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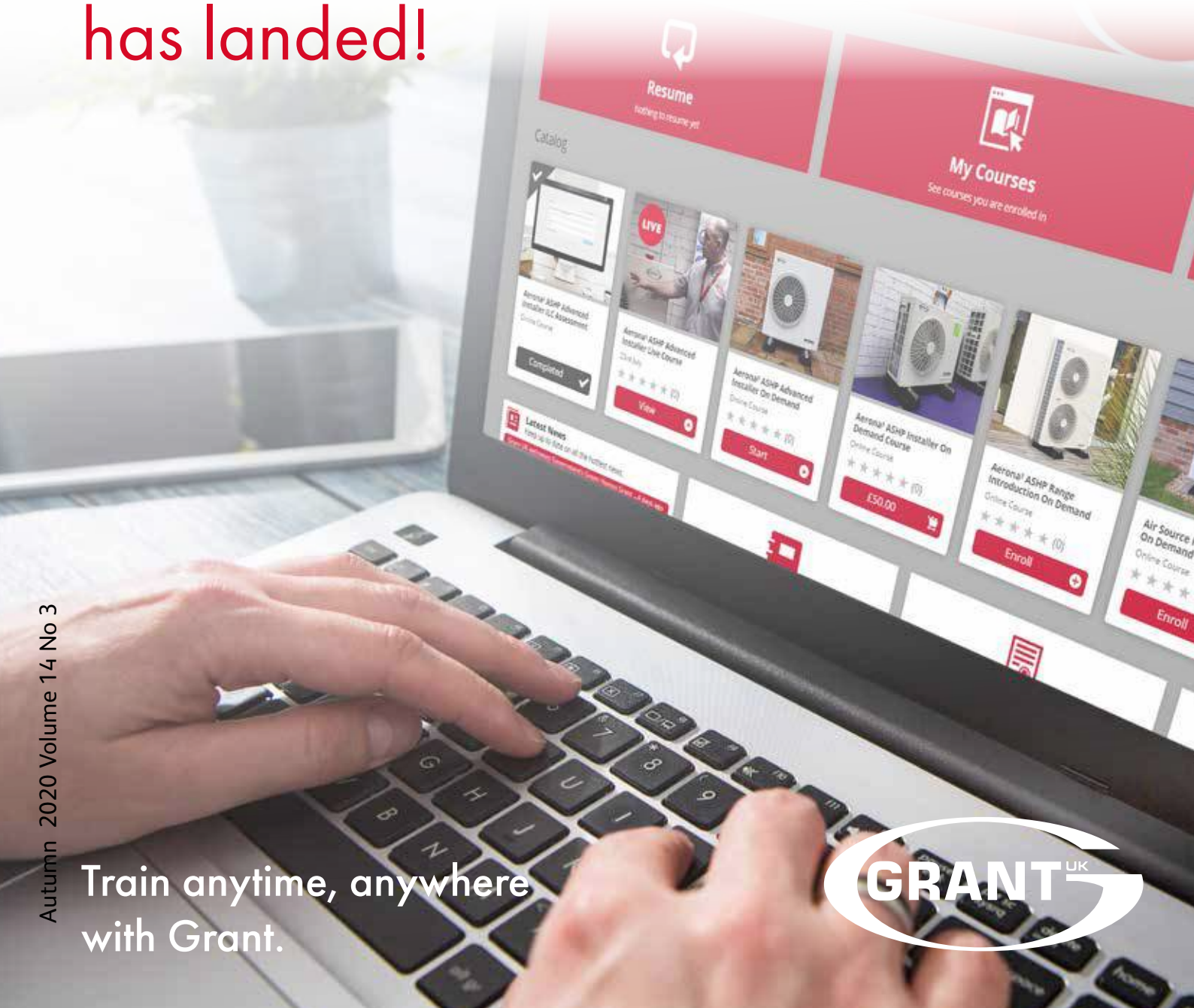


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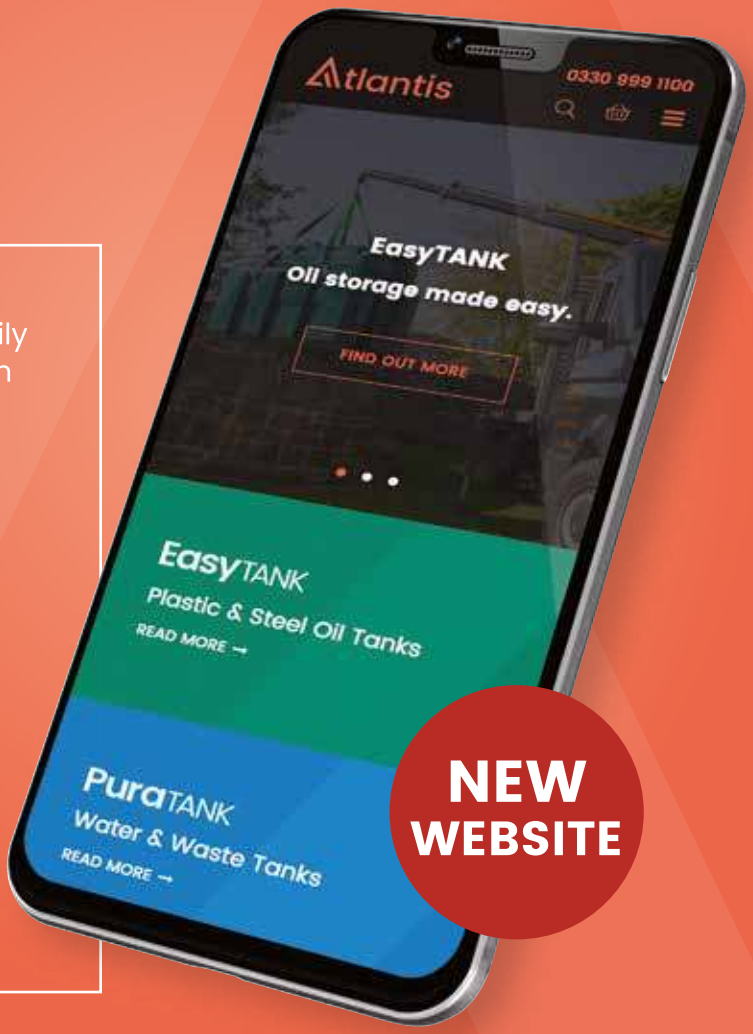


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# Table of Contents

















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# Crisis could lead to more breakdowns...

Welcome to the latest issue of *Oil Installer* and the start of another heating season. If events during the first half of the year are anything to go by, it's likely to be an interesting one. The Covid-19 crisis came just at the beginning of the spring, so while the effects on manufacturers and heating engineers have been severe, with lockdown, furlough and redundancy all taking a toll, the impact on consumers wasn't so great – most soon turned off their heating.

But will they have had vital servicing work carried out over the summer, or replaced any life expired tanks or appliances? My guess is that we could see more breakdowns over the coming winter, so let's hope there isn't an upsurge in the virus, or we could see some difficult situations ahead.

Earlier this spring the UK government consulted on its plans to replace the current RHI scheme with up front grants for heat pumps and, in limited cases biomass. The thinking is that capital cost of the appliance is one of the most significant barriers to heat pump and biomass uptake – and it's certainly right about that.

The choice of biomass as an alternative to heat pumps prompted OFTEC to point out that it would help increase the market for renewables – the key aim of the grants – if all technologies that have carbon emissions equal to or lower than biomass could be supported. A 100% liquid fuel such as HVO would certainly come well below that threshold, and introducing it, would avoid most of the capital cost associated with switching to a different heating appliance.

The benefit of supporting more technologies is that it will encourage more competition. This is vital because it will encourage innovation and investment, give customers more choice and ultimately bring down prices. This is unlikely to happen if BEIS continue to believe heat pumps are the main solution to the problem of reducing emissions from heating...

Paul Rose

CEO, OFTEC

NEWS JUST IN...

# Ban on oil boilers in France

Over the Channel, the French Government has just announced:

- a ban on the installation of oil and coal boilers in new buildings from 2022
- a ban on replacement oil and coal boilers from 2022

Around 150 proposals came from a Citizens' convention for climate and these are the first measures to be tackled. The ban wasn't entirely unexpected, but it's come much earlier than anticipated. However, there is a small window of opportunity for liquid fuel boilers. To implement the proposal, it is thought there will be a ban on boilers which use fuels with CO2 emissions above a specified threshold. This could potentially allow hybrid systems and low-carbon liquid fuels to be used, although it is an extremely challenging time frame to deploy the new fuels.

# Green home grants – eligible measures

BEIS has just released details of the measures that will be included in the Green home grants scheme to launch in the autumn. The scheme will fund two thirds of the cost of selected home improvements up to £5,000 (or up to £10,000 for low income families). There is £2billion available for the scheme with £1billion allocated for private homes, £0.5billion for low income households and £0.5billion to be delivered through local authority. All measures will need to be completed and paid for by 31st March 2021. The measures related to heating include:

- Solar thermal systems
- Air or ground source heat pumps
- hot water tank/appliance tank thermostats/heating controls

(Only where a primary measure – insulation, heat pump or solar thermal has also been installed through the scheme).

MCS CERTIFIED

At the time of writing, OFTEC understands that installers will need to be registered with MCS and TrustMark (both available through OFTEC) to deliver renewable measures through this scheme.

There will be further information on applying for funding from www.simpleenergyadvice.org.uk.

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# Government relying on limited data to create rural heat decarbonisation policy

Government's current reluctance to support renewable liquid fuels as part of the UK's green heat agenda is based on flawed evidence, according to the initial outcomes of widespread field trials.

Data from an ongoing European project[1] testing various renewable liquid fuel options across 100 sites, shows that Hydrotreated Vegetable Oil (HVO) – a sustainable, fossil free fuel derived from waste – can provide a drop-in replacement for kerosene for oil heated homes.

This means little or no modification of existing oil heating systems and tanks is required for use with HVO which is already available across the UK. The trials also show that HVO can be blended with heating oil in varying degrees without issue so could be seamlessly introduced to the domestic heating market.

These findings directly contradict those of a report[2] produced for the Department of Business, Energy and Industrial Strategy (BEIS) by bioeconomy consultants NNFCC, which fails to consider HVO for use in heat.

Among the inaccuracies included, the NNFCC report states that, "If systems are to use blends above 30% biodiesel … converting oil-fired boilers would be more costly and complex and would most likely require a new dedicated boiler and storage tank."

The report goes on to say, "Technology availability is likely to constrain the rate of growth in bioliquid boilers, as dedicated component parts, tanks and ancillaries are not yet widely deployed or commercially available at competitive prices in the domestic sector." The use of HVO again invalidates these claims.

OFTEC CEO Paul Rose comments: "Outcomes of the renewable liquid fuel trials across Europe so far are highly encouraging and the use of HVO in particular directly addresses the compatibility issues raised in the NNFCC report to BEIS.

"If 'evidence' like this is the foundation of government decision making, it is unacceptably misleading and fails to provide the full picture. We have working proof that the right type of renewable liquid fuel can offer a simple, cost effective, drop-in solution for rural homes which are often particularly expensive and challenging to decarbonise."

HVO, commonly known as renewable or biodiesel, is produced by hydroprocessing used cooking oils (UCOs). Equally, any new renewable liquid fuel introduced to the market would be manufactured from recycled waste materials or crop residues and certified as fully sustainable, so there is no adverse impact on the environment. Supply has also been cited as an issue with renewable liquid fuels for heat but as demand for these fuels is increasing, so is the supply of waste materials used for manufacture.

Biodiesel is already used in large quantities for road transport and, as electric vehicles become more common, surplus raw material can be diverted to produce renewable heating oil. New manufacturing innovations are also likely to revolutionise the industry, further increasing supply and driving down costs.

Paul Rose continues: "Limited supplies of HVO are currently on the market and, with clear policy support, industry will have the confidence to invest in expanding production further.

"UK government needs to fully consider this real-world evidence on renewable liquid fuels and re-think heat policy to support this option alongside the narrow range of low carbon heat solutions currently backed.

"Broadening out the choices available to homeowners is the only way to create a competitive market and reduce cost, which is currently the main barrier to consumer take up of clean heat solutions."

OFTEC has launched a new campaign for the inclusion of renewable liquid fuels in heat decarbonisation strategy and continues to work with governments in the UK and Republic of Ireland to challenge the current agenda.

**References:**

*[1]Field trials run by the European Heating Industry (ehi) and European Oil Heating Association Eurofuel*

*[2]NFCC Evidence Gathering for Off-Gas Grid Bioliquid Heating Options May 2019*

# OFTEC comments on Green Homes grant scheme

The UK government announced a new £2bn Green Homes grant scheme at the beginning of July to enable hundreds of thousands of homeowners in England to claim vouchers worth up to £5,000 for energy-saving home improvements, with the poorest getting up to £10,000.

Commenting on the new Green Homes grant scheme, OFTEC chief executive Paul Rose says: "It will be impossible for the UK to reach its climate targets without a major programme to upgrade housing stock, so the Green Homes grant scheme is a welcome move towards this.

"With rural homes amongst the most poorly insulated in Europe, we would however like to have seen the supported targeted at off gas grid households as well as families on the lowest incomes. Rural homes can often be some of the hardest to treat so it would have been good to see this recognised.

"It will also be important to define the threshold for those who are 'able to pay'. While rural households are more likely to be in fuel poverty and experience the highest fuel poverty gap, many more also fall into the low to middle income bracket with little or no savings to rely on. So these already stretched families may find it hard to cover the remaining third of the cost for green upgrades, particularly in today's economy, and it's really important that they don't miss out.

"But we do not want to be overly negative about what is a positive step in the right direction to cut fuel bills, create green jobs and crucially, move to a net zero future."

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# OFTEC comments on Committee on Climate Change report to parliament

*The Committee on Climate Change (CCC) published its annual report to parliament recently on the UK's progress in reducing emissions. Here OFTEC chief executive, Paul Rose, comments on its content.*

As in 2019, the CCC highlights that the government's policies and plans are insufficient to meet the targets set out in the fourth or fifth carbon budgets (covering 2023-2027 and 2028-2032). It also makes clear that Covid-19 presents a profound threat, highlighting the need for government to adopt the CCC's six key principles for mitigating its impact.

The CCC is right to pull no punches in making the case for urgent climate action. However, it is less successful when it comes to recommending solutions, particularly to reduce emissions from off-gas grid homes. Indeed, it is hard not to feel that the CCC has lost touch with the lives of many ordinary people.

> ...the CCC has lost touch with the lives of many ordinary people

For example, the CCC continues to argue that heat pumps are the best choice for homes that currently use oil heating, describing them as a "no regrets solution". However, there is little evidence that off-grid households see heat pumps as a viable choice – despite six years of generous support through the Government's RHI scheme – and plenty of reasons why they don't:

- Heat pumps are expensive to install (on average £10,900 according to BEIS)[1].
- Costly energy efficiency improvements are often also needed to make homes suitable for heat pumps – 97% of oil heated homes in Great Britain are in the lowest EPC bands D-G[2].
- Rural consumers typically have lower disposable incomes and suffer significantly deeper levels of fuel poverty[3].
- Almost 70% of low to middle income households in the UK have less than £1,500 in savings, while over 55% have no savings at all[4].
- Average unsecured household debt is currently over £14,000 – a record high[5].
- Households with efficient traditional heating will see little improvement to their quality of life that would justify the investment.

Instead of focussing on how to address these challenges, the CCC has instead proposed fossil fuel taxes, which will only make the lives of most rural families harder. Taxes are often regressive and it is hard to see how a carbon tax could avoid this.

Rural households overwhelmingly live in hard to heat homes in more remote locations, so pay more for their fuel and travel. These people would be disproportionally hit by a carbon tax. At a time when many tens of thousands of people face uncertainty over their incomes due to the impact of Covid-19, this proposal is a slap in the face for anyone hoping for a 'just transition' to a low carbon future.

OFTEC recommends that the CCC and government face up to what should be their number one priority: reducing the cost of low carbon heating. It is only by bringing down prices that deployment at scale can be achieved. There is no evidence that the existing RHI, the proposed Clean Heat Grant, or a carbon tax will achieve this.

Instead, government should focus on putting in place a policy framework that will encourage competition, innovation and choice, as this will create a competitive market and drive down prices, enabling consumers to select low carbon products that best suit their needs and budgets.

**Paul Rose, CEO OFTEC**

While it is essential to step up the deployment of heat pumps where it is cost-effective to do so, OFTEC continues to assert the potential of renewable liquid fuels as a viable solution for many homes that currently use oil heating. These fuels have the potential to deliver a transition to net zero for the lowest overall cost. At the same time, they avoid the high capital investment required for heat pumps and offer a genuine no regrets solution. With the right policy framework in place, these fuels can provide a compelling solution within a competitive low carbon heat market.

**References:**

[1] *BEIS Domestic Renewable Heat Incentive monthly deployment data January 2020*

[2] *BEIS Minister Written Answer, 29/10/2018 based on Analysis of National Housing Model input data, drawing from English Housing Survey 2014, Scottish Housing Condition Survey 2014, Welsh Housing Conditions Survey 2014*

[3] *BEIS Annual Fuel Poverty Statistics Report April 2020*

[4] *Savings and investments (nominal) of adults in low to middle income households (UK). Resolution Foundation 2020.*

[5] *TUC research January 2020*

# After 51 issues of Oil Installer, Jane retires as editor

*With vast experience of the downstream oil industry, Jane Raphael became editor of the Oil Installer's debut edition in 2007. Fifty-one issues later, she has now retired from the position and now reflects on the industry's ups and downs during her tenure.*

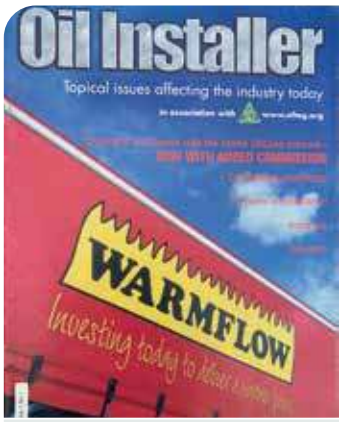
It was a conversation with Richard Gales, then CEO at OFTEC, which led to *Oil Installer's* first issue in August 2007.

Having been editor of *Fuel Oil News* magazine since June 2002, I was very familiar with kerosene and the oil tank industry but there was still much to learn...

Fortunately for me the industry quickly demonstrated its willingness to engage with *Oil Installer* by educating and informing me about all aspects of the oil heating and cooking industry for which I was very grateful.

An industry proud of its oil roots and keen to celebrate its excellence and achievements, that first issue showcased the industry's longevity with news of Preston-based tank company J Seed marking its 50th anniversary.

It was always a pleasure to hear from readers, many of whom were keen to contribute to the very popular Gallery pages, and to chat with boiler, tank and equipment manufacturers about the latest industry initiatives and innovations.




**The first edition of Oil Installer – in 2007**

I was particularly struck by the industry's commitment, professionalism and dedication – even in those very early days, I met several oil installers who were looking to the future by offering renewables alongside their traditional oil.

Whilst we negotiated the industry's ups and downs over the past 13 years, it was a real pleasure to get to know many members of the OFTEC team.

With *Oil Installer* now in the capable hands of my colleagues Liz Boardman and Peter Clayton, I send my very best wishes to everyone working in this industry.

Thank you to everyone who has contributed to the 51 issues of *Oil Installer* which I have very much enjoyed editing. Your knowledge, stories, oil wisdom, news and views have all helped make Oil Installer the well-rounded magazine that we have today.

**Always the intrepid editor – Jane during an oil terminal visit**

**All her colleagues at A&D Publishing and at OFTEC thank Jane for her hard work, commitment and professionalism during the past 13 years and wish her a long, happy and well-deserved retirement.**

# BEIS committee:

## OFTEC proposal

OFTEC submitted a proposal following a request for inquiry suggestions from the BEIS select committee. OFTEC proposed that the committee should consider the policy steps needed to encourage the development of a competitive market for low carbon heating technologies, particularly for the domestic off-gas grid sector. We suggested this is necessary because driving down capital costs for end-users is a critical – but largely overlooked – requirement to achieve high take up and ensure the transition to net zero heat is fair and available to all.

Sadly OFTEC was not awarded the opportunity of a five-minute pitch to sell its idea to the committee in July. The final selection of inquiry suggestions is yet to be made.

## Future support for low carbon heat consultation

What to do when the current RHI ends in 2022 is a key decision for the UK government. Earlier this year BEIS announced a consultation on its plans, which concluded in July. Of most interest for the off-gas grid heating sector was a new 'Clean Heat Grant' of £4,000 to support the installation of heat pumps and, in limited cases biomass boilers. The idea is that the capital cost of heat pumps is the main barrier to their deployment, so providing a grant, rather than the RHI model which offers payments after the installation, may be more successful.

However, funding is limited and the scheme will only run for two years. It's likely that BEIS will receive a wide range of views with many supporters of decarbonisation concerned that the scheme is not ambitious enough to drive up installations.

OFTEC has submitted a response and has expressed concerns about several aspects of the scheme. We think BEIS's current heat policy approach largely excludes low to middle income households because it only supports a narrow range of relatively expensive technologies. This is a key reason why progress is not being made with the decarbonisation of heat, and the new scheme won't address this. Consequently, we argued that BEIS should focus on encouraging more competition, with the aim of bringing down costs, encouraging innovation and offering more choice.

We also challenged the technologies supported, making the case that renewable liquid fuels offer lower carbon emissions than biomass, which is included in the scheme, and highlighting concern over the real-world particulate emissions from biomass boilers. We also opposed the exclusion of solar thermal and hybrid systems.

OFTEC also raised concerns about compliance, pointing out the need to learn from the mistakes of ECO, which had led to poor outcomes in some cases and a lack of accountability.

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# Finding your way around OFTEC's websites...

OFTEC's marketing team has produced a handy guide to explain some of the online services available and where to find them.

We often get asked why we have so many websites and the quick answer is that it seemed a good idea at the time to keep different functions separate from one another. It's not a deliberate ploy to confuse everyone – honest!

## Logging into our websites

These are just a few of the key services that our websites provide – we strongly recommend you log in and get familiar with pages so you know where to go when you need a document or form in a hurry.

### www.oftec.org

Trade association members and registered technicians have different login types because they access different sections of the website, however everyone logs into this website using email address and password.

Registered technicians need to set up a user account the first time they visit the website, go to www.oftec.org/help for a step by step guide. If you can't remember whether you have set up an account, trying putting in your email address and clicking on the forgotten password link, if you are an existing 'user' you'll receive a password reset email.

Trade association members will have been sent login details – if you can't find these, simply enter your email address and click on the forgotten password link to get a reset email. If you don't receive one, email marketing@oftec.org and we'll set you up on the system.

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You can check we have the correct details for you by logging into: *www.ofteconline.com* and making sure the email address we have matches the one you currently use. It's also a good idea to add: *latest@oftec-news.org.uk* to your email safe senders list.

If your email address matches the database, please email: *marketing@oftec.org* and ask to be added back into the E-News mailing list. Make sure you include your company and technician registration numbers.

Please note, sole traders need to update the business and technician details in the database, if contact details change.


NBS BIM listing for Grant's Aerona³ R32 air source heat pumps

## Grant Aerona³ heat pumps feature in NBS National BIM Library

All four of Grant's Aerona³ R32 air source heat pumps are featured within the National Building Specification's BIM Library. This extensive online resource, which available to architects and developers, collates key product data for a wide range of construction materials and products.

The NBS has the fastest growing Building Information Modelling (BIM) library within the UK, providing users with extensive data on thousands of products from building fabric systems through to mechanical and electrical objects, including air source heat pumps. The NBS BIM Library helps to deliver construction product information in digital, 3D formats. All of Grant's Aerona³ R32 heat pumps, which meet the internationally-recognised NBS BIM Object Standard, are listed in the library, allowing developers to incorporate this green, sustainable heating solution into their property plans and visions.

Each product is listed with an image, its full product name and description alongside an in-depth listing of core technical data including product volumetrics and performance ratings. Users who visit the Aerona³ product listings can view each model's NBS BIM Object Certificate and send direct enquiries to Grant UK.

Listed objects can be dragged and dropped into plans and models. Users with compatible design software can download a render of each BIM Object and incorporate it into their own design models. This interactive function is enabled on all four of the Aerona³ R32 heat pump listings, allowing users to visualise how a Grant heating system can be placed within their plans and designs.

www.grantuk.com

# One step forward, two steps back...

*Martyn Bridges, director of technical communications and project management at Worcester Bosch discusses the missed opportunity with bio oil in latest government grant announcement.*

A recent publication from the government detailed how they intend to spend the £100 million that the Chancellor of the Exchequer has set aside for the prime funding of low carbon heating systems. Essentially, it is a boiler scrappage scheme through which the homeowner, if they have a 'high carbon heating system' and want to replace it with something like a heat pump, will receive a government contribution of £4,000 for them to do so.

Unfortunately, whilst the scheme is a very generous offer and must be commended, it doesn't recognise biofuels at all. There is no recognition of bio propane, which is a fuel available to buy today and able to be dropped into a system without even having to change the boiler. It will drop into the same tank, the pipelines and the current appliance, thus it is a perfectly suitable fuel with zero carbon. However, this has not been picked up on or recognised in the prime funding.

> In relation to bio oil, we haven't moved very far...

Additionally, bio oils, which are perhaps in the same position as bio LPG, are available and this kickstarting of the market would've made it even more available. So, we are a little saddened to see that the only thing on the table for current oil users is a financial incentive to not use oil and to use a heat pump instead, or in certain instances, a biomass boiler which is eligible for funding. Personally, I find that rather unusual because the particulates and NOX emissions from biomass aren't that helpful to the environment either. So, in relation to bio oil, we haven't moved very far.

There has been no recognition by the government of the work done thus far so we've got more to do. I think it is very likely that the industry will start to look at the new technologies for oil which are out there. Hydrogenated vegetable oil (HVO) could be one such technology that gets the nod. Again, it is a drop-in fuel, so you could fill an existing oil tank with HVO, and the existing pipeline would also be okay. There would be some modifications to the burner, but it is very much a suitable zero-carbon fuel, when it is 100% of course. Initially, there isn't enough on the market to satisfy all the oil-users out there and that's probably because it needs a kickstart. It needs some funding to actually make oil-users aware that there is a very low-carbon way of continuing to use oil in homes.

As well as being disappointed that there's no recognition of bioliquids, we are also disappointed there is no recognition of hybrid systems, which would be a perfect match for an oil boiler. They would complement each other greatly and even if we can only get to a blend of oil for a period of time, let's presume we get to a 30% or a 50% blend, so 50% of the oil is from zero-carbon sources and 50% isn't. The 50% that isn't could well have been taken on in a lump and got us to as close to zero as possible carbon heating system.

Any support from government to entice homeowners to opt for low carbon heating systems we of course encourage. However, we do feel that a technology agnostic lens should be used. It will be interesting to see how successful this initiative becomes as it begins to roll out.

# The Covid effect on decarbonisation

As the UK begins to emerge from the Covid-19 crisis, government must not waste the opportunity to ensure future heat policy is greener and fairer, says OFTEC.

The coronavirus pandemic has hit the UK economy hard. While the government has recently announced a programme to boost the economy, it's likely that things will continue to be tough for many people, with a bleak outlook for households hit hardest by the impacts of lockdown.

With government and household budgets squeezed, it's inevitable that work to reduce carbon emissions could suffer. In response, OFTEC has warned that unless measures to cut carbon emissions from home heating are made affordable for many more households, there is a risk that climate change targets will not be met.

## Limited success

For the past six years, the domestic Renewable Heat Incentive (RHI) has offered financial support to encourage homeowners, particularly those off-the gas grid, to install green heating technologies. However, the high upfront costs of the renewable technologies supported – the average reported cost of an air source heat pump under the RHI is over £10,000[1] – has limited its success.

Government has recently consulted on a replacement for the domestic RHI, which ends in 2022, that will provide 'Clean Heat Grants' of £4,000 to part cover the installation costs of heat pumps, and in limited cases, biomass solutions. The Chancellor has also announced a new Green Homes Grants scheme which could support energy efficiency and other improvements in 600,000 homes by spring 2021. However, the funding of both schemes is capped, so their ultimate impact is likely to be quite limited.

While OFTEC recognises that grants could help overcome current cost barriers for some, the trade association says progress on decarbonising homes is likely to continue to falter unless government takes more decisive steps to encourage a competitive market for low carbon heating technologies. Driving down end costs for consumers is critical to achieving high take up and ensuring the transition to low carbon heating is fair and available to all.

## Household debt

OFTEC CEO, Paul Rose explains: "UK figures show almost 70% of these households have less than £1,500 in savings, while over 55% have no savings at all[2]. Average unsecured household debt is now over £14,000 too, so it's going to be tough for many people to keep their existing heating system going, let alone install the expensive renewable technologies supported by the government's decarbonisation schemes.

"Heat policy should be about maximising take-up, so the government should focus on creating a more competitive market for renewables as this approach would promote innovation and competition, opening the door to other more affordable low carbon heating solutions which are already in development – like renewable liquid fuels. It would also help to make renewables available to everyone, rather than just a small minority of households."

Renewable liquid fuels are just one of the low-cost options, which so far have been excluded from government support. Paul Rose concludes: "With key decisions on heat policy looming, it's vital that government balances the need to take action with a pragmatic assessment of the new post-COVID 19 reality.

"Now, more than ever, consumers need affordable, simple to implement solutions. Poor choices at this stage could lead to further stalling of the decarbonisation process and the unfair discrimination of many rural households that are already struggling to affordably heat their homes."

**References:**

[1] *BEIS Domestic Renewable Heat Incentive monthly deployment data January 2020*

[2] *Savings and investments (nominal) of adults in low to middle income households (UK). Resolution Foundation 2020.*

# Worcester supports zero-carbon plan

Britain's five gas networks have outlined plans to spend more than £900m on zero-carbon energy infrastructure and hydrogen deployment across the UK, subject to government approval on funding.

Worcester Bosch wants to share its support for these plans. Martyn Bridges, director of technical communication and product management at Worcester Bosch said: "We are delighted to see proposals for such a substantial investment into preparing the existing gas infrastructure for a switch to hydrogen.

"If the zero carbon commitment package is approved by the government and Ofgem it will be a massive step forward for the decarbonisation of heating and hot water in this country

"Like the research that was released to coincide with this announcement shows, the UK will not be able to achieve net zero carbon emissions by 2050 without the key player that is technology. The commitment by the Energy Networks Association will put us on the right track to reach net zero 2050."

www.worcester-bosch.co.uk

# Tank safety – extra checks recommended!

Many consumers and businesses have taken advantage of the recent low cost of heating oil and some may even have purchased new and/or second hand tanks to store the fuel in. These tanks are likely to have been placed in rear gardens adjacent to an existing tank, with little thought given to the tank base, fire safety or whether the total volume stored now exceeds the domestic storage regulations.

While the low oil price is great news for customers, we are hearing from a few distributors that they are getting increased calls about spillages. This is due to tanks that were previously only regularly at 30 or 40% fill level, now being filled to the top and consequently many weak/unsuitable bases are coming to light.

We would recommend that technicians are extra vigilent when undertaking inspections or maintenance work, and give appropriate advice to the homeowner on the suitability of the base, separation distances and whether secondary containment is required due to the volume of oil stored on site.

# Trade association encourages homeowners to start the transition to biofuels

The UK and Ireland Fuel Distributors Association (UKIFDA) has launched a campaign advising the 2.18m households which use oil across the UK and the Republic of Ireland, on a transition plan to decarbonise the heating in their homes through the use of biofuels.

UKIFDA is working with trade associations within the liquid fuels supply chain, including OFTEC, to lobby the UK and Irish governments to develop a transition that enables consumers not connected to the gas grid to cut their carbon emissions through a series of planned steps rather than one major heating system change.

Guy Pulham, UKIFDA chief executive, comments: "Transitioning to biofuels is key in reaching the both the UK and Irish government's decarbonisation targets, and in a way that works for consumers too.

Guy Pulham, UKIFDA chief executive

## Not banned

"We are also keen to stress that oil boilers are not banned in existing homes and government has not announced any plans to do this," adds Guy Pulham.

"If consumers want to change their existing oil boiler for a new oil boiler they can still do so. We recommend switching to a condensing boiler for greater energy efficiency and in preparation for transitioning to biofuel in time.

"Highly efficient, oil-fired condensing heating systems provide an excellent way to begin contributing to the energy transition, as modern equipment consumes virtually all the fuel used. Compared to outdated, standard boilers, they save up to 25% of the fuel oil – which also means a 25% reduction in your carbon emissions. Typically, a new condensing oil-fired boiler will have an efficiency of 92% to 93% and there are now over 90 "A" rated models on the market.

"We have been lobbying the UK government and the Committee on Climate Change and the Irish government and the Sustainable Energy Authority Ireland (SEAi) to support our industry's strategy which presents solutions in a timeframe that exceeds the net-zero emission legislation. The first stage of this vision is for government to incentivise all homeowners (irrelevant of type of heating system) to make energy efficiency improvements in their own homes.

"The continued focus on electrification of heat using heat pumps for those off-grid does not take into account the high price consumers would have to pay to change existing systems. The majority of the UK's rural off grid homes are pre-1919 and retrofitting would be expensive, especially as so many would need to improve insulation, and the running costs would be too much. Over 90% of Ireland's off-grid properties are below BER C1 and these are not very suitable for moving to an Air Source Heat Pump (ASHP) without significant disruption and expense.

## Cost effective

"Recent studies undertaken by fellow trade association OFTEC and its consultants In Perpetuum (2019) suggest that biofuels offer the most efficient and cost effective way to reduce carbon emissions in off-gas grid homes due to the type and fabric of the houses. These studies suggest that retrofitting homes so that they can efficiently operate on newer technologies such as heat pumps could cost up to £11,000 (dependant on type of house) if only reasonable improvements are required or over £11,000 (and up to circa £50,000 in larger homes) for deeper retrofits. The cost of a new condensing boiler (if required) and biofuel tank will range from £1,500 to £7,000 dependent on house size. Liquid fuels can and, should be, part of the solution for the future of off-grid heating.

"In Ireland recent research indicates that it costs between €40,000 to €60,000 on average to upgrade a house to make it suitable for a heat pump. The cost of a new condensing boiler (if required) and biofuel tank will range from €1,700 to €7,500 dependent on house size.

## Reaching targets

"We feel that adding biofuels into the energy mix for meeting carbon reduction targets and having a pathway to biofuels is key in reaching decarbonisation targets, and in a way that works for consumers too.

"The ultimate biofuels on the market will be 0% fossil. However, initially, the introduction of transitional fuels such as B30K mean consumers can change the fuel without changing the heating system as they would work with current oil condensing boilers and infrastructure with minimal tweaks. The ideal pathway to the 0% fossil biofuel will take into account government ambition and consumer finances proving clear legislation to enable appropriate industry innovation to supply the new fuels."

https://ukifda.org/consumers/future-liquid-fuels/

# Worcester launches "Safe in Your Home" commitment

Worcester Bosch has launched a new initiative to support installers and homeowners for work undertaken in the home.

The 'Safe in your home installer commitment' is a pledge for installers to sign-up to, enabling them to receive a pack of digital and physical tools to help them undertake work in customers' homes safely and securely.

The commitment intends to do two things:
- Give installers clarity on the correct social distancing and hygiene guidelines they need to be following when entering customers' homes
- Give customers reassurance that any visiting installer who signs up to the commitment will have the knowledge and tools to take the right precautionary measures

Every installer who signs up to the commitment receives a digital pack of assets, with the first 5,000 also being sent a physical package of free goods. This consists of:
- Digital stamp for use on social pages and website, a clear indicator to show they have signed up to the initiative
- An email checklist for customers and installer to fill out pre-visit
- Guidance documents for installers and homeowners, an essential reminder of the precautions to follow
- Email footers, to work as a signature in customer comms
- Removable van vinyl of the installer commitment logo (first 5,000 only)
- 'Installer at work' sign, showing the precautionary measures being taken (first 5,000 only), to be displayed in company vehicles during call outs

The new tools have been designed by Worcester Bosch to help installers, who carry out work in people's homes, demonstrate that safety is the main focus for any boiler installation and home heating maintenance, particularly during these uncertain times.

Victoria Billings, director of marketing at Worcester Bosch, said: "As the UK government starts to ease its lockdown measures, industries like ours are beginning to return to work. With this comes a constant need to adapt to the ever-changing climate.

"We feel it is important to support installers at this time, enabling them to reassure customers about how they are safe working in their homes. This initiative intends to do just that and ensure that homeowners and installers are reassured and clear regarding safety considerations for an at-home visit, with a variety of digital and physical reminders putting safety front and centre of every visit."

**Stop press:** Within three weeks of launching the Safe in Your Home Installer Commitment, more than 3,000 installer businesses had signed up to join the scheme. Worcester received many positive comments about the scheme, including the following:


**Matthew Brome of Brome Gas Heating and Plumbing Services**

**Matthew Brome, Brome Gas Heating and Plumbing Services:** *"With the social distancing that's in place, it's good to show customers our checklist so they are aware of what I'm about to do. Precautions we take start from a phone call with a series of questions, before a home visit with the appropriate safety equipment and measures. Safety is always a priority and it's more important now than ever to maintain the safety and wellbeing of customers and engineers."*

**Leon York, Leon York Heating Limited:** *"We've been issued a checklist that we are following to ensure ourselves and our customers are safe. We're proud to be part of this pledge, and this means using clean hygiene, clean uniform, clean hands, gloves, masks and all the PPE required to keep our team and our customers safe."*

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# Ever thought of a career as an OFTEC inspector?

Most registered technicians are familiar with the OFTEC inspectors and the work they do. Not a glamourous role by any stretch, but an essential one for any industry ensuring high standards are met but also to give opportunities to improve along the way.

'Inspector' is a very old-fashioned term and although the role is much more than just inspecting work, the title remains as we are so familiar with it.

Conducting an inspection takes a fair bit of organising:
- Making sure everyone is available on the day
- Making sure you, the technician, knows what to expect (no one likes surprises!)
- Measuring work against industry standards (like building regulations, manufacturing instructions, technical books etc.).

The heating industry has a history of always improving – such as by adding more detail into the training and assessments, amending technical books or producing special bulletins. This is all made possible through the valuable feedback we receive from our inspectors, which is analysed by OFTEC's compliance team who identifies non-conformity trends.

There are currently vacancies in OFTEC's sub-contracted team of regional inspectors, particularly in Scotland and the South East of England. Ideally, inspectors have at least five years practical experience in the heating industry, but no longer work on the tools, which helps avoid any conflicts of interest. Inspectors work on a contract basis under a service level agreement which provides ample opportunities for flexible working. OFTEC is no longer just about oil heating registration, so experience in renewables, the microgeneration certification scheme (MCS) and solid fuel would be a definite asset.

If you would like to understand more about the role of an OFTEC inspector please contact Adrian Lightwood: alightwood@oftec.org or visit our website: www.oftec.org/careers. See job advert page 35.

# Chancellor meets apprentices during visit to Worcester Bosch

At the beginning of July, Worcester Bosch welcomed the Chancellor of the Exchequer, Rishi Sunak MP, to its Worcester factory.

During his visit, Mr Sunak met with employees, including a number of apprentices, and toured the Worcester Bosch facilities. The Chancellor was also given an overview of the company's innovative prototype hydrogen boiler.

Martyn Bridges, director of technical communication and product management at Worcester Bosch said: "It was fantastic that Mr Sunak was able to visit our plant, learn more about our hydrogen prototype boiler from our team and meet some of our apprentices.

"We have a strong history in supporting apprentices, both within our own company and those working for our loyal installers. We regularly welcome gas engineer apprentices to our training centre in Worcester to help them grow their knowledge and experience in the heating sector.

"The support the Chancellor has announced for young people is very welcomed by us, as not only will it bring more opportunities for them but also help our industry to continue making strides in closing the skills gap."

www.worcester-bosch.co.uk

# Life in lockdown for registered heating businesses

Right in the middle of lockdown, more than 800 registered businesses responded to a questionnaire to help us understand how COVID-19 has impacted them. At such a stressful and anxious time, the number of responses was overwhelming and testament to how passionate you are about the industry and how much you care about supporting your customers. Thank you to all those who responded.

Many of you will have seen our survey results report in June's E-News, so in this article we're reporting on the feedback you wanted us to share with government as well as providing a few stats from the survey.

> Of those who worked during lockdown, just over half were only doing the odd emergency call out

One of the reasons for the survey was to share your experiences with our contacts at BEIS, who have been analysing the impact of lockdown on UK businesses. As you may expect, there was widespread criticism of the government schemes that provided inadequate or even no financial support for many small businesses. This loss of income meant that some felt forced to continue to work throughout. However, there were also calls for caution on lifting lockdown to avoid a second wave – at the time of writing (early July) it's too early to tell what impact easing the restrictions has had and whether local lockdowns – other than Leicester – will have been implemented.

> Almost 20% have reported more difficulties getting paid than usual

**Rogue traders**

Another area of concern highlighted was that the lockdown could cause an increase in the numbers of 'rogue traders' doing sub-standard jobs for cash. Some felt that by mandating registration, it may help prevent work being carried out by these individuals. However, it was felt that the businesses trying to profiteer from the pandemic would lose out in the long run, as customers have long memories!

We also asked for volunteers to speak to us directly about your experiences. Due to the huge response we've not managed to contact all of you who provided contact details, but here are a few comments from some of those we have spoken to (or emailed):

Kellie from Henson Oil Boilers & Tanks based in Kent felt that as heating is an essential service, work will pick up post lockdown. Kellie

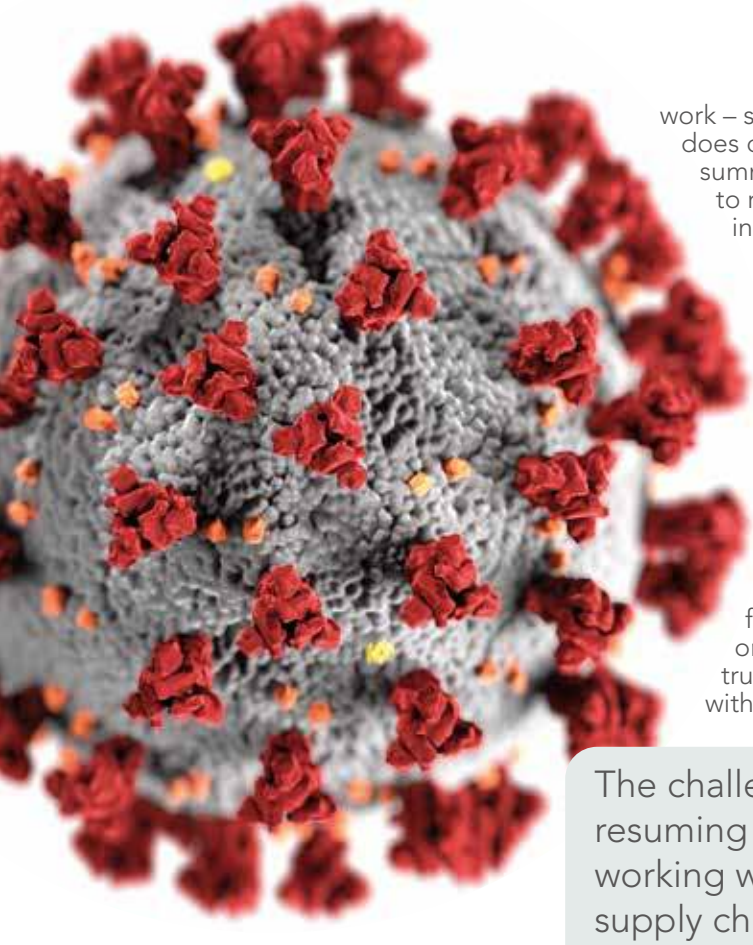
> 64% continued to work during lockdown and a few even felt they were busier than ever!

stressed the importance of a loyal customer base saying "Customers are very loyal and like what they know and, as a small, friendly, family business offering personal service from start to finish this will help us continue." During lockdown they had time to research a new system which converts quotes into invoices and links customer contacts – they have high hopes that this will reduce 'admin' time considerably. They've also made use of additional product information which Firebird and Grant made available through Zoom, Microsoft Teams and YouTube.

> Only 12% were extremely confident that pre-booked work will go ahead as planned

Andrew from The Sandringham Estate felt that the lockdown gave them time to think through existing systems and design and install more efficiently – they were fortunate to have a few empty properties that required work. As lockdown is eased, they plan to further improve efficiencies once different trades can work alongside one another.

Dathan from Surry Hills Heating Ltd felt that perhaps his lockdown story was not a typical one. His workload certainly dropped considerably for the first few weeks but is now back to normal. He's installed a number of swimming pool boilers and external oil boilers – obviously social distancing not so much of an issue for those!



Ben from BK Boiler Services in Northern Ireland stopped working completely during lockdown and switched to landscape gardening

work – something he often does during the quieter summer months. He plans to resume heating work in July.

Keith from Piggy Plumbing & Oil in Norfolk told us that as most of his client base are elderly, his diary emptied almost overnight. He must be extra careful as his wife is shielding and so chose to do emergency call-outs for existing customers only as he felt able to trust them to be honest with him.

> The challenges to resuming normal working were given as: supply chain issues, cancellations, fewer enquiries, lack of PPE and childcare or health issues

> Declining the usual 'brew' feels rude – especially with customers you've known for years

Jamie from J Lawrence Plumbing & Heating in Dorset feels that communication with the customer is key and respects his customers wishes rather than imposing his set of rules for working. He has a loyal customer base and feels fortunate that he had enough work to manage financially as he was not eligible for any of the government schemes.

Almost 80% of you found OFTEC's support measures during lockdown helpful, though some of you were unaware of the new systems. If you are a registered technician and have not received E-News recently, please email registration@oftec.org to check the details we hold for you. Don't forget, you can always catch up on past copies of E-News by logging into the technician hub on www.oftec.org.

# Grant welcomes Green Homes grant scheme

The Green Homes Grant scheme – announced by the government as part of its economic recovery plan following the impacts of the Covid-19 pandemic – has been welcomed by Grant UK. This new scheme, which also works towards the government's long-term strategy to achieve net zero carbon emissions by 2050, will allow households in England to receive vouchers towards the costs of energy-saving improvements to their homes.

Launching in September, the scheme will provide homeowners and landlords based in England with vouchers which will contribute up to two-thirds of the costs involved in making energy-saving improvements to their properties. The vouchers will be worth up to £5,000 with the poorest households being eligible for vouchers up to £10,000.

"The Green Homes Grant is a welcome initiative and will play an important part in encouraging the country to progress towards the government's net zero carbon targets," comments Paul Wakefield, managing director of Grant UK.

"Not only will the scheme hopefully deliver economic benefits with job opportunities in our sector, it also provides individual households with the chance to assess their homes and make changes to improve its energy efficiency. Measures, such as loft or wall insulation and double or triple glazing, can greatly improve a property's existing energy performance.

"Furthermore, some households may wish to go one step further and consider installing energy-saving home improvements in preparation of upgrading their heating system to a hybrid or renewable heat source, such as an air source heat pump. Consequently, households could not only benefit from reducing their energy wastage but they could also futureproof their homes with green heating technologies as a result of this initiative."

www.grantuk.com

# Rural households could face major costs for green heat under government plans

OFTEC has launched a 'Campaign for affordable green heating' and is urging those working in the off grid heating sector to help raise awareness. To find out more about the campaign and renewable liquid fuels go to www.oftec.org/future-heating.

According to OFTEC, UK homeowners, especially those living in rural, off-gas grid areas, could face huge costs to install green heating systems if government plans go ahead.

As part of the UK's strategy to tackle climate change, consumers will be encouraged to replace fossil fuel heating systems with electric heat pumps at an average cost of over £10,000[1] to install.

Among those targeted first will be 1.5 million oil-heated households[2]. The government has consulted on proposals to offer £4,000 'Clean Heat Grants' to help supplement the cost of heat pumps, and in limited cases, biomass heating systems. However, this still leaves a £6,000 shortfall which many consumers will not be able to afford, especially during a post pandemic recession.

OFTEC says that while it's vital to push ahead with decarbonisation plans, promoting solutions that are financially unmanageable risks stalling climate change progress. Chief executive, Paul Rose comments: "We know that rural households are already more likely to be in fuel poverty[3]. Many are struggling to pay existing bills, so there is no way they will be able to fund expensive green heating, particularly post Covid-19.

"More choice is needed and extensive independent research, backed by trials across Europe, shows renewable liquid fuels can provide a simple, drop-in replacement for heating oil. With the right regulatory approach, a 100% fossil free fuel could be in use before 2035".

OFTEC has written to the Department of Business, Energy and Industrial Strategy Select Committee, relevant cross-party groups, and rural MPs to highlight the flaws in current policy direction and its potential consequences.

Paul Rose concludes: "The current technology approach isn't working. Something has to be done to bring down the cost of green heating, otherwise rural households will continue to suffer financial hardship and heat decarbonisation will continue to falter".

**References:**

*[1] BEIS Domestic Renewable Heat Incentive monthly deployment data January 2020*
*[2] BEIS Minister Written Answer 29/10/2018*
*[3] BEIS Annual Fuel Poverty Statistics Report April 2020*

# Grant launches eLearning Academy

Grant UK has launched an online eLearning Academy which, alongside the training delivered at its centres, will increase the overall level of product training support offered to installers, heating engineers and other heating professionals.

Candidates wishing to enrol for eLearning courses will need to set up an account by visiting www.grantelearning.com, entering the enrolment key GUKPR0820 and confirming their company details. Delegates can then view the available courses and enrol onto either an on-demand or an instructor-led course.

The content on the platform is focused on Air Source Heat Pump product training and this will be broadened to include content for other product ranges in the coming months. The format varies from videos and presentations through to supporting downloads and useful guides designed to aid the learning experience.

The eLearning Academy will provide heating professionals with an alternative route to develop product knowledge from the comfort of their homes and offices. It is hoped that the new offering will help installers in the field by providing a flexible way to continue their personal development. Different courses with varying content are available and those wishing to complete the Grant Air Source Heat Pump Installer training courses must also complete an online assessment.

Candidates can choose content which best suits their needs and the on-demand courses can be paused so that they can fit training around their workload, returning and resuming courses at the point they left. Meanwhile, the instructor-led courses are presented live by one of Grant's trainers, who are on hand to answer questions and deliver the high level of quality training expected from the Academy.

"The Grant eLearning Academy is a valuable addition to our training offering," say Phil Stanley, Grant UK's training manager. "The past few months have transformed 'normal' business operations and it is important for Grant UK to be adaptable and adjust the ways in which we can deliver training content.

**Training at your fingertips from Grant UK**

"Our training centres, in Devizes, North Yorkshire and West Lothian, as well as satellite venues in Elgin, Inverness and the Channel Islands, will continue to be the pillars of our Training Academy with face-to-face courses remaining at the centre of our offering. However, the new eLearning Academy provides installers with a virtual alternative which will help make product training more accessible during the current post-lockdown era and beyond."

www.grantuk.com/professional/training.

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# How will Ireland reach net zero by 2050?

*asks David Blevings, OFTEC Ireland manager*

Liquid fuel dominates the home heat sector in Ireland with over 60% of homes in Northern Ireland relying on liquid fuel and 39% in the Republic. Does that mean we have more to lose in Ireland as we move towards net zero by 2050, or a better opportunity to demonstrate that biofuels have a clear and valuable role to play in this market?

Certainly, the plan for decarbonisation outlined in the Republic's climate action plan is very ambitious, so ambitious that even senior civil servants are starting to question it. The Irish Times reported in May that Robert Watt, the public expenditure secretary general, had raised concerns that the current government plan to retrofit 500,000 homes to a high energy standard and install 600,000 heat pumps instead of oil and gas boilers, was "not affordable".

In Northern Ireland, the government has finished reviewing responses to its recent consultation on a new energy strategy for NI, that will shape a new plan to be introduced in 2021. The Department of Economy has established several working groups to decide on policy recommendations for the minister to adopt to support a transition to net zero by 2050.

There is an ambition to reduce and then phase out the use of fossil fuels – both governments have made that clear. The 'downtime' due to Covid-19 has shown people what reduced air travel, traffic and consumerism can do for the planet, and green issues are still very much on consumers' agenda. However, how they will react to taking a loan or second mortgage against their house to improve their thermal efficiency ahead of a heat pump installation remains to be seen – anyone remember Green Deal in GB?

It should be obvious to policymakers that asking households to invest up to €60k[1] to retrofit their home is completely unrealistic, particularly as the small grants available to support them don't even equate to a tenth of this overall cost. Over 90% of off-grid properties are below BER C1 in the Republic and 70% of bungalows, 44% of terraces, 50% of SDV and 53% of detached houses are SAP band D-F in Northern Ireland. This means they are not suitable for ASHP without significant investment and disruption for the consumer.

Consumers clearly need more affordable options, so we have a great opportunity to deliver a renewable liquid fuel that will burn cleanly and efficiently in consumers' homes. Work is well under way; the characteristics of FAME are already well-understood and HVO and GTL are currently available and being reviewed as options going forward.

**David Blevings, OFTEC Ireland manager**

Key to any move to a sustainable biofuel is getting elected members to support this option and deliver policies that will permit a liquid fuelled appliance to remain and be used in an off grid house as part of any new strategy.

## So, what is the answer?

OFTEC and its partners are currently lobbying the governments in NI and ROI to recognise the benefits a renewable liquid fuel can deliver – a sustainable, realistic, and affordable option for consumers. This would utilise the household's existing heating system and involve the initial introduction of a blended fuel to immediately reduce carbon emissions, with the aim of supplying a 100% sustainable liquid fuel as soon as practical.

OFTEC is not anti-heat pumps; we recognise the clear benefits these offer to new build and thermally efficient houses. However, an older, less thermally efficient house can switch to a renewable fuel starting with blended fuels. We believe this is the least costly and disruptive way to immediately reduce carbon emissions and achieve sustainability across most off-grid homes in Ireland.

What about public opinion? We believe that the public will support a move to biofuels. A survey carried out in the Republic by OFTEC found that 62% of adults claim they would be unwilling to pay any more (than their current heating bill) to "decarbonise" home heating, with 30% claiming they would only be willing to pay less than €250 per year. With the average retrofit costing €60,000* and a current grant scheme in the Republic offering €3,500 per unit, there is a massive financial void to be filled.

The inclusion of home heating oil in the biofuels obligation is doable and it's a seamless transition for existing liquid fuel users. We can start blending renewable biofuels with heating oil now, ahead of a move to 100% renewable fuel by 2035. It is a simple solution for government and offers them a very cost-effective way to decarbonise the off-grid sector.

## How can you help?

OFTEC is working hard to persuade senior officials, MLA's and senators that biofuels are the way forward for the off-grid sector in Ireland. You can also play an important role by adding your voice to our message and we will be distributing sample letters that can be sent to local representatives, promoting biofuels as a viable solution for future off grid energy policy.

**References:**

[1] *www.superhomes.ie – The average cost of a full scale deep retrofit to BER A3 standard in 2019 was €60,000*

# Liquid fuel heating in Northern Ireland

## – a perspective from Gerry McManus

When I started out as an apprentice in Belfast in 1967, coal was the main home heating fuel. Before the changeover to 'liquid fuel' most homes had an open fire and, by the 1970's, a back boiler feeding radiators throughout the home was the norm. Even in 1991, a survey conducted by the Northern Ireland Housing Executive estimated that solid fuel still supplied 61% of the energy needs in the home.

The 1970's was the start of the liquid fuel revolution and the first oil installation I remember consisted of radiators that weighed a ton (as the apprentice I had to carry them in and hang them) and a Wilson Wall flame boiler. I remember being amazed when my journeyman put the system together and commissioned it. The ability to flick a switch and have instant heat was seen as magical for folk used to setting a fire.

### Vertical firing burner

As my career developed, I was sent on a course at the Construction Industry Training Board (CITB) and learnt how to install, commission and service oil-fired boilers. By then we had moved onto pressure jet appliances and my personal favourite was the ODY3 with its vertical firing burner. Like the appliances, my career moved on and I found myself a role as a plumbing instructor at Craigavon Training Centre on the level 3 oil option course. It always pleased and amazed me to see the new breed of engineers showing so much enthusiasm when it came to working at the burners.

I then moved onto CITB at Nutts Corner, training oil industry engineers to the OFTEC standard and encouraging registration. So, the circle was complete from apprentice learning the ropes at CITB to instructor, however, now there was a huge range of domestic and commercial oil-fired appliances to work with. It was a fantastic, friendly environment and I embraced the wealth of knowledge some of these oil engineers brought to the centre.

My work travels have taken me to training centres in Belfast, Wales, Scotland, England, the Isle of Man and the Republic of Ireland, either to train or assess oil candidates, both technicians starting out in their careers and 'veterans' and I have enjoyed sharing mine and their knowledge and skills. My goal was always to manage my own training centre and in 2008, Phil Harper and I decided to create a multi skills training centre in East Belfast. That was the birth of Complete Construction Training Services Ltd (CCTS) which has become a leading training centre in NI for liquid fuel, gas, electrical and renewables training.

Our training centre is OFTEC approved and I have also represented the Irish training centres on the OFTEC Scheme Committee.

CCTS has a good mix of all the leading brands of appliances for technicians to work and, with the current push for energy efficiency, we see technicians showing a keen interest in how to maximise efficiency of the appliances which is pleasing.

The industry has come a long way since the Wilson Wall flame boiler – the introduction of condensing appliances, low NOx burners, Blueflame technology and even liquid fuel/ASHP hybrids is transforming the sector.

### New technology

So, what does the future of home heat look like in Ireland? The jury is out on that one. While many are pushing for an all-electric future, the thermal efficiency of many off-grid homes do not lend themselves easily to heat pump technology and, post Covid-19, many householders will not be in a position to invest in new technology.

I see a mix of fuels being used into the next decade; there will be heat pumps in new build and a mix of biofuel, liquid fuel/ASHP hybrids and even biogas used in existing off-grid areas. Whatever technology is used, the technicians will need to be trained and assessed on that technology and there is an exciting and busy time ahead for training centres involved in home heat training and assessment.

I am passionate about the liquid fuel sector and firmly believe it has a very positive future in Ireland, with the industry looking to use existing equipment with a decarbonised fuel. I enjoy training technicians to do the job correctly and hopefully this results in great outcomes for the consumer who has their new liquid fuelled appliance installed or serviced by someone I have trained or assessed.

The liquid fuel appliance manufacturers have been a great supporter of training centres here in Ireland and across the UK. I have met many friends and 'characters' throughout my training career and I hope to meet many more as we move forward with biofuels.

My motto in training is simple, "spend a bit more time doing it right the first time so you don't have to come back and fix your mistake". Hopefully the NI Assembly will spend sufficient time researching and developing a new Energy Strategy for Northern Ireland and not promote just one technology to the detriment of off-grid consumers. We need a range of technology solutions for a wide range of different types of housing in Northern Ireland. Hopefully, sense will prevail and we see a long life ahead for a decarbonised liquid fuel.

***Gerry McManus is the Training Director for Complete Construction Training Services. Find your local OFTEC approved centre at: www.joinoftec.com/find-your-local-training-centre/***

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# New appointment for Grant UK

Matt Beales recently joined Grant UK as a business development manager within the renewables sales team. Matt will provide sales support on Grant's extensive renewable product range to customers in the East and South East of England.

In 2019, Grant UK expanded its external sales team to incorporate more specialist roles focused on providing tailored renewable product support for customers. This year, a third renewables business development manager has been appointed to increase the level of sales coverage that Grant UK can deliver to installers, merchants, developers, architects and other customer bases interested in working with renewable, greener heating solutions. Matt will be looking after East Anglia and the South East and will be working closely with the area sales managers in these areas to provide renewable expertise and sales support, with a particular focus on Grant air source heat pumps.

**New business development manager, Matt Beales**

Matt has been working in the heating sector for over twenty years. He started his career with an oil boiler manufacturer where he worked on the production line, before progressing into service manager and sales manager positions. Matt later joined another boiler manufacturer where his sales role developed to include renewable technologies as well as oil boilers. After working in the merchant sector as a business development manager, he joined a manufacturer specialising in gas boilers and heat pumps.

"I am absolutely delighted to be joining Grant UK's renewables team," commented Matt. "The renewables market is a growing sector with so many opportunities available to those who are ready to engage with cleaner home heating solutions and who wish to help all of us achieve the government's net zero carbon targets. Grant UK's renewable product offering is more extensive than ever before, from high performing Aerona³ R32 heat pumps through to the supporting package solution products and a dedicated in-house design and specification team. I am really looking forward to working closely with Grant UK's customers to deliver the high-quality products and support that is expected from this brand."

www.grantuk.com.

# Worcester raffle helps NHS during pandemic


To raise funds for NHS Charities Together, Worcester Bosch organised a raffle recently, giving away two limited edition versions of the brand's most popular boiler – the Greenstar i.

Worcester wanted to recognise the outstanding work of the NHS with its raffle, which was drawn at the end of June, and vowed to match donations up to £10,000. The prize boilers were exclusively wrapped in two unique rainbow designs, inspired by the symbol the country is using to celebrate the work of the NHS.


The winners were picked by fundraising powerhouse Olivia Strong, founder of the Run for Heroes 5k Challenge that has to date raised over £7 million for the NHS, via a live Zoom draw. Two winners were announced:

- Will Stone Gas Plumbing and Heating, Lymington
- South Manchester Heating, Chorlton

Both companies have offered to either give away their boiler to a local NHS worker, or will run their own giveaway charity event.

The raffle was one of several initiatives for Worcester to support the NHS. Other initiatives include:

- The company repurposed its Clay Cross factory to create 500 metal ventilator casings for the NHS.
- The company has been using its 3D printing services to produce ear guards for frontline workers' face masks.
- Many employees have also dedicated their spare time to sewing scrubs for the NHS to show their appreciation for the sacrifice many of these key workers are making.

Victoria Billings, director of marketing at Worcester Bosch, said: "We are so grateful to those working in the NHS during this crisis and want to show our appreciation in any way possible, including matching donations up to £10,000. We hope that our raffle helps NHS Charities Together to continue the incredible work they are doing on behalf of the NHS and brings some warmth to our two winners in these tough times."

www.worcester-bosch.co.uk

# "Stop throwing your boiler on the scrapheap" says Hounsfield

*With government demanding the oil-fired boiler industry become carbon neutral by 2050, why is everyone turning a blind eye to the disposable throw-away culture that has dominated the industry? Andrew Hounsfield, owner and inventor of the Hounsfield boiler, explains…*

Do you remember when things were built to last? And, if something went wrong, instead of throwing it away we would get the item repaired? We're not just talking about the 'make do and mend' war-generation, we're talking about having a pride and a passion for engineering and creating products that simply do their job, period.

Over the last few years the oil industry has got a bad rap for not being very environmentally-friendly, and much ingenuity and development has been rightly placed on making oil boilers far more efficient than ever before. In the UK there is a legal duty to be carbon free by 2050 and there's a priority within the fossil fuel sector to lower rates of carbon ASAP. It's a challenge, but one we all accept. However, why has so much importance been placed on lowering carbon rates, without a second thought for the lifespan of a boiler and its components? Far too often boilers end up on the scrap heap within a few short years, is this the industry 'greening-up' their credentials? No, I don't think so.

## It's a scandal!

Many boiler manufacturers are churning out product, proudly promoting their enhanced levels of energy-efficiency, but sadly they're made with low grade components that need replacing every few years. Warranties have onerous terms and conditions, often requiring the homeowner to replace certain components, such as 'long-life' hoses, which only last a few years, and even fuel pumps are sometimes included in a long list of items that need to be replaced as a condition of warranty. The component industry seems to be big business for many boiler manufacturers and to be quite honest, I think it's a scandal!

OFTEC, our industry body, gives some advice and information about the future of heating to the oil heating sector, in fact its website is full of reams of information on decarbonisation, discussions on heat pumps and fuel poverty, introduction of biofuels etc, but nothing on the sustainability of a boiler itself! In OFTEC's mission it clearly states: 'Our trade association represents liquid fuel heating equipment manufacturers, promoting high standards and supporting the development of sustainable low carbon heating,' but where are their fresh new ideas to encourage manufacturers to develop sustainable products? Surely, it can't be sensible to decarbonise the sector and not worry about boilers filling up landfill or recycling centres in a few years' time – this is not a true green policy.

## Wear and tear

I'm not naïve, I do realise that some components will experience wear and tear and will need to be replaced. Boilers need to be designed to allow heating engineers easy access to all areas of the boiler for maintenance work and replacement of vital components. How many times have you heard an engineer turn to a customer and say: "I can fix it, and the part is small, but I would have to take the boiler to pieces, which will take me all day, so it would be cheaper for you to buy a new boiler," this is unacceptable.

Change has to happen, and it must happen soon. I believe we need a top-down approach where government forces the issue and ensure all manufacturers build boilers that are built to last and are energy efficient too. Consumers shouldn't have to pay for extended warranties or ensure they replace certain components; the boiler should be built to last! Ideally, government needs to empower OFTEC to administer a system that ensures boilers meet a set of criteria to ensure they are long life, require adequate but minimal servicing and don't end up as scrap metal within a few short years.

At Hounsfield our focus is on lifetime performance, energy-efficiency and ease of installation and maintenance for heating engineers. It would

appear that many of the big brands in the industry are more interested in profit and blinding customers with false warranties. Our boilers are made to last and come with a no quibble five-year guarantee. How do we make them so robust? A good example of our high grade parts is the specification of the hose we use for flexible oil lines, which has a Teflon core and stainless-steel braiding, it is aircraft grade material, instead of the industry standard – rubber or thermoplastic – which we all know will degrade and require regular replacement. We continuously search and test for the very best components and although they may make the boiler slightly more expensive to buy, the return on investment for the homeowner is undeniable.

www.hounsfieldboilers.co.uk

***Do other boiler manufacturers and technicians agree with Andrew Hounsfield's point of view? Here at Oil Installer magazine, we like to know YOUR opinions!***

# New 'Knowledge Hub' launched on Grant website

Grant UK has launched a new section on its website called the 'Knowledge Hub' which is dedicated to homeowners, providing them with a selection of information relating to sustainable heating solutions helping them to make informed decisions about their future home heating.

The 'Knowledge Hub' can be accessed via the Homeowner section. It is split into five zones with each one designed to help consumers increase their understanding of renewable heating technologies.

Each zone contains articles and references relating to greener home heating solutions. The 'tips & advice' zone contains a selection of blogs which share information with homeowners for them to discover more about renewable technology and the ways it can make their heating system more sustainable, whereas the 'education area' provides visitors with details about how certain renewable heating technologies work. The 'case studies' zone delivers real-life examples of Grant renewable heating systems installed and in action with the last two zones – 'FAQs' and the 'glossary' – providing consumers with the finer details to help fill in any gaps in their knowledge not answered in the other areas.

"Homeowners are becoming increasingly aware of selecting sustainable, more environmentally-friendly products for their homes, and this includes heating systems," says Anna Wakefield, Grant UK's head of marketing and data protection. "Many consumers looking to upgrade their heating have a desire to better understand how greener technologies work and the benefits they could bring. This is why we have created this new 'Knowledge Hub'. With the government's 2050 carbon targets in mind, we hope the new feature will become a useful resource for those looking to lower their carbon footprint and future proof their home heating system using renewable technologies."

www.grantuk.com/knowledge-hub

# Tigerloop – a roaring success!

The Tigerloop has been an industry-leading oil de-aerator since it was invented by Tigerholm in 1971. Rigorous quality control and testing are keys to the success of the Tigerloop, says the company, and every Tigerloop is functionally tested prior to delivery. Also, each Tigerloop is pressure tested for 10 hours to ensure the integrity of its seals for a safe installation.


The Tigerloop is also available in a metal construction model that is fully compliant with BS 5410-1. The Tigerloop Metal De-aerator is commonly called the Tigerloop BIO and carries the OFCERT license no. 2181080902. This model is suitable for both indoor and outdoor installation.

www.spxflow.com

**FlueSnug – approved by all major boiler manufacturers**

# PipeSnug launches new product

The team behind PipeSnug, the product designed to give a quicker, smarter finish around pipework, has launched a larger FlueSnug version designed to fit all 100mm boiler 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, says the company. FlueSnug can be used both inside and outside the property for the best finish, prevents heat escaping and acts as a barrier to drafts, damp, insects and pests.

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

Approved by major boiler manufacturers, FlueSnug looks set to be one of the quickest, and most cost effective ways 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.

"FlueSnug is already getting fantastic feedback from the trade and is suitable for any building where a boiler flue has to be installed, from new builds to local authority properties to commercial buildings," explains director, Alex Lever. "We know from the feedback we have had that heating engineers clearly see the time and cost saving benefits of the product, as well as the benefits of compliance with the proposed changes to Part L of the Building Regulations."

With the disruption caused by COVID-19, PipeSnug is directing installers to its website for product information and further details on how to order.

www.pipesnug.co.uk

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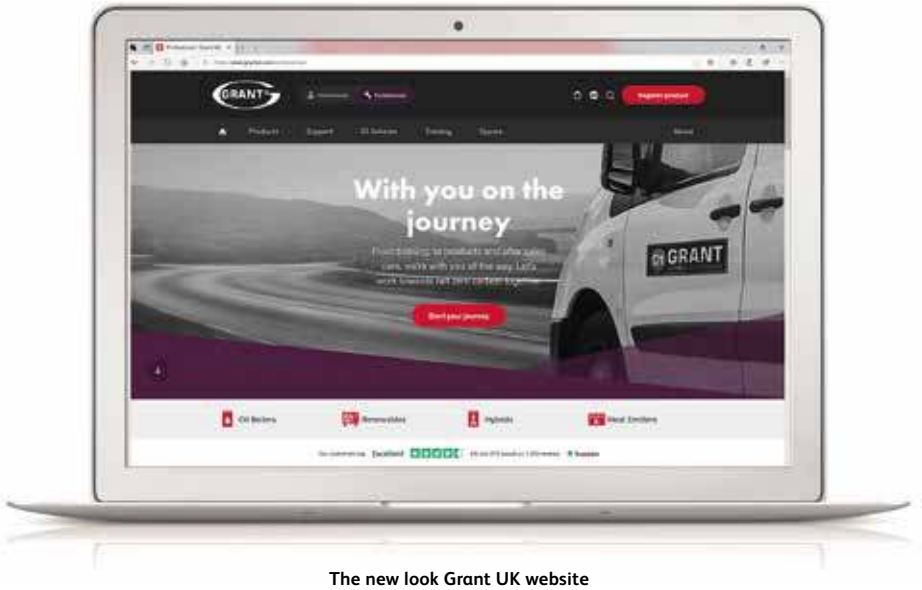
# Grant UK unveils new web features

Grant UK has incorporated a number of changes and new features into its website www.grantuk.com. This includes a series of stylistic and content updates, a more sophisticated 'find an engineer' search function, the launch of a brand new blog, as well as other improvements designed to enhance user experiences and to increase the available range of resources.

One area of change has been the design aspects, with more visible signposting to the 'homeowner' and 'professional' sections of the site, as well improved layouts to the drop-down menus in the headers. Product icons and other key brand elements have been incorporated to direct users more easily to the webpages they need, as well as enhancing the site's aesthetics.




**The new look Grant UK website**

The structure of core webpages has also been streamlined. The homepages have been reordered to make quick-links to useful pages obvious and easy to find. Specific product range webpages have also been restructured with features and benefits concisely listed, relevant case studies easy to access and specification data available to view, with minimal scrolling. In addition, the product categorisation and listings have been updated to invite visitors to select their chosen range before being directed to the relevant selection of products available within each category, a change which is designed to succinctly display Grant UK's large range of heating products.

Another feature which has been updated is the 'Find an Engineer' search function. Homeowners looking for an installer or service engineer can now refine their search more thoroughly by entering their location and the relevant technology. The search will then pull up the results of companies which fulfil the criteria. A secondary level of search refining remains available, enabling users to select the type of heating engineer they require, further increasing the relevancy and accuracy of the results produced.

A new Blog feature is also now live. Aimed at homeowner and professional audiences, this new section will include a series of blog topics from 'how to guides', 'top tips' and technically-led content – aimed to inform and assist visitors. Each blog is clearly categorised so users can easily identify the topics which are most relevant and interesting to them and it is hoped that the individual blogs will help Grant UK increase the level of customer support it can deliver online.

"Our current website was first launched two years ago and the feedback we receive from customers is very positive," says Anna Wakefield, the company's head of marketing and data protection. "However, we are always looking for ways to enhance our website to ensure that visitors can find the information they need and do so with ease. Some of the recent changes have been stylistic to help improve navigation around the site, while other updates have served to improve specific functions and to increase the online resources Grant UK can share with customers via the website. In particular, we are incredibly excited to launch our new Blog which will hopefully be an additional resource alongside existing useful tools, such as our flue configurator and product selector, designed to assist both professionals and their customers find the Grant heating solution best for them."

www.grantuk.com

# Danfoss launches "Installer Life" competition

Danfoss is giving installers who join its online community, the opportunity to win an "Installer Life football entertainment home kit", which includes a 55" smart TV, a custom "home of the heating professional" football table, a grass carpet and an accompanying stack of crisps and soft drinks.

The company is on a mission to make life easier for professional heating installers and kicked off a new digital series of training and entertainment activities on its installer website – installer.danfoss.co.uk – earlier this year.

Danfoss Installer Life is available online and provides access to the latest video guides, digital tools and apps, important updates, competitions, games and much more.

The prize draw, which launched in April, will run until 30 September 2020.

www.installer.danfoss.co.uk

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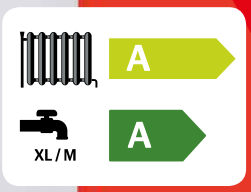


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- £150+ Over £150 worth of factory fitted extras included – saving 2 hours installation time
- A The UK & Ireland's only AAA-rated oil boiler
- Domestic hot water mini expansion vessel and pressure reducing & pressure relief valve factory fitted
- 24 Litre hinged expansion vessel
- 24/7 Integrated 7-day programmer

www.warmflow.co.uk

# Worcester launches compatibility of EasyControl with Alexa

Worcester Bosch has launched the integration of Bosch EasyControl and Alexa by Amazon. The upgrade allows customers to control the heating of their homes from anywhere in the property without having to raise a finger… just their voice!

Existing EasyControls can be updated by homeowners without the need for an installer. In order to update the system, an update to the app will be available through either a push notification or manual updating. The EasyControl must then be synced to the homeowner's Alexa.

www.worcester-bosch.co.uk/products/boiler-controls/bosch-easycontrol?

| There are a total of five commands available: | |
|---|---|
| **To do the following:** | **Ask Alexa:** |
| Find out the current room temperature | "Alexa, what is the temperature in the kitchen?" |
| Find out room temperature setpoint | "Alexa, what´s the temperature in the kitchen set to?" |
| To set the room temperature setpoint | "Alexa, set living room to 20 degrees" |
| To increase/decrease the room temperature setpoint | "Alexa, increase the temperature in the living room"<br>"Alexa, decrease the temperature in the living room" |
| To increase/decrease the room temperature setpoint | "Alexa, increase the temperature in the kitchen by 2 degrees"<br>"Alexa, decrease the temperature in the kitchen by 2 degrees" |

# PipeSnug releases video in time for Part L changes

PipeSnug has released a new video animation which has been produced to explain the benefits of using PipeSnug and FlueSnug to seal around pipes.

Filled with characters such as builders, plumbers and energy assessors, the animation has been produced to capture the attention of as many people in the construction industry as possible, says the company. Changes to Part L of the Building Regulations are due to come into force in late 2020, which require all pipes and boiler flues to be properly sealed with a collar or grommet – a job PipeSnug's products are specifically designed for.

"With airtightness testing and net zero carbon on the agenda for all installers, housebuilders and developers, making sure heat does not escape is a must," explains Alex Lever, PipeSnug director. "This video explains how our products help meet the regulations, save time, save cost and ensure the holes around pipework are sealed – all with the added bonus of less callbacks and a smarter finish."


To watch the video visit: www.pipesnug.co.uk

# Danfoss extends nozzle range

Danfoss has extended its range of Ofcert certified ES and EH kerosene nozzles which are now available up to 2.00US Gal/h in both the 60 and 80° versions.

"With BS 5410-1 being extended to 70kW from 45kW for domestic home heating applications, it was natural for us to run in line with the standard and have the products available to the market," says Mark McElroy, key account manager for Danfoss Burner Components.

The nozzles are tested and calibrated for use with standard UK home heating kerosene which not only improves the efficiency of the boiler but also saves the homeowner on fuel consumption throughout the year, says the company. "The range of under-firing or over-firing that can occur when using a nozzle that is tested and calibrated for a different fuel can be as much as 15% whereas that figure decreases to 5% when used with the correct fuel."

www.danfoss.co.uk


# Grant extends customer support hours

The technical and customer service departments at Grant UK have increased the hours of support to help customers during the working week. Both teams are now available to answer calls and provide support via email from 7.30am every weekday morning through to 6pm Monday to Thursday and 5pm on Fridays.

The new operating hours for the technical and customer service department phone lines are 7.30am through to 6pm every Monday to Thursday and 7.30am through to 5pm on a Friday (excluding Bank Holidays). Combined, these new hours will provide an additional nine hours of customer support for installers, service engineers and end-users.

"Delivering high quality support is our primary objective and these new extended telephone hours will allow us to further increase the level of customer care our technical and customer support departments can provide," says Scott Woodham, technical services manager at Grant UK. "All of our technical advisers are incredibly experienced and can provide diagnostic support and much more for Grant's full complement of products and working alongside our dedicated customer services team, they can now assist heating engineers, homeowners and all our other customers at times to suit them, whether that be first thing in the morning or later in the day."

www.grantuk.com/support

# Job opportunities at OFTEC

## Regional Inspector (contractor)

**Scotland, South East of England and the Channel Islands**

Do you have the in-depth knowledge and proven track record to be a contracted OFTEC Inspector? There are immediate opportunities in Scotland, South East of England and the Channel Islands, and, due to expansion of the registration scheme into other heating technologies, interest from other regions of England and Wales is also welcome. As part of our Inspection Team you'll work under a service agreement auditing and inspecting registered businesses and their technicians in your region.

Visits will include auditing business procedures and checking individual technical competence on-site. You may also help investigate consumer complaints and may also have the opportunity to represent OFTEC at trade events and regional meetings with other professional bodies. Knowledge of heating industry legislation is essential, along with knowledge of renewable technologies and MCS (Microgeneration Certification Scheme).

Previous auditing or assessing experience would be desirable. Computer literacy and exceptional customer skills are required for this role. A full driving licence and your own vehicle is essential as the role involves extensive travel around your designated region.

**The closing date is 4th September 2020**

For an informal chat about the role or to request an application form and job description, please contact Andrew Peirson (Office and HR Manager) on 01473 618 552 or email apeirson@oftec.org

# Don't risk an oil spill

## *- if in any doubt, replace consumable items*

In the event of a fuel spill originating from a flexible fuel line, home insurers may try to pass the cost on to the technician who services the appliance. How can you protect yourself from this risk?

Flexible oil pipes should be inspected during every service visit and in the interests of safety, changed at regular intervals. There are different types of flexible oil pipe available and guarantee periods can be as short as one year. Where flexible oil pipes are marked with a date stamp, the age of the oil pipe should be established and if out of its guarantee period, replaced immediately.

Where no date stamp is visible or where an oil pipe is kinked, damaged or any doubt exists as to its integrity until the next service visit, it is recommended that it is replaced at the time of the service. Caution should be exercised to capture any oil lost during the disconnection of the oil line(s).

Consumable items such as nozzles, filter elements and flexible fuel lines should be replaced at least annually, or not later than the expiry of the manufacturer's guarantee period. Where a customer refuses to have consumable items replaced as part of a routine service visit, this should be recorded on the CD/11 form and a warning label attached to the appliance identifying that either an immediate or potential risk is now present.

This advice can also be found in the OFTEC Technical Book 2.

# The 4-step plan to protect buried fuel supply pipes

**Step one – Depth**
The best way to ensure buried pipes are unlikely to be damaged is to bury them at a suitable depth. OFTEC Technical Book 3 shows how to do this by digging a trench 450 mm deep.

**Step two – Protection**
Where it is not possible to bury pipes at a sufficient depth, they should be protected. A traditional method is covering a pipe with concrete tiles. This needs to be undertaken carefully; the tiles should be laid in such a way that the downward pressure of soil above the tiles does not damage the pipe below. Alternatively, buried pipes can be protected by installing them within a continuous robust protective sleeve or duct.

When using sleeves or ducts colour-coded for other fluids (blue MDPE/alkathene, for example), it is recommended that marking tape is wrapped in a continuous spiral along the length of the pipe to prevent confusion during future excavations.

**Step three – Corrosion protection**
Buried copper pipes should be of the plastic-coated type. Steel pipes should be wrapped with anti-corrosion tape.

**Step four – Marking**
Marking tape should be used to clearly identify the location and contents of buried pipework, as shown in OFTEC Technical Book 3. Marking tape should be designed for underground use and should ideally include a metal detecting strip/wire for easy location. This is especially important if using approved plastic fuel supply pipe.

Suitable long-lasting tape can be purchased from www.oftecdirect.com.

# Compression fittings on soft copper – support sleeves a must

Investigations into a number of recent environmental pollution incidents have identified the cause to be sub-standard fuel supply pipework installations – specifically, the use of standard compression fittings on soft copper pipe where no internal support sleeve was utilised.

Compression fittings can be used on hard copper (R290) or half-hard copper (R250) without using an internal support sleeve.

Where used on annealed/soft copper (R220), compression fittings can distort the pipe causing weeping, sweating or leaks, which is unacceptable for environmental and fire safety reasons. This risk is increased where compression fittings have suffered an impact of some kind. For this reason, an internal support sleeve should always be used on annealed/soft copper pipe.

**Suitable support sleeves can be purchased from www.oftecdirect.com.**

# Keep your distance...

All technicians know that for fire safety reasons, the walls of flues must be separated from combustible materials. However, identifying the minimum separation distance can be complex, as it depends on numerous factors, such as the type of appliance (liquid fuel or solid fuel), the flue location and its construction (single wall or twin wall), for example.

The table below sets out the minimum separation distances required. To use the table, it is necessary to understand the following definitions:

***Connecting flue pipe –*** purpose made flue pipe components that connect an appliance outlet to its chimney, whether the chimney is a masonry or flue block chimney, or a factory-made metal twin wall system chimney.

***Manufacturer's declared minimum distance –*** Flue pipe manufacturers will provide the minimum safe separation distance to combustible materials for their flue pipe products and fittings. There is no standard distance – this varies from product to product. The minimum separation distance will be detailed in the product literature and can be found within the 'product designation'.

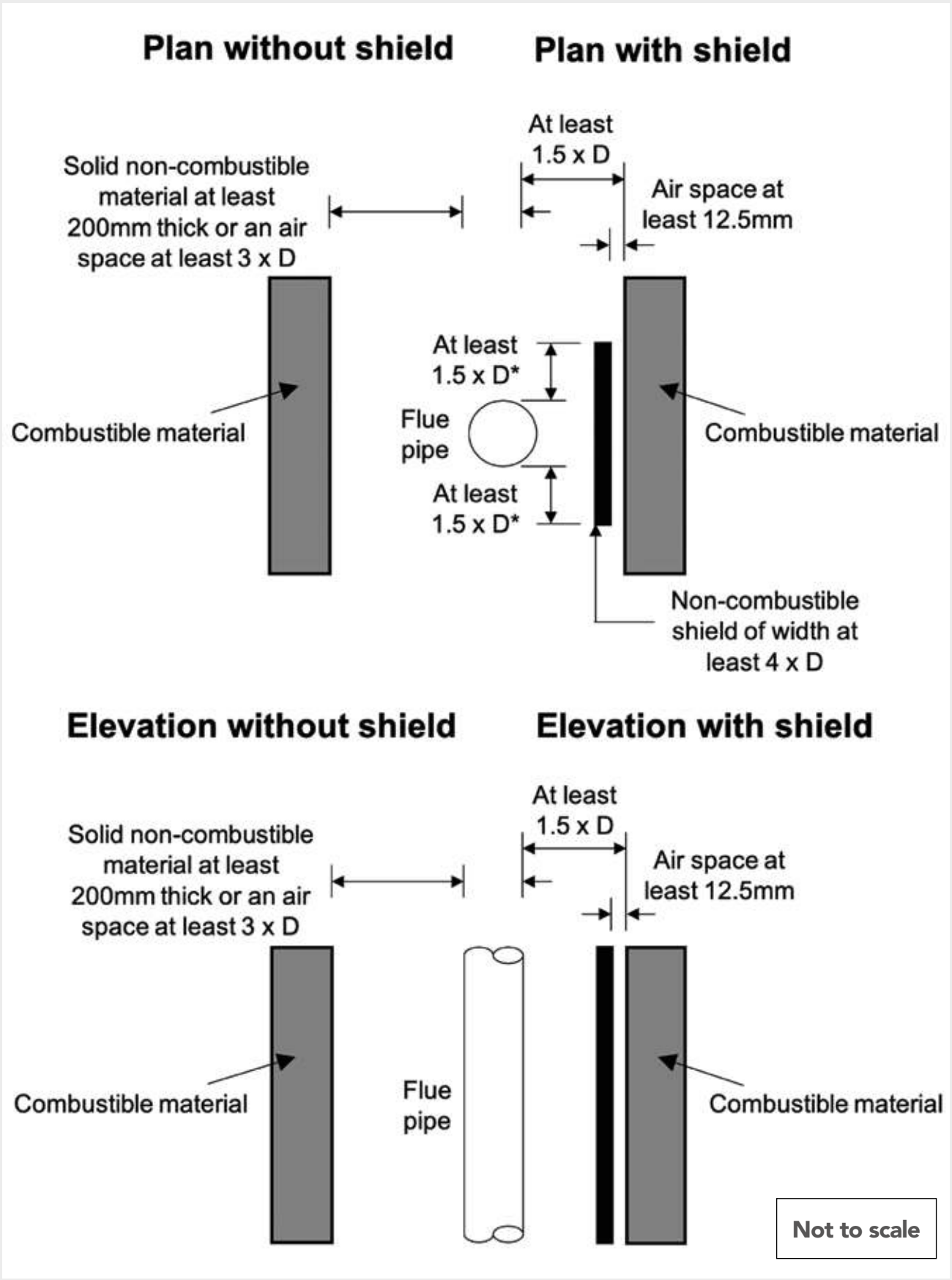
***The 'product designation'*** is a series of letters and numbers that describe the performance of a flue pipe product or fitting, such as maximum flue gas temperature and pressure rating, its corrosion resistance, and other criteria. For this discussion, we are interested in the last two digits of the product designation which give the minimum separation distance to combustible materials in millimetres. Here is an example of a product designation showing that the declared minimum distance to combustibles is 65mm. Note the last two digits in bold text:

EN 1856-1 T400 N2 D3 L70045 G**65**

The product designation should be clearly labelled on every flue pipe product or fitting.

| **Flue Type** | **Flue Type** | |
|---|---|---|
| | Oil – 250° C or less | Solid fuel |
| Single wall connecting flue pipe | An airgap of at least 25mm. Where the flue pipe passes through a combustible roof, floor, ceiling or partition, the pipe should be surrounded by a non-combustible sleeve. The diameter of the sleeve should provide a space of at least 25mm between the flue pipe and the sleeve. This space should be filled with non-combustible insulation.<br><br>If a flue pipe passes through another room or enclosed space any part of the flue pipe which could reach temperatures exceeding 85°C should be protected to prevent contact by persons using the room. | 3 x diameter of the flue pipe without shielding or 1.5 x diameter of the flue pipe with shielding (see diagram 1).<br><br>Connecting flue pipes should be used only to connect appliances to their chimneys. They should not pass through any roof space, partition, internal wall or floor, except to pass directly into a chimney through either a wall of the chimney or a floor supporting the chimney.<br><br>Where it is proposed to take a flue pipe through a ceiling, the single wall connecting flue pipe should be connected to a twin wall chimney at least 425mm below the ceiling. |
| Twin wall connecting flue pipe | As above. Distances can be measured from the outside of the inner pipe. | Manufacturer's declared minimum distance.<br><br>Where it passes through a cupboard, storage space or roof space, provide a guard placed no closer to the outer wall of the chimney than the manufacturer's declared distance. |
| Factory made metal twin wall system chimney constructed to BS EN 1856-1 or BS EN 1856-2. | Manufacturer's declared minimum distance.<br><br>Where it passes through a cupboard, storage space or roof space, provide a guard placed no closer to the outer wall of the chimney than the manufacturer's declared distance. | |
| Flues for room sealed appliances passing through walls | Any combustible cladding on the wall should not be within 50mm of the outer skin of the flue. Also, where the wall itself is combustible, the flue should be within a steel sleeve large enough to provide a 50mm gap between the flue and the sleeve. The gap should be filled with insulating material. | N/A |
| Flues for room sealed appliances passing through ceilings/roofs | Manufacturer's declared minimum distance. If no guidance provided, OFTEC recommends 25mm, which can be measured from the outside of the inner pipe. | N/A |

**Diagram 1 – Separation distances for single wall connecting flue pipes serving solid fuel appliances**




**NOTE:** In the Republic of Ireland only, the distances marked with an asterisk * above can be reduced to 1 x the diameter of the flue pipe, resulting in a non-combustible shield of a width of at least 3 x the diameter of the flue pipe.

# The point of no return – *avoiding reverse circulation*

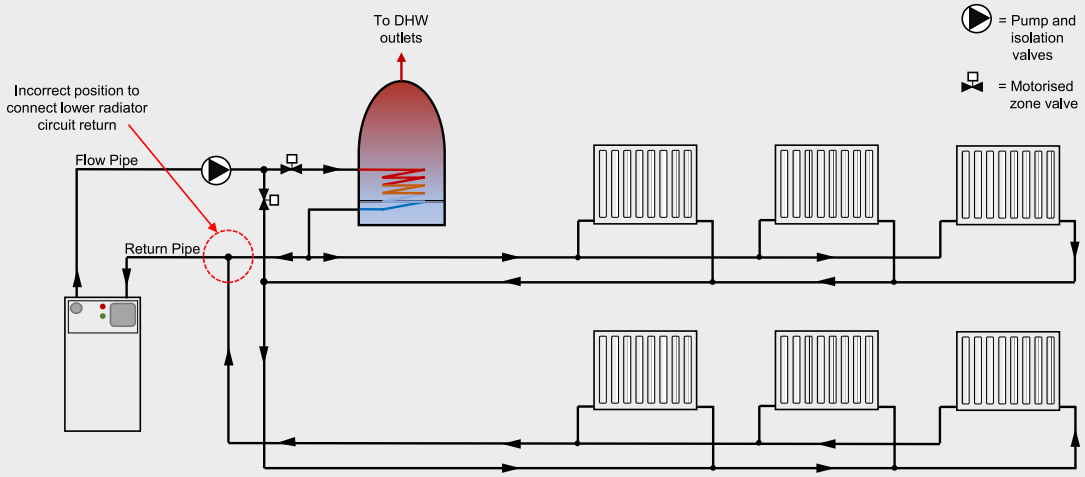
OFTEC's technical team continues to review some common heating design defects and advises how best to avoid them.

Most heating technicians will have come across a scenario where the radiators on an existing heating system are getting warm when only the hot water circuit is in operation. Often this is due to a motorised valve on a heating circuit not closing properly and letting by. However, where this occurs on a newly installed system incorporating a hot water cylinder, the cause is more likely to be 'reverse circulation'.

What is reverse circulation? The clue is in the name – it refers to primary water circulating backwards through a heating circuit, warming radiators when there is only demand for domestic hot water. Reverse circulation is caused by poor heating system pipework design. In truth, even experienced heating technicians have been caught out by this problem, so it is worth reviewing the precise cause.

This diagram shows that if careful thought is not given to the point at which heating circuit return pipes join the cylinder return, reverse circulation can occur.

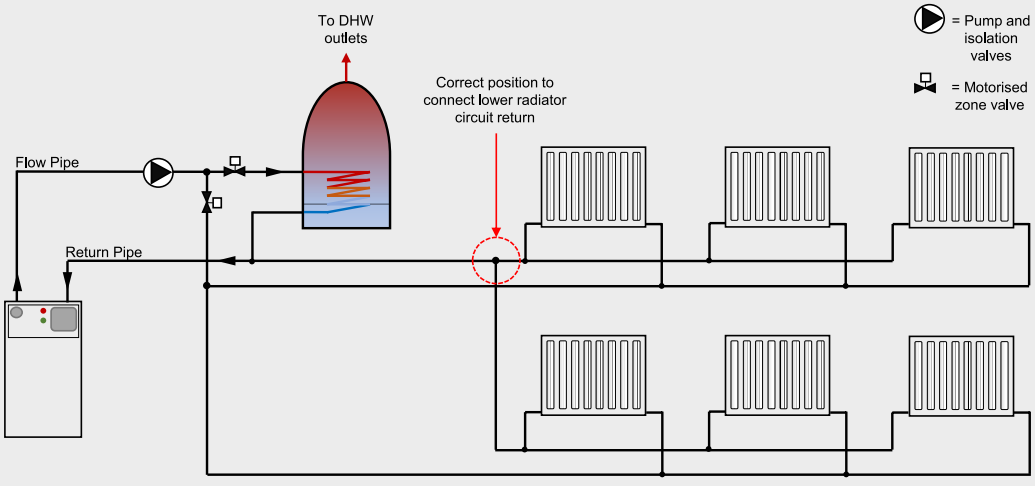
This system will be prone to reverse circulation. The arrows on the pipework show the direction of water flow when only the cylinder motorised valve is open. Water is pumped through the upper circuit in reverse, then through the lower circuit.
This problem exists because the return pipework from the lower radiator circuit is connected after the cylinder return and upper radiator circuit return have been joined.




This diagram shows a correctly designed heating system – notice the correct way to connect heating circuit returns together before joining them to the hot water cylinder return.

Reverse circulation is not possible on this system because the return pipework from the upper and lower radiator circuits are joined to form a common return before connecting to the cylinder return.

To avoid reverse circulation, ensure that all heating circuits are taken from a common flow and all heating circuits are joined to a common return before being connected to the return from the hot water cylinder



# Is the answer to difficult tank installations to be found in a tin?

Siting fuel storage tanks can be tricky, especially in a small garden where the proximity of property eaves and non-fire-resistant boundaries or buildings (such as sheds etc) can make achieving minimum separation distances seem impossible. As an alternative to building fire walls, technicians may be tempted to coat fences, eaves or even sheds in intumescent paint. Is the answer to difficult tank installations to be found in a tin?

Fire resistance in a tin?

To start with, let's kick two of these ideas out immediately. Applying any fire protection product (including intumescent paint or fireboard) to a boundary fence or shed, for example, is a waste of time and money as this will not bring about compliance. The tank needs to be protected from a fire originating from within a building or beyond a boundary. In the event of a fire, the fence or building (shed in this case) will no longer be there to support the product for the required time period.

What about eaves? Could intumescent paint be used to meet regional building regulations requirements?

To answer this question, we need to cut through the many confusing terms and expressions used in relation to fire protection products. In short, tank installers need to think in terms of fire resistance and only fire resistance. It is of no consequence if a product has been tested to a British or European standard that demonstrated it is "non-combustible", "fireproof", "heat resistant", "fire retardant", has no "reaction to flame", or does not contribute to "fire propagation". Although such terms and test results look impressive, not one of them establishes the fire resistance of a product.

Fire resistance is different. It refers to the ability of a product or a building element to maintain 'stability' (not to collapse or deflect excessively), 'integrity' (have no significant cracks or holes) and a required level of 'insulation' (to prevent the transfer of excessive heat) for a given period of time. The manufacturer of a product will declare the period of fire resistance offered by their product (30, 60 or 120 minutes, for example) and the standard to which it was tested. Fire resistance is determined by testing to either BS 476-21, BS 476-22, BS EN 1363-1 or BS EN 1364-1 and it is products and materials that have been tested to these standards that you need to look out for.

How does all this relate to intumescent paint? Manufacturers of intumescent paint generally have their products tested to other parts of BS 476 that have nothing to do with fire resistance; for example, BS 476-6 – a test for fire propagation; or BS 476-7 – a test for the surface spread of flame. Paints are sometimes also tested to BS EN 13501-1 – a test for reaction to fire. As explained above, none of these tests establish a period of fire resistance.

What if a paint manufacturer decides to coat a sample of wood or metal with intumescent paint and have this sample tested to the correct standards listed above to determine fire resistance? Would this then make the use of the product acceptable? No.

The test would only demonstrate compliance for the exact specimen tested. A different thickness or type of wood or metal would provide different results, as would a different thickness of paint.

This is why many companies that sell this type of paint, although offering to provide a "fire certificate" or a "certificate of conformance", actually only provide a certificate of supply that will detail how much paint was supplied, what area the paint would cover and what the anticipated level of fire resistance would be for a particular substrate. This type of certificate could not be used as evidence of compliance, because it would be impossible to verify that the appropriate number of coats of paint had been applied and the type/thickness of material it was applied to.

In summary, intumescent paint cannot be used as an alternative to industry-standard fire protection methods. Homer Simpson famously said "When will I learn? The answer to life's problems aren't at the bottom of a bottle, they're on TV!". We are not sure about that, but it turns out they are not at the bottom of the tin either!

## What are intumescent paints?

In simple terms, intumescent paints are reactive paints. They are designed to swell and char when heated. Think back to the food you burned on the BBQ in the summer and you will remember what charring is! Char is a good thermal insulator; it does not allow much heat to pass through it. For this reason, intumescent paints are usually used to thermally insulate structural materials, such as steel, in a fire, stopping premature collapse of the building.

# Training centres battle through COVID crisis

The resilience and adaptability of OFTEC approved training centres has been clearly demonstrated during the current COVID-19 situation. At the start of the lockdown, only 13 out of 96 approved centres remained open for training and assessment, but by mid-June this number had increased to over 60, or getting on for two-thirds of all centres.

Training centres have put a great deal of time and effort into ensuring the safety of their candidates by making major changes to the way that they operate.

## England

Colin Ransom from PGL Training in Exeter says: "We have been very pro-active in establishing a system to enable individuals to attend. We have social distancing measures in place and smaller numbers attending the courses. All candidates have their temperature taken on arrival, receive a full briefing on the measures that have been put in place to safeguard them and complete a checklist prior to entry to the centre. Interest has been extremely healthy, resulting in our first programmed courses being fully subscribed."

## Wales

In Wales the lockdown rules lasted longer than in England. Ian Oultram from LPG Training in Sandycroft commented: "The days leading up to the COVID-19 lockdown were full of unknowns. As time moved on, we made plans for our business in the future. By June we had not only reopened our training centre but were busier than ever. The measures we have put in place to safeguard our staff and customers are working very well and have been wholeheartedly embraced by all concerned. Classes are currently limited to a maximum of four persons which increases the demand for places, but to compensate we have increased the number of OFTEC courses we run."

## Ireland

Aoife Keenan, centre manager at METAC Training in the Republic of Ireland says: "We have been working hard in the background to ensure that we could re-open safely and comply with Irish Government and Health and Safety guidelines. Our new COVID-19 risk control procedures have seen the introduction of COVID-19 compliance officers, stickers on floors, temperature checking each morning before access to the facility is allowed, a one-way walking system in the building, extra hand sanitising stations and staggered start times for training groups. Maximum class sizes have been reduced by 50%, and all classroom layouts have changed to ensure trainers and candidates are at least two metres from each other."

A recent survey showed that 90% of centres that have been able to open have reduced their capacity substantially to ensure social distancing is maintained but have also increased the frequency of the courses. In addition, most centres are prioritising those technicians whose qualifications have expired or are about to expire, as well as those whose courses were cancelled at the start of lockdown.

At the time of writing, most, but by no means all, of the centres based in FE colleges in the UK and ETB's in the Republic of Ireland remain closed due to government guidance, but hopefully by mid-September all centres will be able to re-open.

You may need to travel further than usual to find a suitable course. Find all OFTEC approved centres at www.joinoftec.com/find-your-local-training-centre/.

# Free set-up assistance after heat pump training

Installers who attend the Grant air source heat pump product training course at the Grant UK training academy can now claim free set-up assistance for an Aerona³ R32 heat pump.

In line with the increasing popularity of air source heat pump installations and the growing demand from installers looking to expand their businesses and expertise into renewables, Grant UK's training academy is updating its rewards voucher initiative for heating engineers who attend heat pump training through the academy. When candidates complete the product training course, they will be issued with a voucher which will entitle them to claim either £125 cashback on the purchase price of an Aerona³ heat pump or set-up assistance, free of charge, for one Aerona³ heat pump installation.

Installers who wish to redeem their

voucher for the free set-up assistance will need to download and complete a set-up request form and an ASHP checklist form and return these to Grant UK along with proof of their voucher. Grant UK will then liaise with the installer to arrange a suitable date for the set-up assistance to take place. To claim the £125 cashback on the purchase price of an Aerona³ heat pump, installers will need to provide proof that they purchased the product within twelve months from their training course.

"We have had a cashback voucher scheme in place for our heat pump product training for a while," explains Phil Stanley, Grant UK's training manager. "This has proven popular and we anticipate that the offer of one free ASHP set-up assistance will be just as useful for engineers, if not more so. For first-time installers of a Grant Aerona³ heat pump, the onsite assistance from a Grant UK representative will be greatly appreciated to help with the set-up of the heat pump and preparing for the customer handover. By offering this free set-up assistance as an option on the vouchers will allow Grant UK to extend their product training and support to beyond the training room, helping installers increase their confidence with working with this renewable technology."

www.grantuk.com/professional/training

# Incompetence and neglect... two factors which lead to problems!

Poor workmanship, shoddy installations and customer neglect – these are the main causes of oil-fired heating problems... usually at the most inconvenient of times! Once again our faithful readers have come up with some shocking-but-true stories about what they have discovered during their normal course of work.

OFTEC registered technicians who have their photographs featured on these pages win a special prize – a generous 20% discount on orders from OFTEC Direct. So, for a chance to win this valuable discount, send in your snaps showing the good, the bad and the ugly sides of oil-related installations. Don't forget to include your name, address and OFTEC registration number, and, if published, you will qualify for the special OFTEC Direct discount! (www.oftecdirect.com).

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


## Location, Location, Location

**Ady Hunter** of Ultra-Warm Ltd, found this absolute horror while out on site in Wiltshire. Having informed the customer that it had failed on nine counts of the T1/133D risk assessment, he advised them to move the tank and form a new base in a better location.

Operating from locations throughout Wiltshire, for more than 40 years Ultra-Warm has provided servicing, maintenance and installations of both domestic and commercial heating and hot water systems. OFTEC registered, the company carries out servicing and maintenance to oil, gas, solid fuel and LPG boilers and appliances.

**Tony Kite** – an OFTEC-registered technician covering the south Staffordshire region – was contacted by a customer who had found his name on the OFTEC website. The lady in question explained to Tony that she had asked two previous engineers to rectify her boiler problems but was not happy that they could not resolve the reason for water running out of the pressure relief pipe down the outside of house and on to the tiger loop. The last engineer had replaced the PRV which stopped the water discharging for a few weeks, but then it started again.  Tony took on the challenge!

"I visited later that day to be shown the water discharging from the pipe above tiger loop.

"Then I was shown into laundry where the oil boiler was fitted. As the door was opened there was a strong smell of oil," Tony told *Oil Installer*.

The customer told Tony that she had mentioned the smell to the previous engineers who had told her that it was "normal" to have such a smell of oil. Tony insisted that it certainly was not normal and there should be no smell!

The customer then left Tony to investigate the system who then took a series of before and after photographs during his remedial work.

## Oil supply leak...

"My photo shows a 10mm copper oil supply pipe that was removed through the wall. It was wrapped in earth identification tape to form the sleeve through the wall.

***"Remedial work undertaken:*** a 32mm diameter hole was drilled through wall with plastic tube inserted to pass through both copper oil supplies and then sealed."

## Smell of oil...

"My photo depicts two 10mm oil supplies entering the property, with compression fittings fitted outside the case of the boiler. On further examination, both compression joints had oil leaking from them. Further investigation found that pipes did not have pipe support sleeves. Damp patches could be seen on the MDF skirting that was covering oil pipes where the oil had soaked into the MDF.

***"Remedial work undertaken:*** I replaced both 10mm copper pipes from the tiger loop to inside case of boiler in one piece. All compression fittings were replaced with 10mm flared fittings. The client then employed a carpenter to replace the skirting."

## Water discharge down the wall...

"My photo shows a brown stain where water was discharging down the wall from the pressure relief pipe on to the tiger loop. Two previous installers did not recognise that the pressure vessel in the boiler was of an inadequate size to cope with the expansion of the 13 radiator system – 50% of the rads were column radiators, which hold a considerable amount more water than panel radiators.

***"Remedial work undertaken:*** I drained the heating system and installed an extra 30 litre capacity expansion vessel, power flushed the system with chemicals and refilled with inhibitor."

# Fuel price commentary

One argument that competitors frequently try to make against oil heating is around price. For example, at a recent BEIS select committee hearing, it was claimed by an "industry expert" that oil boilers are very expensive to run and so there would be a significant cost benefit opportunity to convert them to heat pumps.

Were that true, it would certainly encourage many households to consider switching to other lower carbon technologies. That few have done so is because it is spectacularly untrue, as the latest Sutherland tables data shows – an oil condensing boiler is by far the cheapest home heating option throughout the UK and Republic of Ireland.

But one set of figures only provides a snapshot. Households can't chop and change their heating system so they want to know how prices compare over much longer time periods. Looking at the average price over the previous four years' worth of Sutherland Tables data confirms oil's long-term advantage. Although the oil price has fluctuated more than some heating options, oil was the cheapest fuel of all – even cheaper than mains gas. The average price of oil heating was marginally lower than gas, while all other options were significantly more expensive.

This presents a significant problem for anyone hoping to switch oil heated households to other forms of heating. Not only is the up-front cost high, but the running costs are also likely to be higher unless steps are taken to reduce heat demand. While heat pumps can be a cost-effective solution as a replacement for an old oil system in a well-insulated home, anyone with a modern condensing boiler would be well advised to consider waiting for renewable liquid fuels to reach the market.

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

GREAT BRITAIN

| | Average: Jul 16-Jul 20 | July 19 | July 20 | Price change | % difference |
|---|---|---|---|---|---|
| Anthracite Grains | £1,156 | 1154 | **1209** | £55 | 4.77% |
| Electricity (Economy 7) | £1,927 | 2131 | **2098** | -£33 | -1.55% |
| Gas (British Gas – condensing) | £980 | 1049 | **914** | -£135 | -12.87% |
| LPG | £1,873 | 1944 | **1898** | -£46 | -2.35% |
| LPG (condensing) | £1,542 | 1599 | **1561** | -£38 | -2.36% |
| Oil | £1,193 | 1341 | **705** | -£636 | -47.43% |
| Oil (condensing) | £978 | 1098 | **582** | -£516 | -46.96% |
| Wood Pellets | £1,429 | 1457 | **1517** | £60 | 4.10% |
| Air source heat pump radiators | £1,705 | 1888 | **1827** | -£61 | -3.25% |
| Air source heat pump underfloor | £1,390 | 1443 | **1398** | -£45 | -3.10% |

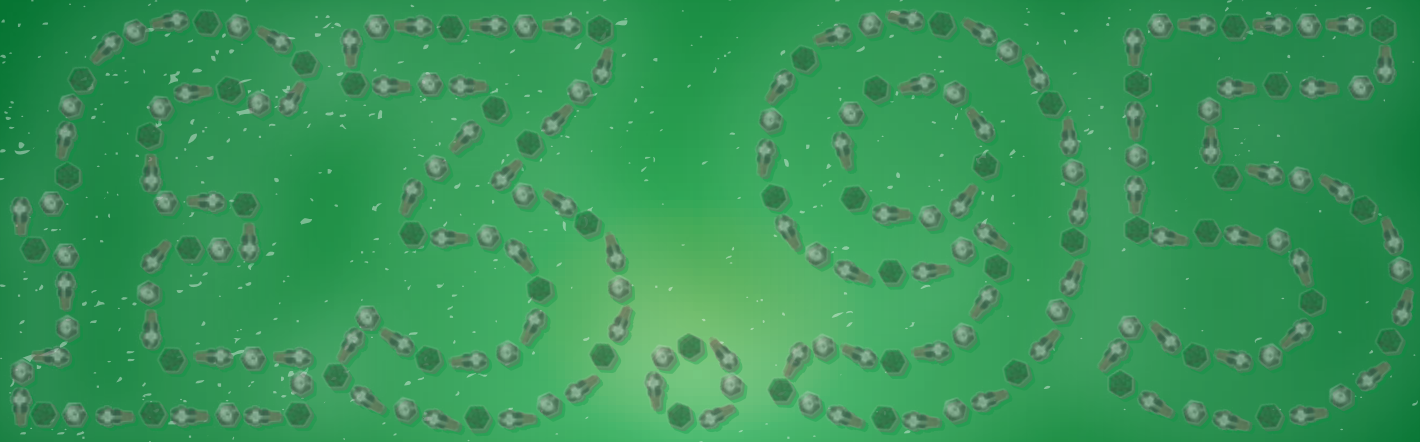
NORTHERN IRELAND

| | Average: Jul 16-Jul 20 | July 19 | July 20 | Price change | % difference |
|---|---|---|---|---|---|
| Anthracite Grains | £999 | 1027 | **1075** | £48 | 4.67% |
| Electricity (Economy 7) | £1,673 | 1870 | **1983** | £113 | 6.04% |
| Gas (Phoenix – condensing) | £935 | 1050 | **861** | -£189 | -18.00% |
| LPG | £2,498 | 2708 | **2510** | -£198 | -7.31% |
| LPG (condensing) | £2,049 | 2219 | **2059** | -£160 | -7.21% |
| Oil | £1,172 | 1287 | **722** | -£565 | -43.90% |
| Oil (condensing) | £961 | 1054 | **596** | -£458 | -43.45% |
| Wood Pellets | £1,131 | 1118 | **1206** | £88 | 7.87% |
| Air source heat pump radiators | £1,536 | 1654 | **1725** | £71 | 4.29% |
| Air source heat pump underfloor | £1,262 | 1246 | **1299** | £53 | 4.25% |

REPUBLIC OF IRELAND

| | Average: Jul 16-Jul 20 | July 19 | July 20 | Price change | % difference |
|---|---|---|---|---|---|
| Anthracite Peas | €1,572 | 1628 | **1628** | €0 | 0.00% |
| Electricity (Urban Night Saver) | €2,066 | 2197 | **2137** | -€60 | -2.73% |
| Gas (Bord Gais condensing) | €1,349 | 1431 | **1299** | -€132 | -9.22% |
| LPG | €2,772 | 3021 | **2998** | -€23 | -0.76% |
| LPG (condensing) | €2,280 | 2482 | **2463** | -€19 | -0.77% |
| Oil | €1,609 | 1863 | **1129** | -€734 | -39.40% |
| Oil (condensing) | €1,317 | 1523 | **928** | -€595 | -39.07% |
| Wood Pellets | €1,360 | 1398 | **1391** | -€7 | -0.50% |
| Air source heat pump radiators | €1,813 | 1921 | **1869** | -€52 | -2.71% |
| Air source heat pump underfloor | €1,490 | 1512 | **1471** | -€41 | -2.71% |

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.

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