

2020/2021



magazine

The voice of the HVACR industry



Revolutionary
report from
the HPA

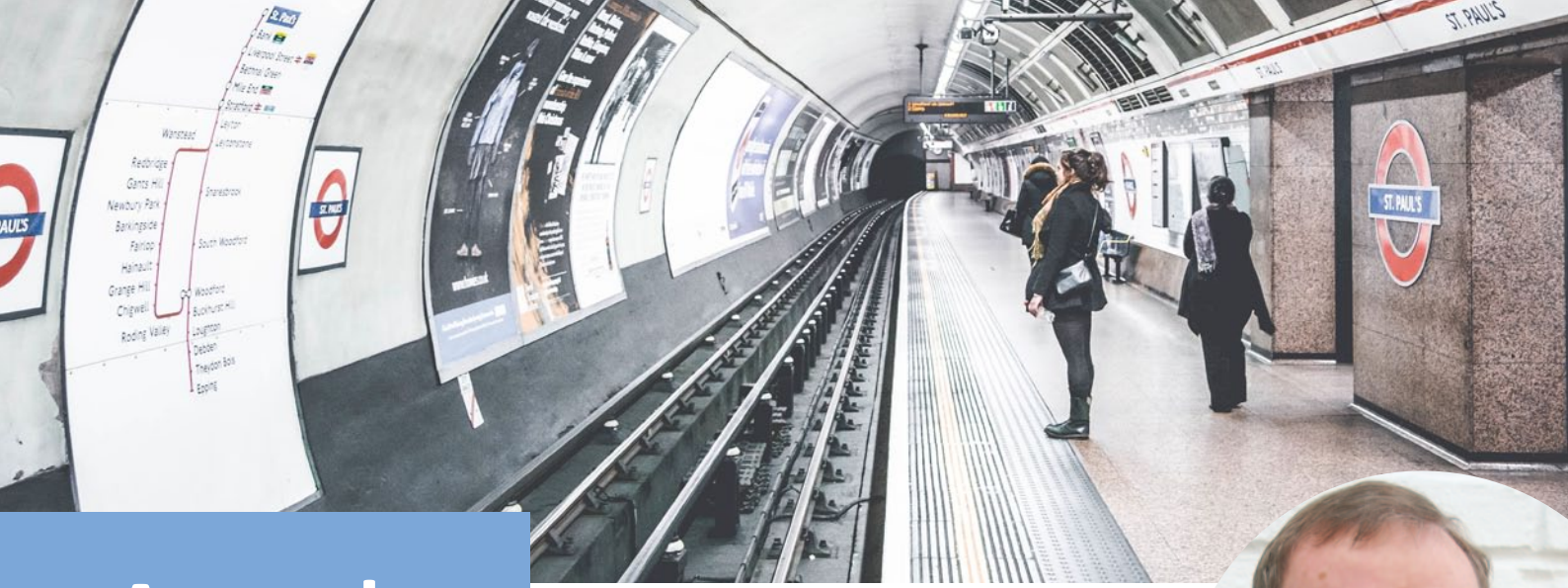
Thoughts from the
Chief Executive on:

A difficult year, Brexit, Building Regulations

Cutting pollution from
household burning

The phased
approach to
upgrading a
building's BMS

*Strict new
membership
requirements
for the SCA*



A word from the Chairman

Dear FETA members

You will notice that this year's edition of the FETA Magazine is a bit different to recent ones. With the COVID-19 pandemic having a huge impact on businesses across all industries, many ongoing projects and campaigns have been interrupted and working patterns have had to be adjusted accordingly. The FETA Annual Lunch is something that many of our members look forward to and this of course was one of the myriad events that was cancelled during the lockdown period. Safety is of course the priority right now and as we look forward into 2021 I hope that it is not too long before we can come together again. Until that time comes I would like to thank all our associations and members for their continued hard work in the interests of our industry this year. This magazine will look at some of the significant achievements and big discussion points from 2020. I hope you enjoy it.

Mark Woods, Chairman, FETA

Russell Beattie, FETA Chief Executive, reflects on some of the biggest stories and issues affecting the industry in 2020



2020 will be a year to remember by any standards and there is little I could say about the COVID-19 situation which has not already been said across the nation, and indeed the globe. In the early part of the year, we did not know how it would evolve and, devastating though it has been for society in general, at least for our sector things have never been without hope. Our membership has held up extremely well and we have played our part in rising to the challenges of keeping the built environment and supply chains functioning. Indeed, many of our members were recognised as providing Key Worker support and we salute them for that magnificent contribution to our national wellbeing.

I have reflected before that the 2020/21 period would have been deeply significant for us anyway in that we would be facing not only the inevitable uncertainties still unfolding as a consequence of Brexit but also the far-reaching changes in the regulatory culture in the wake of the Grenfell tragedy are beginning to take clearer shape. Under a growing desire for greater corporate accountability there can be little doubt that greater expectations of professionalism, both at company and individual level, are fast approaching and, certainly for those involved in installation, the future will be very different. Tighter control on membership criteria for trade associations is rightly going to be a major focus for all our groups and we recognise that is going to be a challenge, but it is one we are determined to meet.

We will approach 2021 in a positive frame of mind and endeavour to engage fully with Government across the broad range of topics we cover. Quite obviously it will take time to fully recover from the pandemic and indeed we can expect to see changes in work practices (such as greater use of virtual meetings) enduring anyway. One thing we can expect, and must prepare for, is ministries and authorities in general trying to make up for lost time and, for example, having to produce revisions to Building Regulations and climate change policies in tighter than normal timeframes. Having worked hard over recent years to establish our collective credibility with key ministries, we will need to remain proactive if we are to ensure optimal outcomes for our members.

One of the key strengths of a Trade Association is our collective voice and we are aiming to strengthen this by forming even closer relationships with fellow sector related associations and professional institutes in 2021 – all with a view to better influencing the various authorities and agencies we interact with.

As I am retiring from FETA in 2021 this will be my last such annual message and I would like to close by thanking all members, and of course staff colleagues, for your support over the past years. I wish you all every good fortune as you navigate the challenges of 2021.

Russell Beattie
Chief Executive
FETA



Joint publication clears up confusion over compliance

A number of technical standards needed to ensure fire resistant and smoke control ventilation systems comply with safety regulations have not yet been published, leading to confusion in the ductwork marketplace. In response, the Association of Ductwork Contractors and Allied Services (ADCAS), the Building Engineering Services Association (BESA) and the Association of Specialist Fire Protection (ASFP) have joined forces to produce guidance designed to help the industry deliver safe solutions in compliance with the Construction Products Regulation (CPR).

'Fire test standards and the CPR in relation to fire resisting ventilation and smoke control ductwork' is a joint publication that explains the problem and provides an industry-wide position on compliance. Since July 2013, it has been a legal requirement under the CPR to comply with any harmonised European product standard and provide tested products covered by that standard, the three bodies explained.

The document lays out how the CPR applies to fire resisting ductwork, explains the relevant standards and the relationship between them as well as the current status of the EN standards and what this means to the industry.

The full document is available for download at www.adcas.co.uk/publications.

Cutting pollution from household burning

The British Flue and Chimney Manufacturers Association issued support for the Government action to cut pollution from household burning, announced on 21st February 2020. Freshly cut wood consists of between 60 per cent and 80 per cent water, so burning it before drying is like trying to burn water, producing steam and smoke but little heat.

Burning wood that has a moisture content below 20 per cent in an open fire or stove will dramatically reduce the particulate emissions compared to wet wood. The introduction of the Woodsure Ready to Burn scheme will help consumers identify wood that has the appropriate moisture content. Those people who have access to freshly cut wood should leave logs to dry naturally. This is known as seasoning and can take between one and two years depending on the species.

Dennis Milligan, President of the BFCMA, said: "Sulphur is not only bad for the environment, it can also corrode appliances and stainless steel flues. Banning household coal and capping the volume of sulphur at two per cent in smokeless fuels is good news for the health of appliances and flues."

SCA members commit to strict compliance requirements

The Smoke Control Association has announced that all of its members have signed up to stringent new membership requirements designed to maintain the highest industry standards.

Key amongst the updated membership requirements is the stipulation that all products installed as part of life safety smoke ventilation systems should be independently tested and certified to the EN12101 series of standards and CE marked.

The new framework also includes a requirement that members who install smoke control systems must apply for and receive SDI 19 Certification Scheme accreditation providing a guarantee that they have the necessary skill and experience in fire strategy verification, system design, installation and commissioning in accordance with industry standards and guidelines.

As well as adapting its membership criteria, the SCA has introduced a new formal complaints procedure in order to effectively handle any concerns or allegations that standards have fallen below expected levels or an organisation has failed to adhere to the SCA code of conduct.



HPA releases revolutionary report outlining steps to decarbonise the UK's heating industry in the next decade



In November 2020 the Heat Pump Association released a ground-breaking report outlining the steps that Government must take to shape future policy and decarbonise the heating industry. The report, *Retrofitting Homes for Net Zero Heating*, aims to substantially shake up the existing frameworks and introduce regulatory, impactful, and meaningful changes in the heating sector, paving the way for mass deployment of low carbon heating.

The aims of the report are to:

- Promote changes to establish infrastructure in existing homes for low carbon heating
- Build and develop installer skills for the recommended changes
- Lower fuel bills for existing heating systems
- Lower carbon emissions for existing heating systems

These aims are comprehensive, providing enough detail to influence civil servants and policy makers on the benefits of implementing these changes as well communicating the benefits to the industry.

The report sets out to 'level the playing field' across all heating types, encouraging best practice and low carbon heating for all installations, regardless of technology type. This will ensure the smooth transformation of the domestic heating market from fossil fuels to low carbon over the next decade, reducing fuel bills and carbon emissions from homes. The recommendations can be neatly summarised into three key points:

- Introduce a maximum flow temperature of 55°C in Building Regulations to be applied to replacement heating systems from 2026.
- Introduce in Building Regulations for Heat Loss Calculations to be carried out for all

replacement heating systems from 2026.

- All heating installers to have a Low Temperature Heating and Hot Water Qualification, or equivalent, as part of accreditation scheme refresher courses.

The implementation of these recommendations will establish the heating infrastructure in homes, and skills amongst the installer base, needed for low carbon heating installations, by 'laying the groundwork' for wider heat pump adoption.

Phil Hurley replaces Graham Wright as HPA Chairman

As of 1st January 2021, Phil Hurley is the new Chairman of the Heat Pump Association, replacing Graham Wright who has stepped down from the role, which he has held since January 2019. Replacing Phil Hurley as Vice-Chairman is Max Halliwell of Mitsubishi Electric.

During his tenure Graham Wright oversaw some major breakthroughs for the heat pump industry and has steered the HPA into a strong position in helping to push the UK towards a carbon neutral future.

Graham said: "It has been a real honour and a privilege to Chair such a forward thinking and hard working group. I am proud to see heat pumps moving towards the forefront of Government strategy in the decarbonisation of heat."

Phil Hurley has been HPA Vice-Chairman since April 2019 and is Managing Director of NIBE Energy Systems. He said: "With the Government's announcement of its Green Industrial Revolution the heat pump industry now finds itself on the crest of a wave. I would like to thank Graham for his tireless work and leadership which has brought significant results. I look forward to building on Graham's achievements and ensuring the heat pump industry is ready to step up and deliver on its promises."

Moving in the right direction

With everything that has happened since the outbreak of COVID-19 and the subsequent lockdown, 2019 seems an awfully long time ago.

A quick reminder here then, that the UK committed to the target of meeting net zero carbon emissions by 2050. Although this target was welcomed by the HPA, it was also made clear that it would not be achievable without explicit policy and well communicated pathways to low carbon heating technology such as heat pumps. Our subsequent 'Roadmap' document released in November 2019, *Delivering Net Zero: A Roadmap for the Role of Heat Pumps*, identified three key pillars that we believe will help establish wide-scale deployment of heat pumps in the UK:

1. Putting the consumer at the heart of change
2. Upskilling the installer base to create a cohort of highly skilled low-carbon heat installers
3. Working with government to ensure a supportive policy mix

In April 2020 we saw evidence that some of the key messages in the HPA Roadmap document were resonating with the right people, as the Government published its consultation on *Future Support for Low Carbon Heat*, which includes the HPA's proposal to make grants of £4,000 available for consumers wishing to replace fossil fuel boilers with heat pumps. Dialogue will continue during and after the consultation period, particularly on whether the overall levels of funding are sufficient to deliver the required growth, and ensuring that alternative policy support is developed for larger heat pump installations. It is an important step, however, in delivering a critical market transformation.

The Government will only be able to deliver on its policies with a large and highly skilled installer base, and this is where the heat pump industry itself has a crucial role to play. Installers will be responsible for increasing awareness among their customer base, and there needs to be a concerted effort to introduce thousands more fully trained and knowledgeable installers in order to push take-up on to the next level, beyond off-grid properties and new builds and into the mainstream.

Additional training and development programmes need to be put in place if the industry is to put itself in a position to deal with a significant increase in demand. The heat pump industry is ready to meet the upskilling challenge by providing the delivery of training through the development of suitable qualification schemes and administration of this. However, it is crucial that there is enough interest from people wanting to undergo this training. This is reliant on ongoing commitment from the Government to emphasise that low carbon heat is the 'direction of travel' and fossil fuel heating will be phased out sooner rather than later.



HPA encouraged by results of training consultation

The results have been revealed from a consultation on qualification criteria for low carbon heating system training courses. The consultation was carried out by a Coalition of Heating Industry bodies with particular interests in Low Carbon Heating Systems. A Training Strategy published by the Heat Pump Association alongside the consultation lays out how the heating industry needs to transform to enable the wider adoption of heat pumps throughout the UK building stock.

The Strategy contains five clear steps for how a plumbing and heating engineer can be trained to meet the new challenges we face in trying to achieve the UK goal of a zero carbon future, reducing administration cost, and recommending to government that they support a training voucher scheme for the first 5,000 installers to go through the new course.

The consultation survey ran throughout June and asked 21 questions centred around the proposed content for heat pump training courses. A total of 123 participants completed the survey. The majority of respondents were largely gas boiler or heat pump installers, with generally strong support given around the proposed new training route and course content outlines.

The key results from the consultation were:

- 98 per cent of respondents were positive about the content proposed for the Heat Pump Foundations course.
- Over 66 per cent of respondents indicated that they would be likely or very likely to attend the course.
- The course content for the Air Source Heat Pump (ASHP) specific course was well rated by 96 per cent of respondents.

Many respondents cited that cost was a key consideration. There were suggestions of a voucher scheme/incentive for installers to carry out this training. A regulatory requirement to undertake mandatory training was repeated as a key motivation. Others cited age as a reason that they would not attend.

Eighty-six per cent of respondents were either in agreement or of no opinion regarding the proposed length of time for the course (two days for the heat pump foundation course with one day for each technology). Some suggested that an on-site follow-up assessment at a later date will be needed to ensure quality.

Government's 10-point green plan is good news for HPA

The Heat Pump Association has welcomed the Prime Minister's plan for the Government's Green Industrial Revolution. Boris Johnson has set out a 10-point plan which will create and support up to 250,000 British jobs.

Covering clean energy, transport, nature and innovative technologies, the Prime Minister's blueprint will allow the UK to forge ahead with eradicating its contribution to climate change by 2050, particularly crucial in the run up to the COP26 climate summit in Glasgow next year.

Included in the plan is a commitment to making the UK's homes, schools and hospitals greener, warmer and more energy efficient, whilst creating 50,000 jobs by 2030 and with a target to install 600,000 heat pumps every year by 2028. This is broadly in line with the level recommended by the HPA in its roadmap document last year. The Government has also announced a one year extension to the Green Homes Grant. This means the scheme will now close in March 2022, bridging the gap to the Clean Heat Grant and aligning with the end of the Renewable Heat Incentive (RHI).

The plan, which is good news for the heat pump industry, has arrived soon after the HPA released its ground-breaking report outlining the steps that the UK Government must take to shape future policy and decarbonise the heating industry. The announcement also follows the key aims of the report, which include promoting changes to establish infrastructure in existing homes for low carbon heating and building and developing installer skills for the recommended changes.





BCIA moves training and awards online in response to lockdown

As the country went into lockdown the Building Controls Industry Association announced the launch of online training for its full suite of training courses. The BCM01-06 training courses cover a wide range of topics which incorporate the latest technical information from the building controls sector which helps engineers, installers, and building owners to further their knowledge and skills within the industry. All of the six courses will be run via an online platform over two days, in the same way that they have previously been run at training centres around the UK.

The BCIA Awards night was another event that had to be cancelled, but the finalists instead enjoyed the first ever BCIA Virtual Awards in September 2020. The event was held in aid of Mind, a charity which provides advice and support to empower millions of people across the UK dealing with mental health issues. Finalists and guests got dressed up for the occasion and enjoyed the event virtually via the 'Hopin' platform, where they were able to meet and mingle with their industry friends and colleagues in the networking area before heading over to the 'main stage' for the Awards ceremony, which was followed by a live performance online by comedian Suzi Ruffell.

Terry Sharp, President of the BCIA, commented: "I would like to congratulate all the winners of this year's BCIA Awards. As ever there was some very tough competition in all the categories and all the finalists can feel proud of their achievements."

Commenting on the Virtual Awards, Terry added: "It obviously wasn't quite the event we usually look forward to but I am extremely grateful to everybody who joined us online for the evening, dressed up and got into the celebratory spirit. It is this kind of camaraderie that makes this industry such a pleasure to be a part of, and I hope it is not too long before we can all meet up again properly."

Technology refresh

Graeme Rees, Vice-President of the BCIA, looks at the advantages of a phased approach to upgrading a building's BMS.

Commercial buildings are continuously evolving and adapting to the needs of their occupants thanks to the latest smart BMS controls technology and for this to be done effectively it is necessary for building owners and occupiers to plan for technology refreshes, transitions and upgrades regardless of original manufacturer. It is not only unwise, it is frankly impossible for system manufacturers to maintain supply and support of older systems as they are built on old technology design and electronic components, many of which are simply obsolete – replaced by the rapid churn in processors and component technology driven by the electronic giants who create the mobile and smart device technologies.

We also often forget that the underlying operating systems, the firmware within the ageing systems, is much like the operating

systems on our PCs. How many of us would be happy still using Windows XP – or even Windows 3.1? Just like the electronics, the underlying software also needs to be refreshed, not only for performance enhancement but to avoid any potential of cyber security threats.

So, what do you get by upgrading? By planning and taking steps towards a planned and phased technology refresh or transition you can position your building so that it is ready to adapt and add new technologies to the BMS without having to replace an entire system. A phased approach also dilutes any initial high cost of change and the building owners and occupants would soon benefit from the most efficient, the most capable systems that bring enhanced security. There would be significant improvements to user comfort, wellbeing and the occupants' productivity too.

There is also the added peace of mind that the disruption caused by downtime failure



Terry Sharp

Changes to BCIA leadership positions

In March 2020 the Building Controls Industry Association announced Terry Sharp as its new President. Terry took over from Jon Belfield who held the role for the previous two years. Terry has worked in the controls industry for over 35 years and is an Associate at NDA Consulting. Graeme Rees, the UK & Ireland Digital Energy Marketing Manager for Schneider Electric, was appointed the new Vice-President.



Graeme Rees



is reduced to a fraction, and access to the future of a truly smart building where systems interact, self-learn, self-diagnose and report are viewed and interacted with from a single view. It goes without saying that all of this would be built upon a truly open platform that facilitates unhindered future expansion and development. But, if it's easier for most of a certain age, compare Dad's old Cortina to today's Hybrid, and Saturday's World of Sport on the Radio Rentals 19-inch Baird to a 4k Netflix stream. There's no contest, surely?

SCA releases updated guidance document

The Smoke Control Association has released an updated version of its comprehensive 'Guidance on Smoke Control to Common Escape Routes in Apartment Buildings' document.

Previously revised in 2012 and 2015, the well renowned industry guide was first published in 2010 and was quickly adopted as the default reference document for designers, installers and authorities involved in the provision of life safety systems in high rise buildings. Included in the newly revised document are a host of original recommendations, updated product standards and a new section on Fire and Rescue Service Intervention.

Recognising that the new guide takes firefighting considerations into account when discussing industry best practice, The National Fire Chiefs Council (NFCC) has welcomed its introduction and the SCA anticipates that the revised document will make a significant contribution in helping to improve overall understanding of smoke control systems.

The revised document can be viewed here: www.smokecontrol.org.uk/resources



ADCAS publishes fire compartmentation statement

The Association of Ductwork Contractors and Allied Services has released an industry statement offering advice and guidance on the penetration of fire compartmentation by ventilation systems.

The statement examines compartmentation and the principles behind its use as a method of preventing the spread of fire, before offering valuable insight into requirements relating to standard ventilation duct and fire resisting and smoke control duct. Compartmentation works by keeping the fire in the space of origin thereby preventing it from spreading to other areas and is achieved using passive fire protection solutions such as fire dampers, fire stopping and penetration seals.

Whenever a duct is passed through a compartment boundary it breaks the compartmentation which must then be re-instated. This practice requires very careful consideration of the information provided by duct or fire damper manufacturer and this latest ADCAS statement highlights key points that will need addressing as part of the process.

Malcolm Moss, President of ADCAS, commented: "It's not uncommon for a whole host of different trades to be involved at this stage of a project and that means all parties hold responsibility for the correct installation of the fire damper and subsequent reinstatement of compartmentation. Anyone who doesn't follow the correct procedures could be liable for future system failures and could even be being putting lives at risk."

The full statement can be downloaded from the ADCAS website.

Chimneys are changing

Dennis Milligan, President of the BFCMA gives an update on the latest in chimney design and installation.

Chimney standards are changing. The first of a new suite of standards were published in 2019, with more to follow in the next two years. Approved Document J, Combustion appliances and fuel storage systems, has not been updated since 2010. It is increasingly becoming out of date and does not reflect the use of new flue products and installation practices.

The British Flue and Chimney Manufacturers' Association (BFCMA) is lobbying MHCLG to update Document J as quickly as possible. The Association represents the UK in European Standards on behalf of BSI (the UK national standards body) and works closely with Government departments.

The function of a chimney or flue is to allow the products of combustion to escape freely to the atmosphere. This however is not as straightforward as it may sound. Most chimneys operate under negative pressure, relying on the laws of thermal dynamics to transport the flue gases up the length of the chimney/flue to the atmosphere. This requires an unimpeded flow path to the top of the flue that maintains the temperature of the gases above the dew point.

Reducing emissions

Good flue design and product choice are key. A straight chimney is always the preferred option, but where this is not possible due to the construction of the dwelling, the flue design software will identify potential problems. Stove manufacturers, for example, have employed a number of design features to reduce PM emissions under the 2022 Ecodesign regulations. One of the ways in which they have reduced emissions is to retain the products of combustion in the fire chamber longer before releasing them into the flue. This needs to be factored into a chimney/flue design as this can reduce the velocity and temperature of the flue gases as they enter the flue.

Chimney or flue height is also important, both in terms of the draw of the chimney and air quality. In accordance with Document J, the minimum chimney height recommended for the minimum performance of an appliance is 4.5m from the top of the appliance to the top of the chimney. It should be stressed that this is the minimum height, and some Ecodesign stoves for example may require more height. It is always advisable to check with the stove manufacturer's recommendations and the chimney/flue company.

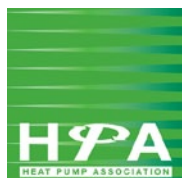
Safety

Chimney and flue components are rigorously tested to prove that they can meet the required performance. Chimneys and flues are required to discharge a variety of combustion gases. Different types of flue will be required to safely handle the different gases. A key feature of the chimney and flue standards is a user-readable classification system that designates the features of the flue components. The features covered include temperature and pressure rating, fire, condensate and corrosion resistance and distance to combustibles. The classification system is known as the CE Designation. With stainless steel components a label showing the classification must go with each flue component, so that its specification can be easily verified.

Product standards and CE marking apply to both flue components and to system chimneys. It is worth pointing out that a CE mark for a system chimney applies to the complete flue system, including add-on components like rain caps. The use of components that have not been tested with the flue invalidates the CE mark, and turns the system chimney into a custom flue.

Why European standards post-Brexit?

It may seem strange to be talking about European Standards now that the UK has left the EU, but the intention is for the UK to continue to be involved in the development and publication of European Standards, as it was before Brexit. BSI's membership of the international standards organisations ISO and IEC is unaffected by the UK's exit from the EU. The BFCMA will update the chimney and flue guides on its website when new standards are published.



If you are interested in joining FETA call 0118 940 3416 or email info@feta.co.uk

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