understand what they can do to improve the energy efficiency of their home."

The Coalition believes the UK can achieve a net-zero built environment, and this report is the first of many contributions to that ambition.

Simplifying safe working around electricity

Over 16 years since the tragic death of electrician, Michael Adamson, there are still unacceptable levels of accidents and fatalities related to electrical working.

In an effort to prevent such fatalities, various approaches to electrical safety and safe isolation have been developed, including a comprehensive guide by the Electrical Safety Roundtable, which proposes that the all-important lock-off kit should be included in the essential PPE list for electrical workers.

Now, in an ongoing bid to safeguard workplaces - and protect the lives of anyone working on or near an electrical installation – Martindale has created a new, simplified version of its more extensive and detailed process in the hope that the acronym – ALIVE - will help to prevent injuries and save lives.

Steve Dunning, managing director, Martindale, explains; "We need to acknowledge that, in terms of the safety of individuals, there is a difference between the activities that should take place prior to working, such as gaining permission and permits, for example, compared to the activities that are totally critical in terms of preventing accidents and fatalities. For instance, a risk assessment is a critical element of any job, but it is not core to safe isolation in terms of staying alive. The same is true for activities that take place after working on an electrical system, such as safe re-testing and start-up.

"We and the Electrical Safety Roundtable have both defined clear and comprehensive 12 step procedures that are well-documented but lives are still being lost – totally needlessly.

"In creating our ALIVE message, we are distinguishing between good working practice (such as our complete 12 step approach and the Electrical Safety Roundtable's guidelines) and shining a spotlight on the 5 vital steps that absolutely must be carried out for your own protection and to prevent loss of life. The 12step approach will include activities



that should certainly take place, particularly in terms of compliance; both sets of process and procedure are valid and, in fact, complementary, but by streamlining the message and focusing on the most vital elements, following the ALIVE process is what will, quite literally, keep you alive."

ALIVE: 5 fail-proof steps to safe isolation

A - Approved Kit

Before starting, make sure your equipment meets all legal safety standards (BS EN61243-3).

L - Lock Out

Identify the point of isolation - lock it off - and place warning tags onto the equipment.

I - Initial Prove

Test your Voltage Indicator against the proving unit to make sure that it's working properly.

V - Voltage Test

Use your Voltage Indicator to confirm that there are no dangerous voltages in the circuit you are about to work on. E - Ensure

Prove and re-test the Voltage Indicator against the proving unit to ensure it is working, before you start working on the circuit.

All Martindale electrical testing products will now be sold with a hard copy of the message to ensure it is shared as widely as possible and that the handy card remains accessible at all times to anyone working on or near electricity.

Steve continues; "There are no reasonable circumstances in which you should be working with live equipment. By making this process as straightforward as possible, our hope is that more maintenance engineers, technicians, operatives, and hard-working people will go home safely to their families at the end of their working day. It really is as simple as that. Every life lost to such incidents is absolutely tragic. It is all of our responsibilities to prevent this from happening and we will not stop sharing this message until such fatalities are a thing of the past." https://martindale-electric.co.uk/5steps-safe-isolation/



Gets you straight to the points!

Installers can now receive great rewards on every oil and gas boiler registered through the Navien Installer App. From grabbing a snack on the go, through to the latest tech and gadgets, our points always give you the best prizes...

Bank them or redeem them, it's your choice!



Mavien

www.navienchoice.com

InstallerSHOW moving to NEC in June 2022

InstallerSHOW will move to the NEC Birmingham next year, from June 21-23, with a host of enhancements and new features.

The event, which has been growing steadily at the Ricoh Arena in Coventry for the past six years, has become an annual go-to event for thousands of installers from across the UK. The show is attended by professionals in heating, plumbing, commercial engineering, renewable energy and electricity. Visitors have access to an array of leading brands in the industry, showcasing innovative products and services, ideas and initiatives.

"We have big plans for InstallerSHOW," said event director, Michael Costain. "Moving to the UK's largest exhibition venue will allow us to grow and develop the event into a world-class exhibition attracting



On stand with Navien

stakeholders from across our industry both commercial and domestic.

"To begin to achieve this, InstallerSHOW will move to the NEC in Birmingham next year. We see this move as the beginning of something very exciting for our industry and for the future of InstallerSHOW. The integrity of InstallerSHOW will remain intact, but the overall look of the show

will expand as we welcome more manufacturers and more installers to the event."

The benefits of moving the show to the UK's number one exhibition venue are many. It's easy to get to from every part of the country by road, rail and air, it has world-class exhibition facilities, and it has the scope to grow the show and increase visitor numbers.

"We are firmly committed to the continued success and growth of the InstallerSHOW exhibition as well as aligning it with other stakeholders within our industry, particularly in the commercial and industrial sector," said Lyrical Communications managing director, Eoin McManus. "This exciting move to the NEC will help us realise our ambitions and enable us to develop a world-class event for our exhibitors and visitors."

Worcester Bosch launches the Future Talent Initiative

Worcester Bosch recently announced the launch of its latest educational programme - the Future Talent Initiative (FTI).

The FTI is aimed specifically at supporting young installers, apprentices and those new to the sector, looking to deliver them the advice and information they need to succeed within the heating and hot water industry as it prepares to undergo significant change.

As part of the initiative, the manufacturer has developed a robust content series, which sees experienced installers, Worcester Bosch professionals and third-party experts across different sectors, come together to offer their insight across three initial themes.

The '0 to 20 in 60 Seconds' series, offers quick-fire tips covering a range of topics including product installation, fault-finding and realworld insight. These are presented by a mix of Worcester's training and technical support teams plus experienced installers.

The 'Forward Thinking' series sees Worcester Bosch experts go into detail on where the heating industry is heading, including future technology and policy updates.

Finally, 'Life in the Fast Lane' is a series of pre-recorded webinars from experts outside of the heating industry. Etiquette expert, William Hanson covers first impressions when entering customer homes, while sales advisor and author, Kieran Perry gives more general business advice. Finally, wellbeing consultant, Neil Laybourn, focuses on the importance of mental health.

Conor Evans from Worcester Bosch takes on the role of head of future talent as part of the FTI and is excited to support the installers of tomorrow. He commented: "We held a series



Conor Evans



of focus groups with young installers last year. They expressed the need for more support from manufacturers in their training and early career stages, which was really the inspiration behind the FTI.

"Since then, we've been working hard to develop our Initiative, identify what young installers want to hear more about and ultimately help them fasttrack their careers."

Zoe Tanner, managing director of SNG – the publishing house behind HIP Magazine which is involved in the Initiative – added: "HIP is thrilled to be partnering with Worcester Bosch to promote the Future Talent Initiative. The educational tool combined with Worcester's Headline sponsorship of HIP Learner of the Year 2022 demonstrates a huge commitment to support the next generation of installers and subsequently the future of the industry." www.worcester-bosch. co.uk

OFTEC's view on the new heat and buildings strategies

Off-grid households risk being treated as guinea pigs for the deployment of heat pumps.

OFTEC has welcomed the new strategies. We agree that reducing carbon from heating is of critical importance, but we also have concerns.

The proposals will bring profound changes to the way we heat our homes. The commitment to fairness that lies at the heart of both strategies is vital and must be followed through if the transition to low carbon heating is to succeed. It is also essential that decisions are based on credible evidence that take full account of the diverse nature of UK housing stock, otherwise many homeowners could face unacceptably high costs

Compliance update

A key aim of OFTEC's competent person registration scheme is to maintain standards in the heating industry. Registered technicians are provided with the training and skills they need to offer high quality service to consumers and their work is inspected regularly to ensure that they continue to meet these standards. The role of OFTEC's compliance team is to ensure high standards are upheld.

In principle there should be no 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, this is not always the case and there are many factors that could influence how work is carried out, and whether a customer is satisfied.

The overriding goal of the compliance team is to assist members of the public and technicians to achieve compliant installations that adhere to the manufacturers' instructions.

Where poor workmanship is reported to the compliance department, 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, and can remove the business' registration.

and disruption - stalling progress on decarbonisation as a result.

We are particularly concerned about BEIS's claim that 81% of off-gas grid homes in England will be able to transition to low temperature heat pumps without the need for any energy efficiency improvements, while a further 4% will be able to do so with average energy efficiency improvements of £1,000. This is the justification for BEIS's proposal that from 2026 most off-gas homes should switch to heat pumps when their boiler needs replacing.

However, this data is so strikingly different to previously published

Although OFTEC is not able to take enforcement action itself, we will take whatever action we can to address concerns. The compliance team is a multi-skilled department and is always looking out for technicians and customers alike. If you ever feel the need to contact them, email compliance@oftec.org.

OFTEC's compliance team works hard to ensure that all members and businesses registered uphold the highest standards, however a number of businesses each quarter are suspended or have their business registration revoked. This can be for various reasons and mean they no longer have the right to display themselves as an OFTEC registered technician.

From the 1 July 2021 – 1 October 2021 there was a total of 59 businesses suspended while three had their membership revoked*.

The revoked businesses are;

- C2549 Bryan G Paulley Ltd
- Following a consumer complaint investigation - Section 10.4 R100
- C101737 Hassle Free Boilers Ltd
- Following a consumer complaint investigation - Section 10.4 R100 • C11536 – 4 Heat Ltd
- Failure to complete remedial action following an inspection – Section 9.2 R100

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

**Rules of registration R100 is available from the OFTEC website.

information that we have written to the Minister demanding a full explanation. We fear that if the data is wrong (and we think it is) that rural households will pay a very high price for this mistake.

Everything we know about these homes suggests they include some of the least well-insulated properties in the country. This means they will be hard to retrofit with heat pumps without significant investment.

Worse still, under the proposed policy they will be expected to switch away from traditional oil and LPG heating systems before the promised cost reductions from the mass deployment of heat pumps will be achieved (an air source heat pump currently costs around £11,000). It will also be before heat pump supply chains have matured and before the installer base has fully geared up to deliver the transition.

The Government has talked a lot about 'learning by doing' in relation to decarbonisation. It is hard not to conclude that this is part of the rationale for targeting oil, coal and LPG heated homes before those on the gas grid. If this is the thinking, it is grossly unfair to do it at the rural householder's expense (it is also worth noting that the Government's own 'electrification of heat' demonstration project has not yet reported).

We think rural households are being used as guinea pigs to develop the market. They risk paying the highest prices while receiving the least predictable outcomes. This is surely unacceptable.

What can be done?

OFTEC is fully supportive of government plans to deploy heat pumps, but households need more choice. Both the Climate Change Committee and National Grid's Future Energy Scenario identify an important role for biofuels, suggesting that between 600,000 and over a million off grid homes need a solution other than heat pumps. Government needs to acknowledge this and work with the liquid fuel industry to deliver this solution.

We need your help – get involved in our campaign for Future Ready Fuels - see pages 6 and 8 for more details.

TIGERLOOP DE-AERATOR



HVO READY TIGERLOOP BIO DE-AERATORS

As an authorsied UK importer of Tigerloops, we are working along side SPX Flow Tigerholm to ensure the HVO ready Tigerloop Bio range is available from us Ex Works.

EXCLUSIVE OFFER

Receive **15% off all Tigerloop De-aerators and accessories** on our online store! Use the below promo code.

Visit www.fueldump.co.uk or scan QR code.

*offer only available on our online store *promo c<u>ode valid until 30/09/2021</u>

PROMO CODE: TIGERLOOP15

OUR RANGE:



FEATURES OF A TIGERLOOP:

- GAS FREE FUEL SUPPLIED TO BURNER
- LESS SOOT BUILD UP
- HIGHER EFFICIENCY
- O BETTER FUEL FILTRATION (COMBI MODELS)
- REDUCED FUEL CONSUMPTION
- EXTENDS LIFE OF FILTER ELEMENT
- CLEANER FUEL BURN



 www.atkinsonequipment.com www.fueldump.co.uk

We'll drink to that! Five Horseshoes is the first rural pub to go carbon neutral

In the last issue of Oil Installer, we reported on the Five Horseshoes, a South Lincolnshire pub that had been converted to HVO as part of the current OFTEC and UKIFDA field trial.

Now we can raise a glass again after it has become the first rural pub in the country to achieve net zero for its heating.

Having already reduced its carbon emissions by nearly 90% by adopting Hydrotreated Vegetable Oil (HVO) fuel for its heating, the Five Horseshoes has off-set the remaining carbon and achieved net zero status by planting trees, which puts the 300-year-old pub at the forefront of greener, rural heating.

Like many other older, rural properties it has very low energy efficiency. The building has uninsulated solid walls, solid and suspended timber floors and single glazing in most doors and windows. This would make the transition to alternative heating systems such as heat pumps very costly and would require extensive renovation and disruption - not an attractive option for a small, rural business. It would also fundamentally change the special character and atmosphere of the pub - not something that would be popular with the regulars.

At a recent event the landlord and landlady, Emma and Matt Freeman, were presented with a framed tree planting certificate by Martin Cooke, managing director of EOGB Energy Products. To further improve the energy efficiency of the pub, EOGB Energy Products replaced the old



L to R: Malcolm Farrow, Paul Rose (OFTEC), Martin Cooke (EOGB Energy Products), Matt and Emma Freeman and son, Simon Ellis (the Oil Tank Company), Martin Trollope Bellew (Barholm Estate), Alan Black (project consultant).

1970s oil fired boiler with a fully modulating OpenTherm Sapphire boiler and installed smarter controls, greatly reducing fuel use. Crown Oil Limited also provided a new bunded steel oil storage tank to replace the life-expired old one.

Fifteen trees will be planted at local primary schools as part of the Carbon Footprint emission offsetting scheme, more than enough to offset the remaining carbon generated by the HVO-heated system. By contrast, it was calculated that to offset the old kerosene heating system, over 200 trees would need to be planted – that's quite a forest!

Emma Freeman, who is delighted to be part of the pioneering demonstration project, said: "For us, the conversion ticks two boxes. From an energy point of view the place will be much warmer thanks to a better heating system and improved controls, and environmentally, we know we are doing our bit to make a difference."





Martin Cooke, EOGB, added: "The Five Horseshoes is a perfect example of how we can create a green, cleaner future for rural communities. As well as replacing the fuel, by installing smarter controls to monitor our energy usage and replacing older, less efficient boilers we can reduce not just harmful carbon emissions, but also the money we spend on keeping warm."

Malcolm Farrow from OFTEC, which is funding the cost of the HVO used in the pub as part of the demonstration project, summed up the benefits: "We've been delighted to work with the Five Horseshoes pub. It's a great example of why low carbon liquid fuels are needed and shows how easy it is to make the switch to low or even zero carbon if you pick the right solution."

Oil Installer Winter 2021



Low NOx EKL LN

Ultra-Low NOx EKL BLUE

elco

CUTTING-EDGE BURNERS FOR HEATING AND INDUSTRIAL APPLICATIONS. FROM 11 KW TO 80 MW



Thanks to more than 90 years of experience in the design and production of burners ELCO, part of the Ariston Thermo Group, is a leading brand in the development of innovative, efficient and reliable burner technologies with a consolidated presence in the field of low NOx emissions. Wherever a small, medium or high power burner is required, ELCO is the best partner you can rely on.

elcoburners.uk@aristonthermo.com

New ClearSkies certification brings important clarity on solid fuel emissions

Tackling the emissions from solid fuel heating has taken an important step forward with the launch of the new clearSkies mark. The mark has been developed as a way to encourage makers of solid fuel stoves and fireplaces to go beyond the requirements of Ecodesign, a regulation by the European Parliament that sets out the required standards for solid fuel stoves and fireplaces. Under the terms of the Ecodesign Regulation, all appliances manufactured for sale after 1 January 2022 must conform to the minimum efficiency and maximum emission levels set out in the Regulation.

ClearSkies certification is designed to drive up the installation of cleaner and more efficient appliances. The scheme is open to all manufacturers of solid fuel stoves and fireplaces. The certification on an appliance provides an easily recognised and independent verification of appliance performance for both emissions and efficiency. In addition, all clearSkies Level 3 or above appliances are certified as being Defra exempt for use in a Smoke Control Area, making clearSkies the ONLY appliance certification mark a technician or consumer needs to look for.

Encouraging the installation of a clearSkies certified appliance where a consumer is looking to upgrade an open fire or older stove (10+ years old) can play a key role in helping to dramatically improve air quality by lowering emissions. A clearSkies certified stove reduces emissions by up to 90% compared to an open fire, and up to 80% less than a 10+ year old stove.

ClearSkies certification of products demonstrates the industry's commitment to continuous appliance improvement. Through the work of the Stove Industry Alliance (SIA) and clearSkies, and its links with installers and sweeps, the industry is also working to raise consumer awareness of the importance of having an appliance





correctly installed, using good quality, dry wood fuel and for ensuring a stove is well maintained and chimney regularly swept.

These are challenging times for our industry and the possibility of further legislation on domestic wood burning is something the supply chain must keep in mind. However, by being aware of clearSkies products, technicians and manufacturers are helping to educate and protect themselves in the solid fuel future.

For more information regarding clearSkies please visit https://www.clearskiesmark.org/



80% fewer PM emissions than 10 year Old Stove

Local MP visits Grant UK's head office

Following the publication of the Government's Heat and Buildings Strategy in October, Danny Kruger, the local MP for the Devizes constituency, visited Grant UK's head office to learn more about the company and the challenges that lie ahead as the country works towards achieving net zero.

During his visit, Danny was also able to learn about air source heat pumps as well as other low carbon heating solutions, including biofuels such as HVO and hybrid technology.

"I was delighted to meet the team at Grant UK and hear about the great work they are doing to keep us all warm over the coming years as we transition away from fossil fuels and towards cleaner technologies such as heat pumps and HVO," said Danny Kruger MP. "I look forward to being able to support them as we all move towards a greener future."

Paul Wakefield, managing director of Grant UK added: "We were very pleased to welcome Danny Kruger MP to our head office. Devizes has been the home of Grant UK for nearly two decades and over the years, we have regularly met



L to R Anna Wakefield head of marketing, Danny Kruger MP, Paul Wakefield managing director, Neil Sawers commercial technical manager.

with local Members of Parliament to discuss what we are doing and the need to make home heating as sustainable as possible. Heat pumps will provide thousands of homes with the answer they need for low carbon heating, but hard-to-heat homes may require different solutions to reduce their dependence on fossil fuels and it was good to discuss these with Danny.

"Biofuels, for example, could be a more cost-effective answer to help customers in rural hard-to-heat homes that are in a distress purchase situation when their existing oil boiler breaks down. Meanwhile, hybrid technologies can also be a stepping stone, helping homeowners transition to greener heating sooner, while they make energy efficiency upgrades to their home.

"A hybrid comprising of a heat pump and biofuel-converted oil boiler could help a home reduce their carbon emissions by as much as 88% compared to a traditional fossil fuel boiler. Therefore, we believe that both biofuels and hybrids should be included in the Government's low carbon heating strategy alongside heat pumps."

STOCKED IN THE UK AVAILABLE FOR FAST DELIVERY



Following significant investment, Ecoflam delivers to customers and merchants faster than ever before.

Products stocked include:

- Gas & oil replacement burners (standard & OEM) up to 500kW
- Industry spares for Danfoss, Dungs, Siemens & Satronic
- Parts for leading brands including Trianco, Alpha, AGA, Rayburn, Stanley & Thermacon

www.ecoflam.co.uk

Ecof

Part of Ariston Group

ASA success for OFTEC complaint

After a formal complaint from OFTEC, the Advertising Standards Authority (ASA) has told Firmus Energy to remove a 48% emissions claim from its advertising.

Using government-approved data, OFTEC proved that the difference in carbon emissions between oil and gas is 29.5%, not 48% as claimed by Firmus. Upon investigation by the ASA, it became apparent that Firmus had not used a like-for-like comparison between oil and gas but had compared a modern gas boiler with an old, inefficient oil boiler.

The ASA said this information should have been made clearer in the advert and has reminded Firmus of the need to ensure they hold evidence for any claims they make.

David Blevings said: "We feel vindicated in taking this course of action and won't hesitate to do so in the

future if faced by erroneous claims in advertisements. "Consumers are entitled to fair and accurate data when researching fuel types and should not



be heavily influenced by misleading and factually inaccurate advertising.

"The liquid fuel industry is working hard to reduce emissions from the sector and as part of the new Energy Strategy for Northern Ireland we have proposed that government endorses a wholesale switch from kerosene to hydrotreated vegetable oil (HVO).

"This product, which is made from waste, reduces carbon emissions from a liquid fuel boiler by 88% with immediate effect, requires minimal adaptations to existing equipment and has less emissions than both natural gas and electricity."

Rented accommodation guidelines for Housing Authorities

'Housing for All', a new housing plan until 2030 for the Republic of Ireland, was published in September 2021. The Government's overall objective is that every citizen should have access to good quality homes.

Key to that objective is the inspection target the plan sets for rental properties for compliance with the minimum rental standards. This will be set at 25% of all private residential tenancies as soon as Covid-19 public health restrictions permit.

Landlords are legally required to provide tenants with a property that provides a safe and healthy environment to live in. That means regularly reviewing the condition

of the property and carrying out repairs when needed. The good news for OFTEC registered technicians is that Regulation 12 provides that all gas, oil and electricity installations be maintained in good repair and safe working order.

Furthermore, it states that the requirement is for an inspection report issued within the previous 12 months by a suitably competent person, that the oil installation in the house is safe and in proper working order. The document further states that OFTEC registration is an example of suitable competence and local authorities will be looking for copies of CD12 for rented accommodation going forward.









Leading the Way in Sustainable Home Heating

Global Warming is everyone's business.

All our boilers are HVO Ready - a fossil fuel free energy source with superior operational performance. Offering an extremely cost-effective alternative to other low carbon heating technologies - and a gamechanger in helping the United Kingdom achieve its net-zero carbon target.



Environment



Innovation



Technology

The Most

Efficient Boiler on the

Envirogreen & Envirolite Boiler Range

ERP Rating A

- > HVO Ready
- > Up to 97.5% Efficiency
- > 25-30% Savings on Fuel Bills
- > Easy to Service & Maintain

t: 01752 691177 | e: sales@firebird.uk.com | www.firebird.uk.com Comprehensive warranties on all parts



New NSAI codes of practice published

OFTEC plays a major role in SR50 publication

The S.R. 50 series of Standard Recommendations, newly published by NSAI (Ireland's National Standards Body), have been drafted as Codes of Practice for all those involved in the heating and plumbing industry.

The purpose of the codes is to help and encourage designers and plumbers to ensure that central heating and water supply systems are not only designed and installed correctly and safely, but are also energy efficient and meet manufacturer's criteria. They are one-stop shop documents that bring together the requirements of various relevant standards, building regulations and best practice.

Fergal Finn, the NSAI standards officer, helped compile the new Codes of Practice for S.R 50-1: 'Water based heating systems in dwellings' and S.R. 50-3: 'Hot and cold water supply for dwellings and their curtilages. Following the publication of the Codes of Practise he said: "The existing European Standards cover a region that extends from the south of Portugal to the north of Norway. But one size does not fit all. For example, Ireland and the UK are the only states that use an unvented water tank storage, so a separate clause had to be written in just for us. There are also significant water infrastructure differences between the UK and Ireland which impact on how plumbing and heating systems work. In the UK, water pressure is guaranteed, in Ireland it is not. Pressurised systems in Ireland are fed by the cold water storage tank in the attic; in the UK it's fed directly from the mains. Traditionally, Irish plumbers, designers and architects study handbooks by Corgi or CIBSE – but they don't include those Ireland-specific quirks."

Sean McBride represented OFTEC on the SR50 panel and commented: "The publication of the S.R. 50 Standards is excellent news for our industry and a long time overdue. Previously, we had limited guidance from government for anything to do with plumbing and heating or mechanical in the Republic of Ireland, we had to rely on the OFTEC books. The new Codes of Practice will provide a lot more clarity and back up for qualified technicians.

"It has been written in a very userfriendly way. I was one of 10 members on the S.R. 50 committee, which





included representatives from all levels of the industry. The manuals reflect that; they're an easy read, factual and the information is easy to find. They replicate and condense a lot of best practice that is recognised in the field and reinforce existing OFTEC guidelines for the heating side. It works well for guys who are doing work with local authorities, government bodies and grant awarding agencies, because they can make reference to this when talking to the homeowner.

"I'm very proud to have been a part of the process of writing the S.R. 50 Standards. It was fantastic to listen to what the other members had to say; they brought so much information and experience to the table. We all wanted to work together to improve the industry for future trades by providing a framework of accessible information for them to refer to in order to do a better job."

Copies of the SR50 can be purchased by contacting:

NSAI Standard Sales at 01 857 6730 or emailing info@standards.ie

RELLO THE **FUTURE IS** HERE..

Riello RDB BG Low-NOx BLU flame burners - compliant to the most stringent emission requirements, with advancing developments to include:

- New Innovative Flame Sensing System₂
- Reduced Emissions
- Improved Efficiencies
- Reduced Electrical Consumption
- Majority of Standard RDB Frontline Spares
- Proven RDB Platform
- Easy Set-Up, Installation & Commissioning

The Genuine Riello RDB burner... No.1 Installers Choice

Leaders in Burner technology for over 90 years

The RDB burner is the No.1 installers choice, it is trusted by thousands of installers with over 2 million burners sold into the UK and Ireland. The new ERP compliant Low-NOx BLU flame version ensures that Riello continues to offer the perfect match for all installers.

Call us today on 01480 432 144





www. rielloburners.co.uk

RIELLO

RIELIO

1. According to expected future ERP regulations

New flame sensing system launching in 2021
 For models with high efficiency electric motors

The benefits of multi-zoned heating

Martin Cooke, managing director, EOGB Energy Products, discusses the merits of multi-zonal heating and why technicians are the best salesmen for such installations.

As we strive towards reducing CO2e emissions and heating costs for homeowners, the subject of heating controls is always an interesting one and even more prevalent now that fuel prices are on the rise. Although the pandemic saw kerosene prices drop significantly for a short period, we are now seeing a large increase in prices due to the brent crude spike.

In many properties far more can be done to reduce fuel bills and carbon emissions with some upfront investment from the homeowner. And this comes with a reasonable payback period.

Multi-zoned systems are now extremely popular but not widely adopted across the board for oil installations comparted to the gas market. Perhaps it is down to the possible, further complexities of the installation and the demographic of the customers. However, as we



are now fighting to prove that we can move into the renewable bio liquid market, and with HVO getting more traction and some government recognition, we really should be looking at how we can reduce fuel consumption and sell more energy efficient systems to homeowners. We need to have the knowledge to explain the benefits to them, as service technicians and installers are their most trusted source of information when it comes to advising what's best for keeping them warm.

Considerable savings can be made when each radiator becomes a zone of

its own. And by utilising smart controls with the best available technology, such as EOGB Sapphire modulating load compensating boilers and weather compensation, there is no need for further external sensors to be fitted. Room occupation sensors can detect room activity, allowing the control system to build a unique operating system for the property. With systems such as these in place, customers are reporting 25% fuel reductions, with one calculating their fuel reduction as much as 200 litres per month and another claiming that they are buying one less oil delivery per year of around £730. So, it's possible that homeowners would see a return on their investment within two years.

Installations of this kind may sound a little complex and possibly daunting but manufactures such as Genius Hub are extremely helpful and there to help. Multi-zoned kits can now be ordered for a particular installation pre-set and labelled for each room, which makes for more of a plug and play installation and removes some of the installer's anxiety about specifying a more complex control system. www. eogb.co.uk

Introducing the Grant QR Cylinder range

Grant UK has launched a new range of hot water cylinders. The QR Cylinder range, released in October 2021, provides customers with a universal solution for their hot water storage needs, partnering with both traditional and renewable heating systems.

The new cylinders comprise of single and twin coil variants as well as preplumbed and slimline models to provide clear choice for installers when it comes to specification. Available in sizes from 150-300 litres, Grant's new Quick Recovery cylinders deliver versality with excellent performance.

These latest additions boast faster heat-up times and excellent standing heat losses, making them the company's most efficient generation of cylinder models. Each model can suit multiple applications so can be installed alongside Vortex or VortexBlue oil boilers, Aerona³ heat pumps and Grant solar thermal systems. All of the QR Cylinders have exceptional build quality and come with a 25-year warranty on the shell. The cylinders come complete with all the fittings ready to accept 22mm pipework, and their overall design combines function with aesthetics. The pre-plumbed models also incorporate several design features which make for an easier installation including a fully integrated wiring centre, factory-fitted cold water and primary system pipework, and a potable water expansion vessel.

Grant has also unveiled its first cabinet cylinder model – the QR Integrated Cylinder. This innovative product packages a QR preplumbed single coil 210litre cylinder within a white casing suitable for kitchen or utility room installations. This cabinet cylinder includes multiple factoryfitted features, including a digital dual thermostat and programmable immersion heater timer, and installation is straightforward and simple. Meanwhile, for end-users, the cylinder is easily integrated into their home, ideal when a separate airing cupboard or room is not available.

> "We are very pleased to be including these new cylinders

to our package solutions offering," says Paul Wakefield, managing director at Grant UK. "The QR Cylinders are our best performing cylinders, and they will provide installers with a go-to hot water solution, whether they are installing a boiler or one of our renewable technologies." www. grantuk.com/products/ cylinders.





Firebird rebrand reflects focus on innovation and sustainability

Firebird has recently rebranded to reflect its business strategy and ambition for growth.

To mark over 40 years in business, Firebird's rebrand recognises how the business has grown through innovation while also ambitiously leading the industry's charge on renewable and sustainable energy.

This is a new chapter for the company. which has grown from humble beginnings in an Ghaeltacht, Ireland, to become a global leader in designing and manufacturing high performance solutions for the heating market.

Renowned for its innovative and bespoke solutions and with a highly experienced team, Firebird has expanded its reach with manufacturing sites not only in Ireland, but also in Northern Ireland and Plymouth, England, and it supplies boilers to locations such as New Zealand, the Middle East, USA, Falkland Islands and many countries across Europe.

With innovation at its core and sustainability its driving force, the rebrand reflects the brand that Firebird is today, while symbolising its dynamic future and business growth ambitions.

The rebrand, communicated through a progressive new logo and website, is not only an important way in which to align the brand visually across its sites in England, Ireland, Northern Ireland, but it also demonstrates Firebird's vision for the future.

One of Firebird's key differentiators is how it has the most technologically advanced and energy efficient heating options on the market. It has also pushed the boundaries on renewable energy to become the only manufacturer of boilers in Europe with Nitrogen Oxide (NOx) emissions that are 50% lower than the European limit. Renowned for its innovative designs and a solutions-focused approach, Firebird's market share has grown exponentially in recent years. A €1 million contract to supply boilers to the Greek market secured earlier this year is one example of how the company is internationally regarded for expertise.

Commenting on the rebrand, general manager, Mark Doyle, said: "Through this rebrand, we're setting down a marker of what Firebird as a business is now and where we're going. Firebird's success has been built on its flexibility to adapt to the needs of its customers and the world we live in. We are continuing to innovate and drive more sustainable heating solutions that benefit not only our customers, but also our environment. Our responsibility to our customers and environment, are the key drivers behind everything we do.

"Now, is the ideal time to launch a modern and progressive rebrand that better represents our DNA. Our aim was to create a brand and a new logo that proudly reflects our best qualities and values, which include world class experience and expertise, uncompromising quality, constant innovation and sustainability."

Firebird's new logo is a strong representation of the core values of the business. The green in the logo represents sustainability, the silver represents Firebird's expertise and the solid quality of the products it offers while the timeless shade of grey stands for its innovative approach to creating solutions that satisfy the ever-changing needs of its customers.

The new branding and tagline 'The Future of Home Heating' coincide with the launch of the Firebird's new website, which is universal for all three regions. Designed specifically for the installer and end user in mind, the new website boasts a host of features that will make the process from enquiry to installation, seamless. www.firebird.uk.com



Worcester Bosch's new technical bulletin features FlueSnug

Worcester Bosch has issued a new technical bulletin featuring FlueSnug, the flue seal that can be fitted in seconds without needing mortar or sealant. The technical bulletin covers the Installation of Horizontal Flues and sealing to the building fabric. The bulletin also features a guide to fitting FlueSnug with Worcester Bosch's Oilfit and Condensfit II flues.

Removing the need for pointing, FlueSnug can be installed in less than five seconds and snuggly fits the 152mm core-drilled hole in the wall through which the boiler pipe and flue exits. It can be used both inside and outside the property for the best finish, it prevents heat escaping, and acts as a barrier to drafts, damp, insects and pests. It can even be installed at height without the need for scaffolding, as it is flexible enough for it to be pushed out from the inside of a building.



FlueSnug also allows installers to quickly access the flue for any service or maintenance requirements, without having to remove existing brickwork, mortar or sealant. After installation, the FlueSnug can then simply be reinstalled once complete, saving time and money for installers and their customers.

Approved by major boiler manufacturers, FlueSnug is the quickest and most cost-effective way to comply with forthcoming changes to Part L of the Building Regulations which mandates the need for pipe collars or grommets onto a pipe where it enters or exits a home, helping to maintain the energy efficiency of the building.

"Worcester Bosch has been absolutely top class in supporting the air tightness benefits of PipeSnug products from the very beginning and its Technical Bulletin release is timed perfectly after the recent IPCC report which highlighted the need to make our homes much more environmentally-friendly as quickly as possible," says PipeSnug director, Alex Lever. http://pipesnug.co.uk/

Grant launches heat pump maintenance kits

A heat pump maintenance kit, which includes the essential items needed to look after an Aerona³ air source heat pump, is now available from Grant UK. These kits will be available to members of the G1 Installer Scheme and heating engineers who complete air source heat pump product training through one of Grant's Training Academies.

The kit is a useful addition for any heating engineer who maintains and services Aerona³ air source heat pumps and includes a 5ltr Spear and Jackson water sprayer, Kane voltage tester, soft bristle brush, PZ1 Stubby Pozidrive screwdriver, 3mm flat head electrical screwdriver [3mm], refractometer and lightweight protective work gloves. The Aerona³ air source heat pump has been designed to be straightforward to install, set-up and maintain, with these new packs designed to complement servicing. Annual servicing is recommended on all Grant heat pumps so that both the unit and the system can be assessed, ensuring that everything is operating correctly and able to do so as efficiently as possible.

To get a kit, G1 Installers need to log onto the G1 Portal www.g1.grantuk. com and visit the shop to place an order, while installers who complete a Grant air source heat pump product training course at one of its academies, can order via a member of the training team.

"Our new Heat Pump Maintenance Kits should prove to be an essential addition to an engineer's van if they regularly work with Grant heat pumps," comments Anna Wakefield, Grant's head of marketing. "The kit items are all neatly packed into the Grant UK branded holdall so engineers have everything they need for a heat pump service in one place. We hope they will prove popular for our G1 installers who are already working with Aerona³ heat pumps, as well as with engineers who are newly trained on the range." www. grantuk.com

The right **parts**. The right **partner**.

Your local **parts specialists** and **dedicated oil spares team** are always on-hand to give you expert advice and help you find the part you need.

With more spares than anyone else, backed by our **national network** and parts from all the **leading manufacturers**, the **same-day** range in our oil specialist branches covers a minimum of **80%** of your needs, and the **next-day** range covers **99%** of demand.

For more information please contact **oil.support@wolseley.co.uk**





Navien strengthens its service offering

Navien has strengthened its technical support offering over the last six months, adding more engineers to its in-house service team to provide dedicated assistance to its customers throughout the UK and Ireland.

Homeowners, heating engineers and merchants can now all benefit from Navien's expertise, thanks to the company deploying technical engineers in Scotland and the Midlands, as well as the north, south east and south west of England. This is in addition to a fleet of service agents, who are able to attend to customers in need within 48 hours.

The company is well aware of the benefits that a knowledgeable, smart support mechanism offers installers, so it has a specially trained team available to provide assistance as and when required. "Navien is proud to offer comprehensive levels of customer support; from technical back-up through to arranging a service, the team is always able to give advice online or over the phone. Technical engineers are then available to attend onsite if further assistance is required," comments Sean Keleher, national technical manager

He continues: "We are delighted to have strengthened our service department, as it allows us to provide even greater levels of support to installers, contractors and end users



alike. By investing in our team, we have an even greater pool of knowledge and experience to draw upon, which is key in ensuring we deliver the best experience possible to our customers."

"Installers have many different technologies to deal with these days; not only are there the various components that comprise gas and oil boilers, but there are all the associated accessories, such as flues and control systems. The latter has grown particularly more advanced, given the emergence of internetconnected heating systems, so it's imperative that customers can liaise with experts quickly should there be any technical issues or queries."

The company's website provides users with additional support, allowing them to arrange an annual service or get help with an issue on their heating system. Installers can also contact Navien's head office with any specific enquiries or download any essential technical documentation. Plus, they can visit www.navienchoice.com to sign up to the company's loyalty scheme.

Navien's blue flame oil boiler shortlisted for industry award

Navien has been announced as a finalist for the H&V News Awards 2021. The company's LCB700 Blue Flame oil boiler has been shortlisted in the 'Domestic HVAC Product of the Year – Heating Units' category.

Commenting on the company's achievement, Matthew Choi, Navien's managing director said: "We are delighted to have been shortlisted for the H&V News Awards at our first time of entering. As the world's number one manufacturer of oil boilers, it is fitting for Navien's LCB700 Blue Flame to be recognised as one of the Domestic HVAC Products of the Year. After all, it boasts superior efficiencies of up to 104% and is the only domestic oil boiler capable of achieving an ErP A+ energy rating. We're now looking forward to presenting our entry to the judging panel and further demonstrating why this product is an industry leader; indeed, we firmly believe it deserves to take home the leading accolade at this year's awards ceremony."

Navien produces and sells two million boilers per year around the world, including 200,000 oil boilers. The



LCB700 Blue Flame is the company's flagship model, available as either a regular, system or combi boiler, in both internal and external versions – complete with an outstanding 10year warranty. Not only does it boast Navien's revolutionary blue flame technology, it is also lightweight (with lift weights from only 58kg), easy to handle and optimised for simple, fast and cost-effective installation. www. navienuk.com



HVO – liquid fuel for the future

With growing concern about the future of our planet and the legacy that the current generation are leaving our children, Warmflow is committed to reducing its carbon footprint and has taken significant strides to future proof its product ranges, as Brian Beattie, the company's head of marketing explains.

Being a responsible company and reducing carbon footprint is an important priority for the business and recent initiates have included heating the factory entirely using products from our Zeno renewable heating range, generating electricity for the site through 550kW of solar panels and recycling water used in testing our products.

We have also introduced a range of environmentally-friendly ground and air source heat pumps under the Zeno brand. The Zeno ground and air source heat pumps are one of the most efficient heat pump ranges in Europe with market-leading efficiencies which have helped homeowners reduce their carbon footprint over the past decade.

In recent years we have continually increased the efficiency of our current

Agentis oil (liquid fuel) range which includes the UK & Ireland's only AA rated combi boiler, which saves up to five litres of fuel per week. Despite these market-leading efficiencies, we still need to push towards a way of heating our homes with net zero carbon emissions.

Unfortunately for many existing properties, heat pumps are not a suitable option so we have been working extensively with government and industry agencies, test centres and colleges to pioneer a solution to replace existing oil and gas appliances.

Initial studies focused on a percentage blend FAME (Fatty Acid Methyl Ester) bio liquid, but this failed to work reliably and provide the required carbon reductions.

For the highest level of carbon reductions, a switch to a 100% renewable fuel is required and in particular a biofuel known as Hydrotreated Vegetable Oil (HVO). While this may be a relatively unknown fuel to many, it has been used throughout the world in various applications. HVO is a renewable liquid fuel made from certified waste fats and oils and manufactured by a synthesised process with hydrogen to create a greener, cleaner fuel. The ISCC (International Sustainability and Carbon Certification) confirms HVO is a sustainable fuel that is made from waste products or crops and doesn't contribute to deforestation.

As a result of substantial and significant groundbreaking research and investment, we are delighted to now announce that all Warmflow Agentis oil boilers are HVO compatible and will be able to run on the renewable fuel with some minor recommissioning. This will give an almost 90% cut in carbon emissions immediately. Our confidence in HVO as a liquid fuel for the future is so great that we have also decided to run our fleet of vans on it as well in partnership with Nicoll Fuels which also has HVO available on its forecourt in Carryduff, Co Down.

The only current downside to HVO fuel is that it is currently classed and taxed as a road fuel, and as an industry we are in discussions with government to see how best to introduce HVO as a home heating fuel and reduce the cost to homeowners. www.warmflow.co.uk

FROM ONE GENERATION TO THE NEXT WITH GRANT

All new Grant Vortex oil-fired boilers are HVO compatible.* Hydrotreated Vegetable Oil (HVO) can be a 'drop-in fuel' so it is a suitable replacement for existing fossil fuels, providing a 100% biofuel option. Significantly lowering carbon emissions of home heating systems, HVO has a part to play in the transition to Net Zero.





BIOFUELS BLOG Scan to learn more



*recommissioning required

www.grantuk.com

Making sense of flame detection

Legislation has driven a number of recent changes to the flame sensors used in oil-fired burners. Graham Barker of Riello considers the future of flame-sensing technology.

A flame sensor is a key safety component of an oil-fired heating system. Its role is to detect when a flame is present and take remedial action if the flame is lost, by either restarting or shutting down the burner.

Any change in flame-sensing technology has huge implications for installers, in terms of servicing and replacing burners. And there have been several of these changes over the last few years. There are two main reasons for these changes. One is the banning of cadmium from flame sensors and the other is the characteristics of the flame in low NOx burners that meet the latest NOx regulations.

Until recently cadmium was used in photoelectric (PE) flame sensors in forced draught burners. Now it has been classified as carcinogenic and toxic, and consequently banned from use in these sensors, leading burner manufacturers to introduce alternatives.

One such alternative is an ultra-violet sensor, which has been used in flame monitoring for many years. They are certainly capable of doing the job but have a shorter life and are more expensive.

Another option that has proved itself in terms of functionality and cost, is the photodiode. These can be combined with a printed circuit board to convert the signal from the diode to a suitable signal for controlling the burner.

When switching from cadmium-using PE sensors to photodiodes, some initial technical hurdles relating to the light emission given off by different flames were encountered but have now been fully addressed.

Low NOx burners

A further challenge to flame detection has come with the move to low NOx burners, to comply with ErP 2018, which have a bluer flame and lower light emissions than more traditional burners. To reduce NOx emissions, low NOx burners recirculate combustion gases within the burner head and boiler combustion chamber, but this results in the flame burning even bluer. This means that there is potential for the light output emitted from the flame to fall outside the visible spectrum – and therefore not be picked up by a photodiode.

One possibility is to use a different photodiode, sensitive to lower lux values, but then the danger is that it may not pick up a standard flame produced by other burners. Certainly, UV sensors could do the job, but they are expensive and have a relatively short life.

The lux value of the flame is detected via various means within the combustion head, such as around the edge of the diffuser or through the centre hole. Many diffuser discs also have a drilled hole to improve the visibility of the flame sensor, but these may not always be aligned with the sensor itself as the strongest lux value is not provided directly from the centre of the flame.

There is also a high degree of reflected lux detected from the inner surfaces of the blast tube itself. Current flame sensors have now been developed to overcome the issues of low NOx combustion with reduced lux values and they provide performance in line with previous PE cells.

lonisation

A more recent development is the ionisation probe, that we have introduced for our true 'blue flame' low NOx oil burners, such as the Riello RDB2.2 BG, to address some of the above issues. This is possible



The Riello RDB2.2 BG



Riello flame sensor

because these newer burners have a flame similar to a gas flame, for which ionisation probes are already widely used.

An ionisation probe can be utilised to detect the charged ions that result from the combustion of a hydrocarbon, allowing a small electrical current to be conducted across the flame when applied. As with a standard flame sensor, if no signal is present at the end of the ignition sequence, or if the signal is lost during operation, the burner will be forced into a controlled shut down.

Technology has greatly improved from previous decades when ionisation probes were last used in oil-fired equipment, and we have been able to modify our blue flame burners to adopt this method of flame sensing. Extensive R&D testing and extended field trails have proved the ionisation probe to be a very successful solution in, for example, the RDB2.2 BG.

Ionisation probes are a simpler means of flame supervision compared to current oil burner flame sensors and have a defined life expectancy of approximately 20,000 hours – double the expected life of a UV flame sensor. Switching to ionisation probes will also reduce the cost of the replacement parts. Moreover, because ionisation probes are already used in a wide range of combustion equipment, they will already be familiar to many installers.

Now that climate change is being addressed with greater urgency, we can expect to see more changes that impinge on the oil heating industry. Certainly, we will see wider use of blue flame, low NOx burners and increased use of biofuels.

Burner manufacturers like ourselves, in conjunction with OEM partners, are already playing a key role in ensuring the industry is ready to respond to these changes positively and productively. www.rielloburners.co.uk

Great products & the best aftercare OR YOUR



Customer Service 0800 059 0800









www.kane.co.uk



Emergency generators powered by Tuffa diesel tanks at Lighthouse lab

Test, trace and Tuffa – providing emergency power for NHS Lighthouse Lab

This fascinating case study from Tuffa Tanks is a great example of how expertise in liquid storage can always deliver the right solution as the company's digital marketing coordinator, Andy Dobson, explains.

In September 2020 Covid cases were starting to peak, reaching a height of 55,761 on 15 January 2021. At the heart of the UK's efforts to stop the spread of the virus was the rapid construction of mega testing laboratories known as Lighthouse labs. The name derives from the fluorescent lights used to detect Covid from swabs taken at home or in test sites. These testing facilities were strategically located around the country to provide fast results and limit the spread of the virus.

Powertecnique, is a UK-based critical power specialist and installer of Uninterruptible Power Supply systems and diesel generator sets for power critical applications. At the end of September 2020, it was awarded a contract covering the installation of backup power generators at the construction site for a Northern Lighthouse lab. With the capacity to process over 80,000 results per day, emergency power to the giant buildings was key to maintain the validity of the tests and deliver accurate test results without disruptions. Continuous power was also critical for the safety of the scientists. Lighthouse labs are warehouses full of biosafety cabinets that need power to maintain the negative air pressures which ensure hazardous airborne substances do not harm the laboratory operators.

Chris Hopkinson, Powertecnique's senior project manager, was responsible for the installation and was tasked with installing two emergency generators each rated at 800kVA for a 200-hour period. With these metrics Chris calculated the site would need two 30,000 litre diesel storage tanks to supply the generators. In the event of power loss to the site the primary generator would provide power for over a week while mains power is restored. The secondary generator provides redundancy for a further 200hour period should the primary set fail.

Getting the lab operational as soon as possible was crucial. Chris received the go-ahead to install the emergency

generators on 24 September and immediately commenced site-specific design work to configure the layout required for the generators, UPS systems and fuel storage tanks. A few days later Chris contacted Tuffa Tanks with the design specifications. As a simple generator tank which didn't deviate far from our standard 31,000 steel bunded diesel tank, it was a straightforward build for Tuffa's steel fabricators. The primary tank and bund were manufactured in a thick 6mm mild steel with a onemeter walk-in cabinet housing the C2020 contents gauge and bund alarm. For this project, the challenge wasn't the specifications of the tank, but the speed at which they could be manufactured. Our comparatively short lead times were the deciding factor in Chris selecting Tuffa as we were the only manufacturer which could guarantee delivery of the tank in time to meet the critical project programme.

However, shortly after we received the order from Powertecnique we
encountered unavoidable issues which required immediate action to ensure we were able to meet the agreed delivery date. With cases surging we had to maintain separation distances in the steel shop which meant running smaller welding teams working staggered shifts, night shifts and overtime to complete our tank orders. Simultaneously, sourcing steel was challenging due to the demand for steel in the European market outweighing the supply. Knowing the urgency for Chris to complete the installation, the whole team pulled together, and the two tanks were delivered as promised on 2 December.

By this time the Powertecnique team had been on the site for a few weeks already, working in crews of three to four engineers to install the generators and UPS. By 10 December the tanks were fully installed and connected to the generators, completing the Lighthouse lab project, and providing vital backup power. The entire build of the enormous laboratory had taken just 11 weeks.

Chris commented: "The scale of the site and the speed in which it was assembled was absolutely phenomenal. Each time I visited I could barely recognise the site as there was so much progress being made. Usually, on projects of this



Two 31,000 litre steel bunded diesel holding tanks

nature, the build times are inevitably delayed, and individual contractors are looking to negotiate more time to complete their disciplines. The vibe here was completely different and it was a real collaborative effort for a common cause. If someone had told me beforehand, they wanted the same thing delivered within 11 weeks, I'd say it would simply not be possible.

"The tanks were high-quality and heavy-duty with very little flex when we were siting them. To be honest, the customer and I were just superrelieved to receive them on time to get the project completed on schedule.

The Lighthouse lab is still in operation and with cases once again on the rise, our diesel generator tanks will be on standby ready to provide backup power as a small but 'well-oiled' cog used to assist the NHS' Test & Trace efforts. www.tuffa.co.uk LUFF Find out more at CO. UK/FITEDTO

Tanks with built-in Fire Protection

Install a Tuffa Fire Pro where other tanks cannot go

- Plastic and Steel models in capacities from 900 litres
- Quick and easy installation

COMPATIBLE

- No need for unsightly, expensive building works
- Registered with LABC under the LABC Assured scheme
- Unique products tried and tested by installers for over 15 years
- ✓ Future-proof compatible with HVO and HVO blends



Tel: 01889 567700 | Email: sales@tuffa.co.uk

Narrant



OFTEC Accredited Courses

GTEC are delighted to announce we are now working together with GRANT UK to provide OFTEC courses.

OFTEC 50 Domestic oil firing introductory 4 day course

OFTEC 101/ 105 /600 Combined 4 day course

OFTEC

OFTEC 102 As 1 day stand alone, or a bolt on to the combined course

■ info@gtec.co.uk

₽ www.gtec.co.uk

NANCE

C01969 666 111

World class training facilities

We want you on our team

The heating industry is changing fast and OFTEC is looking for experienced heating engineers with wide ranging skills to join our expanding team of field-based contracted inspectors.

OFTEC inspectors carry out the valuable work of auditing heating business and checking individual competence through on-site visits. As well as registering oil and solid fuel heating businesses there is increasing demand from renewables installers, so our inspection team needs to meet this new demand.

To find out more visit www.oftec.org/careers

OFTEC courses from ATC

Aberdeen Training Centre (ATC) provides training and assessment within the Building Services Engineering (BSE) and Oil & Gas Sectors, including the hydrogen, natural gas and LPG, oil, plumbing, electrical, refrigeration, renewables and smart metering industries.

Its courses include:

- OFT10-101 Single Stage Pressure Jet Servicing and Commissioning
- OFT10-105E Installation of Oil-Fired Combustion Appliances
- OFT10-600a Installation of Oil Fuel Storage and Supply Systems

The company offers various training and assessment methods that are available to new entrants as well as experienced engineers, with the whole process tailored to suit the individual.

"We pride ourselves in providing training and assessment in the timeliest manner with an ongoing quality-control programme to ensure 100% customer satisfaction," says managing director, Steve Anderson.

"ATC sees each training course as an agreement, not between a business and its customers, but between partners that wish to create a close and mutually-beneficial long-term relationship.

"Our trainers and assessors within ATC are knowledgeable, friendly and passionate with a combined industry experience of over 50 years."

GTEC advises **BEIS** on heat pump roll-out

In early October, representatives from the Department for Business, Energy & Industrial Strategy (BEIS) visited Logic4training in Luton, also an LCL Awards centre, to learn as much as they could about some of the practical issues that need to be resolved in order for the large scale roll out of heat pumps across the UK to be achieved.

GTEC's MD, Griff Thomas, was asked to prepare and deliver a presentation on how to meet the government's target of installing 600,000 heat pumps per year by 2028.

Drawing on 20 years of 'on the ground' experience across the renewable technology sector, Griff discussed the challenges and some of the potential solutions to decarbonising domestic heat.

From 'why should we' to 'why wouldn't we?'

In his presentation to BEIS delegates, Griff looked at how housing and expectations have evolved because of historical 'rapid transition plans' in British homes, including gas central heating, fitted kitchens and even inside WC's! – all of which are considered basic requirements by modern standards – arguing that the same principles could be applied to the electrification of heat.

"Build it and they will come"

Griff provided a detailed analysis of

some of the challenges of heat pump installation and how they can be remedied to get the UK on track for its 2028 installation target.

During their visit, BEIS delegates took a tour of Logic4training's centre and viewed some of the specialist heat pump training bays and took part in some practical 'hands on' experience of the systems in action.

There is a distinct lack of capacity in the training sector – out of 53 registered providers, only 10 are 'turnkey ready' to deliver RQF qualifications and actively deliver renewables training.

In his presentation, made before the Government launch of the Heat and Buildings Strategy, Griff said that other training providers would come on board if they believed there was a long-term demand, explaining that incentives were required for both plumbing qualifications, to attract new entrants to the sector, and specific heat pump training for new and existing candidates

Crucially, Griff stated the urgent need for long-term irrevocable plans and legislation, which would provide manufacturers, training providers and installers with the certainty to fully invest in the sector, recommending a 10-15 year minimum for any framework built.

Time to scale-up

With the recently published Heat and

Buildings Strategy including a £450 million Boiler Upgrade Scheme along with the recently announced changes to the Building Regulations, it seems the certainty that Griff called for has arrived.

Any plumber, heating engineer or gas installer, who has been sitting on the fence about upskilling to heat pumps, the Heat and Building Strategy should provide the encouragement to kickstart a low-carbon career.

Formally referred to as the 'Clean Heat Grant', the Boiler Upgrade Scheme will offer homeowners a grant of £5,000 towards the capital and installation costs of an Air Source Heat Pump (ASHP) and will see 90,000 old gas boilers replaced with electric heat pumps over a 3-year period.

The scheme also covers Ground Source Heat Pumps (GSHP) with those choosing GSHPs able to apply for £6,000 of funding.

Become a heat pump installer

GTEC offers heat pump training courses designed to get experienced installers up to speed within 3 – 5 days.

It is a requirement that any heat pump installers participating in the Boiler Upgrade Scheme must be MCS certified and GTEC have put together NCS Made Easy - a comprehensive support package designed to demystify the MCS process and help installers through their certification.

Oil Installer Winter 2021









Don't let training standards slip

Sean Keleher, Navien's national technical manager, outlines how important it is for oil installers to keep their skills up to date and attend regular training courses.

As oil boilers and heating legislation continue to evolve, it remains crucial for installers to keep their skillsets refreshed and product knowledge to a professional standard. As the industry has emerged from the pandemic, manufacturers have been able to reopen training centres and resume all courses, including face-to-face learning.

Attending product-specific training offers oil installers a range of benefits and gives them the necessary knowledge, skills and experience to fit oil-based systems safely and effectively.

As you would expect, individual manufacturers will tailor their training courses towards their product ranges and oil installers in attendance will benefit from essential service and maintenance information, as well as learning about any features unique to a particular product or range.

In addition, now that energy efficiency has become a more prominent issue throughout the heating sector, it is paramount for the next generation – and existing oil installers – to gain adequate training. Manufacturers can play an important role in futureproofing the skills of our industry by providing colleges, universities and educational premises with the latest oil boiler technology, to keep students apprised with the latest developments and legislation.

It is imperative that oil installers are properly trained for the work they carry out. This ensures they have confidence in their skills and product knowledge, and are also able to offer their customers added peace of mind in terms of safety, costs and efficiency. Enrolling on a manufacturer's training course, such as those offered by Navien, provides the ideal opportunity to learn all the essential product and technical information under the guidance of a dedicated technical expert. Plus, there's also the chance to take boilers apart and study the annual servicing requirements.

Face-to-face training courses should

include comprehensive technical explanations and hands-on, practical tuition. In turn, this provides oil installers with valuable experience in terms of working with 'live' oil and water connections and gives them an opportunity them to familiarise themselves with the latest controls and smart devices. It also allows them to prove they are competent enough to fit a specific product (or group of products).

Of course, we all know that time is money, particularly during heating season, but one day off in the shortterm can lead to some significant benefits in the long-term.

Just take a moment to consider things from an end user's perspective; it is important that the tradesmen they use have the skills required to carry out the job to the necessary standards. High-quality training, with the relevant evidence and certification, will certainly help fly the flag for this cause. In fact, the more trained oil installers the heating industry has, the better its reputation will be – it will also eliminate the presence of fraudsters attempting to conduct substandard (or even illegal) work.

Regular training will actually help oil installers to attract new customers – which then has the positive, knockon effect of helping build a strong reputation and increasing turnover. Navien's training sessions convey to engineers the best means of selling the



features and benefits of our products to their end user customers, without getting overly technical. Take our LCB700 Blue Flame oil boilers as an example: we highlight and explain the eco-friendly and energy efficient benefits of our renowned blue flame technology and stainless steel heat exchanger, as well as the boiler's excellent controllability – and how these factors will help customers to achieve lower fuel bills.

A standard Navien training course takes a day to complete and includes a detailed overview of our Blue Flame oil boilers, covering key aspects such as installation, servicing and commissioning, as well as parameters, settings and fault analysis. This includes adjusting the oil pump and measuring combustion at the commissioning stage, along with how to clean and maintain the heat exchanger. Plus, attendees don't leave empty-handed, as they receive a free training pack worth £300!

So, as we enter an undoubtedly busy heating season, oil installers and manufacturers need to work together to ensure standards remain high throughout the industry. As long as high-quality training is available, engineers' skillsets will stay strong, allowing them to grow their businesses, while working safely and in accordance with the latest legislation – much to their customers' satisfaction. ww.navienuk.com



HVO – your questions answered

Decarbonisation of homes is coming. Make no mistake, governments are planning to make radical and unprecedented changes to the way we heat our homes. Is there a silver bullet to achieve this? Is there one technology that will suit all properties both on and off the gas grid? OFTEC does not believe so and it would be surprising if you disagreed with us. OFTEC believes that the adoption of HVO is the best, most economical way to decarbonise the heating of most existing homes using liquid fossil fuels off the gas grid.

A change of fuel across the UK and Ireland is no small undertaking and raises a lot of technical questions. In a previous edition of Oil Installer, OFTEC included a very detailed HVO Handbook. Don't worry if you missed it, as the latest version is now hosted in the technicians' area of our website www.oftec.org. This article endeavours to simplify the content of the handbook. Hopefully it will answer some of the questions you and your clients have about HVO.

What does HVO stand for?

HVO stands for Hydrotreated Vegetable Oil (it is sometimes referred to as Hydrogenated Vegetable Oil but that sounds too much like margarine!).

Will the HVO being introduced by OFTEC contribute to deforestation or rob farming land?

No. The HVO being proposed for use in the UK and Ireland by OFTEC is made from used cooking oil and waste residue only and will meet very strict sustainability criteria. For this reason, no land is used to grow dedicated crops for HVO and therefore there is no deforestation effect or land competition. The ISCC (International Sustainability and Carbon Certification) confirms HVO is a sustainable fuel that is made from waste products or crops and doesn't contribute to deforestation.

By how much does HVO reduce carbon emissions?

Approximately 88%.

Does that mean CO2 readings will be much lower on my flue gas analyser?

No. Flue gas analyser readings will be very similar to existing appliances.

If CO2 emissions from appliances are similar, how are carbon emissions reduced by 88%?

Most carbon emissions are produced before kerosene is combusted in an appliance. For example, consider the carbon intensive processes of extraction and transportation of crude oil, and the subsequent refining and transportation of kerosene. By contrast, carbon emission calculations for HVO start with the collection of the used cooking oil, which at that point is a waste product. Far less emissions are produced by the transportation of these oils and the production of HVO.

What are HVO's properties?

It is less dense than kerosene but is more viscous (thicker). It contains a little more heat energy by weight. It contains far less sulphur than kerosene and condensate produced by its combustion is far less acidic. It is biodegradable, and therefore not harmful to the environment, and smells a lot better than kerosene (but not like a chip shop)!

The flash point of HVO (the lowest temperature at which a fuel produces sufficient vapour to "flash," or briefly ignite, when a flame is introduced) is interesting. Any liquid with a flashpoint of 60oC or less is defined in law as a 'flammable liquid'. Kerosene and gas oil have a minimum flashpoint of 38oC and 55oC respectively. By contrast, the HVO proposed has a minimum flashpoint above 60oC and is therefore not defined as a flammable liquid. On this basis, OFTEC are hopeful that tanks storing HVO will not be subject to fire protection requirements.

Another benefit of HVO is that it does not absorb water and promote bacterial growth like some other biofuels.

Is it toxic to human health?

Like fossil fuels it should not be swallowed or enter your airways. Repeated exposure may cause skin dryness or cracking.

Does fuel quality and specification vary between suppliers?

Currently, HVO is sold as a renewable diesel fuel and is produced to an automotive fuel standard which provides consistency for that market. As there is currently no standard for HVO used as a heating fuel, OFTEC plans to create a standard that ensures consistent fuel properties, sustainability, and emissions limits. Fuel suppliers who produce HVO to this standard will be able to obtain an OFCERT licence for their fuel.

How much does it cost and is it available yet?

HVO is currently much more expensive than fossil fuels. However, OFTEC is working hard to convince regional governments to reduce this price in a similar way to transport biofuels, and to reduce fuel duty and VAT too. Although HVO is currently available from some national fuel suppliers, the OFCERT licensed product is not yet available. OFTEC hopes to introduce this fuel in 2022.

Is there enough?

Producers of HVO tell us they are ready to ramp up production as the market develops. Further, as transport moves towards electrification, this frees up large quantities of HVO for domestic heating use.

HVO conversion

The exact conversion process is going to vary considerably from one installation to another. The guidelines below give an indication of some conversion considerations. This should not be taken as a specification at this stage.

Can HVO be used with my customer's existing tank, boiler, burner, and fuel supply equipment?

Maybe, but you must check. Here's the problem – kerosene and gas oil contain ingredients that make rubber components swell. Rubber components may be found in isolation valves, filter seals, deaerators, fire valves, pump seals, flexible hoses etc. This swelling is not a problem until HVO is introduced. As HVO does not contain the same ingredients, rubber components can shrink back or crack which leads to fuel leaks. So, you will need to check with the manufacturers of your customers products whether their equipment is HVO compatible or not. Non-compatible equipment must be replaced.

Existing integrally bunded tanks can be re-used if seen to be in good condition and not 20 years old or more. Although integrally bunded tanks are the preferred option, existing single-skin tanks can be reused if they are less than 20 years old, and a thorough inspection shows them to be in good condition. Following conversion, all tanks should be checked regularly to ensure they are sound.

As HVO is more viscous (thicker) than kerosene, fuel supply pipes may need to be resized, especially sub-gravity suction pipes.

Only atomising nozzles manufactured and calibrated specifically for HVO should be used.

Both the appliance and burner manufacturer will need to verify that their products are compatible with HVO and will need to specify the HVO nozzle, pump pressure and combustion settings that apply. Even though HVO compatible components are available for a burner, it may be that the existing burner cannot properly combust HVO. In this case, the entire burner needs to be replaced.

Will there be new HVO compatible equipment available?

Yes. OFTEC is working with industry to ensure HVO equipment will be available. Some boiler, tank, and equipment manufacturers are already stating their equipment is compatible.

Can vaporising sleeve burners use HVO?

No. Vaporising pot burners have been shown to work successfully, so it may be worth approaching the appliance manufacturer to discuss conversion.

What work needs to be done at the point of conversion?

Once you have replaced any existing equipment that is not compatible with HVO, the following steps need to be taken (these steps are in addition to all the normal practices):

• If the existing tank is being retained, it should be emptied (and possibly cleaned). This ensures that the appliance will be supplied with uncontaminated HVO. A blend of HVO and fossil fuel must be avoided as this will affect combustion.

• The fuel supply pipe should be purged so that only HVO is supplied to the burner.

• The HVO injector nozzle specified by the boiler/burner manufacturer should be installed and the burner adjusted as per manufacturer's instructions to achieve correct combustion readings.

 The tank will need to be labelled as containing HVO to ensure fossil fuels are not delivered by mistake. If this happened, the tank would need to be emptied (and possibly cleaned).
 Similarly, appliances should be labelled as having been converted to run on HVO.

Will my analyser work with HVO?

Possibly with a software update. Contact your analyser manufacturer for confirmation.

How much will conversion cost?

hat depends on the amount of equipment that needs to be replaced and on how much you charge! As an example, a simple conversion might cost approximately £500. Of course, it may be that the cost is higher if a fuel storage tank or boiler requires replacement. However, this is a small amount compared to installing a heatpump (and possibly other required works such as property insulation or pipework/emitter upgrades).



The braais and lows of solid fuel installations

OFTEC's technical team has been asked whether installers holding a solid fuel scope of registration can notify a Braai via OFTEC's works notification system. A Braai is a South African barbecue-like cooking appliance. Consumers have asked some technicians to install these appliances internally, in some instances as an open fire.

Firstly, it should be noted that the scope of OFTEC's solid fuel registration scheme is limited to space and hot water heating equipment. Although solid fuel range cookers can be notified, catering equipment (such as pizza ovens, barbecues, Braais etc) cannot.

Secondly, to comply with regional building regulations and to ensure an appliance is safe and fit for purpose,

appliances should be tested against a relevant European and/or British standard. Such testing will enable the manufacturer to provide a technician with important installation data, such as efficiency, and flue and hearth requirements. Most solid fuel barbecues, and some Braais, are tested to BS EN 1860-1. This standard is for externally installed barbecues only. If an appliance tested to this standard was installed internally, or used for a different purpose such as open fire, there would be serious safety implications relating to flueing, transmission of heat, spillage etc.

In summary, Braais and any other solid fuel barbecue should only be installed outside and must only be used for their intended purpose (cooking); they must not be notified via OFTEC's works notification scheme.

Solid fuel roomheaters and Ecodesign changes

Ecodesign requirements apply to a wide variety of products; from washing machines to water pumps and computers to cookers. Ecodesign requirements are legally binding. Their aim is to reduce the negative environmental impact of products. Before qualifying products are placed on the market by manufacturers or importers, they must comply with these rules.

On 1st January 2022 new ecodesign regulations come into force that apply to 'solid fuel local space heaters' – what we usually refer to as solid fuel roomheaters. To be clear, they do not apply to independent solid fuel boilers – these are already subject to ecodesign requirements.

What do the regulations require?

Solid fuel roomheaters placed on the market from 1st January 2022 must achieve the following minimum seasonal space heating energy efficiencies:

 Open fronted roomheaters 	30%
• Closed fronted roomheaters (not using wood pellets)	65%
 Closed fronted roomheaters using wood pellets 	79%
• Cookers	65%

Stricter requirements relating to emissions are also included, with the aim of improving air quality. From 1st January 2022 solid fuel roomheaters must have reduced emissions of particulate matter, organic gaseous compounds, carbon monoxide and nitrogen oxides, all of which are pollutants.

Finally, solid fuel roomheaters must come with detailed technical information, including product specific precautions, performance and emissions data, decommissioning information, fuel requirements and more.

What about appliances placed on the market before January 2022?

Appliances placed on the market before this date can still be installed and commissioned beyond January 2022, including second-hand appliances. Of course, you will need to check that any appliance you install meets the minimum efficiency stipulated in regional building regulations guidance documents. Check the OFTEC Solid Fuel Technical Book for this information.

Don't miss the mark

For many years the CE mark has been applied to products that conform with various pieces of European legislation, notably those relating to minimum standards of construction and energy efficiency/environmental impact. The CE mark has provided an easily recognisable indication that products are compliant. Eagle-eyed installers of fuel storage tanks, appliances and other equipment may have noticed new conformity markings or labels on purchased products. What are they and which should be marked on a product?

Following Britain's exit from the EU, two new conformity marks have been introduced – the UKCA mark and the UKNI mark. The rules about which mark to use are very complex; they vary between GB, NI and ROI and, for products subject to the Construction Products Regulations, they depend on whether the products are 'placed on the market' before or after 01/01/2023. In some circumstances the CE mark can continue to be used. In other cases, the UKCA mark must be used. In others more than one should be present. It is a bit of a minefield!

How can a technician know whether the product he is contemplating purchasing is compliant with such legislation? In simple terms, you should expect to see at least one of the following marks:



Depending on the product, the market the product is to be sold in, and its place of manufacture, it is possible to have any combination of the marks shown above – even all three. The only exception is the UKNI mark which should never be the sole mark. If you have any doubts about a product, contact the product manufacturer. They manufacturer must be able to supply a 'Declaration of Conformity' document on request for any product mark.

More calamities captured on camera!

Thanks to installers, Lancelot Eglin and Sam Welford for spotting these problems on site and sharing their photos with us. As we head into the busiest months of the year there are sure to be more horrors out there, so please send any photos (high resolution if possible) along with a short explanation of the problem and some details about you and the company you work for and where you are based, to liz@oilinstaller.co.uk and we will feature them in the spring issue.



Tank trouble

Lancelot Eglin of Whites Burners in Whitley Bay, Tyne and Wear, sent us this photo. Needless to say, he replaced it with a proper oil tank!

Flower power

Sam Welford of IDBS sent us this picture. Based in sunny Norfolk, Sam services oil fired boilers.

Recently he has seen two oil filter housings fail as a result of customers having deep flower beds. The housings have sat in damp material for many years and have eventually failed.

"Please check any half-buried filter housing," Sam urges other installers. "This one broke as I went to replace it so luckily there wasn't a massive oil flood."





Fuel price commentary

It's been a while since the price of heating oil made headlines in national newspapers, but recent sharp price rises have led to some unwanted coverage. Are we facing a winter of discontent?

The concern is understandable. While UK gas customers are protected by the energy regulator's price cap, the price of heating oil is largely dictated by crude oil prices. While politics can distort this, the price of crude is mainly governed by supply and demand. If demand outstrips supply the price goes up, and that's what's happened recently. This should not surprise anyone. In a world coming out of the Covid pandemic many commodities are in short supply and oil is no different – it takes a while to increase production and move it around the world. The questions we should ask are, how high will it go, how long will it last and should we be worried?

It's always difficult to be certain with fuel prices but in the short term there is cause for concern, while in the longer term, there probably isn't. The short-term worry is the immediate impact, which hits lowincome households hardest. They are the least able to absorb additional cost, and often face the highest bills because their homes are less energy efficient. Prices may fall back in a month or two, but for now some households may face real hardship. Looking further ahead, current crude oil prices are not high by historical standards, and evidence suggests that the peak may be near. As supply catches up with demand, it's likely that next year we'll see lower prices, but perhaps not the super low prices of recent years. If that happens, oil heating will remain competitive with other fuels and consumers will see their heating costs easing.

The latest Sutherland Tables data below shows the average for the last 12 months, so doesn't take account of the recent price rises.

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

GREAT BRITAIN							
	Average: Oct17-Oct21	October 20	October 21	Price change	% difference		
Electricity (Economy 7)	£2,054	£2,069	£2,224	155	7.49%		
Gas	£940	£877	£833	-44	-5.02%		
LPG - condensing	£1,549	£1,555	£1,381	-174	-11.19%		
Oil - condensing	£958	£636	£896	260	40.88%		
Wood pellets	£1,488	£1,507	£1,484	-23	-1.53%		
Air source heat pump radiators	£1,789	£1,793	£1,923	130	7.25%		
Air source heat pump underfloor	£1,415	£1,373	£1,760	387	28.19%		
NORTHERN IRELAND							
	Average: Oct17-Oct21	October 20	October 21	Price change	% difference		
Electricity (Economy 7)	£1,799	£1,882	£2,019	137	7.28%		
Gas	£940	£861	£896	35	4.07%		
LPG - condensing	£2,081	£1,994	£1,447	-547	-27.43%		
Oil - condensing	£940	£611	£879	268	43.86%		
Wood pellets	£1,143	£1,200	£1,425	225	18.75%		
Air source heat pump radiators	£1,613	£1,670	£1,894	224	13.41%		
Air source heat pump underfloor	£1,278	£1,259	£1,708	449	35.66%		
REPUBLIC OF IRELAND							
	Average: Oct17-Oct21	October 20	October 21	Price change	% difference		
Electricity (Economy 7)	£2,143	€ 2,176	£2,404	228	10.48%		
Gas (Phoenix - condensing)	£1,334	€ 1,299	£1,259	-40	-3.08%		
LPG - condensing	£2,372	€ 2,491	£2,224	-267	-10.72%		
Oil - condensing	£1,304	€ 827	£1,294	467	56.47%		
Wood pellets	£1,363	€ 1,385	£1,282	-103	-7.44%		
Air source heat pump radiators	£1,875	€ 1,907	£2,064	157	8.23%		
Air source heat pump underfloor	£1,527	€ 1,504	£1,764	260	8.23%		

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.

Next-day delivery of all top Worcester Bosch spares, every single day of the week' from a Gold-Level Worcester Bosch Official Stockist

2



Spare parts from all other major manufacturers also available from stock Oil, LPG, Gas & Heating Spares • Great Prices • Fantastic Service • Open 7 Days a Week www.hwos.co.uk • 01388 760 333 • sales@hwos.co.uk





The Handbook is back

Danfoss burner components has updated and reprinted their Service Handbook





installer.danfoss.com