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**Hampshire
& Isle of Wight**
FIRE & RESCUE AUTHORITY

NOTICE OF MEETING

<i>Meeting</i>	Hampshire and Isle of Wight Fire and Rescue Authority	<i>Clerk to the Hampshire & Isle of Wight Fire and Rescue Authority</i> CFO Neil Odin
<i>Date and Time</i>	Tuesday 6th December, 2022 10.30 am	<i>Fire & Police HQ</i> <i>Leigh Road,</i> <i>Eastleigh</i> <i>Hampshire</i> <i>SO50 9SJ</i>
<i>Place</i>	Room X - Hampshire Fire & Police SHQ, Eastleigh	
<i>Enquiries to</i>	<u>members.services@hants.gov.uk</u>	

The Openness of Local Government Bodies Regulations are in force, giving a legal right to members of the public to record (film, photograph and audio-record) and report on proceedings at meetings of the Authority, and its committees and/or its sub-committees. The Authority has a protocol on filming, photographing and audio-recording, and reporting at public meetings of the Authority which is available on our website. At the start of the meeting the Chairman will make an announcement that the meeting may be recorded and reported. Anyone who remains at the meeting after the Chairman's announcement will be deemed to have consented to the broadcast of their image and anything they say.

Agenda

1 **APOLOGIES FOR ABSENCE**

To receive any apologies for absence.

2 **DECLARATIONS OF INTEREST**

To enable Members to disclose to the meeting any disclosable pecuniary interest they may have in any matter on the agenda for the meeting, where that interest is not already entered in the Authority's register of interests, and any other pecuniary or non-pecuniary interests in any such matter that Members may wish to disclose.

3 **MINUTES OF PREVIOUS MEETING - 4 OCTOBER 2022** (Pages 5 - 8)

To approve the minutes from the Full Authority meeting that took place on 4 October 2022.

4 **DEPUTATIONS**

Pursuant to Standing Order 19, to receive any deputations to this meeting

5 **CHAIRMAN'S ANNOUNCEMENTS**

To receive any announcements the Chairman may wish to make.

6 **MEMBER DEVELOPMENTS**

To receive any updates from Members of the Combined Fire Authority.

7 **HIWFRA MODERN SLAVERY STATEMENT 2022-2023** (Pages 9 - 22)

To consider a report from the Chief Fire Officer, which asks the Authority to approve to Modern Slavery Statement for 2022-2023

8 **2022/23 MID-YEAR PERFORMANCE REPORT** (Pages 23 - 40)

To receive a report from the Chief Fire Officer, which explores how the Service has achieved the core purpose over the last six months of making life safer.

9 **BUDGET UPDATE REPORT** (Pages 41 - 74)

To consider a report from the Chief Financial Officer, which updates the Authority on the 2022/23 financial monitoring position and the budget setting position for 2023/24.

10 **EMBEDDING NATIONAL GUIDANCE IN OPERATIONAL RESPONSE**
(Pages 75 - 84)

To consider a report from the Chief Fire Officer regarding embedding National Operational Guidance across the Fire & Rescue Service.

11 **CARBON REDUCTION PATHWAY UPDATE** (Pages 85 - 150)

To consider a report from the Chief Fire Officer, which updates the Authority on activities undertaken as part of the Fire Authority's Carbon Reduction Pathway.

12 EXCLUSION OF PRESS AND PUBLIC

To resolve that the public be excluded from the meeting during the following items of business, as it is likely, in view of the nature of the business to be transacted or the nature of the proceedings, that if members of the public were present during these items there would be disclosure to them of exempt information within Paragraphs 1 and 3 of Part 1 of Schedule 12A to the Local Government Act 1972, and further that in all the circumstances of the case, the public interest in maintaining the exemption outweighs the public interest in disclosing the information, for the reasons set out in the reports.

13 COMMAND AND CONTROL SYSTEM REPLACEMENT (Pages 151 - 158)

To consider an exempt report from the Chief Fire Officer regarding the Command and Control System.

14 ESTATE CAPITAL PROGRAMME (Pages 159 - 174)

To consider an exempt report from the Chief Fire Officer regarding the Estate Capital Programme.

15 BUDGET UPDATE REPORT - EXEMPT APPENDIX (Pages 175 - 176)

An exempt appendix (Appendix D) to support Item 9 on the agenda.

16 RE-ENGAGEMENT (MEMBERS ONLY)

To consider an exempt report from the Chief Financial Officer on re-engagement.

ABOUT THIS AGENDA:

This agenda is available through the Hampshire & Isle of Wight Fire and Rescue Service website (www.hantsfire.gov.uk) and can be provided, on request, in alternative versions (such as large print, Braille or audio) and in alternative languages.

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Agenda Item 3

AT A MEETING of the Hampshire and Isle of Wight Fire and Rescue Authority
held at Fire & Police HQ, Eastleigh on Tuesday 4th October, 2022

Chairman:

* Councillor Rhydian Vaughan MBE

* Councillor Gary Hughes	Councillor Karen Lucioni
* Councillor Tony Bunday	* Councillor Keith Mans
* Councillor Cal Corkery	* Councillor Derek Mellor
Councillor Debbie Curnow-Ford	* Councillor Roger Price
Councillor David Harrison	
* Councillor Zoe Huggins	
	* Present

115. APOLOGIES FOR ABSENCE

Apologies were received from Councillor Debbie Curnow-Ford, Councillor David Harrison and Councillor Karen Lucioni. Donna Jones, the Police and Crime Commissioner, also sent apologies for the meeting.

116. DECLARATIONS OF INTEREST

To enable Members to disclose to the meeting any disclosable pecuniary interest they may have in any matter on the agenda for the meeting, where that interest is not already entered in the Authority's register of interests, and any other pecuniary or non-pecuniary interests in any such matter that Members may wish to disclose.

117. MINUTES OF PREVIOUS MEETING - 26 JULY 2022

The minutes of the last meeting were reviewed and agreed.

118. DEPUTATIONS

There were no deputations for the meeting.

119. CHAIRMAN'S ANNOUNCEMENTS

The Chairman opened his statements with condolences to the Royal family on behalf of the Fire Authority following the passing of HM Queen Elizabeth II. Following a formal request from the National Resilience Fire Control, Hampshire and Isle of Wight Fire and Rescue Service had deployed a team of 18 HIWFRS colleagues to provide support to Royal Berkshire Fire and Rescue Service on the day of the state funeral.

Following an inspection earlier in the year, the Service awaited a draft report from the inspectorate ahead of feedback and final publication in early 2023. Any actions would be considered by the Standards & Governance Committee later in 2023.

The Chairman shared that several trade unions across the UK were either considering or undertaking industrial action on the basis of the cost of living and current pay offers. The Fire Authority had stated that teams should be paid appropriately for the important roles they play in the community, although this was outside of the Authority's control. The Service was working on plans to continue delivering vital public services during periods of reduced staff availability.

The Chairman was pleased to announce that the Isle of Wight's very first Fire Cadet unit had been launched at Sandown Fire Station in September and looked forward to welcoming new cadets and volunteers.

120. **MEMBER DEVELOPMENTS**

Members shared the following updates:

- The Chairman, Councillor Rhydian Vaughan, had attended Prince's Trust events on both the Isle of Wight and in Basingstoke;
- Councillor Zoe Huggins had attended a Prince's Trust event in Redbridge as well as further developing her Children and Young People Champion role;
- Councillor Cal Corkery had attended the LGA Leadership course and also visited Cosham fire station. He had also liaised with the Fire Brigade Union to further understand its concerns and met with officers in his Sustainability Champion role to discuss current issues;
- Councillor Roger Price had attended the Fire Management Service Committee ^[1] on the 23 September where they had discussed fire finance and also received a presentation on community risk management;
- Councillor Tony Bunday had attended the Prince's Trust event at Redbridge and also visited the control room to experience how it operated. He had also met with officers in his People Champion role and had been impressed with welfare options available to staff;
- Councillor Derek Mellor had attended the Basingstoke Prince's Trust event and had a very beneficial briefing with the Chief Internal Auditor in his capacity as the Chairman of the Standards & Governance Committee

^[1] <https://lga.moderngov.co.uk/ieListDocuments.aspx?CId=161&MIId=6119&Ver=4>

121. BUDGET UPDATE

The Full Authority received a report from the Chief Financial Officer (item 7 in the minute book), which provided updates on the 2022/23 financial monitoring position at quarter 1, the challenges relating to inflation that were affecting the Service and progress on delivering efficiency savings.

It was highlighted that the Authority was not asked to take any action at this stage, as the report only provided an update on assumptions, risks, and potential mitigations related to the Authority's financial position.

After a summary of the report, the following questions from Members were answered:

- Energy use was being closely monitored and bulk purchases were done with partners at a lower rate, meaning that the Authority was below the level to receive any central government support. The next bulk purchase in the new year was currently being looked at by officers;
- Any borrowing would be done against capital after looking closely at the capital programme;
- Any increase in the precept could only be done by central government following a referendum, so was an expensive route and an unlikely source of extra funding

Members thanked the Chief Financial Officer for the report and were reassured by the Chief Fire Officer, who confirmed that the Home Office was aware of how Fire Services across the country were struggling, many of which were not in as strong a position as Hampshire and the Isle of Wight Fire and Rescue Service.

RESOLVED

a) The forecast outturn position for financial year 2022/23 was noted by the HIWFRA Full Authority

b) The forecast impact of current high levels of inflation on the forecast 2023/24 budget was noted by the HIWFRA Full Authority

c) The proposal to closely monitor the in-year and medium term position and use reserve contributions to close any budget gaps in the short term was approved by the HIWFRA Full Authority

122. MINUTES FROM THE STANDARDS & GOVERNANCE COMMITTEE MEETING - 29 JULY 2022

The Full Authority received the minutes from the Standards & Governance Committee meeting that took place on the 29 July 2022.

123. **EXCLUSION OF PRESS AND PUBLIC**

The exempt minute was noted without going into exempt session, so the press and public were not excluded from the meeting.

124. **EXEMPT MINUTE FROM THE STANDARDS & GOVERNANCE COMMITTEE MEETING - 29 JULY 2022**

The Full Authority received the exempt minute from the Standards & Governance Committee meeting that took place on the 29 July 2022.

Chairman,



**Hampshire
& Isle of Wight**
FIRE & RESCUE AUTHORITY

HIWFRA Full Authority

Purpose: Approval

Date: **11 NOVEMBER 2022**

Title: **HIWFRA MODERN SLAVERY STATEMENT 2022-2023**

Report of Chief Fire Officer

SUMMARY

1. This report seeks approval of the Authority's annual Hampshire and Isle of Wight Fire and Rescue Authority (HIWFRA) Modern Slavery statement for 2022-2023 and for subsequent publishing on the Authority's website.

BACKGROUND

2. An audit, carried out in July 2022 by Southern Internal Audit Partnership, found a sound system of governance, risk management and control exists, with internal controls operating effectively and being consistently applied to support the achievement of objectives within the prevention of Modern Slavery.
3. Modern slavery, which includes human trafficking, is the illegal exploitation of people for personal or commercial gain. It can take various forms including:
 - Domestic exploitation
 - Labour exploitation
 - Organ harvesting
 - EU Status exploitation
 - Financial exploitation
 - Sexual exploitation
 - Criminal exploitation

4. It is a current requirement of the Modern Slavery Act 2015 for organisations to publish a Slavery and Human Trafficking Statement for each financial year. To demonstrate best practice HIWFRA have chosen to publish the statement and will review this annually through the appropriate governance routes.

THE HIWFRA MODERN SLAVERY STATEMENT

5. The HIWFRA Modern Slavery statement sets out the steps that are being taking to prevent modern slavery throughout the Authority and in its supply chains. The statement is set out to include key information to demonstrate its' commitment to tackle modern slavery. It is important that the Authority demonstrates its commitment to preventing slavery and human trafficking in its business activities and across its supply chains and is also open and transparent about any specific instances of slavery identified.
6. There is one amendment in the 2022-2023 HIWFRA Modern Slavery statement from the 2021-2022 statement. As outlined below:

7. 2021-2022 statement:

Reporting suspicions of modern slavery:

If the Authority, or any of its staff, suspects slavery or human trafficking activity either within the organisation or through its supply chain, it will be reported to Hampshire Constabulary via the Modern Slavery Helpline (08000 121 700). Concerns with regard to children are also reported through the Hampshire Multi-Agency Safeguarding Hub (MASH). The Authority will also fulfil its statutory obligations to refer via the National Referral Mechanism where required.

8. The amendment for 2022-2023:

Reporting suspicions of modern slavery:

If the Authority, or any of its staff, suspects slavery or human trafficking activity (for children, young people and adults) either within the community or the organisation, then the concerns will be reported through the Service's Safeguarding Reporting Procedure. If slavery or human trafficking activity is suspected through its supply chain, it will be reported to Hampshire Constabulary via the Modern Slavery Helpline (08000 121 700). The Authority is not determined to be a First Responder Organisation therefore is unable to report concerns via the National Referral Mechanism (NRM). Therefore, when a concern is reported, the Authority will obtain confirmation from the Local Authority that a referral has been processed through the NRM or where consent has not been provided, the appropriate 'Duty to Notify' arrangements have taken place.

9. The statement sets out the actions taken by the Authority to understand, prevent and address all modern slavery risks within its services (directly provided and commissioned) and supply chains. The statement also provides some context behind the environment in which the Authority operates and sets out key responsibilities. It also importantly describes the due diligence undertaken by the Service in areas of recruitment, procurement, and training.
10. If approved by the Authority, the revised HIWFRA Modern Slavery statement will be published on the Authority's website and will be presented to the Authority for approval on an annual basis. The Service will also run internal campaigns to raise awareness and ensure that individuals complete the necessary training.

SUPPORTING OUR SAFETY PLAN AND PRIORITIES

11. **Our Communities:** The Modern Slavery statement demonstrates the Authority's commitment to ensuring safer communities by playing its part in tackling modern slavery. It provides assurances to our communities that we are working towards safer places.
12. **Our People:** the health, wellbeing and safety of our people is extremely important. The Authority, by tackling modern slavery, is working towards safeguarding our people and creating great places to work.

RESOURCE IMPLICATIONS

13. There are no resource implications related to the Modern Slavery statement. Current policies and procedures are carried out by teams within their roles.
14. There are no financial implications because of the Modern Slavery statement.

IMPACT ASSESSMENTS

15. A stage one impact assessment has been completed. There are no identified impacts because of publishing the Modern Slavery statement.

LEGAL IMPLICATIONS

16. There is a requirement under the Modern Slavery Act 2015 for organisations to publish a Modern Slavery statement.
17. The Modern Slavery Act does include, at section 43, a legal duty for the public authorities (including local authorities) to cooperate with the

Independent Anti-Slavery Commissioner. This means that the Commissioner may request the Authority to cooperate in any way that the Commissioner considers necessary for the purpose of the Commissioner's functions.

OPTIONS

18. Option one: The Authority approve the amended Modern Slavery statement at appendix A for subsequent publishing. This is the recommended option. The Authority has a responsibility to demonstrate its understanding in relation to modern slavery and its commitment to tackling it. The publishing of the statement evidences how the Authority see this is a priority.
19. Option two: The Authority do not approve the amended Modern Slavery statement at appendix A

RISK ANALYSIS

20. An open transparent published modern slavery statement mitigates any risks and supports the priorities of the Safety Plan 2020-2025.

CONCLUSION

21. Modern Slavery is an important issue that we all have responsibility to play our part towards preventing. The Authority has a responsibility to demonstrate it recognises how important tackling modern slavery is. The publishing of the statement illustrates the commitment the Authority make towards the important issue. It also ensures transparency and provides assurances to our people and communities.

RECOMMENDATION

22. That the HIWFRA Modern Slavery Statement 2022-2023, at Appendix A be approved by the HIWFRA Full Authority and is subsequently published on the Authority's website.

APPENDICES ATTACHED

23. [Appendix A – HIWFRA Modern Slavery statement 2022-2023.](#)

Contact: Shantha Dickinson, Director of Policy, Planning and Assurance, Shantha.dickinson@hantsfire.gov.uk.



**Hampshire
& Isle of Wight**
FIRE & RESCUE AUTHORITY

MODERN SLAVERY STATEMENT

HAMPSHIRE AND ISLE OF WIGHT FIRE AND RESCUE AUTHORITY

MODERN SLAVERY STATEMENT FOR FINANCIAL YEAR 2022-23

ISSUED PURSUANT TO SECTION 54 OF THE MODERN SLAVERY ACT 2015

1. Introduction

Modern slavery, which includes human trafficking, is the illegal exploitation of people for personal or commercial gain. It can take various forms including:

- Domestic exploitation
- Labour exploitation
- Organ harvesting
- EU Status exploitation
- Financial exploitation
- Sexual exploitation and
- Criminal exploitation

Hampshire and Isle of Wight Fire and Rescue Authority (the Authority) is fully committed to preventing slavery and human trafficking in its business activities and across its supply chains – and to being open and transparent about any specific instances of slavery identified.

In line with best practice, and in compliance with Section 54 of The Modern Slavery Act 2015 (The Act), this statement sets out the actions taken by the Authority to understand, prevent and address all modern slavery risks within its services (directly provided and commissioned) and supply chains. In June 2021 the Government announced an intention to amend s54 of the Modern Slavery Act 2015 to require public bodies with a turnover of £36m or more to publish a statement. It was therefore agreed at that the Authority would commit to publishing an appropriate Modern Slavery statement from 2021/2022.

The Authority also recognises its legal duties under Section 43 of the Act, which states that specified public authorities (including local authorities) have a duty to cooperate with the Independent Anti-Slavery Commissioner. Specifically, this means that:

- The Commissioner may request the Authority to cooperate in any way that the Commissioner considers necessary for the purposes of the Commissioner's functions;
- The Authority must, in so far as reasonably practicable, comply with a request made to it under Section 43.

The Commissioner's Strategic Plan identifies several priorities, including *best practice within partnership working*. The Authority demonstrates this through its membership of the Hampshire and Isle of Wight Modern Slavery Partnership, which takes a cohesive approach to addressing the risks of modern slavery and ensuring Hampshire and the Isle of Wight is a supportive place for victims and a hostile place for perpetrators of slavery.

The audit, carried out in July 2022 by Southern Internal Audit Partnership, found a sound system of governance, risk management and control exists, with internal controls operating effectively and being consistently applied to support the achievement of objectives within the prevention of Modern Slavery.

2. Organisation and supply chains

Hampshire is a large county based in the South of England which covers an area of more than 1400 square miles. The county is home to a population of 1.85 million dispersed across

urban and coastal areas.

The Isle of Wight is an island off the south coast of England. Home to around 140,000 and with an estimated 2.5 million visitors annually. The Isle of Wight is the largest and second most populated island in England.

Hampshire and Isle of Wight Fire and Rescue Authority is a Combined Fire Authority consisting of Members from the Constituent Authorities of Hampshire County Council, Isle of Wight Council, Portsmouth City Council and Southampton City Council. The Authority spends around £81m a year on making life safer for our communities.

The Authority set out its strategic direction in the Safety Plan 2020-2025. The Safety Plan details five strategic priorities (Our Communities, Our People, Public Value, High Performance and Learning & Improving) which are our commitments to ensure we make Hampshire and the Isle of Wight safer.

In achieving its priorities, the Authority provides a diverse range of public services delivered both in-house, through external contractors and in partnership. Consequently, the Authority has an equally diverse supply chain. For full information on the Authority's structure and services can be found on the [website](#).

3. Country of Operation and Supply

The Authority operates in the United Kingdom, where data suggests incidents of modern slavery are growing in prevalence. For example, according to the Government's UK Annual Report on Modern Slavery, there was a 36% rise between 2017 (5,138) and 2018 (6,985) in the potential victims referred to the National Referral Mechanism. The number of modern slavery crimes recorded by the police grew by 49% between March 2018 and March 2019, when there were 5,059 recorded offences in England and Wales. In this context, the Authority remains vigilant and will take all steps available to manage risks presented.

Any organisation that works with the Authority, i.e. partnerships and suppliers, particularly those which are covered by Section 54 of the Act, are expected to understand and comply with the Act's requirements.

The Authority's procurement and contract management activities help to ensure that the Authority works with compliant organisations. In addition, suppliers are expected to carry out checks on their sub-contractors to ensure there is no slavery or human trafficking in their own supply chains.

4. Responsibilities

The Service's Executive Group is responsible for ensuring appropriate recruitment, employment and purchasing policies are in place and are reviewed as appropriate.

Directors are responsible for ensuring that robust risk assessments are undertaken across relevant service areas where there is deemed to be a risk of modern slavery, including

human trafficking. Modern Slavery risks are identified and mitigated within Directorate Risk Registers, with high risks being escalated to the Organisational Risk Register as deemed necessary.

Service managers are responsible for ensuring that policies and procedures - such as those relating to the recruitment of personnel or procurement of goods and services – are adhered to by staff.

It is the responsibility of all staff and Authority Members – including those directly employed by the Authority, agency staff and within commissioned services, to report any concerns regarding modern slavery.

5. Policies

The Authority has a wide range of policies and procedures in place which support its commitment to preventing and tackling modern slavery throughout its business operations. All policies are subject to robust assurance processes, are agreed by the relevant Board, and are reviewed on a regular basis to ensure they remain compliant and fit for purpose.

These include:

Employee code of conduct – The Authority expects the highest standards of behaviour and ethical conduct from its employees. The code sets out the standards expected of staff when representing the Authority. The code also applies to contractors, agency staff and volunteers. Any breaches are investigated, and action taken, as necessary.

Authority Member code of conduct – The Authority expects the highest standards of behaviour and ethical conduct from its Members. The codes set the standards expected of Members when representing the Authority.

Values – the Authority has a set of Values which set the expectation in terms of behaviour of all staff, temporary workers, contractors, suppliers and Members. These Values; Showing Respect, Supporting Others, Everyone Playing their Part and Reaching Further, underpin everything we do.

Expectations of suppliers – The Authority requires its suppliers to provide safe working conditions and to treat workers with dignity and respect, and act ethically and legally in their use of labour. Violations of these expectations will lead to review and investigation and ultimately may lead to the termination of the business relationship if the supplier is found not to have taken appropriate corrective actions.

Pay – The Authority operates a job evaluation system which is objective and non-discriminatory and supports the principles of equal pay. The Authority pays nationally agreed pay frameworks which ensure all employees earn more than the UK minimum wage. Currently, these pay frameworks also ensure all employees earn more than the National Living Wage.

Safeguarding - The Service has a responsibility to ensure that its employees and volunteers, many of whom encounter members of the public as part of their normal duties,

are aware of and can initiate the appropriate actions to safeguard those at risk. The Service must also ensure effective systems are in place to prevent and protect vulnerable groups from harm, abuse and neglect including the associated risks of Modern Slavery. Training, policies, procedures and guidance notes are used to inform employees and volunteers working in safeguarding roles of what they should do if any public safety issues are identified (criminal/illegal acts, illegal house of multiple occupancy, inappropriate sleeping accommodation, potential modern slavery, trafficking, poor working conditions, child/criminal exploitation) to store, process and share safeguarding information securely, without delay and in accordance with the overarching Hampshire, Portsmouth, Southampton and IOW Safeguarding Multi Agency Adults and Children Policies and Procedures.

Inclusion and diversity – The Authority is committed to ensuring all Hampshire residents enjoy being part of strong, inclusive communities – and that it continues to be an inclusive employer with a diverse workforce. The Authority’s Equality Objectives set out how it will support the aims of the Equality Act 2010. These are upheld by a range of policies and procedures designed to advance equality of opportunity and provide fair access and treatment in employment, the delivery of services and partnership working.

Whistleblowing policy – The Authority is committed to the highest standards of openness, probity, and accountability. As such, employees, customers, and other business partners are encouraged to report any concerns related to the direct activities, or the supply chains used by the organisation. This includes any circumstances that may give rise to a heightened risk of modern slavery. The Authority will endeavour to resolve such concerns without the need to raise a whistleblowing complaint – however, it is also recognised that this is sometimes necessary. The whistleblowing procedure is designed to make it easy for people to voice serious concerns without fear of harassment or victimisation.

Agency workforce – The Authority uses a compliant route to market for all agency staff using the [Crown Commercial Services Temporary Labour Framework RM6160](#). This framework provides assurance under [RM6160-Full-Terms-and-Conditions-1.pdf](#) (crowncommercial.gov.uk) that all suppliers are compliant with Modern Slavery, Child Labour and Inhumane Treatments terms.

6. Due diligence and risk management

The Authority undertakes due diligence in both its recruitment processes, and when reviewing or taking on new suppliers.

Recruitment processes – The Authority has robust recruitment policies and processes in place which ensure that all prospective employees undergo immigration and pre-employment checks in line with the latest UK [guidance](#) on Right to Work Checks (e.g. can confirm personal identities and qualifications, are paid directly into an appropriate, personal bank account and can supply evidence of eligibility to work in the UK). Agency appointments are subject to the same rigour.

Managing Supply Chains: The Authority takes a practical, risk-based approach to managing its supply chain by identifying key risk areas and working with suppliers to monitor

and mitigate these where practicable. Contract management is devolved across the Service and it is the responsibility of individual contract managers to undertake appropriate due diligence checks etc. These policies and the associated staff training provide clear guidance to the HIWFRS Safeguarding reporting procedure as well as how when taking on new suppliers.

As a Contracting Authority, the Service undertakes procurement in compliance with the UK Public Contract Regulations 2015. The Standard Selection Questionnaire (asked in all competitive tenders) includes a requirement to declare and evidence (where applicable) compliance with the Modern Slavery Act 2015.

The Authority's due diligence and reviews include:

- requiring suppliers covered by the Act to self-certify that they comply with the Modern Slavery Act, as part of the tender process
- including provisions in all new contracts requiring compliance with the Modern Slavery Act and enabling contract suspension /termination in the event of a breach where deemed necessary
- introducing action plans/sanctions where areas of poor compliance and/or performance are identified.

7. Reporting suspicions of modern slavery

If the Authority, or any of its staff, suspects slavery or human trafficking activity (for children, young people and adults) either within the community or the organisation, then the concerns will be reported through the Service's Safeguarding Reporting Procedure. If slavery or human trafficking activity is suspected through its supply chain, it will be reported to Hampshire Constabulary via the Modern Slavery Helpline (08000 121 700).

The Authority is not a First Responder Organisation for the purposes of the Modern Slavery legislation and therefore is unable to report concerns via the National Referral Mechanism (NRM). Therefore, when a concern is reported, the Authority will obtain confirmation from the Local Authority that a referral has been processed through the NRM or where consent not been provided, the appropriate 'Duty to Notify' arrangements have taken place.

8. Staff training and capacity building

Modern Slavery awareness training is included within our Level 1 Safeguarding training, (which all new green book staff are required to complete as part of their induction). This training signposts staff to additional information within our published Safeguarding guidance.

Modern Slavery training is also embedded within our Level 2 Safeguarding training which is completed by Frontline operational staff, Flexible Duty Officers, Volunteers, Community and Young People (CYP) staff, any member of staff undertaking a CYP activity and Fire Safety

Inspectors.

In addition to the HIWFRA training there is a separate modern slavery training package from the Hampshire and Isle of Wight (HIOW) Modern Slavery Partnership – this is available for all staff to complete.

The Authority also works through the Hampshire Modern Slavery Partnership to improve professionals' understanding of their responsibilities, and to increase the level of reporting by both professionals and the public. For example:

- establishing a partnership engagement plan which incorporates a quarterly media campaign focusing on how to spot the signs of modern slavery and promotes the Modern Slavery Helpline;
- providing awareness raising materials, training and events, including the 'enslaved' theatre production to mark Anti-Slavery Day ;and
- utilising the partnerships website and Community Partnership forum to share to information.

To raise awareness, the Service undertake annual communication activity and involvement in national events and campaigns. Examples include:

- supporting Anti-Slavery Day with communications for to staff including using social media and signposting to external resources.

Further information about the modern slavery, its types and prevalence can be found on the Hampshire and Isle of Wight Modern Slavery Partnership's website:

<https://www.modernslaverypartnership.org.uk/index.php>.

Signed:

Chair of the HIWFRA

Date:

Chief Fire Officer

Date:

Business Activities and Supply Chains

A wide range of business activities are undertaken by the Service across four Directorates, as summarised below:

Corporate Services – activities include Governance, Compliance, Business Support, Property and Facilities, Information Communications Technology and Operational Assets.

Policy, Planning and Performance – activities include Health and Safety, Risk Management, Policy, Performance and Assurance, Communications and Insights, Stakeholder Management and Strategic Partnerships.

Operations – activities include Community Safety (Protection and Prevention), Safeguarding, Operational Groups.

People and Organisational Development – activities include Resource Management, Learning and Development and Training.

The Authority are part of the **Shared Services Partnership** – activities include Human Resources, Occupational Health, Finance, Procurement, and the Integrated Business Centre (IBC)

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**Hampshire
& Isle of Wight**
FIRE & RESCUE AUTHORITY

HIWFRA Full Authority

Purpose: **Noted**

Date: **6 DECEMBER 2022**

Title: **2022/23 MID-YEAR PERFORMANCE REPORT**

Report of **Chief Fire Officer**

SUMMARY

1. The Mid-Year Performance Report (**Appendix A**) explores how the Service has achieved our core purpose over the last six months of making life safer. Performance is described against each of the Hampshire and Isle of Wight Fire Authority's Safety Plan priorities. The report explores how the Service performed against a range of measures, with comparisons made against previous years and to national trends, where relevant and applicable.
2. This report explores how Hampshire and Isle of Wight Fire and Rescue Service (HIWFRS) performed against key operational and corporate health measures in the period 1 April 2022 through to 30 September 2022.
3. We use performance and assurance reporting to assess our effectiveness, efficiency, and financial position. Our performance measures help us find areas for improvement, as well as identify successes and good practice to be shared, where applicable, across public services and the fire sector. We also assess progress against our Safety Plan improvements and the national fire standards on an ongoing basis.

HIGHLIGHTS – SERVICE PERFORMANCE 2022/23 (APRIL TO SEPTEMBER)

4. In the first six months of this financial year, we saw unprecedented weather with three extreme heatwaves coming to the UK in June, July, and August. This caused significant impact to our people and communities, as well as

our partner agencies, and resulted in a 39% increase in fires between April and September 2022 compared to the previous year, primarily due to significant increases in fires in the open. However, despite the increase in these resource-intensive incidents our critical response times remained broadly stable. Overall, the number of incidents between April and September 2022 was 3% higher than the same period in 2021, as the increase in fires was offset by reductions in special service calls, including co-responder calls. See pages 4 to 6 for more detail.

5. The number of rescues (including rescue with and without injury) carried out between April and September 2022 was 701, a significant 19% reduction (-165) compared to the same period in 2021. The majority of rescues are special service calls, and the top four types were lift release, effecting entry/exit, assisting other agencies and other rescues/release of persons.
6. Our average critical response time (measured from the time the first appliance was mobilised by our control room to the time the first appliance arrived) from April to September 2022 was 7 minutes 34 seconds – up by just 3 seconds, from 7 minutes 31 seconds from April to September 2021. Rural response times have increased by 18 seconds over the same period, up from 10 minutes 40 seconds to 10 minutes 58 seconds. This is owing to incidents in more remote (rural) or difficult to access locations, the impact of reduced on-call availability, and the resource impact of the extreme weather conditions experienced throughout the summer heatwaves (June through to August).
7. Our response time performance when compared nationally continues to remain strong. National figures are split by incident types and by urban/rural locations. The latest Home Office statistics (August 2022) showed that in the fiscal year 2021/22, significantly rural Services (17 in total) – including Hampshire and the Isle of Wight – had an average response time for dwelling fires of 8 minutes 54 seconds (measured from the time the call was received to the time the first appliance arrived). This compares to 8 minutes 19 seconds in Hampshire and the Isle of Wight. We also compare favourably to the non-metropolitan average of 8 minutes 47 seconds, and other similar services like Essex (8 minutes 36 seconds) and Kent (8 minutes 51 seconds).
8. For predominantly urban Services (15 in total), the latest Home Office statistics (August 2022) showed that in the fiscal year ending March 2022 – including Hampshire and the Isle of Wight – these Services had an average response time (including call handling) for dwelling fires of 6 minutes 55 seconds. This compares to 8 minutes 19 seconds in Hampshire and the Isle of Wight.

9. It is important to note that, despite the increase in the number of fires, there has been a sizeable and positive reduction in fire-related casualties (down 39% from the 2021 period, to 39). Furthermore, most casualties were minor, with 44% (17) receiving first aid on scene with no requirement to attend hospital. 36% (14) of casualties went to hospital for treatment where their injuries appeared to be slight and 16% (6) of casualties went to hospital for treatment where their injuries appeared to be serious. Nationally, the latest data across the whole of England for 2021/22 shows, compared to the previous year, a 15% growth in fire fatalities but a 1% reduction in severe fire casualties (which nationally make up around 9% of all casualties). We perform well against these comparators.
10. The number of Safe and Well visits completed from April to September 2022 was 5,848, a significant increase (+41%) compared to the same period in 2021. Furthermore, we know around a quarter of our contacts with vulnerable people do not result in a completed Safe and Well visit. We are looking into this with our partners to understand what the causes of this are, particularly in urban areas where completing a visit has at times proved more challenging.
11. We have seen an increase in sickness levels compared to the same period last year. 11,185 shifts were lost between April and September 2022, equating to 7.1 average shifts lost. This represents a 28% increase from 8,916 (6.1 average shifts lost) in the same period in 2021. This is owing to increases in all staff groups other than Control, and an increase in long-term sickness. Long-term sickness has increased compared to last year with 56% of sickness in April to Sept 2022 being attributed to long-term absence (short-term, 44%), up from 49% in the same period in 2021. Green book saw the largest increase in overall sickness levels from 1,241 shifts lost in April to Sept 2021 compared to 2,159 for the same period in 2022. This is owing to increases in COVID-19 and mental health sickness (up from 448 shifts lost to 614). The upward trajectory of sickness, and changing nature of sickness types, correlates with national trends and benchmarks, both within the Fire and Rescue sector and in other sectors. HIWFRS sickness data shows we are slightly above the national average based on the latest benchmark data.
12. In terms of health and safety, injuries have decreased slightly this year in comparison to April to September 2021. It is also important to note that, positively, leading indicators (66), e.g. near misses, outweigh lagging indicators (51) by 15 cases. Most injuries happen during training and operational incidents, because of the environment they are more at risk. These mostly involve strains, sprains, slips, trips and falls, manual handling, and burns. Between April and September 2022, there were 11 injuries reported under RIDDOR (Reporting of Injuries, Diseases and Dangerous

Occurrences Regulations) preventing Fire and Rescue Service (FRS) staff from working 7 days or more. This is the same amount as April to September 2021.

13. We have introduced a new approach to Premises Risk Information, consisting of 5 levels of risk information, including Site Specific Risk Information (SSRIs), Operational Pre-Plans and Post Incident Support Plans. As at September, 93% of SSRIs were in date and various work is underway to improve this figure and our risk information processes and assurance more widely.
14. Finally, it is important to note, there are significant ongoing financial pressures relating to inflation, offset by additional income, the use of contingencies and lower capital financing costs. The inflationary pressures impacting now will inevitably have a significant impact on the budget for 2023/24 and subsequent years.

HIGHLIGHTS – SAFETY PLAN IMPROVEMENTS AND FIRE STANDARDS ASSURANCE

15. The five-year HIWFRA Safety Plan was launched in April 2020, setting out our priorities, values, how we will build on our strengths, and how we will address the areas that require more focus and improvement.
16. For Year 3, we committed to completing 23 improvements. At this mid-year point, we have completed 2, with 16 activities on track, 4 not yet started and one is delayed. Overall average self-reported progress across the Safety Plan improvements stands at 33%. Owing to the interdependencies of Safety Plan improvement work with the Service's wider change programme and routine activities, the profile of work associated with Year 3 activities will change over the 12 month period.
17. The Fire Standards Board has published 12 national fire standards, with a total of 155 requirements ('desirable outcomes') across the 12 standards. The Service has undertaken a significant amount of assurance activity to assess our compliance with the standards, which has shown that we have 'reasonable' or 'substantial' assurance in 94% (145) of the 155 desirable outcomes. 9 requirements are rated 'limited' assurance with various improvement actions underway; with more detail provided via six monthly Fire Standards assurance reporting into the Standards & Governance Committee, most recently at the end of September. One of the remaining three desirable outcomes is also not applicable to HIWFRS.

SUPPORTING OUR SAFETY PLAN AND PRIORITIES

18. The Mid-Year Performance report provides a view of performance in all the Safety Plan priority areas, with specific progress against the Safety Plan improvements reported as part of Appendix A. More detailed reporting forms part of an additional appendix to the End of Year Performance report, which is scrutinised by the Authority in June. We regularly check and report progress against the Safety Plan – across our Directorates and within our Executive Group.

CONSULTATION

19. There has been a wide range of internal consultation and collaboration to help develop this report. External consultation has not been required.

RESOURCE IMPLICATIONS

20. The cost associated with the production of the Mid-Year Performance report is within existing resources.

IMPACT ASSESSMENTS

21. This report does not lead to any change activity, so no impact assessments are required. However, we have ensured we utilise dyslexia and colour-blind friendly fonts and colours in our appendices to ensure the reports are as accessible as possible.

LEGAL IMPLICATIONS

22. There are no legal implications resulting from this report.

RISK ANALYSIS

23. Failure to regularly report on and scrutinise our performance and progress against our Safety Plan could result in no action being taken to address reducing deficient performance which may affect the outcomes for our communities and our people. The information may, in some cases, show increasing (or reducing) risks for the Authority.

EVALUATION

24. Monitoring and assessing performance and progress against the Safety Plan are a key part of various evaluation activity that the Service carries out

– it also forms a core part of our assurance activity and procedure, being used by the Service to identify areas for continuous improvement and to flag and share good practice across public services and the fire sector.

25. Evaluating performance, and change activity more widely, are core activities of the Integrated Performance and Assurance Group and of management teams across the Service. This is aided by an increasing amount of data and reporting available, with the breadth and depth of real-time performance and assurance information accessible to our staff and stakeholders continually increasing.

CONCLUSION

26. As we have moved out of the period of the last two years where the pandemic has had a significant impact on our people, our communities, our partnership working, and on our performance; it is another risk – extreme weather conditions – that features heavily in this report as the July and August heatwaves impacted the Service. The extreme weather conditions had a significant impact on our fire incidents, particularly to outdoor and grass fires where, for example, we saw an 800% increase in the first week of August 2022, compared to the previous year, with an 80% increase in outdoor fires over the whole six-month period compared to 2021. Overall, we have seen a 39% increase in fires in the first 6 months of this fiscal year compared to the same period in 2021/22.
27. We have also seen many changes to the UK economy which are impacting on people's lives in the communities that we serve. In response to the increased cost of living, our new [5Cs fire safety campaign](#) (carbon monoxide, cooking, clothing, candles, and chimneys) increases public awareness of the dangers and empowers them to reduce the risk of fire in their home. Economic factors, including deprivation, are a significant fire risk factor – and between April to September we saw 508 dwelling or other residential fires, up 7% from the same period last year. Therefore, there is also continued focus on delivering Safe and Well visits, with a substantial increase of 40% (up to 5,812 visits). This provides further support to our communities, with visits targeted based on risk.
28. Despite the stark impact of the heatwave on our resources, reduced on-call availability, increase in sickness, and increased cost pressures primarily driven by inflation, we have still maintained our average critical response time at around 7 minutes 30 second; increased our Safe and Well visits by over 40%; and seen significant reductions in the number of fire casualties (despite the increase in fires overall).

RECOMMENDATION

29. That the 2022/23 Mid-Year Performance Report be **noted** by the **HIWFRA Full Authority**

APPENDICES ATTACHED

30. [Appendix A – 2022/23 Mid-Year Performance Report](#)

Contact: Alex Quick, Head of Performance, alex.quick@hantsfire.gov.uk, 07918 888146

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**Hampshire
& Isle of Wight**
FIRE & RESCUE SERVICE

Mid-Year Performance

1st April 2022 to 30th September 2022

This report focuses on our performance in 2022/23 (1st April 2022 – 30th September 2022) across key areas aligned with our Safety Plan priorities, as well as other crucial areas including the progress of our Year 3 Safety Plan improvements and compliance with national Fire Standards

**Together We
Make Life Safer**

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In the first six months of this financial year, we saw unprecedented weather with three extreme heatwaves coming to the UK in June, July and August. This caused significant impact to our people and communities, as well as our partner agencies.

The extreme weather conditions had a significant impact on the number of fire incidents, particularly to outdoor and grass fires where, for example, we saw an 800% increase in outdoor fires in the first week of August 2022, compared to the previous year, with an 80% increase in outdoor fires over the whole six-month period.

Fires in the open, particularly large fires, are also resource-intensive, which has seen some additional pressure on our finances. For example, an average of four appliances were sent to large open fire incidents from 1st July to 16th August 2022. However, many open fires utilised significantly more pumping and special appliances. This resulted in business continuity plans being invoked across the Service to ensure our resources were focused on our priorities. We are immensely proud of our colleagues' commitment and dedication to keep our communities safe during these extremely busy times. With extreme weather predicted next year and on an ongoing basis, we will continue to work with our partner agencies and local authorities to help alleviate the impact and prevalence of such fires, including, for example, through targeted communication campaigns. This year our wildfire prevention messages reached more than 240,000 people on our social media channels.

We have also seen many changes to the UK economy which are impacting on people's lives in the communities that we serve: from increased gas and electricity bills, increasing interest rates affecting mortgages, and pension uncertainty. We have a responsibility to ensure that the people in our communities are safe in their own homes. In response to the increased cost of living, our new '5Cs' campaign (carbon monoxide, cooking, clothing, candles, and chimneys) increases public awareness of the dangers and empowers them to reduce the risk of fire in their home. We know that the cost-of-living crisis will bring new challenges for people and there is a need to share simple safety messages with them. Economic factors, including deprivation, are a significant fire risk factor, and between April and September this year we saw 508 dwelling or other residential fires, up 7% from the same period in 2021.

We continue to focus heavily on our delivery of Safe and Well visits, which has resulted in a significant increase of 41% more visits than we delivered in the same period last year (up to 5,848 visits). This provides further support to our communities, with visits targeted based on risk. Finally, we are also promoting our free Safe and Well visits to the most vulnerable people in our communities, as well as working with partners to offer this targeted support to those in fuel hardship. We also have a free online tool that allows individuals to assess their risk, which may lead to a visit.

Furthermore, on-call availability has decreased from last year which has seen some on-call stations go off the run for periods of time. There are several reasons for this including retirements, targeted recruitment only at specific stations (based on risk and need) and on-call colleagues crewing Land Rovers, water carriers and other special appliances during the extreme weather. Overall, despite the reduced availability, it is important to note our on-call teams worked tirelessly over the periods of extreme weather whilst putting the Service above family and personal life. Finally, it is also important to note that despite these pressures, we maintained our average critical response time at around 7 minutes 30 seconds.





11,125
Incidents
attended



3,188
fires



Up 39% vs 2021 owing to the summer heatwave and large numbers of fires in the open



4,191 False alarms

3,746

Special Service Calls



Includes medical co-responding, RTCs, effecting exit / entry, and other rescues

Average critical
response time



7 mins 34 secs, +3 seconds vs 7:31 in 2021



39% reduction of fire casualties

41% increase in Safe and Well visits



with 5,848 delivered



Ongoing cost pressures mainly relating to inflation, which will have a significant budget impact for 2023/24 and beyond



7.1 average shifts lost to
sickness, vs 6.1 in 2021



15 more leading (66) than
lagging (51) health and safety
indicators

56% accounted for
long-term sickness


93% of Site Specific Risk
Information (SSRI) in date





94% of the 155 fire standards
requirements have 'reasonable'
or 'substantial' assurance that

are compliant



11,125  **Incidents attended** +326 (+3%) vs 2021/2022, and +480 (+4.5%) vs the same period in 2020/21
The rolling 3-year average for incidents (2020/21-2022/23) is 10,856.
As noted below significant increases in fires (caused by the extreme heatwave), and slight increases in false alarms, have been offset by reductions in Special Service Calls (SSC)

3,188  **Fires** +895 (+39%) vs 2021/22
Three-year rolling average for fire incidents is 2,722
This increase is primarily caused by an increase in grass fires (+609, +99%). There was also a large increase (+44%, +140 incidents) in other outdoor fires compared to last year.
This was influenced by a long period of extremely hot and dry conditions and although we issued strong communications, supported by local campaigns, for safer use of BBQs and other behaviour, we still saw high incident volumes.

4,191  **False Alarms** +130 (+3.2%) vs 2021/22
Three-year rolling average for false alarms is 4,040.
This slight increase was influenced by an increase in Apparatus (smoke alarms) for house (single occupancy), up to three stories and sheltered housing – not self contained, but this was mitigated by a large decrease in non-residential alarms. False Alarm Good Intent saw a large increase, this was primarily due to Bonfires and Controlled Burnings. There has also been an increase in malicious calls, primarily concerning non-residential premises. We may see further rises owing to economic factors influencing behaviour changes relating to increased levels of alternative cooking or heating device use.

3,746  **Special Service Calls (SSC)** -699 (-15.7%) vs 2020/21
Three-year rolling average for SSCs is 4,095

This was influenced by a decrease in co-responder calls, due to the easing of the pandemic impact and reduced medical response requests from, and reduced pressure on, the ambulance service. There was also a slight reduction in RTCs, assisting other agencies and effecting entry/exit.



Fire fatalities & casualties by all incident types

3 fire fatalities

vs a three (and five) year average of **3 fatalities** per financial year

3 fire fatalities were recorded on IRS this year vs 2 in the previous year. Two out of the three recorded fatalities were aged 70 plus and were likely caused by smoking materials. Both fatalities had mobility issues. The third fatality was 60 plus and had cognitive impairment issues with the fire likely being caused by an electrical fault. It is important to note that two additional fatalities still require coroners fire death confirmation.

The national trend has seen a decrease in fire-fatalities year-on-year since April 2017 to March 2021, from 338 to 237. However, this figure has increased to 273 in April 2021 to March 2022 (+15%). The Home Office have not yet provided any figures for 2022/23.

The pandemic has also exacerbated risk factors, such as health, finances and behaviour changes (alternative sources of fuel, heating and lighting); these will be intensified by the current financial climate with additional pressures expected following the October 2022 energy price increase.

Analysis of multiple years of fire fatalities and severe casualties shows the main risk factors were smoking, poor mental health, alcohol or substance misuse, and poor mobility or physical impairment. We continue to work with partners, including in health, to further explore indicators of frailty and vulnerability to inform our assessment of community risk.



39 fire casualties

62% male, 17% related to cooking
36% female, 0% related to cooking

Down 39% from 64 in 2021/22
vs a 3-year average of 48
vs a 5-year average of 50

44% (17) of casualties were given first aid at the scene. This was followed by 36% (14) who went to hospital with injuries that appeared slight. Combustibles and heat source being brought together accidentally was the main cause of fire casualties, 18%.



197 RTC casualties

-12% vs the 3-year average of 223
-16% vs the 5-year average of 234

Analysis over a 5-year period shows the majority of RTC casualties were male (55%) and within the 17–40-year-old age range. 63% of these injuries were 'slight' over the 5-year period.



104 SSC casualties

-15% vs the 3-year average of 122
-20% vs a 5-year average of 131

-24% vs April – September 2021
Influenced by a 19% decrease in assisting other agencies (52 to 42)



57.6%

vs 68.3% in Apr-Sept 2021. This decrease was caused by increased sickness and the heatwave impact, e.g., with staff crewing special appliances owing to the nature of our incident demand. Furthermore, we continue to experience challenges recruiting for daytime cover on our on-call stations; therefore, reducing availability during weekday periods as well as adversely affecting our ability to crew 2nd appliances.

On-call availability



93.2%

vs 86.9% in Apr-Sept 2021. This illustrates an increase from last year (+6.3%), which is reflective of whole-time staff no longer being required to support partners with pandemic-related activity. Availability was not at 100% owing to sickness, and other factors unrelated to crewing (vehicle maintenance, kit changes, and welfare breaks).

Whole-time availability



7 mins 34 secs

, +3 seconds vs 7:31 in 2021, but compares well vs other FRSs

Critical response

Urban (all in) **7 mins 21 secs** Rural (all in) **10 mins 58 secs** vs Urban 7:19 & Rural 10:40 in 2021/22. Rural response times have also been impacted by the need for some appliances to travel into other station grounds due to incident location and availability.



**5,848 Safe & Well
visits carried out**

vs 4150 (+1698) April 2021 – September 2021
Increase by 41%

The rolling average for 2020/21- 2022/23 is 4,398

81% completed on time vs 70% April 2021-September 2021

Around a quarter of our contacts with vulnerable people do not result in a completed Safe and Well visit. We are looking into this with our partners to understand what the causes of this are, particularly in urban areas where completing a visit has at times proved more challenging.

504 total audits

-180 (-26%) vs Apr 21 – Sept 21
+334 (+196%) vs Apr 20 – Sept 20
Three year rolling average: 453

77% (391)

Fire Safety Audits completed on time

vs 79% (540) April 2021 – September 2021
vs 73% (124) April 2020 – September 2020

The rolling average for 2020/21 - 2022/23 is 78% (352)

The reduction in audits this year is due to resourcing and capacity pressures where some staff are still in training phases and there are also some vacancies which are either on hold or being advertised.

918 total consultations

+8 (+1%) vs Apr 21 – Sept 21
+392 (+74%) vs Apr 20– Sept 20

99% (908)

Building Regulation Consultations completed on time

completed on time vs 94% (852) April 2021 – September 2021
vs 97% (512) April 2020 – September 2020
completed on time rolling average for 2020/21 - 2021/22 is 96% (757)

327 total consultations

-57 (-15%) vs Apr 21 – September 21
+82 (+33%) vs Apr 20 – September 20

91% (297)

Licensing Consultations completed on time

completed on time vs 94% (363) April 2021 – September 2021
vs 87% (214) April 2020 – September 2020
completed on time rolling average for 2020/21 - 2022/23 is 91% (291)



7.1

average shifts/days lost to sickness
+1.0 shifts lost (+28%) vs 2021

Sickness absence

11,185 shifts were lost between April and September 2022, equating to 7.1 average shifts lost.

- Increase from 8,916 in the same period in 2021 (+28%). This is owing to increases in all staff groups other than Control, and an increase in long-term sickness. The rolling average for the previous 3 financial years is 5.7 average shifts lost.
- Long-term sickness has increased compared to last year with 56% of sickness in April to Sept 2022 being attributed to long-term absence (short-term, 44%), up from 49% in the same period in 2021.
- Green book saw the largest increase in overall sickness levels from 1,241 shifts lost in April to Sept 2021 compared to 2,159 for the same period in 2022. This is owing to increases in COVID-19 and mental health sickness (up from 448 shifts lost to 614).

The upward trajectory of sickness, and changing nature of sickness types, correlates with national trends and benchmarks, both within the Fire and Rescue sector and in other sectors. HIWFRS sickness data shows we are slightly above the national average based on the latest benchmark data.



Health & Safety

66

-1 vs 2021/22
3-year average: 58

Leading (near miss/cause for concern) cases have decreased during this period and although one lower than the previous year it is positive that they still significantly exceed the lagging indicators. These figures have increased by 57% compared to 2020/21: 42 leading cases, again showing a positive direction of travel.

51

-8 vs 2021/22
3-year average: 47

Lagging (injury/ill health) cases have decreased by 13% during this period compared 2021/22. The injuries are deemed minor and not requiring a RIDDOR. Lagging cases have increased significantly by 51% compared to 2020/21: 30 lagging cases.

11

+/-0 vs 2021/22
3-year average: 9

RIDDOR incidents have remained at 11 when compared to the same period last year. RIDDOR incidents have increased by 83% compared to 2020/21: 6 RIDDOR cases.

Injuries have decreased slightly in comparison to April to September 2021. It is also important to note that, positively, leading indicators outweigh lagging indicators by 15 cases. Most injuries happen during training and operational incidents, because of the environment they are more at risk. These mostly involve strains, sprains, slips, trips and falls, manual handling and burns.

There have been 11 injuries reported under RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) preventing Fire and Rescue Service (FRS) staff from working 7 days or more, subdivided as follows: slips, lifting/handling, fall from height and other. These injuries occurred during attended fire incidents, gym/PT sessions and drill yard/training. The figure of 11 is the same as the 2021 reporting period.

HIWFRS cost per population

It is important to note the impact of inflation on these figures



£41.47

2022/23 estimated cost per population

Comparator data from CIPFA is not yet available for 2022/23

£40.97

2021/22 estimated cost per population

Source: HIWFRS finance data, cash- not real-terms.

Cost breakdown & indication of how our communities' council tax is spent

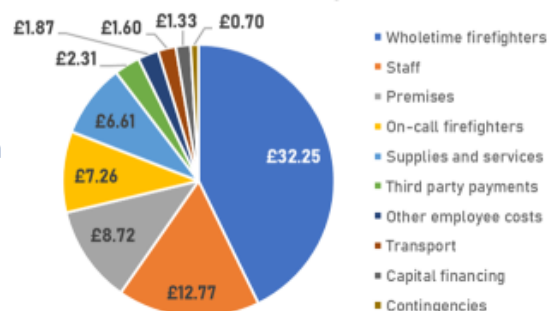
The Fire Authority has received an update on the forecast financial performance for Q2 2022/23. This report forecasts a net underspend of £0.59m (less than 1% of net service expenditure). Inflation is a driver of significant cost pressures, offset by the use of contingencies, one-off budget underspends, lower capital financing costs and additional income.

Inflationary pressures largely relate to pay and energy costs and will also have a significant impact on the 2023/24 budget. These issues are not unique to the Authority or the fire sector, compounded by significant uncertainty around the economic outlook for the UK. Officers continue to monitor the situation closely and the Chief Financial Officer has produced forecasts using prudent but realistic assumptions. The Fire Authority has agreed to the use of reserve contributions to close any budget gaps in the short term, although existing reserves balances can only be used once and reducing planned contributions to reserves will impact the delivery of future priorities.

The two tables to the right illustrate where our money is spent, with the bottom table providing indicative information on how council tax money is spent.

Quarter 2 position	Budget £'000
Wholetime firefighters	37,125
Staff	15,041
On-call firefighters	8,318
Other employee costs	2,179
Total employee costs	62,663
Premises	8,744
Supplies and services	7,893
Third party payments	2,792
Transport	1,739
Capital financing	1,529
Contingencies	800
Gross budget	86,160
Net budget (less £3.277m income)	82,883

Band D Council Tax is £75.43 a year How is it spent?





Learning & Improving

Year 3 Safety Plan improvements

We committed to completing 23 improvements. We have completed 2 of these to date, with overall progress assessed at 33% for all actions.

16 of the remaining actions are on track to complete by the end of the year, four are not yet started and one is delayed.

National Fire Standards compliance

Twelve national fire standards have been published, covering a wide range of areas, with a total of 155 requirements ('desirable outcomes') underneath the 12 standards.

The Service has undertaken a significant amount of assurance activity to assess our compliance with the standards, which identified we have 'reasonable' or 'substantial' assurance in 145 (94%) of the 155 desirable outcomes.

Risk information

We have introduced a new approach to Premises Risk Information, consisting of 5 levels of risk information, including Site Specific Risk Information (SSRIs), Operational Pre-Plans and Post Incident Support Plans.

93% of SSRIs in date, as at September, with ongoing focus in this area

Earlier in the year, we received our **second full inspection** from **Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS)**. The report is set to publish in early 2023; however, we have already started commencing some improvement activity based on some early findings the inspection team shared with us.

We have begun work to design our next **Safety Plan** which will **2025-30**. This two-stage piece of work will begin with thoroughly identifying the risks our communities face.



We continue to support the **ongoing vaccination efforts for Covid-19** with clinics continuing to take place in various stations. We continue to host two clinics each week, in partnership with Solent NHS Trust.

Following a formal request from National Resilience Assurance Team, **HIWFRS deployed a team of 18 HIWFRS colleagues** to support to Royal Berkshire Fire and Rescue Service on the day of the **State Funeral for Queen Elizabeth II**. We also stood up a Detection, Identification and Monitoring (DIM) team in London to cover the event.

Wellbeing support is being provided to staff in reference to the impact of **increased cost of living** with information on energy prices, benefits and tips on shopping, cooking and overall tips to help manage their money. The information is **hosted to our Portal** and includes a **'Feel Good Friday'** post on a monthly basis with other wellbeing related information.

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**Hampshire
& Isle of Wight**
FIRE & RESCUE AUTHORITY

HIWFRA Full Authority

Purpose: Approval

Date: **6 DECEMBER 2022**

Title: **BUDGET UPDATE REPORT**

Report of Chief Financial Officer

SUMMARY

1. The Authority received a budget report in October 2022 providing an update on the 2022/23 financial monitoring position and the impact of inflation on the service. This report builds upon the contents of that report providing the Authority with an update on the 2022/23 financial monitoring position and the budget setting position for 2023/24.
2. The service continues to face significant inflationary pressures; however, the combination of careful financial management and the use of contingencies means that an underspend against the budget of £0.590m is currently forecast. Further detail is provided in paragraphs 9 -17.
3. The setting of the budget for 2023/24 has worked alongside the development of the priorities for year four of the Safety Plan. As part of this work Executive Group, informed by directorates, have considered requests for additional funding and opportunities for delivering efficiencies.

This report requests approval for changes to the base budget as an outcome of this work.

4. This report provides the best estimates we have currently. The forecast position for the 2023/24 financial year has been updated to reflect information from the 17 November fiscal event. However, until the local government finance settlement in December 2022 the report continues to be based on a series of assumptions. A full MTFP will be produced and presented to the Authority alongside the Budget and Precept Report at the February meeting.
5. The report also provides an update on the Authority's capital investment priorities, with a particular focus on the impact of the capital programme on the revenue budget. A full capital programme update will be included alongside the Budget and Precept Report at the February meeting.

BACKGROUND

6. A series of single year financial settlements have made forward financial planning for the Authority challenging with indications that this approach will continue for next year. This provides challenges to the Authority in planning more than one year ahead limiting the ability to manage its financial position further than March 2024.
7. At the time of writing, there is no specific information available in respect to the funding settlement. Therefore, this report is based on several prudent but realistic assumptions to inform the recommendations being made. Inevitably the final settlement will differ in some respects from these assumptions. Any changes will be reflected in the Budget and Precept report and the MTFP.
8. As part of the developing an MTFP the financial principles for the Authority continue to be maintained and aid financial decision making. These are set out in Appendix A.

2022/23 BUDGET MONITORING

9. The forecast position for the Authority in 2022/23 is an underspend of £0.590m, as set out in Table 1.

Table 1	Budget	Forecast	Over / (under) spend
	£'000	£'000	£'000
Wholetime Firefighters	37,125	38,499	1,374
On-call Firefighters	8,318	8,057	(261)
Staff	15,041	14,627	(414)
Other Employee Costs	2,179	2,247	68
Premises	8,744	9,553	809
Transport	1,739	2,323	584
Supplies and Services	7,893	7,523	(370)
Third Party Payments	2,792	2,839	47
Income	(3,277)	(4,138)	(861)
Net Service Expenditure	80,554	81,530	976
Contingency	800	-	(800)
Capital Financing	1,529	730	(799)
Net Expenditure	82,883	82,260	(623)
Funding	82,883	82,850	33
Net Position	0	(590)	(590)

10. Inflation is the driver of significant pressures on the 2022/23 budget, amounting to an estimated £1.3m across pay and non-pay costs, net of the use of contingencies. This pressure was discussed in detail in the October 2022 report to the Authority and is summarised in Table 2.

11. Table 2 also summarises the in-year impact of careful financial management, additional income generation and lower capital financing costs in arriving at the forecast underspend of £0.59m, slightly less than the £0.63m forecast at the end of Quarter 1. This is explained in further detail in the paragraphs beneath.

Table 2	Forecast (under)/ overspend
	£'000
Excess non-pay inflation	1,158
Pay inflation	2,509
Pay contingency (3.3%)	(1,526)
Inflation and general contingencies	(800)
Sub-total inflationary pressure	1,341
Expenditure budget underspends	(304)
Additional income	(861)
Benefit of lower capital financing costs	(799)
Funding	33
Net position	(590)

12. Pay expenditure forecasts are based upon the most recent pay offers from employers to the respective unions for Firefighters and Staff. At the time of writing a pay offer of 5% for Firefighters has been made. A pay offer of £1,925 for Staff (between 4% and 10% depending on grade) has been accepted. Both amounts are above the 3.3% included when setting the budget for 2022/23 last February, which was considered to be prudent at the time. Costs associated with new recruits, overtime and the additional bank holidays are creating further pressures, although vacancies and the removal of the additional 1.25% employers' NI contributions from November 2022 bring down the overall forecast overspend across employee budgets.
13. The forecast overspend on premises relates to inflationary pressures on energy costs (£1.014m), offset by an underspend against the business rates budget of approximately £0.3m as a result of the successful first tranche of a review of the rateable value of sites across the Authority's estate.
14. The overspend against the transport budget is a combination of inflationary pressures on fuel costs (£0.139m), costs associated with staff travelling between sites (£0.092m) and increased repairs and maintenance costs due to increases in the number and complexity of repairs on the fleet (£0.296m). The forecast underspend on the supplies and services budget is most significantly due to savings related to IT systems.
15. Rising interest rates have had a positive impact on the income the Authority generates from investing the cash balances it holds, while the Authority is also benefiting from additional rental and service charge income through its estate.
16. The slower than planned progress with the Station Investment Programme means the Authority has not yet incurred capital expenditure to the level anticipated when setting the budget. This has meant the Authority has not taken on additional external borrowing and therefore has incurred lower interest and Minimum Revenue Provision (MRP) charges than budgeted, resulting in a projected saving against the capital financing costs budget this year. The ongoing impacts are considered in the capital investment priorities section of the report, as is the impact of inflation on the capital programme.
17. The forecast position for 2022/23 also assumes the successful delivery of efficiency measures of £0.8m, largely delivered through careful financial management within the Operations directorate. More detail is provided within the efficiencies section of this report.

2023/24 BUDGET SETTING

18. The process of setting the budget for 2023/24 is underway. Budget setting is inextricably linked to the development of the annual Safety Plan priorities, so these processes run in tandem.
19. The following sections of the report cover efficiency measures, delivery pressures and the capital programme. The overall forecast budget position for 2023/24 is then considered.

EFFICIENCY MEASURES

27. Efficiency measures of £800,000 are on track to be delivered during 2022/23. These have been delivered mainly from careful financial management in the Operations Directorate.
28. The MTFP identified the requirement to deliver further efficiencies of £562,000 during 2023/24. These efficiencies will again be delivered through further work within the Operations Directorate in addition to ongoing savings which have been achieved against the premises budget as a result of successfully challenging the rateable value of building within the Authority's estate. An additional saving has been delivered by the reduction in Local Government Pension Service contribution rates from 16.8% to 16.2%.
29. 2023/24 is the final year of the two-year efficiency plan. Consideration of future efficiencies will be informed by the Medium Term Financial Plan and wider future service planning.

DELIVERY PRESSURES

20. The budget setting process for the 2023/24 budget is being undertaken in extremely challenging circumstances and in a time of great political and economic uncertainty. The Executive Group have carefully reviewed and challenged any identified delivery pressures to ensure that they are essential and support our priorities.
21. Due to the current level of uncertainty, delivery pressures are presented here in four categories:
 - a) Base budget increases that are essential to ensure continued high performance during the next financial year
 - b) One off investment funded from reserves to support service priorities. These will be funded from existing reserves

- c) Additional priorities resulting from the current economic climate that will need to be addressed in the coming years but may not be affordable during 2023/24
- d) Priorities that will likely need to be met over the short, medium or longer term but where cost estimates have not yet been developed.

The detail of these delivery pressures is set out within Appendix B. It is recommended that type a) and b) pressures are approved for inclusion in the budget subject to affordability and that type c) and d) pressures are noted.

CAPITAL INVESTMENT PRIORITIES

- 25. The Capital and Investment Strategy was last presented to the Authority for approval in February 2022 and is updated annually. This document gives a high-level overview of how capital expenditure and capital financing (as well as treasury management and investment activity) contribute to the provision of local services, along with an overview of how associated risk is managed and the implications for future financial sustainability. Alongside this, the Authority prepares and regularly updates its capital programme forecasts, most recently as part of the outturn report to the Authority in July 2022. The Treasury Management Strategy sets out the Authority's strategy for managing its investments and borrowing.
- 26. The Capital and Investment Strategy explains the available sources of funding for capital expenditure. Three of these sources are capital receipts, capital grants, and contributions from other bodies, albeit the Authority has relatively limited opportunities here and receives no capital funding from central government.
- 30. Capital expenditure can also be funded through direct contributions from revenue and the Authority does this through annual planned contributions to reserves from the revenue budget, as well as adding one-off amounts to the Capital Payments Reserve when possible. Pressures on the revenue budget do however limit the extent to which this can be done affordably. The Reserves Strategy presented in February 2022 and outturn report in July 2022 identified that although the current reserves balances remain relatively high, existing balances are largely earmarked to agreed priorities, including a significant commitment to the vehicle replacement programme from the Capital Payments Reserve. The vehicle replacement programme is regularly reviewed to identify whether there are any opportunities to reduce the call on reserves, however it continues to be a priority for the organisation to replace the oldest vehicles in the fleet to

maintain operational effectiveness and avoid significant vehicle maintenance liabilities.

31. Prudential borrowing provides a further option to fund capital expenditure, although this results in ongoing costs to the revenue budget. The Authority has agreed that it will only use prudential borrowing where there are clear service or financial benefits (and it will not borrow to invest primarily for financial return) and as a result prudential borrowing of approximately £45m was agreed for the Station Investment Programme. Interest costs and Minimum Revenue Provision (MRP) charges associated with prudential borrowing become a growth pressure on the revenue budget.
32. The latest Medium Term Financial Plan (MTFP) and associated modelling allows for the capital financing costs budget to be increased from £1.5m in 2022/23 to £3.6m in 2025/26 to accommodate increased MRP and interest costs associated with the capital programme plans.
33. The Authority can reduce the impact of the capital programme on the revenue budget if alternative sources of funding can be identified to reduce the planned use of prudential borrowing. Opportunities could arise, for example, if there are gains on the disposal of assets, if earmarked future calls on reserves are not fully required, or if there are in-year underspends against the capital financing budget that could be added to the Capital Payments Reserve. These opportunities should be actively considered if they arise.
34. With the recent increases in interest rates, it is likely that there may be some additional one-off income from investment balances during the next financial year. This income cannot be built into base budgets as investment balances are forecast to sharply decline to deliver capital programme and other priorities. However, if it is not needed to balance the revenue budget, this income could be used to protect the capital programme, either by making an additional one-off contribution to the capital payments reserve or by creating an interest rates risk reserve.
35. Updates on the Authority's estates capital programme and carbon reduction pathway plans are being presented to the Authority in separate reports elsewhere on the agenda for this meeting. A simple summary of the capital programme is however included in exempt Appendix D to this report. A full update to the programme will be prepared as usual as part of the February budget setting report to the Authority.
36. It should be noted that large capital projects can by their nature span multiple years with the exact timing of expenditure and overall project costs always subject to a degree of uncertainty. The Chief Financial

Officer will work closely with the Director of Corporate Services and the Authority's treasury management advisors Arlingclose to closely monitor and forecast expenditure and to ensure external borrowing is taken out in the most cost-effective way possible for the Authority at the point it is needed.

37. Where elements of projects in the approved programme are revenue in nature and do not meet the criteria for capital expenditure, these costs will be charged to the revenue budget and funded from the Capital Payments Reserve. They will continue to be reported to the Authority as part of the capital programme to give a complete picture of the cost of each project against the agreed funding, however within the accounts these costs will be coded correctly as revenue expenditure.
38. The Chief Financial Officer continues to be advised by Arlingclose, the Authority's treasury management advisors, on borrowing decisions. Given the Authority's reserves balances and the fact that expenditure on the Station Investment Programme has not yet been incurred to any significant degree, the advice over the past year has been to continue to 'internally borrow' in the short term (i.e., making use of cash balances) and deferring any new external borrowing until the timing of expenditure and amounts required become certain.
39. The advantage of this strategy is that it means the Authority has been able to avoid borrowing too much and/or too soon, therefore avoiding the associated costs and additional risks, and has not committed to incurring interest costs over the next 50 years on borrowing funds it was not certain would be required.
40. The disadvantage is the exposure to interest rate risk. The macroeconomic environment has changed significantly since the Authority first approved the use of prudential borrowing for the Station Investment Programme, with interest rates for short and long term borrowing now significantly higher than any forecasters had previously projected, albeit expectations over longer term rates have eased somewhat over recent weeks. When the Authority does need to borrow, however, it will potentially be more expensive than if the Authority had done so a year ago, or even 6 months ago.
41. Schemes within the capital programme are also facing inflationary pressures. The outturn report in July 2022 set out that £60,000 from the inflation contingency in the revenue budget would be used to meet inflationary costs on the Fleet Maintenance Centre (FMC) Sprinklers project and a further inflationary pressure of £66,000 has since been identified during delays to the scheme while issues raised by planning

officers were resolved. An underspend on the EV Charging Points project of £160,000 has, however, been identified by the Director of Corporate Services.

42. Paragraph B.17 of the financial regulations within the Authority's constitution sets out that the Chief Fire Officer, in consultation with the Chief Financial Officer and Chairman of the Authority, is authorised to make changes within the overall approved capital programme limits where it is in the Authority's interests, with the changes being reported back to the full Authority.
43. The Chief Fire Officer therefore approved on 9 November 2022 the reallocation of £126,000 of the unspent balance from the EV Charging Points project to fund the inflationary increase on the FMC project. The balance of £34,000 will be returned to the Capital Payments Reserve in addition to removing the requirement to fund the previously identified £60,000 inflationary pressure on the FMC project from contingencies. This will allow the full contingency to be used to meet the identified revenue budget pressures detailed elsewhere in this report.
44. This change is in the Authority's best interests as it has allowed the Authority to secure a time limited price through the tender process and avoid the risk of further inflationary increases to the scheme costs. This will enable the Director of Corporate Services to achieve the objectives of both the EV Charging Points and FMC Sprinklers schemes whilst also returning £34,000 to the capital payments reserve and £60,000 to the revenue budget contingency in 2022/23.

FORECAST BUDGET POSITION

22. With no further information, the position for 2023/24 continues to be built using several prudent but realistic assumptions. These will be revised to take in to account the Local Government Finance Settlement in December.
23. Noteworthy assumptions informing the forecast position for 2023/24 included within this report are:
 - 2022/23 pay and non-pay inflation remains in line with the forecasts set out in the October 2022 report
 - Inflation forecast to be 5% for non-pay and 4% for pay during 2023/24
 - No additional support for inflation is provided by government

24. The October 2022 report assumed council tax would rise in line with the referendum limit of 1.99%. The November fiscal event confirmed that the referendum limit will increase to 3%, so the assumption has been made that the Authority will propose a council tax increase at this level.
25. Billing authorities provide more up to date information on changes to the Council Tax base each autumn. Based on previous years' trends, an increase of 1% has been assumed. No information on collection fund surpluses or deficits is available so an assumption of no surplus or deficit has been made. Any changes to these assumptions will affect the position and will be factored in once known.
26. Reasonable assumptions about pay and non-pay inflation are included as part of the budget setting process. However, inflation on some non-pay items is currently significantly higher than would normally be expected. It is difficult to predict if these elevated rates will continue or if there are short term factors affecting prices. An assumption of inflation equating to 5% has been built in for 2023/24 across all non-pay budgets, however there is a risk that inflation may be different from this assumed level. Inflation forecasts will continue to be reviewed with a further updated included in the Budget Report if inflation forecasts change materially.
27. The Medium Term Financial Plan produced in February 2022 suggested a deficit of £0.189m at the start of 2023/24. The budget update report produced in October 2022 suggested this could increase to £3.985m. The table below summarises changes since the October report:

Table 5	£'000
October 2022 forecast budget gap	3,985
Revised inflation assumptions	51
Additional delivery pressures	156
Council tax referendum 1% increase	(545)
Removal of employers 1.25% health and social care levy	(364)
Projected 2023/24 budget gap	3,283

28. A slight revision to inflation assumptions as well as the total delivery pressures exceeding the £250,000 that was assumed at the time of the

October report have increased the budget gap. This increase is more than offset by the increased council tax referendum limit and a reduction in employers National Insurance contributions.

29. Assuming that all the assumptions made, including on funding, are correct then the budget gap for 2023/24 could be addressed as follows:

	£'000
Use of Grant Equalisation Reserve (full balance)	1,097
Temporary suspension of Grant Equalisation Reserve contribution	625
Reduction in annual revenue contributions to reserves	1,561
Total mitigations	3,283

30. This would mean that £1.561m less would be available to support future investments. However, this approach would give the Authority sufficient time to develop a plan to address the budget gap. In line with the financial principles a reduction in reserve contributions would only happen as a last resort. The projected deficit also relies upon the successful delivery of efficiencies, which are well developed and set out elsewhere in this report.
31. As the detail of the local government finance settlement is not yet available, no further changes have been made to the funding assumptions. However, initial indications suggest that some areas of funding such as business rates may be higher than forecast in this report. Were this to be the case it may allow the Authority to close the budget gap without reducing reserve contributions.
32. Additionally, due to increases in interest rates the Authority is likely to receive additional one-off investment income next year. If this additional one-off income is not needed to balance the budget, then it would be prudent to use this funding to build greater resilience in the capital programme or to build a reserve to mitigate against the risk of rising interest rates.

TREASURY MANAGEMENT

45. The Treasury Management Mid-Year Monitoring Report is attached as Appendix C. The Authority has borrowed and invested sums of money and is therefore exposed to financial risks including the loss of invested funds and the revenue effect of changing interest rates. The successful identification, monitoring and control of risk are therefore central to the Authority's treasury management strategy. The Mid-Year Monitoring Report sets out the performance of the treasury management function from the beginning of April to the end of September 2022 and is a requirement of the CIPFA TM Code.

SUPPORTING OUR SAFETY PLAN AND PRIORITIES

46. Ensuring that funding is appropriately accounted for is vital for all public sector organisations. Good budget management in the past has allowed underspends to be achieved, which have been added to reserves to fund future investment and change activities.
47. As resources are scarce and a good deal of uncertainty remains, it is essential that spend is carefully prioritised and that resources are directed to the highest priority areas in line with the Safety Plan.

CONSULTATION

48. Consultation on the budget proposals will take place with businesses and Unions as part of the budget setting process for 2023/24.

RESOURCE IMPLICATIONS

49. Decisions made in this report will be reflected in the final 2023/24 Budget and Precept Report, to be presented to the Authority in February 2023.

IMPACT ASSESSMENTS

50. The proposals within this report are considered compatible with the provisions of relevant equality and human rights, Data Protection and Health and Safety Legislation.

LEGAL IMPLICATIONS

51. The Fire Authority is required to set a balanced budget and council tax level by 1 March 2023. This report provides background information and initial proposals which will be expanded on in the Budget and Precept report.

OPTIONS

52. The process of setting a budget is a series of options about how best to use the resources available to deliver organisational priorities. This report has provided some information about the proposed options based on the current best available information. Full detail on the options proposed will be provided to the Authority as part of the Budget and Precept Report and MTFP in February 2023.

RISK ANALYSIS

53. Over recent years financial management processes within the service have improved meaning that the risk of unexpected financial pressures has reduced.
54. Uncertainty over the medium term financial position and potential funding cuts are risks identified in the organisational risk register. The outcome of the Budget and Spending Review will impact on these risks. However, the Authority is in a stable financial position and has reserves that could be drawn on to mitigate this risk in the short term while plans to address funding shortfalls are developed.
55. In appendix B various medium term priorities for investment are identified. It is important that the Authority continues to look forward to understand the medium term impact of current decisions as well as the challenges it may face in the future. This is an important part of mitigating risks to the medium term financial stability of the Authority.

EVALUATION

56. This report provides an update to the Authority on the budget setting progress to date. Full details will be provided as part of the Budget Setting and Precept report in February 2023.
57. Evaluation of the impact of the growth pressures and high-level efficiencies will be picked up as part of business as usual processes within the service.

CONCLUSION

58. It is recommended that the Authority consider the content of this report, including areas where there is still uncertainty about the position for 2023/24 and subsequent years.

RECOMMENDATION

59. That the budget monitoring position be noted by the HIWFRA Full Authority
60. That the category a) and b) Delivery Pressures set out in Appendix B be approved by the HIWFRA Full Authority for inclusion in the 2022/23 budget subject to affordability
61. That the category c) and d) Delivery Pressures set out in Appendix B be noted by the HIWFRA Full Authority
62. That the amendment to the capital programme made by the Chief Fire Officer under paragraph B.17 of the financial regulations be noted by the HIWFRA Full Authority
63. That the mid-year review of treasury management activities set out in Appendix C be approved by the HIWFRA Full Authority
64. That the changes to the capital programme set out in exempt Appendix D be approved by the HIWFRA Full Authority

APPENDICES ATTACHED

Appendix A – Financial Principles

Appendix B – Delivery Pressures

Appendix C – Treasury Management Mid-Year Report

Appendix D – Updated capital programme (exempt)

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FINANCIAL PRINCIPLES

The following financial principles have been developed by Executive Group to guide budget setting and medium term financial planning:

1. A corporate approach will be taken to the development of budgets and savings programmes
2. Savings delivery will be planned so that savings are delivered at the optimum time to balance the budget
3. Financial planning assumptions will be realistic and prudent and will take account of pay and price inflation
4. One off and recurring growth will be limited
5. Revenue contributions to reserves for capital investment, IT and other equipment replacement will be maintained
6. The revenue budget and capital investment will be aligned with strategic priorities and risks
7. Reductions in planned reserve contributions will be used as a last resort to balance the budget.

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- a) Base budget increases that are essential to ensure continued high performance during the next financial year

Pressure	Rationale	£'000
Assistant Director post within the Operations Directorate	An additional Assistant Director post is needed to ensure the continued effective running of the Operations Directorate but also to deliver service change, efficiency and continuous improvement	100
Increased procurement charge	An increase to the cost of the shared services procurement function to more accurately reflect the services received and to ensure that value for money for external spend continues to be delivered	95
ICT and Operational Assets resourcing	Additional funding required to address recruitment and retention issues for specialist technical roles with ICT and Operational Assets	131
Health and Safety	Additional investment in the Health and Safety Function to provide improved performance and resilience	80
Total		406

- b) One off investments to be funded from the Transformation Reserve

Pressure	Rationale	£'000
Embedding National Operational Guidance	See separate paper on this agenda	750
Safety Plan Year 4	Investments to support the Safety Plan Year 4 activities	330
Total		1,080

- c) Additional priorities which are currently not affordable but will need to be addressed in future years

Pressure	Rationale	£'000
Inflation on reserve contributions	Increase reserve contributions in line with inflation (CPI) as reserve funded items are particularly affected by higher inflation rates	617
Increase contribution to Equipment Reserve for BA refresh	Latest estimates of the additional costs of the refresh of Breathing Apparatus – this is in excess of the reserve contribution	700
Total		1,317

- d) Priorities that will likely need to be met over the short, medium or longer term but where cost estimates have not yet been developed

Pressure	Rationale	£'000
ESN	Significant costs are likely as this project progresses	TBC

Managing fire contaminants	Further costs associated with retrospective estates enhancement, laundering of PPE and equipment, maintenance of facilities, enhanced/additional PPE, additional headcount within maintenance/logistics teams, additional post-incident costs for staff	TBC
Further carbon reduction work	Additional work to reduce the carbon emissions of the fleet and estate in line with the carbon reduction pathway	TBC
Contractual cost increases	Further inflationary pressures when contracted services reach review points	TBC

Treasury Management Mid-Year Monitoring Report 2022/23

Purpose of the Report

1. Hampshire and Isle of Wight Fire and Rescue Authority has adopted the key recommendations of the Chartered Institute of Public Finance and Accountancy's Treasury Management in the Public Services: Code of Practice (the CIPFA Code), last updated in 2021. The CIPFA Code requires the Fire and Rescue Authority to approve a treasury management strategy before the start of the year and a semi-annual and annual treasury outturn report. The purpose of this report is therefore to meet this obligation by providing an update on the performance of the treasury management function at the mid-year point.

Summary

2. This report fulfils the Fire and Rescue Authority's legal obligation under the Local Government Act 2003 to have regard to the CIPFA Code and provides an update on the performance of the treasury management function at the mid-year point.
3. The Fire and Rescue Authority's treasury management strategy was most recently updated and approved at a meeting of Hampshire & Isle of Wight Fire & Rescue Authority in February 2022. The Fire and Rescue Authority has borrowed and invested sums of money and is therefore exposed to financial risks including the loss of invested funds and the revenue effect of changing interest rates. The successful identification, monitoring and control of risk are therefore central to the Fire and Rescue Authority's treasury management strategy.
4. Treasury management in the context of this report is defined as: "the management of the organisation's investments and cash flows, its banking, money market and capital market transactions; the effective control of the risks associated with those activities; and the pursuit of optimum performance consistent with those risks."
5. This mid-year report sets out the performance of the treasury management function from the beginning of April to the end of September 2022, to include the effects of the decisions taken and the transactions executed.
6. Overall responsibility for treasury management remains with the Fire and Rescue Authority. No treasury management activity is without risk and the effective identification and management of risk are therefore integral to the Fire and Rescue Authority's treasury management objectives.

7. All treasury activity has complied with the Fire and Rescue Authority's Treasury Management Strategy and Investment Strategy for 2022/23, and all relevant statute, guidance and accounting standards. In addition, support in undertaking treasury management activities has been provided by the Fire and Rescue Authority's treasury advisers, Arlingclose.
8. The Prudential Code includes the requirement to produce a Capital Strategy, a summary document approved covering capital expenditure and financing, treasury management and non-treasury investments. The latest iteration of the Fire and Rescue Authority's Capital and Investment Strategy, complying with CIPFA's requirement, was approved by the Hampshire & Isle of Wight Fire & Rescue Authority in February 2022.

External Context

9. The following sections outline the key economic themes in the UK against which investment and borrowing decisions have been made to date in 2022/23. The macroeconomic picture is volatile at present and this is considered on a daily basis in managing the Authority's treasury management activity. For the purposes of this report, the text below reflects external factors that affected decision making in the period to the end of September and that were current at the time of writing in early October.

Economic commentary

10. The ongoing conflict in Ukraine has continued to put pressure on global inflation and the economic outlook for UK and world growth remains weak.
11. The economic backdrop during the April to September period continued to be characterised by high oil, gas and commodity prices, ongoing high inflation and its impact on consumers' cost of living, no imminent end in sight to the Russia-Ukraine hostilities and its associated impact on the supply chain, and China's zero-Covid policy.
12. UK inflation remained extremely high. Annual headline CPI hit 10.1% in July, the highest rate for 40 years, before falling modestly to 9.9% in August. RPI registered 12.3% in both July and August. The energy regulator, Ofgem, increased the energy price cap by 54% in April, while a further increase in the cap from October, which would have seen households with average energy consumption pay over £3,500 per annum, was dampened by the UK government stepping in with its original policy to provide around £150 billion of support to limit bills to £2,500 annually until 2024.
13. The Bank of England increased the official Bank Rate to 2.25% over the period. From 0.75% in March, the Monetary Policy Committee (MPC) pushed through rises of 0.25% in each of the following two MPC meetings, before hiking by 0.50% in August and again in September. August's rise was voted

by a majority of 8-1, with one MPC member preferring a more modest rise of 0.25%. The September vote was 5-4, with five votes for an 0.5% increase, three for an 0.75% increase and one for an 0.25% increase. The Committee noted that domestic inflationary pressures are expected to remain strong and so given ongoing strong rhetoric around tackling inflation further Bank Rate rises should be expected.

14. Bank of England policymakers noted that any resulting inflationary impact of increased demand would be met with monetary tightening, raising the prospect of much higher Bank Rate and consequential negative impacts on the housing market.

Financial markets

15. Uncertainty remained in control of financial market sentiment and bond yields remained volatile, continuing their general upward trend as concern over higher inflation and higher interest rates continued to dominate. Towards the end of September, volatility in financial markets was significantly exacerbated by the UK government's fiscal plans, leading to an acceleration in the rate of the rise in gilt yields and decline in the value of sterling.
16. Due to pressure on private sector pension funds, the Bank of England announced a direct intervention in the gilt market to increase liquidity and reduce yields.

Credit review

17. Having completed its full review of its credit advice on unsecured deposits at UK and non-UK banks, in May Arlingclose extended the maximum duration limit for five UK banks, four Canadian banks and four German banks to six months. The maximum duration for unsecured deposits with other UK and non-UK banks on Arlingclose's recommended list is 100 days. These recommendations were unchanged at the end of the period.
18. Credit default swaps are used as an indicator of credit risk, where higher premiums indicate higher perceived risks. Arlingclose continued to monitor and assess credit default swap levels for signs of credit stress but made no changes to the counterparty list or recommended durations. Nevertheless, increased market volatility is expected to remain a feature, at least in the near term and, as ever, the institutions and durations on the Authority's counterparty list recommended by Arlingclose remains under constant review.

Local Context

19. At 31 March 2022 the Fire and Rescue Authority's underlying need to borrow for capital purposes was £11.0m as measured by the Capital Financing Requirement (CFR), while usable reserves and working capital are the underlying resources available for investment and amounted to £36.5m. These factors are summarised in Table 1.

Table 1: Balance sheet summary	31/03/22 Balance £m
CFR	11.0
Less: External borrowing	
- Public Works Loan Board	(6.7)
Internal Borrowing	4.3
Less: Usable Reserves	(41.4)
Less: Working Capital	4.9
Net Investments	(32.2)

20. The Fire and Rescue Authority's strategy is to maintain borrowing and investments below their underlying levels, referred to as internal borrowing, to reduce risk and keep interest costs low. This is discussed further in the budget update report with respect to borrowing decisions related to the Station Investment Programme. The treasury management position at 30 September 2022 and the movement since 31 March 2022 are shown in Table 2.

Table 2: Treasury management summary	31/03/22 Balance £m	Movement £m	30/09/22 Balance £m	30/09/22 Rate %
Long-term borrowing	(5.90)	0.35	(5.55)	4.59
Short-term borrowing	(0.75)	(0.35)	(1.10)	5.19
Total borrowing	(6.65)	0.00	(6.65)	4.69
Long-term investments	8.00	(1.00)	7.00	4.68
Short-term investments	13.00	4.01	17.02	1.65
Cash and cash equivalents	11.09	3.55	14.63	2.02
Total investments	32.09	6.56	38.65	2.34
Net investments	25.44	6.56	32.00	

Note: the figures in Table 2 at 31 March 2022 are from the balance sheet in the Fire and Rescue Authority's statement of accounts, but adjusted to exclude operational cash, accrued interest and other accounting adjustments.

21. The increase in net investments of £6.56m shown in Table 2 reflects an increase in investment balances and no change in total borrowing, in line with the Fire and Rescue Authority's policy on internal borrowing. The movement in short term borrowing is not additional borrowing but instead existing loans

of £0.35m moving from being categorised as long-term to short-term as they approach maturity. Further details are provided in the Borrowing Activity and Treasury Investments Activity sections of this report.

Borrowing Update

22. Local authorities can borrow from the Public Works Loan Board (PWLB) provided they have not purchased an investment asset primarily for yield since 26 November 2020 and can confirm they are not planning to do so in the current or next two financial years, with confirmation of the purpose of capital expenditure from the Section 151 / Section 95 Officer (for the Authority, this is the Chief Financial Officer). Authorities that are purchasing or intending to purchase investment assets primarily for yield will not be able to access the PWLB except to refinance existing loans or externalise internal borrowing.
23. Acceptable use of PWLB borrowing includes service delivery, housing, regeneration, preventative action, refinancing and treasury management.
24. Competitive market alternatives may be available for authorities with or without access to the PWLB. However, the financial strength of the individual authority and borrowing purpose will be scrutinised by commercial lenders.
25. The Fire and Rescue Authority is not planning to purchase any investment assets primarily for yield within the next three years and so is able to fully access the PWLB if required.

Borrowing Activity

26. At 30 September 2022 the Fire and Rescue Authority held £6.65m of loans (which represents no change since from 31 March 2021) as part of its strategy for funding previous years' capital programmes. The mid-year treasury management borrowing position and movement since 31 March 2022 are shown in Table 3.

Table 3: Borrowing position	31/03/22 Balance	Net movement	30/09/22 Balance	30/09/22 Weighted average rate	30/09/22 Weighted average maturity (years)
	£m	£m	£m	%	
Public Works Loan Board	(6.65)	-	(6.65)	4.69	9.4
Total borrowing	(6.65)	-	(6.65)	4.69	9.4

Note: the figures in Table 3 at 31 March 2022 are from the balance sheet in the Fire and Rescue Authority's statement of accounts but adjusted to exclude accrued interest.

27. The Fire and Rescue Authority's chief objective when borrowing has been to strike an appropriately low risk balance between securing low interest costs and achieving cost certainty over the period for which funds are required. The flexibility to renegotiate loans should the Fire and Rescue Authority's long-term plans change is a secondary objective.
28. The Fire and Rescue Authority considers it to be more cost effective in the near term to use internal resources than to use additional borrowing. In line with this strategy, no new borrowing has been taken out during the period.
29. This borrowing strategy has been monitored with the assistance of Arlingclose and has enabled the Fire and Rescue Authority to reduce net borrowing costs (despite foregone investment income) and reduce overall treasury risk given the level of reserves held by the Authority prior to planned expenditure taking place. The Chief Financial Officer has continued to call upon and made use of advice from Arlingclose during 2022/23 in maintaining this borrowing strategy during the ongoing economic uncertainty and volatility, deferring any new external borrowing until the timing of expenditure on the Station Investment Programme and amounts required becomes more certain. This avoids the costs and risks associated with borrowing too much and/or too soon, of particular relevance given the changing scope of the programme discussed in the Estates Capital Programme report that is also on the agenda for this meeting. The disadvantage is the exposure to risks associated with increasing interest rates.

Treasury Investment Activity

30. The Fire and Rescue Authority holds invested funds representing income received in advance of expenditure plus balances and reserves held. During the six-month period from 1 April to 30 September 2022, the Fire and Rescue Authority's investment balances have ranged between £25.7m and £45.0m due to timing differences between income and expenditure.
31. Table 4 shows investment activity for the Fire and Rescue Authority as at 30 September 2022 in comparison to the reported activity as at 31 March 2022. The increase in total investments since 31 March 2022 reflects the fact that the balance at 31 March is typically the lowest of the year due to the annual pension grant being received in July each year, which is then paid out to pensioners on a monthly basis.

Table 4: Treasury investment position	31/03/22 Balance	Net movement	30/09/22 Balance	30/09/22 Income return	30/09/22 Weighted average maturity
	£m	£m	£m	%	(years)
Short term investments					
Banks and building societies:					
- Unsecured	5.83	(0.99)	4.84	1.65	0.2
- Secured	4.00	(2.00)	2.00	0.44	0.4
Government:					
- DMADF	1.50	3.00	4.50	2.48	0.3
- Local authorities	1.00	(1.00)	0.00	0.00	0.0
- UK Gilts	1.00	0.50	1.50	0.13	0.3
- Treasury Bills	1.00	4.00	5.00	1.81	0.2
Money market funds	9.76	4.05	13.81	2.05	0.0
	24.09	7.56	31.65	1.82	0.1
Long term investments					
Banks and building societies					
- Secured	1.00	(1.00)	0.00	0.00	0.0
	1.00	(1.00)	0.00	0.00	0.0
Long term investments – higher yielding strategy					
Pooled funds:					
- Pooled property*	3.25	-	3.25	3.67	N/A
- Pooled equity*	2.00	-	2.00	5.81	N/A
- Pooled multi-asset*	1.75	-	1.75	5.27	N/A
	7.00	-	7.00	4.68	N/A
Total investments	32.09	6.56	38.65	2.34	0.1

* The rates provided for pooled fund investments are reflective of annualised income returns over the year to 30 September 2022 based on the market value of investments 12 months earlier. Note: the figures in Table 4 at 31 March 2022 are from the balance sheet in the Fire and Rescue Authority's statement of accounts, but adjusted to exclude operational cash, accrued interest and other accounting adjustments.

32. The Fire and Rescue Authority made a payment of £3.9m on 1 April 2020 to prepay its employer's Local Government Pension Scheme (LGPS) contributions for 3 years. By making this payment in advance the Fire and Rescue Authority was able to generate an estimated saving of £0.26m over 3 years on its pension contributions.
33. Investment balances have subsequently increased and were £6.56m higher at 30 September 2022 in comparison to the position at 31 March 2022. This is in part explained by the Fire and Rescue Authority not having to make

monthly employer's pension contributions in 2022/23 (having already paid in advance for 3 years in April 2020) and the balance of grants received but not yet applied.

34. The CIPFA Code and government guidance both require the Fire and Rescue Authority to invest its funds prudently, and to have regard to the security and liquidity of its treasury investments before seeking the optimum rate of return, or yield. The Fire and Rescue Authority's objective when investing money is therefore to strike an appropriate balance between risk and return, minimising the risk of incurring losses from defaults alongside managing the risk of receiving unsuitably low investment income. The Fire and Rescue Authority's Treasury Management Strategy Statement (TMSS) sets out how it will manage and mitigate these risks.
35. The security of investments has been maintained by following the counterparty policy and investment limits within the TMSS, taking advice from Arlingclose on changes in counterparty credit worthiness, and making use of secured investment products that provide collateral. The Fire and Rescue Authority invests in liquid investments to ensure money is available when required to meet its financial obligations, spreading these investments across a number of counterparties to mitigate operational risk.
36. In delivering investment returns, the Fire and Rescue Authority has operated against a backdrop in which the UK Bank Rate has risen from 0.75% in April 2022 to 2.25% in September 2022. This has led to improved returns for liquid investment options such as Money Market Funds (MMFs), bank call accounts and the UK Government's Debt Management Account Deposit Facility (DMADF). This is having a positive impact on investment returns, as reflected in the end of Q2 revenue budget financial forecasts for 22/23 included in the budget update report to this meeting. However, investment income has still largely come from the Fire and Rescue Authority's investments in pooled funds.
37. The Fire and Rescue Authority benchmarks the performance of its internally managed investments against that of other Arlingclose clients on a quarterly basis. Internally managed investments include all investments except externally managed pooled funds but do include MMFs. The performance of these investments against relevant measures of security, liquidity and yield are shown in Table 5, providing the latest available data as at 30 June 2022 and at 31 March 2022 for comparison.

Table 5: Investment benchmarking (excluding pooled funds)	Credit rating	Bail-in exposure	Weighted average maturity (days)	Rate of return
		%		%
31.03.2022	AA-	62%	52	0.43%
30.06.2022	AA+	77%	36	0.98%
Police & Fire Authorities	AA-	82%	13	0.78%
All LAs	AA-	64%	16	0.92%

38. Table 5 shows the average credit rating of the portfolio has improved over the first quarter of the financial year, and bail-in exposure rose reflecting a greater investment balance in liquid investments which are subject to bail-in risk. Although exposed to bail-in risk, they are considered good investments due to their diversification and AAA credit rating. The average rate of return (0.98%) was higher than at 31 March 2022, reflecting improve rates across the market. The Fire and Rescue Authority compared favourably with the other police and fire authorities in the benchmarking exercise across all metrics.

Externally managed pooled funds

39. In order to minimise the risk of receiving unsuitably low investment income, the Fire and Rescue Authority has continued to invest a proportion of steady core balances in externally managed pooled funds as part of its higher yielding strategy.
40. The CIPFA Code requires the Fire and Rescue Authority to invest its funds prudently and to have regard to the security and liquidity of its investments before seeking the highest yield. As a result, the Fire and Rescue Authority's investments targeting higher yields have been made from its most stable balances and with the intention that they will be held for at least the medium term. This means that the initial costs of any investment and any periods of falling capital values can be overcome and mitigates the risk of having to sell an asset for liquidity purposes, helping to ensure the long-term security of the Fire and Rescue Authority's investments.
41. The Fire and Rescue Authority's investments in pooled funds fell considerably in value when the coronavirus pandemic hit world markets but have since recovered well. This recovery means these investments are now worth more in aggregate than the initial sums invested, as shown in Table 6, demonstrating the importance of taking a longer-term approach and being able to ride out periods of market volatility, ensuring the Fire and Rescue Authority is not a forced seller at the bottom of the market.

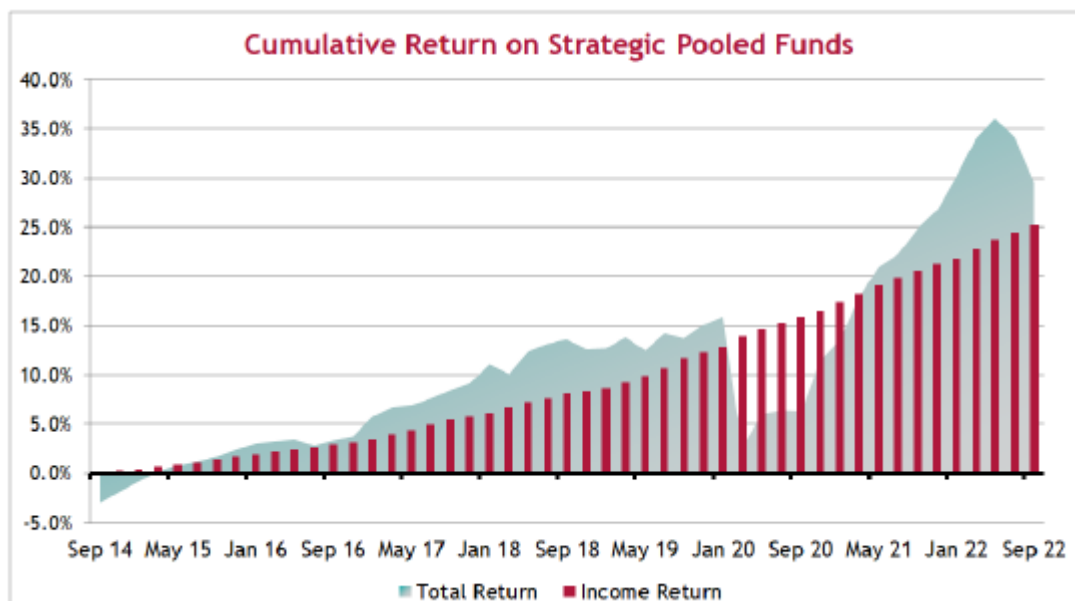
Table 6 – Higher yielding investments – market value performance	Amount invested*	Market value at 30/09/22	Gain/(fall) in capital value	
			Since purchase	One year
	£m	£m	£m	£m
Pooled property funds	3.25	3.85	0.60	0.47
Pooled equity funds	2.00	2.02	0.02	(0.14)
Pooled multi-asset funds	1.75	1.44	(0.31)	(0.28)
Total pooled funds	7.00	7.31	0.31	0.05

42. The Fire and Rescue Authority's investments in pooled funds target long-term price stability and regular revenue income and bring significant benefits to the revenue budget. As shown in Table 7 the income returns have been 25.26% since purchase, contributing to a total return of 29.58% over their life.

Table 7 – Higher yielding investments – income and total returns since purchase	Income return	Total return
	%	%
Pooled property funds	27.68	46.01
Pooled equity funds	28.15	37.26
Pooled multi-asset funds	15.85	(1.86)
Total pooled funds	25.26	29.58

43. The Fire and Rescue Authority's pooled fund investments continue to deliver income returns far in excess of what could be generated from cash investments. The cumulative total return from the Fire and Rescue Authority's investments in pooled equity, property and multi-asset funds since purchase is shown in the following graph. This highlights that the Fire and Rescue Authority has benefited from strong and steady income returns over time and

the way that capital values have recovered since March 2020.



44. The IFRS 9 accounting standard that was introduced in 2018/19 means that annual movements in the capital values of investments need to be reflected in the revenue account on an annual basis, although a five-year statutory override was put in place for local authorities that exempts them from complying with this requirement.
45. Pooled fund investments have no defined maturity date but are available for withdrawal after a notice period and their performance and continued suitability in meeting the Fire and Rescue Authority's investment objectives is monitored regularly and discussed with Arlingclose.

Non-Treasury Investments

46. Although not classed as treasury management activities the Fire & Rescue Authority may also make loans and investments for service purposes, for example the direct purchase of land or property. Such loans and investments will be subject to the Fire & Rescue Authority's normal approval processes for revenue and capital expenditure and need not comply with the treasury management strategy. The Fire & Rescue Authority does not have any existing non-treasury investments.

Compliance Report

47. The Fire and Rescue Authority confirms compliance of all treasury management activities undertaken during the period with the CIPFA Code of Practice and the Fire and Rescue Authority's approved Treasury Management Strategy.

48. Compliance with the authorised limit and operational boundary for external debt, is demonstrated in Table 8.

Table 8 – Debt limits	2022/23 Maximum	30/09/22 Actual	2022/23 Operational Boundary	2022/23 Authorised Limit	Complied?
	£m	£m	£m	£m	
Borrowing	(6.7)	(6.7)	(34.2)	(37.9)	✓
Other long-term liabilities	0.0	0.0	(5.0)	(5.0)	✓
Total debt	(6.7)	(6.7)	(39.2)	(42.9)	✓

49. The total actual debt as measured by the debt limits was £6.7m on 30 September 2022 which is entirely PWLB debt, none of which is subject to variable interest rates.
50. Since the operational boundary is a management tool for in-year monitoring it is not significant if the operational boundary is breached on occasions due to variations in cash flow, and this is not counted as a compliance failure.

Treasury Management Indicators

51. The Fire and Rescue Authority measures and manages its exposures to treasury management risks using the following indicators.

Interest rate exposures

52. The following indicator shows the sensitivity of the Fire and Rescue Authority's current investments and borrowing to a change in interest rates:

Table 9 – Interest rate risk indicator	30/09/22 Actual	Impact of +/-1% interest rate change
Sums subject to variable interest rates		
Investment	£31.7m	£0.3m
Borrowing	£0.0m	£0.0m

53. Fixed rate investments and borrowings are those where the rate of interest is fixed for the whole financial year. Instruments that mature during the financial year are classed as variable rate.

Maturity structure of borrowing

54. This indicator is set to control the Fire and Rescue Authority's exposure to refinancing risk. The upper and lower limits show the maximum and minimum maturity exposure to fixed rate borrowing as agreed in the Treasury Management Strategy Statement:

Table 10 – Refinancing rate risk indicator	30/09/22 Actual	Upper Limit	Lower Limit	Complied
Under 12 months	17%	50%	0%	✓
12 months and within 24 months	0%	50%	0%	✓
24 months and within 5 years	7%	50%	0%	✓
5 years and within 10 years	8%	75%	0%	✓
10 years and within 20 years	68%	75%	0%	✓
20 years and above	0%	100%	0%	✓

Principal sums invested for periods longer than a year

55. The purpose of this indicator is to control the Fire and Rescue Authority's exposure to the risk of incurring losses by seeking early repayment of its investments. The limits on the long-term principal sum invested to final maturities beyond the period end were:

Table 11 – Price risk indicator	2022/23	2023/24	2024/25
Actual principal invested beyond year end	£8m	£7m	£7m
Limit on principal invested beyond year end	£12m	£10m	£10m
Complied?	✓	✓	✓

56. The table includes investments in strategic pooled funds of £7m as although these can usually be redeemed at short notice, the Fire and Rescue Authority intends to hold these investments for at least the medium-term.

Other

CIPFA Consultation – IFRS 16

57. The implementation of the new IFRS 16 Leases accounting standard was due to come into force for local authorities from 1st April 2022, however following a consultation CIPFA/LASAAC announced an optional two-year delay to the implementation of this standard - a decision which was confirmed by the Financial Reporting Advisory Board in early April 2022. Authorities can now

choose to adopt the new standard on 1st April 2022, 1st April 2023 or 1st April 2024. The Fire and Rescue Authority intends to adopt the new standard on 1st April 2024.

Treasury Management Code

58. The new Treasury Management Code will be adopted by the Fire and Rescue Authority for 2023/24 as recommended. The change will include increasing the frequency of Treasury Management reporting to a quarterly basis. The liability benchmark will be included as a mandatory treasury indicator in order to strengthen decision making. Changes to the knowledge and skills framework will be adopted as part of the training plans to improve knowledge in a specialist area. In addition, CIPFA has incorporate Environmental, Social and Governance (ESG) issues as a consideration within TMP (Treasury Management Practice).

Arlingclose’s outlook for the remainder of 2022/23

	Current	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24	Mar-25	Jun-25	Sep-25
Official Bank Rate													
Upside risk	0.00	0.50	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Arlingclose Central Case	2.25	4.25	5.00	5.00	5.00	5.00	5.00	5.00	5.00	4.75	4.25	3.75	3.25
Downside risk	0.00	-1.00	-1.00	-0.75	-0.50	-0.50	-0.50	-0.75	-1.25	-1.50	-1.75	-1.75	-1.75

59. Arlingclose expects Bank Rate to rise further during 2022/23 to reach 5% by the end of the year. This forecast was prepared at the end of September and it should be noted that given the present uncertainty these figures are liable to change as the economic situation develops.
60. The MPC is particularly concerned about the demand implications of fiscal loosening, the tight labour market, sterling weakness and the willingness of firms to raise prices and wages. The MPC may therefore raise Bank Rate more quickly and to a higher level to dampen aggregate demand and reduce the risk of sustained higher inflation. Arlingclose now expects Bank Rate to peak at 5.0%, with 200bps of increases this calendar year. This action by the MPC will slow the economy, necessitating cuts in Bank Rate later in 2024.
61. Gilt yields will face further upward pressure in the short term due to lower confidence in UK fiscal policy, higher inflation expectations and asset sales by the BoE. Given the recent sharp rises in gilt yields, the risks are now broadly balanced to either side. Over the longer term, gilt yields are forecast to fall slightly over the forecast period.
62. Monetary policymakers are behind the curve having only raising rates by 50bps in September. This was before the “Mini-Budget”, poorly received by the markets, triggered a rout in gilts with a huge spike in yields and a further

fall in sterling. In a shift from recent trends, the focus now is perceived to be on supporting sterling whilst also focusing on subduing high inflation.

63. The government's blank cheque approach to energy price caps, combined with international energy markets priced in dollars, presents a fiscal mismatch that has contributed to significant decline in sterling and sharp rises in gilt yields which will feed through to consumers' loans and mortgages and business funding costs.
64. UK government policy has mitigated some of the expected rise in energy inflation for households and businesses flattening the peak for CPI, whilst extending the duration of elevated CPI. Continued currency weakness could add inflationary pressure.
65. The UK economy already appears to be in recession, with business activity and household spending falling. The short- to medium-term outlook for the UK economy is relatively bleak.

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**Hampshire
& Isle of Wight**
FIRE & RESCUE AUTHORITY

HIWFRA Full Authority

Purpose: Approval

Date: **6 DECEMBER 2022**

Title: **EMBEDDING NATIONAL GUIDANCE IN OPERATIONAL RESPONSE**

Report of Chief Fire Officer

SUMMARY

1. As a fire service, we must ensure the safety and effectiveness of our teams. We do this by assessing the theoretical risk from an incident we may attend and mitigating it in a reasonable and proportionate way (through procedures, policy, equipment, and training).
2. In assessing any risk, we look to approved codes of practice (ACOP) and apply them if they are appropriate to the role being carried out. We seek Fire Authority approval to update our processes to align with the current approved code of practice for our sector: National Operational Guidance (NOG) and embed within the Service. This will bring many benefits including to the organisation, our firefighters, the communities we serve, as well meeting the requirement of the Operational Preparedness Fire standard and HMICFRS expectations.
3. This report seeks HIWFRA commitment to fully embedding this code of practice across our organisation. It also seeks HIWFRA approval for funding from the Transformation Reserve to form a small team for two years to execute this approach. HIWFRA endorsement of the report's recommendations will enable us to best mitigate risks to firefighters and the public.

NATIONAL OPERATIONAL GUIDANCE AS AN APPROVED CODE OF PRACTICE

4. The Service has consistently sought to update its training and procedures with new and updated guidance to ensure that our risk assessments remain as current as possible. NOG is the most recent of these.
5. However, recently the expectations on a fire service to demonstrate how procedures are fully risk assessed against approved guidance has increased. The Operations Preparedness Standard says fire services **must** align to both strategic and tactical NOG. The public inquiries following on from the Grenfell Tower Fire (GTF) and Manchester Arena Attacks (MENA) have also highlighted the need for services to use approved codes of practice consistently to resolve complex incidents as effectively and safely as possible, and by taking this approach, adopting a defensible position.
6. This paper proposes that HIWFRS will align with the approved practice and guidance articulated within strategic and tactical NOG where it is appropriate to role and environment and embed it within the Service's training and procedures.
7. There are several ways that this can be embedded in our Service. We have looked at how neighbouring and similar FRSs have approached this to ensure that our approach is cost effective, efficient in use of our own resources and importantly, gives assurance of achieving a fully risk assessed position aligned to ACOP as pragmatically as we can.
8. Recognising that successful embedding of new guidance will require shifts in behaviour and a changed operational culture, we are approaching this as a holistic change opportunity with full alignment to our Change Management Framework.

ALIGNMENT WORK PROGRAMME

9. Previous sections give contemporary examples (GTF and MENA) on how any Service will be judged against how it has used current best practice to inform its operational procedures. Furthermore, our duties as an employer with the Health and Safety at Work Act (1974) and Management of Health and Safety Regulations (1999) require that we are assured of the safest of practices to those we are responsible for, our people, our partners, and the public. As stated previously, the ability to show compliance with approved codes of practice is achieved through the development of risk assessments looking at our operational activity from every angle, before and during the activity itself. Where we seek to deviate away from national guidance, we will have an evidence based, fully risk assessed position.

10. Therefore, we propose full alignment to NOG where it relates to our operating environment and where there is no need to seek alignment to another code of practice. Each of our current operational procedures will then need to be reviewed and either revised or withdrawn to reflect this new approach. For us to align with each of the 21 NOGs, we will need to produce a product pack comprising tactical guidance, a training package and an operational assurance mechanism to evidence learning from the incident ground.
11. The first and most important area to address are our operational procedures. To align with the NOG 'all hazard approach' methodology, our existing procedures will be superseded, in most cases by a combination of training packages and tactical guidance. A full suite of tactical guidance has been developed through the Network Fire Services Partnership, but this cannot currently be utilised until commanders have been trained on all the elements within them.
12. We will also need to ensure that our incident commanders are trained and assessed in these new terms. Most of the current range of skills taught and assessed in the Maintenance of Competency (MOC) framework will still be appropriate. However, our methods of training and assessment will require updating to reflect the hierarchy system of NOG as control measures may span across multiple hazard areas.
13. Currently training is divided up in to two main areas: training to a "script" and technical skills. These technical skills will still be fit for purpose as a skills gap analysis has been carried out. However, the training material and the MOC for the new hazard recognition approach will need to be adapted, otherwise we cannot be certain that our incident commanders have been trained and assessed to recognise and apply safe schemes of work to all the hazards that are detailed within this ACOP.
14. All relevant training packages must be updated alongside revised procedures (comprising tactical guidance and operational procedures). The Service already has resources in place to review procedures and guidance, create and facilitate the assurance mechanism and within L&D to train incident commanders. The outstanding gap is appropriately trained and skilled resource to produce the necessary training packages. Under the proposed approach and team structure, we anticipate that the programme of work to align will take two years. A description of how this work will be completed is outlined in Appendix A. Areas of least compliance and greatest organisational risk were used to identify this programme of work. For example, timber frame buildings has been prioritised as we had low

alignment and were subject to a National Operational Learning notice which we were required to comply with.

15. The work will take place across the organisation, principally within People and Organisational Development (POD) and Policy, Planning and Assurance (PPA), therefore the Directors accountable for the progression of this work will be the Deputy Chief Fire Officer and Director POD.

SUPPORTING OUR SAFETY PLAN AND PRIORITIES

16. Fully embedding a risk assessed and evidence-based approach to operational response underpins our Safety Plan and our ability to make Hampshire and the Isle of Wight safer. The outcome of which are safer communities, equipped employees, a high performing organisation that continually seeks to improve.
17. This report pays due regards to the responsibilities placed on the Fire Authority and delegated authority to the Chief Fire Officer by the Fire and Rescue National Framework for England.

CONSULTATION

18. Consultation has taken place between colleagues within POD and PPA as well as across the Executive Group. The detailed overview of the alignment process above shows how consultation with other FRSs, subject matter experts and Representative Bodies is a pre-requisite for launch of each product.
19. Representative bodies have previously been engaged through Brown Book conditions on both the risk assessments and the development of tactical guidance. We will look to continue this engagement, co-producing material wherever possible. This will be done through their designated Health and Safety representatives.

COLLABORATION

20. Where collaborative partnerships can assist with swift progress to achieving alignment with NOG they will be used. However, where approaches to NOG of other FRSs we routinely partner with are significantly different and will not aid our advance, we will operate alone. The suite of tactical guidance has been produced through the Network Fire Services Partnership.

RESOURCE IMPLICATIONS

21. A number of posts are already funded to carry out this work, this includes aligning policy and procedures, providing training and overseeing operational assurance. However, we need a small team to produce the specific training material. This team needs to have expertise in specific NOGs, as well as operational expertise, to produce relevant training packages, supported by developers to design and create the material. We propose a team of seven (1 x Station Manager, 2 x Watch Managers, 2 x Crew Managers and 2 x F Grade developers. The annual cost is £350,000 (not including any pay awards). We believe the project will take two years to complete. The team requires operational expertise, so it needs to be made up of pre-dominantly Grey book staff. Furthermore, the rank structure is not for management purposes but to provide appropriate operational experience.
22. Any support this team needs (e.g. that of subject matter experts) will be absorbed within additional capacity. We seek £50,000 to fund contingencies to ensure the successful implementation of the project, including making the necessary changes to our electronic training records.
23. We therefore seek Fire Authority approval for the funding: a maximum of £750,000. This will fund the team for two years up until winter 2024. It is proposed the funding is provided by the Transformation Reserve. It is proposed that the funding is released in stages following updates to the Executive Group about the progress of the NOG work. We will also keep the Fire Authority informed of progress.
24. On completion of this programme, some ongoing maintenance will be needed, as well as responding to any future changes to NOG products. We anticipate that this will become business as usual activity and absorbed into an existing base post.
25. Depending on the success of this work, we may be able to sell these products to other services. This is something which we will explore and will pursue opportunities should they arise.

IMPACT ASSESSMENTSS

26. We will complete the required impact assessments during the implementation of every NOG product. This will be done in concert with Subject Matter Leads (SML) where required.

LEGAL IMPLICATIONS

27. The legal implications are clear. HIWFRS must advance to a position of full alignment with National Operational Guidance as an Approved Code of Practice to be carrying out its duties as an Employer with due regard to the authority delegated to the Chief Fire Officer from the Fire Authority.

BENEFITS

28. Benefits of aligning with approved codes of practice are:
- (a) **Organisation** – alignment to Fire Standards, a defensible position under scrutiny, uniformity and consistency of approach, mitigation of financial, legal and health and safety risks.
 - (b) **Community Outcomes** – safer communities that are better served by a competent and organised operational response.
 - (c) **Firefighters** – safer firefighters, outstanding decision makers and risk assessors. The all-hazard approach will enable incident commanders to identify hazards, the context they find them in and apply appropriate control measures they have available. This is a significant change in culture, however, aligns with risk management and NOG best practice, which will put them in a far safer position should they be required to justify their decisions.
 - (d) **Internal and External Standards** – assurance to HMICFRS of FRS ability to be effective and look after its people, assurance to Health and Safety Executive of safe and compliant activity, internal assurance and decreased organisational risks.

OPTIONS

29. As outlined above, we need to update our approach to reflect the sector's current ACOP and so options are limited. We have discussed with other Services how they have adopted NOG and whether there is scope for any collaboration. With the need to produce bespoke training material to reflect the specific circumstances of our Service, we are content that the approach outlined in this paper is the most effective and efficient one to fully align HIWFRS with NOG.

RISK ANALYSIS

30. The Service must ensure the safety and effectiveness of our teams. We do this by assessing the theoretical risk from an incident we may attend and

mitigating it in a reasonable and proportionate way through procedures, policy, equipment, and training, reaching the outcome of the safe person concept. In assessing any risk, we look to approved codes of practice (ACOP) and apply them if they are appropriate to the role being carried out.

31. By aligning our procedures to the ACOP of National Operational Guidance the Service will be demonstrating its commitment to firefighter and public safety. To move to an organisational position where every operational procedure is underpinned by an ACOP, resource is needed to be invested.
32. In addition, by using national guidance as an ACOP, there will be consistency in standards across FRS. Where we consciously decide not to align with this practice, it may create problems in relation to effectiveness and/or efficiency with the approach used by other Services. All previous national guidance (DCOLs (“Dear Chief Officer Letter”, technical bulletins, manuals & generic risk assessments) has now been withdrawn. Therefore, failure to align to NOG as a ACOP poses a health and safety risk as well as a litigation one.
33. Should this funding not be approved to bring us to a safer organisational position, it could expose the organisation and individuals to increased risk of harm, and/or liability, as well as be reputational damaging to the Service and Fire Authority. We can also reasonably expect HMICFRS to negatively report on our progress to date.

EVALUATION

34. As new and updated procedure is embedded within the Service because of alignment with national guidance or approved codes of practice, review and evaluation will be a key component of assurance.

CONCLUSION

35. This paper lists the many benefits from fully aligning the Service with the current sector’s ACOP. The Fire Authority is asked to endorse the approach in this paper and put on public record our commitment to fully align ourselves with National Operational Guidance.

RECOMMENDATION

36. That the approach outlined in this paper, namely that the Service fully aligns itself with National Operational Guidance, and that up to £750,000

from the Transformation Reserve be provided for this work, be approved by the HIWFRA Full Authority.

Contact: Shantha Dickinson, Deputy Chief Fire Officer,
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Appendix A: Proposed implementation process

APPENDIX A: PROPOSED IMPLEMENTATION PROCESS

- i. Conduct risk assessment of each Hazard (co-produce with representative bodies in line with the Brown Book wherever possible). On a NOG-by-NOG basis, review the Network Fire Services Partnership's (NFSP) documentation that records if the hazard exists within HIWFRS. If yes, Strategic and Tactical NOG actions are applicable (if not, exemption statement required)
- ii. Through a gap analysis, identify the areas of non-compliance. Activity will need be prioritised in areas with greatest organisational risk and timeline of work produced and agreed
- iii. Consider whether there is a suitable Operational Procedure or Tactical Guidance already produced by the NFSP collaboration which we could use.
- iv. Develop training package content. Cross reference package with NOG to ensure alignment. Liaise with Subject Matter Lead(s) (as well as other parts of the Service) to produce package, and capture HIWFRS organisational learning and best practice throughout
- v. Consult with others (e.g. stakeholder groups and representative bodies) where required, with established escalation routes
- vi. Produce necessary e-learning package and associated materials
- vii. Discuss and confirm with Learning and Development the required assessment type and frequency (this may require changes to the Maintenance of Competence scheme)
- viii. Seek sign off of product through agreed HIWFRS governance route. Discussion and output to be recorded
- ix. Once package is ready for launch, engage with NFSP partners to ensure that teams are aware of potential impacts from launch
- x. In conjunction with stakeholder group, launch product pack
- xi. Review and evaluate
- xii. Ongoing maintenance to ensure any future changes to national products are identified and appropriate changes implemented locally

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**Hampshire
& Isle of Wight**
FIRE & RESCUE AUTHORITY

HIWFRA Full Authority

Purpose: Approval

Date: 6 DECEMBER 2022

Title: **CARBON REDUCTION PATHWAY UPDATE**

Report of Chief Fire Officer

SUMMARY

1. This report provides an update to activities undertaken as part of the Fire Authority's Carbon Reduction Pathway.
2. The Authority has set a target to reach net zero carbon emissions by 2050 which will require sustained investment to reduce our organisational impact on the environment. This is driven by several factors: the Government Climate Change Act; the increase in energy prices; and a need to reduce the future consequences of inaction, since the Service acts as a first responder to events such as flooding and storms, both impacted by changes in climate.
3. This report seeks approval to establish continued funding for the Carbon Reduction Pathway, primarily focused on efficiency upgrades to buildings over a five-year period. The report seeks funding to be allocated at £500,000 per year for five years. This investment is forecast to realise an annual (at year 5) £125,000 reduction in utility costs (based on current unit pricing) with an average 18-year return on investment (ROI).

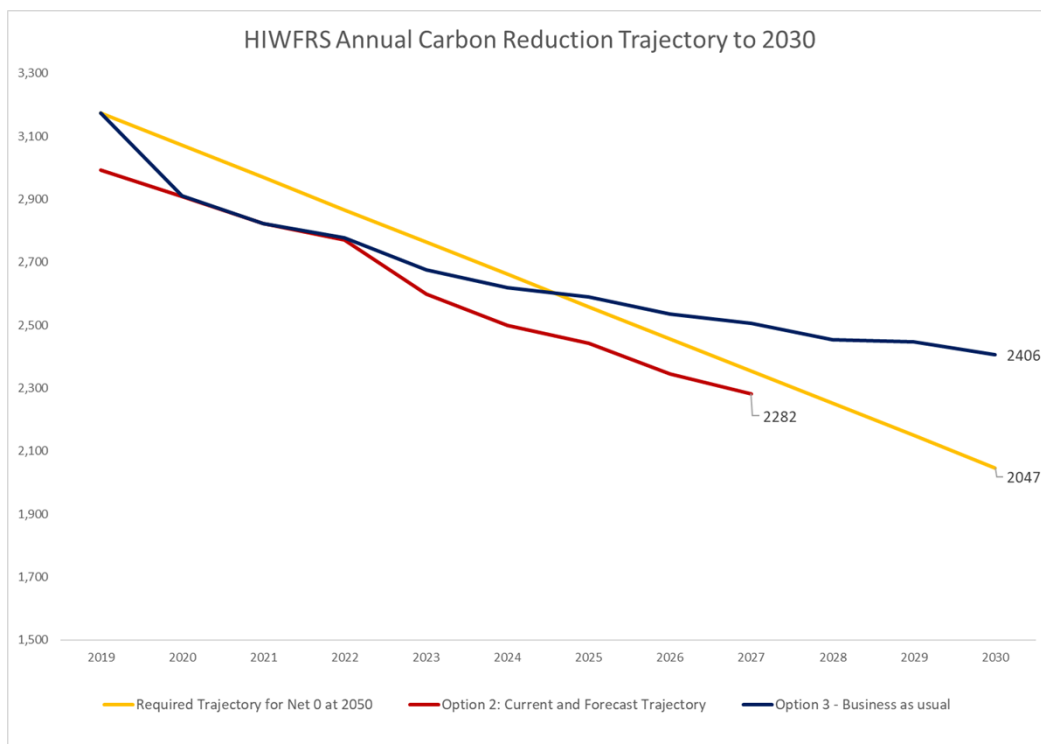
BACKGROUND

4. Hampshire & Isle of Wight Fire & Rescue Service (HIWFRS) takes a proactive approach to reducing our environmental impact and following a successful project to install Solar PV across 16 sites in 2012 which achieved a 30% reduction in carbon emissions, the Property & Facilities team engaged with the Carbon Trust to assess our baseline 2019/20 carbon footprint (Appendix A).
5. In 2021 the Fire Authority approved the Carbon Reduction Pathway, setting the target of HIWFRS reaching Net Zero Carbon Emissions by 2050 to align

with the UK National Target of being Net Zero by 2050. This paper included £1.1m of funding; to install an infrastructure of electric vehicle charging points across the estate and to assess the building estate for a long-term programme of works to improve the building fabric and heating systems.

WHERE WE ARE NOW

6. HIWFRS Carbon Footprint has been calculated from the 2021/22 figures as **2,823 tCO₂e**. This is an 11% reduction from our baseline of 2019/20. Should the Fire Authority approve the recommendation of this report, the carbon footprint is projected to continue to reduce to a total of 28% when compared to the 2019/20 baseline year, maintaining the trajectory towards net zero in 2050.



7. The assessment of our carbon footprint includes the direct emissions from the combustion of gas, vehicle fuel, and other fossil fuels and purchased electricity, heat or steam. Emissions that were prevented from solar PV electricity generation for example, is shown separately as avoided emissions. These are referred to as 'Scope 1 and 2' in the 2021/22 Carbon Footprint at Appendix A.
8. A project was undertaken to install electric vehicle charging points across 60% of stations. Fleet Management Services have started to replace light fleet vehicles with electric or hybrid options as older vehicles reach the end of their working life, with three fully electric vans commissioned and a further 28 vehicles expected for commissioning during the 2022/23 financial year.

9. Estate wide energy condition reports were conducted from July 2022, covering all structural, mechanical, and electrical systems, with an additional in-depth focus on energy and carbon reduction requirements. From these surveys the proposed programmes of carbon reduction works were identified.
10. Recent approval by the Fire Authority of the Asset Management Policy will also support the sustainable management of our estate, vehicles and equipment going forward.
11. If action is not sustained to maintain a strong trajectory of carbon reduction, the opportunity to steadily reduce the carbon footprint of HIWFRS will be increasingly difficult to recoup from and will require a much larger financial investment later. Based on the current trajectory, without proactive improvements being made, in 2024/25 HIWFRS will fail to meet Net Zero by 2050.

PROPOSED NEXT PHASE

12. The carbon emissions from the energy use of our buildings are currently 60% of our total carbon footprint. Our estate is large and ageing, with 62 sites across Hampshire and the Isle of Wight, the majority of which were built post-war. The recommended Option 2 seeks approval to complete three major projects over a five-year period:
 - (a) Upgrade all appropriate lighting on the estate to LED.
 - (b) Install solar photovoltaic and battery systems across retained stations.
 - (c) Improve the heating controls and zone all appliance bays from the main stations, allowing a lower temperature in the appliance bay.
13. Currently programmed into the business-as-usual long-term revenue maintenance plan, the following works will be considered through existing funding:
 - (a) Increase roof insulation as roof repair projects are undertaken.
 - (b) Upgrade remaining single glazing to double glazing.
 - (c) Aim to replace all wooden, steel concertina and single glazed appliance bay doors with insulated bi-folding doors.

SUPPORTING OUR SAFETY PLAN AND PRIORITIES

14. ***Our Communities:*** *We work together to understand different community needs and deliver accessible, local services which build safer places.*

- (a) This proposal will better support our communities by improving the long-term resilience of HIWFRS as an organisation, while reducing our contribution to climate change.
- 15. ***Our People:*** *We look after each other by creating great places to work and promoting the health, well-being, and safety of our people.*
 - (a) The improvements to the estate will create better and healthier working environments for colleagues.
- 16. ***Public Value:*** *We plan over the longer-term to ensure our decisions and actions deliver efficient and effective public services.*
 - (a) Without investment in the present, the trajectory to reach net zero by 2050 will become increasingly difficult to reach and will require much higher levels on investment to obtain.
 - (b) During the current instability in the utility market and the subsequent increases in cost, the increase in self-generation and focus on reducing energy consumption will provide public value and free up funding for operational activities, while also reducing reliance on more expensive purchased utilities.
- 17. ***Learning and Improving:*** *We have the support of policy and guidance with the freedom to use our discretion to do the right thing, learning from ourselves and others.*
 - (a) Certified IEMA energy management training was delivered to relevant members of the Property & Facilities team to ensure that the team is confident and skilled in the management and delivery of the Carbon Reduction Pathway going forward.
 - (b) PRINCE2 project management training has been provided for the Carbon Reduction Project Officer.

CONSULTATION

- 18. An external consultation was undertaken from August 2020 to February 2021 with The Carbon Trust. This established a baseline of our 2019/20 carbon footprint and identified opportunities for carbon reduction going forward.
- 19. The Carbon Trust is a company set up by the UK Government to accelerate the UK's move to a low carbon economy, providing expert advice to help organisations cut their carbon emissions.

COLLABORATION

20. The Office of Police Crime Commissioner (OPCC) is a partner agency that leases space on multiple HIWFRS sites. Quarterly meetings are held with the OPCC, Hampshire Constabulary and Hampshire County Council to collaborate on Energy initiatives and to ensure a collaborative approach across shared sites.
21. The NFCC has an active group of members, including representatives from HIWFRS, focused specifically on Climate, Sustainability, and the Environment. This group ensures a cross functional collaborative approach is taken and has developed a National Sustainability Charter (Appendix B) to support members work towards a common goal, embed sustainability within each organisation and achieve national and international sustainability objectives. It is the recommendation of this paper that HIWFRS commit to this charter.

RESOURCE IMPLICATIONS

22. This report seeks approval for £500k per year for five years' funding to be allocated for the period up until the 2027/28 financial year. This consists of upgrading appropriate lighting to LED, installing solar photovoltaic arrays and battery systems across retained stations and improving heating controls and zoning all appliance bays from the main stations.
23. The required £2.5m over five years will be funded through prudential borrowing and aligned to the capital reprofile in the Estates Capital Programme paper and the overall affordability of the capital programme and ongoing associated revenue budget implications as set out in the budget update report.
24. It is expected that this programme can be managed within the current team for delivery. If the time frame is shortened, additional resource may be required.

IMPACT ASSESSMENTS

25. Full stage one and stage two impact assessments have been completed, and the areas impacted were largely as expected, around environmental and property factors.
26. The environmental impact assessment primarily shows a positive impact on the environment, by reducing HIWFRS's contribution to climate change through reduced utility consumption and reduced carbon emissions.
27. The projects to improve the estate may cause a temporary disturbance for building users, as with normal construction works however this will be offset by the long-term benefits to the environment.

LEGAL IMPLICATIONS

28. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 legislation was amended in June 2019 to ensure the net UK carbon account for 2050 is reduced to at least 100% lower than the 1990 baseline, which is net zero.
29. The UK Government has recently stated their intention to create an interim target of a 78% reduction of carbon emissions from the 1990 baseline by 2035, however this is not currently a legislative target. Any changes to the current legislation will be closely monitored for potential impact on this Pathway.
30. The UK Government has also brought forward the date from 2040 to 2030 to introduce a ban on sales of new fossil fuel cars and vans and new hybrid cars and vans banned from sale from 2035.

OPTIONS

31. In drawing the recommendation within this report, several options were explored, these are summarised as below:

- (a) **Option 1: Immediate high-level investment in Carbon Reduction Estate Improvements:** The Carbon Reduction Pathway Estates Improvement programme would implement a five-year programme of works between 2023/24 and 2027/28 requiring £8m of funding to deliver these carbon savings. This would be an accelerated programme towards carbon reduction and a clear pathway leading to 2030.

This option would be to fund estate wide Solar PV and battery storage, LED lighting, double glazing, increased insulation across the estate and upgrading of appliance bay doors, heat zoning and the conversion of sites using heating oil to electric heating. This option would also include the immediate replacement of 60 additional vehicles reaching the end of their working life in the next 3 years, in advance of the normal capital replacement programme, whilst maintaining their current rate of replacing fossil fuel cars at 10 electric vehicles and 20 hybrids per year.

On this trajectory, HIWFRS could reduce emissions by a further 324 tCO₂e, reaching a total of 32% reduction in emissions compared to the 19/20 baseline. This option will save approximately £150,000 annually through reduced utility costs (based on current cost of energy).

- (b) **Option 2: Immediate scaled investment for Carbon Reduction Estate Improvement (Recommended Option)** – Option 2 would

consist of estate wide funding over a period of five years, provided for the conversion of lighting to LED and the installation of additional Solar PV and solar battery storage, and heat zoning. This provides a benefit to the service by increasing the self-generation of electricity and reducing the electrical demand during a prolonged period of an unstable utility market. Option 2 would also allow for the use of our internal building maintenance technicians to replace lighting with LED as it reaches end of life, reducing project costs.

This option assumes that Fleet Management maintains their current rate of replacing fossil fuel cars at approximately 10 electric vehicles and 20 hybrids per year, based on the three-year capital programme.

Option 2 would reduce annual carbon emissions by 165 tCO₂e (28% reduction overall, compared to the 2019/20 baseline) and would reduce annual utility costs by approximately 940,000kwh and £125,000 annually through reduced utility costs (based on current cost of energy). The ROI for this option is an average 18 years. However, this option includes only the projects with the best payback periods and therefore could delay the start of more difficult and costly projects that have longer payback periods but are required to continue to reduce the carbon footprint and reduce environmental risk.

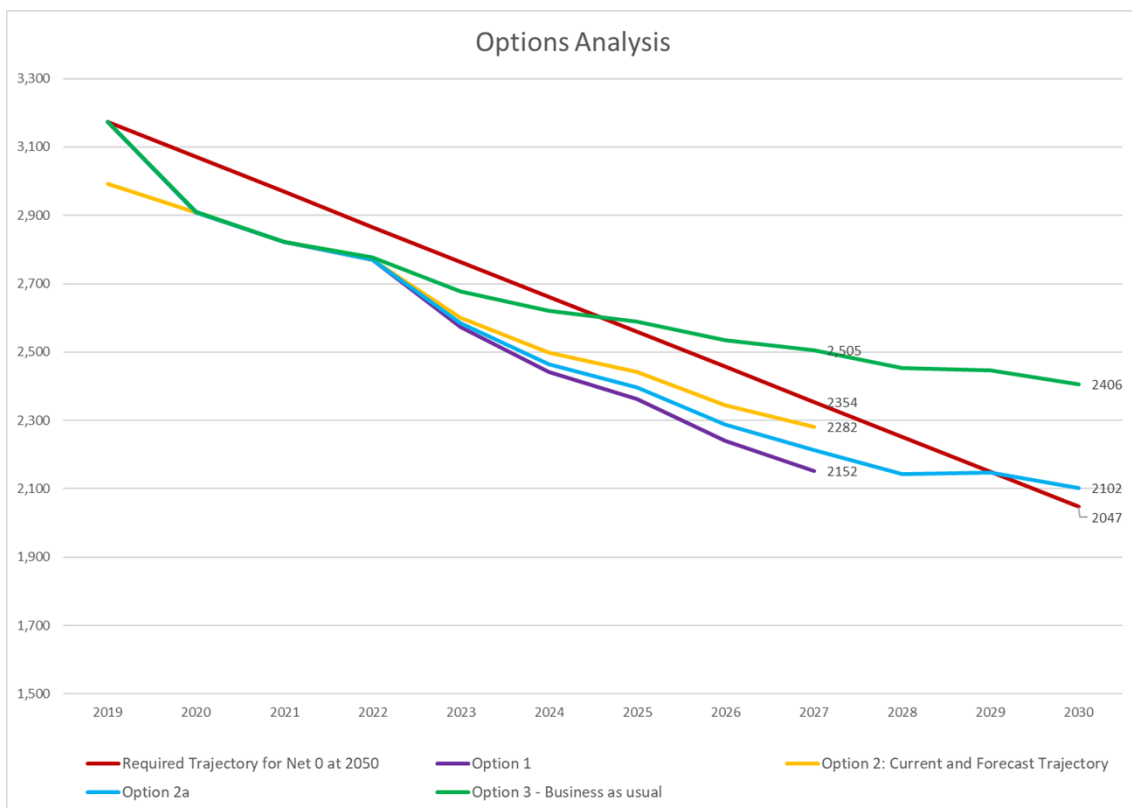
- (c) **Option 2a: Sustained investment for Carbon Reduction Estate Improvement.** Option 2a would consist of estate wide funding provided for the conversion of lighting to LED and the installation of Solar PV and solar battery storage across the retained estate, alongside other estates improvements such as insulation and double glazing, with £650,000 per year funding over a longer period of eight years, to reach the interim 2030 target. This provides a benefit to the service by increasing the self-generation of electricity and reducing the electrical demand during a prolonged period of an unstable utility market.

This option assumes that Fleet Management maintains their current rate of replacing fossil fuel cars at approximately 10 electric vehicles and 20 hybrids per year, based on the three-year capital programme.

Option 2a would reduce annual carbon emissions by a further 239 tCO₂e and £150,000 annually through reduced utility costs (based on current cost of energy). The ROI for this option is an average of 26 years, however, this option includes the estates projects with acceptable payback periods. This may delay the start of more difficult and costly projects that are in Option 1, that have poor payback periods but are required to continue to reduce the carbon footprint and reduce environmental risk.

- (d) **Option 3: Business as usual (BAU) Investment** – This option would see no long-term Carbon Reduction Pathway estate improvement programme. Some estate improvement could be done through routine maintenance works (BAU), but due to the size of the estate and budgetary constraints, this would be limited.

There would be some reduction in carbon emissions due to the national grid's increase in renewably generated electricity, and from the gradual electrification of the light vehicle fleet. However, on our current trajectory, by 2030, by the 2024/25 financial year, we will be emitting over the UK National Target trajectory each year and HIWFRS will find it increasingly difficult to realign with the UK National Target of net zero by 2050, with the risk of punitive measures from the government and reputational damage.



Project Type	Option 1 32% reduction from baseline over 5 yrs			Option 2 28% reduction from baseline over 5 yrs			Option 2a 34% reduction from baseline to 2030			Option 3 24% reduction from baseline to 2030		
	Annual tCO2e	ROI (yrs)	Estimated Annual Saving (£)	Annual tCO2e	ROI (yrs)	Estimated Annual Saving (£)	Annual tCO2e	ROI (yrs)	Estimated Annual £ saving	Annual tCO2e	ROI (yrs)	Estimated Annual Saving (£)
Replace all appropriate lights with LED lights across the estate, where required.	12	11	£17,000	12	11	£17,000	12	11	£17,000			
Upgrade the final 8 sites to new double glazing	3	295	£1,000				3	295	£1,000	3	653	£500
Increase the level of building insulation across the estate	71	51	£27,000				71	51	£27,000	9	62	£2,500
Upgrade steel, timber and single glazed Appliance bay doors to insulated bi-folding doors at 14 retained stations	26	208	£8,500							26	208	£8,500
Install Solar PV & Battery Storage across appropriate retained stations	53	11	£72,000	53	11	£72,000	53	11	£72,000			
Improve the Heating Controls and zone the appliance bay so it can be kept at a lower temperature across all appropriate stations	100	38	£36,000	100	38	£36,000	100	38	£36,000	18	34	£7,500
Convert the 4 retained stations currently using Heating oil to Electric Heating	4	n/a	-£10,000									
Purchase of extra EV Vehicles ahead of reaching their end of working life	55	n/a	n/a									
Total	324	50	£151,500	164.85	18.68	£125,000	239	36	£153,000	56.00	150.00	£19,000

RISK ANALYSIS

32. The UK National Target is already a challenging goal, any delay or break in momentum will make it extremely difficult for the Authority to realign with this target.
33. There is a large risk around the instability of the utilities market caused by multiple external shocks to the industry, being felt in spiralling utility costs. Predictions on ROIs and annual cost savings should therefore be taken with this in mind and may vary depending on when and at what level the market stabilises.
34. Inflation is in a period of instability due to supply chain issues after leaving the EU and while 3% inflation has been incorporated into the calculations, there is a risk that inflation will continue to increase further and therefore lead to higher costs, restricting the scope of this work.
35. A centrally held allowance for inflationary increases over 3% is proposed to be established as part of the budget report.

EVALUATION

36. The Carbon Reduction Pathway will be evaluated through continued monitoring of our annual carbon footprint to evaluate the HIWFRS current position in relation to the UK National Target trajectory of carbon emission reduction, based on the methodology used by the Carbon Trust.
37. An annual project progress report will be submitted for review.

CONCLUSION

38. Hampshire and the Isle of Wight Fire & Rescue Authority have set a target to be carbon neutral by 2050, in alignment with the UK National Government targets for public sector organisations.
39. To meet this, there is a need, following the estate wide condition surveys, for sustained investment in the building estate.

RECOMMENDATION

40. That, subject to approval of funding, Hampshire and Isle of Wight Fire and Rescue Authority approves the programme of works set out in **Option 2** to improve thermal efficiency of buildings and renewable energy generation over the next five years at a cost of £500,000 per year.
41. That Hampshire and Isle of Wight Fire and Rescue Authority approve the adoption of the National Sustainability Charter (Appendix B) as part of the Carbon Reduction Pathway objectives.

APPENDICES ATTACHED

42. 2021/22 Carbon Footprint Summary Document – Appendix A
43. The National Fire Chief's Council Emergency Services' Environment and Sustainability Group Charter – Appendix B

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Hampshire & Isle of Wight Fire & Rescue Service

Carbon Reduction Strategy Planning

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May 17, 2021

Version 4



**Hampshire
& Isle of Wight**
FIRE & RESCUE SERVICE



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Background and Context



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Science-based Targets



Carbon Reduction Opportunities

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Background and Context

Growing acknowledgement of the latest science and recommendations from the Committee on Climate Change has resulted in unprecedented recognition of the global climate emergency, and **the need to act urgently in order to reduce carbon emissions and the environmental, economic, and social impacts of climate change**. In 2019, the UK Government set a target of achieving net zero emissions by 2050. Since this time Hampshire and the Isle of Wight have declared climate emergencies. The Hampshire and Isle of Wight Fire and Rescue Service (HIWFRS) have been working over a number of years to measure and reduce their carbon emissions. Fire and Rescue services are likely to be impacted differently than many organisations with respect to climate change because they are first responders to the consequences of extreme weather events. In the UK climate change is expected to bring more extremes: longer dry periods and more intense rainfall. When these conditions lead to fires or floods, fire and rescue services will respond. In this sense the carbon emissions reduced by the Hampshire and Isle of Wight Fire and Rescue Service not only contribute to wider UK and International targets, but are also beneficial for the communities they serve, and their own operational reality.

This report aims to build on the previous work of the fire and rescue service and to support the development a bold new carbon reduction strategy. To do this, the report analyses the **footprint of the fire and rescue service**, discusses different **science based target options**, and **identifies potential emissions reduction projects** focusing on ten sites across the estate as well as the vehicle fleet.

Hampshire and Isle of Wight Fire and Rescue Service (HIWFRS) is the statutory fire and rescue service for the county of Hampshire and the Isle of Wight. The service currently operates from 1 Corporate Service Headquarters (SHQ) and 61 Operational Sites (15 Whole Time and 46 Retained/On-Call). Associated annual building energy costs for the estate are in excess of £517,000. Additional direct emissions are also assumed to originate from the vehicle fleet which is made up of approximately 400 vehicles.

Footprint

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Carbon Footprint Methodology

This chapter provides an inventory of greenhouse gas emissions for the Hampshire and the Isle of Wight Fire and Rescue service (HIWFRS) for the financial year 2019/20. This inventory, or footprint, is the 'baseline' against which future progress will be evaluated.

Methodology

This footprint has been calculated according to the [Greenhouse Gas \(GHG\) Protocol](#), the most widely used and accepted methodology for greenhouse gas accounting. The GHG Protocol classifies emission as either scope 1, 2, or 3 (figure 1). This chapter presents the scope 1 and 2 footprint for the HIWFRS. In the case of the fire and rescue service, a scope 1 and 2 footprint focuses on the emissions produced by fuel and electricity used in buildings and vehicles. Wood burnt for training exercises is also included but makes a very small contribution to total emissions (0.1%).

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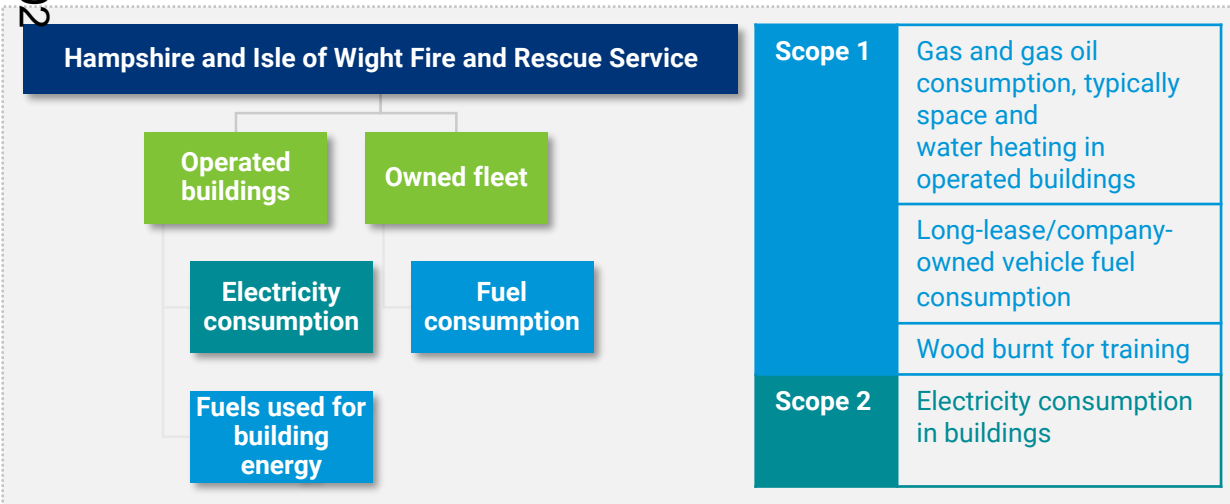
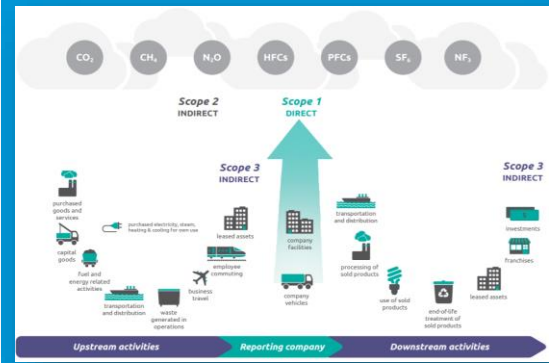


Figure 1: The GHG Protocol emissions classification



- **Scope 1:** Direct emissions from combustion of gas and other fuels.
- **Scope 2:** Emissions resulting from purchased electricity, heat, or steam.
- **Scope 3:** Emissions made by third parties in connection with operational activities.

How Carbon Footprints are Calculated

Calculating a carbon footprint

A carbon footprint is calculated by multiplying **activity data** (e.g. litres of vehicle fuel, kWh of electricity/gas) by an associated **emissions factor**.

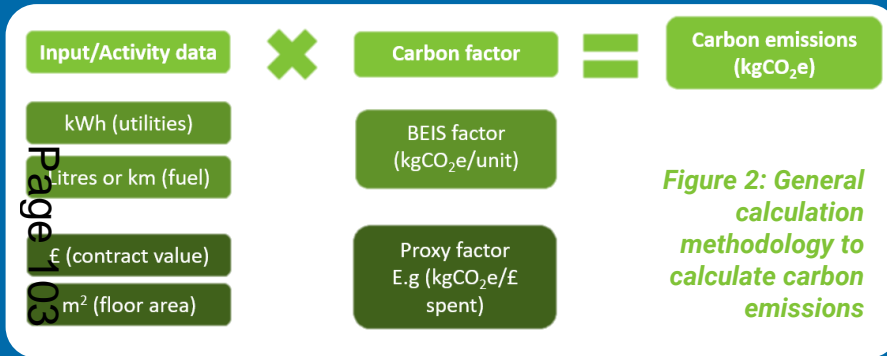


Figure 2: General calculation methodology to calculate carbon emissions

What does CO₂e mean?

Carbon dioxide (CO₂) is the most well known of all of the greenhouse gases. There are six other commonly reported GHGs, which can be seen in figure 1 on the previous page. In footprinting carbon dioxide equivalent (CO₂e) is used in order to express the impact of the other gases in terms of the amount of CO₂ that would create the same amount of warming.

Data availability and the use of benchmarks

Where possible, real activity data should be collected throughout the reporting period for use in the footprint calculation.

- Emission factors are updated annually and published by the UK Government's department for Business, Energy and Industrial Strategy (BEIS).

If activity data is not available, various **benchmarks and proxies** can be used:

- Benchmarks can be used to approximate activity data. For example, typical electricity consumption per m² of a building.
- When input data is scarce, proxy factors can be used in place of the BEIS factors to approximate emissions from the available input data (e.g. contract value).

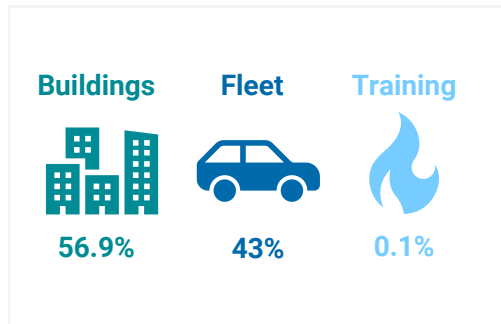
HIWFRS have provided real activity data for all activities for the 19/20 financial year (FY) with the exception of two areas. 1) For gas oil consumption the data on the litres purchased was only available for the 18/19 FY. As such, a 7.1% consumption decrease was applied to gas oil to align it with the estate's gas consumption change between the 18/19 FY and the 19/20 FY and is assumed to take into account differences in weather and heating demand between years. 2) The fuel-use data for 55 vehicles in the Isle of Wight region was not available. To estimate the fuel use and emissions, the average litres/vehicle type from the mainland regions was applied to the 55 Isle of Wight vehicles.

Hampshire & Isle of Wight Fire and Rescue Service FY 19/20 Footprint

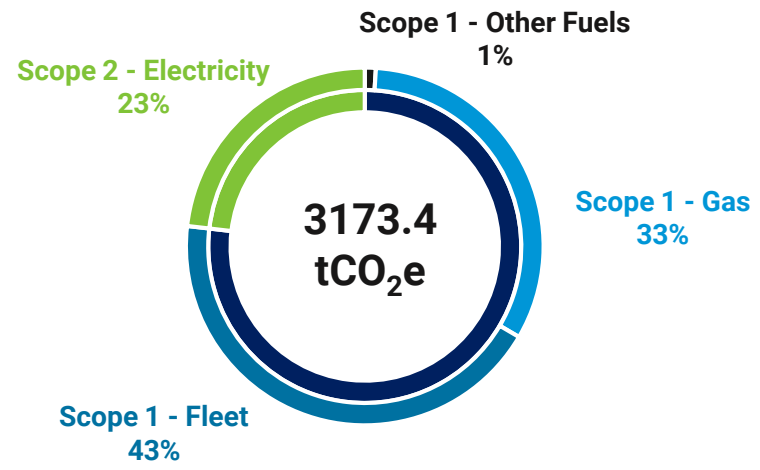
The HIWFRS footprint for the 2019-2020 FY was 2,992.3 tCO₂e.

- **Scope 1 vs. Scope 2 emissions:** 77% of the footprint are scope 1 emissions from fleet and building fuel consumption. Scope 2 emissions account for the remaining 23% from building electricity use.
- **Emissions by activity:** Approximately 60% of the footprint emissions are from electricity and heat use in buildings. Fleet fuel consumption is responsible for 43% of emissions. 0.1% of emissions occurred when wood was burnt for training.

Avoided Emissions: 142.8 tCO₂e were avoided through renewable energy generation from solar PV.



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Scope	Emission source	tCO ₂ e
1	Natural gas	1,029.9
1	Other fuels	31.6
1	Fleet	1,376.8
2	Electricity	735.2
Total Emissions		3173.4
<i>Avoided emissions (Solar PV)</i>		<i>-143.8</i>

Footprint in Detail: Fire & Rescue Stations

The next pages in this chapter explore the ~57% of greenhouse gas (GHG) emissions that come from the energy used by the 61 fire and rescue stations and 1 corporate Services Headquarters in the Hampshire and Isle of Wight estate.

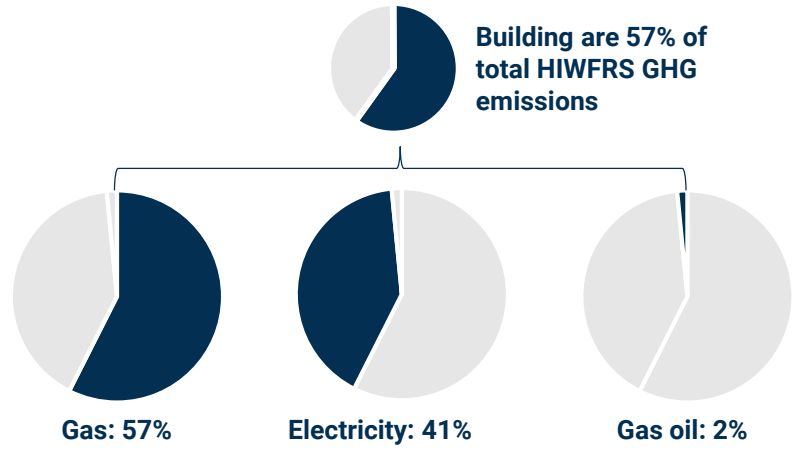


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By fuel, gas consumption creates the majority (57%) of building GHG emissions. 75% of the most GHG emission intensive buildings are also the highest fossil fuel intensive buildings.

Building emissions by source



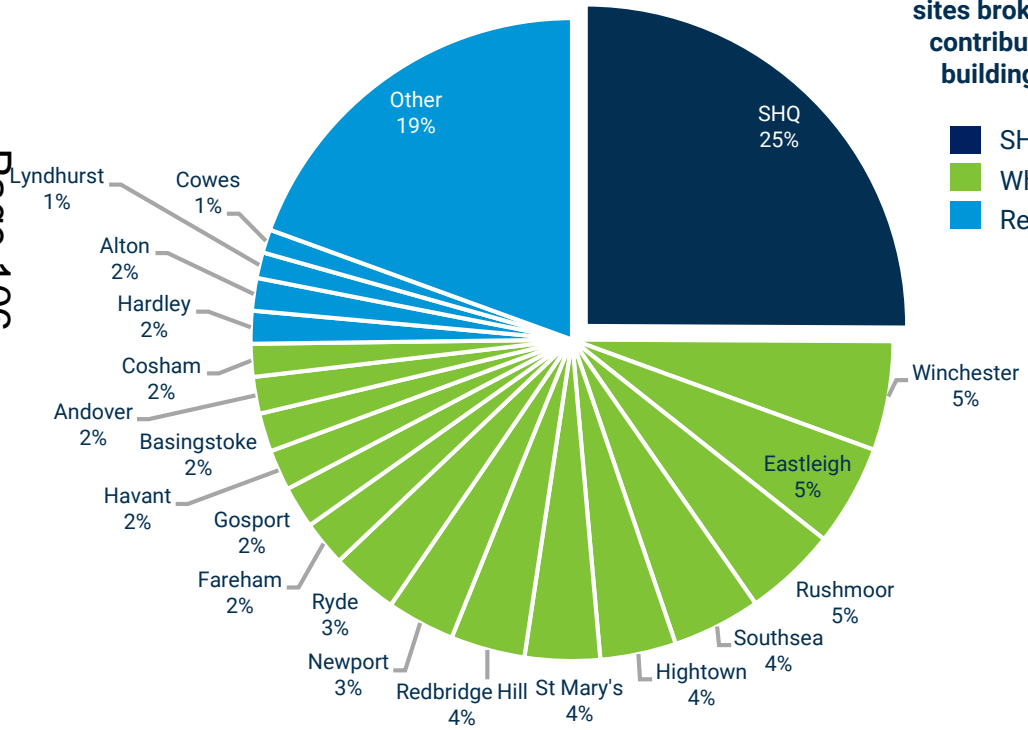
*Where sites have partners operating, emissions for all parties are included.

Footprint in Detail: Fire & Rescue Stations

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20 Highest Emission sites broken down by contribution to total building emissions

- SHQ
- Wholetime
- Retained



*Where sites have partners operating, emissions for all parties are included.

Footprint in Detail: Fire & Rescue Stations

Comparing HIWFRS building performance with other fire and rescue services

The chartered institute of building service engineers (CIBSE) have produced benchmarks in terms of energy consumption per floor area (kWh/m²/year) for buildings of different uses. The benchmarks are based on the display energy certificates (DEC) from 259 fire and rescue stations. Comparing HIWFRS against these benchmarks gives a sense of how the service compares relative to other services.

CIBSE typical and good benchmarks

kWh/m ² /year	Historic (2013)		Current (2019)	
	Good	Typical	Good	Typical
Gas	385	540	171	223
Electric	55	80	55	69

This table shows the most recent benchmarks available as well as historic benchmarks.

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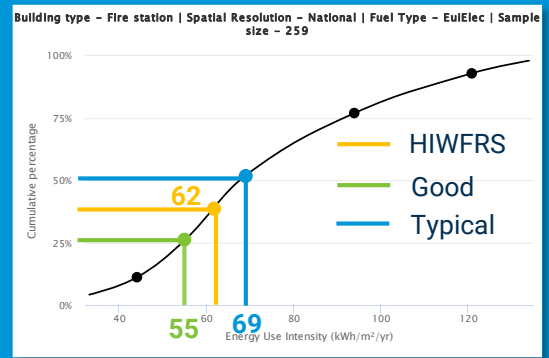
HIWFRS building performance

HIWFRS performs better than the typical fire and rescue station with respect to electricity consumption but narrowly misses the top 25% of "good" performing buildings.

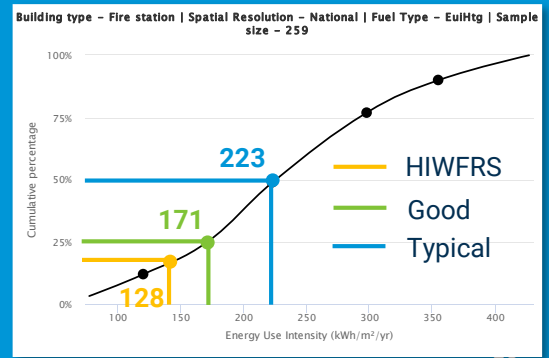
HIWFRS is in the top 20% of best performing sites with respect to fossil fuel consumption outperforming both the typical and good benchmarks.

Property Type	Emissions (tCO ₂ e)	Fossil Fuel (kWh/m ²)	Electricity (kWh/m ²)
Wholetime	893	146	55
Headquarters	451	91	61
Retained	449	109	66
HIWFRS buildings	1,793	128	62

Electricity intensity: CIBSE good & typical benchmarks and HIWFRS performance



Fossil Fuel: CIBSE good & typical benchmarks and HIWFRS performance



*Where sites have partners operating, emissions for all parties are included.

Regional Emissions

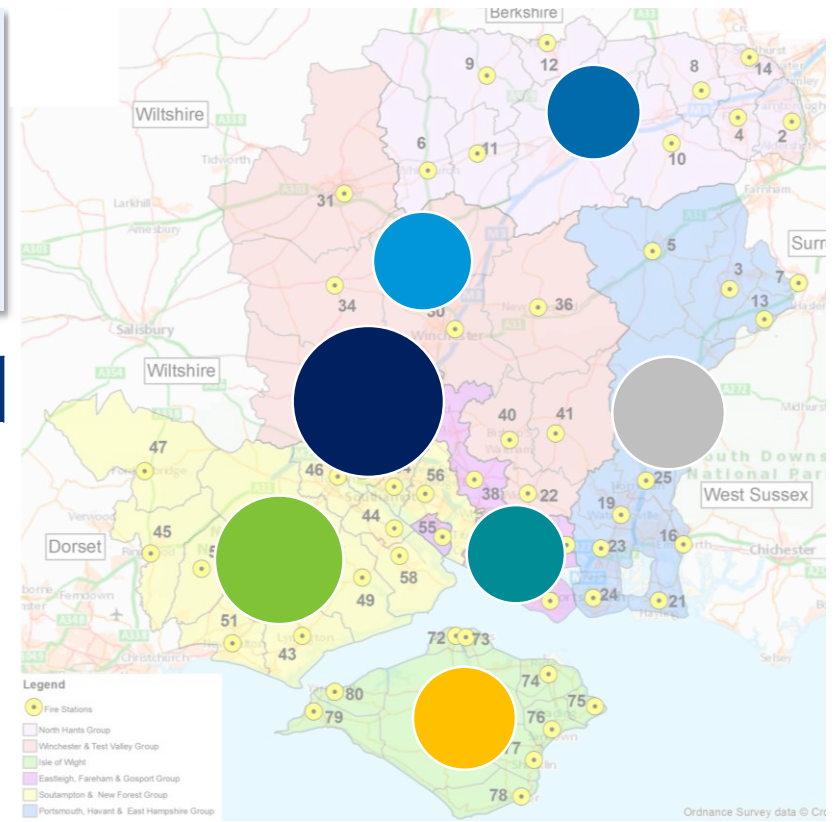
The **Headquarters** is responsible for **25%** of emissions from fuels used for building energy (Natural gas, electricity, and gas oil) followed by the **Southampton and New forest group**, contributing **18%**.

However, per unit floor area, the **Portsmouth, Havant and East Hampshire** has the highest average energy intensity at kWh/m².

Over the next pages we explore the emissions hotspots and energy performance of each region in more detail

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Region	Total tCO ₂ e	tCO ₂ e/m ²	kWh/m ²
Service Headquarters	450.7	0.03	76
Southampton and New Forest	325.7	0.03	146
Portsmouth, Havant and East Hampshire	247.5	0.04	200
Isle of Wight	206.9	0.04	212
Winchester and Test Valley	194.3	0.04	187
Eastleigh, Fareham and Gosport	190.7	0.04	187
North Hampshire	176.7	0.04	193





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Service Headquarters

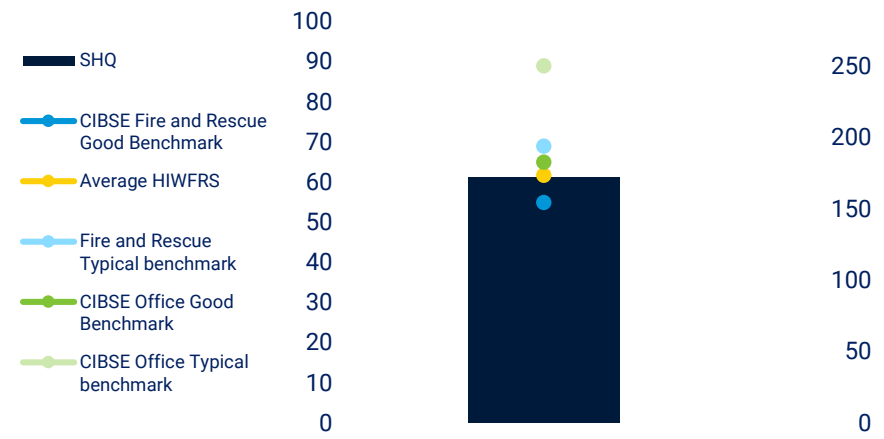
The service headquarters (SHQ) is responsible for 25% of HIWFRS building emissions with an overall floor area of 13895 m² (~28%). SHQ is the highest emitting group in HIWFRS. However, SHQ is also the top performer with respect to emissions intensity and energy intensity when compared with the other groups.

The low overall emissions intensity relative to the other HIWFRS buildings is partially due to the building's use which is more comparable to an office setting than operational buildings. The graphs below show the building's electricity and fossil fuel intensity compared against CIBSE benchmarks for local authority offices, fire and rescue services, and the HIWFRS average.

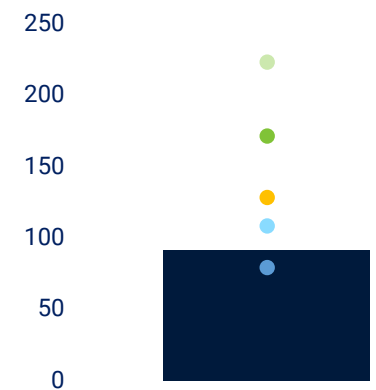
Site	Emissions intensity (tCO ₂ e/m ²)	Absolute Emissions (tCO ₂ e)
HQ	0.03	451

SHQ performs better than the HIWFRS average and the CIBSE fire and rescue service good benchmarks. When compared to local authority offices, SHQ performs better than typical buildings but doesn't quite achieve the top 25% of good buildings

Electricity intensity (kWh/m²)



Fossil Fuel intensity (kWh/m²)





Eastleigh, Fareham and Gosport

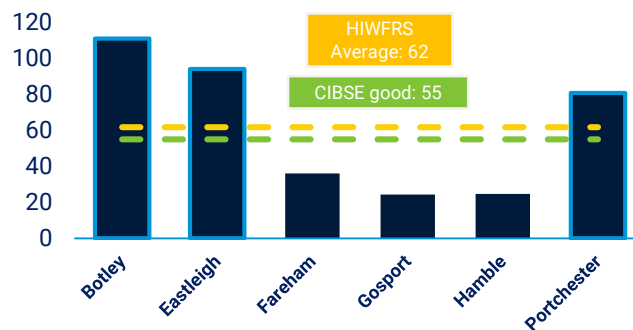
The 6 stations in the Eastleigh, Fareham, and Gosport region make up 11% of building emissions with an overall floor area of 4284 m² (8.5%). Three of the stations are wholetimes sites and three are retained sites. The three wholetimes sites are Eastleigh, Fareham, and Gosport.

Within the region Eastleigh stands out as a potential driver of emissions. Eastleigh has the second highest emissions intensity of any HIWFRS building and high electric and fossil fuel intensities.

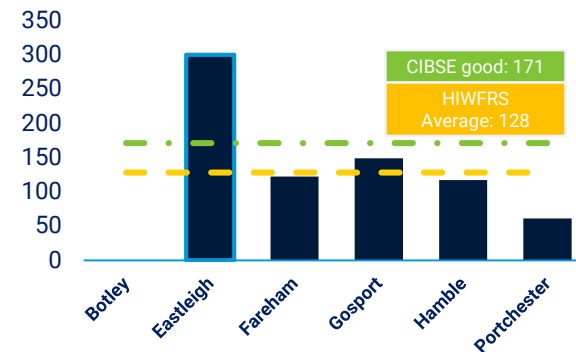
Botley and Portchester also have electricity intensities above the CIBSE good benchmark, however Botley has no fossil fuel use and Portchester has low fossil fuel emissions intensity.

Site	Emissions intensity (tCO ₂ e/m ²)	Absolute Emissions (tCO ₂ e)
Botley	0.03	5
Eastleigh	0.08	91
Fareham	0.03	41
Gosport	0.03	38
Hamble	0.03	10
Portchester	0.03	5

Electricity intensity (kWh/m²)



Fossil Fuel intensity (kWh/m²)





Isle of Wight

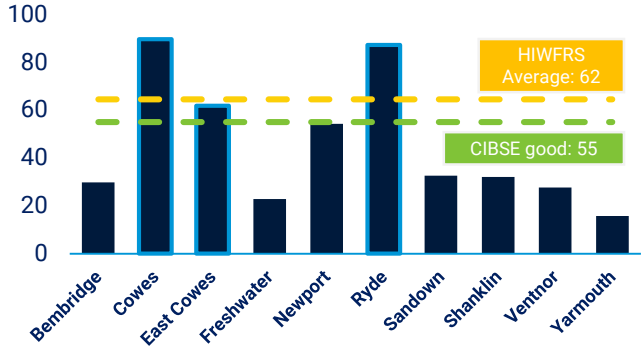
The 10 stations in the IoW contribute 12% of building emissions with an overall floor area of 5,339 m² (11%). The Isle of Wight has the second largest emissions intensity and the largest energy intensity of all of the HIWFRS groups. The two wholetime sites in the region are Newport and Ryde.

Four sites stand out as potential drivers of high emissions intensity:

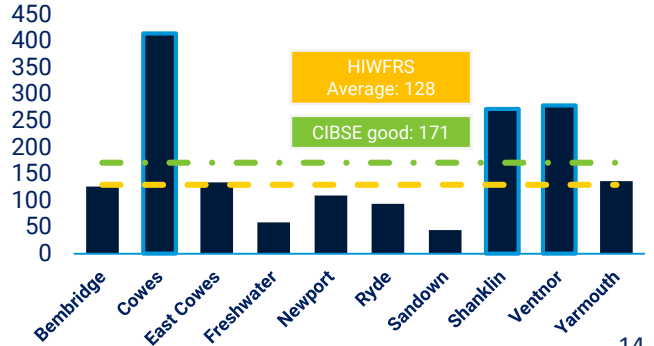
- 1) Cowes has the highest emissions intensity of all HIWFRS sites and performs poorly across all metrics, particularly fossil fuel intensity.
- 2) Shanklin and Ventnor have relatively high fossil fuel intensity which is likely to be impact their overall emissions intensity.
- 3) Overall Ryde has the second largest emissions in the region and relatively high electricity intensity.

Site	Emissions intensity (tCO ₂ e/m ²)	Absolute Emissions (tCO ₂ e)
Bembridge	0.03	6
Cowes	0.10	21
East Cowes	0.04	10
Freshwater	0.02	4
Newport	0.03	62
Ryde	0.04	61
Sandown	0.02	5
Shanklin	0.06	19
Ventnor	0.06	13
Yarmouth	0.03	7

Electricity intensity (kWh/m²)



Fossil Fuel intensity (kWh/m²)





Southampton and New Forest

The 14 stations in the Southampton and new forest region make up 18% of building emissions with an overall floor area of 9622 m² (19%). Hightown, Redbridge, and St. Mary's are the three wholetime sites in the region. This group is the second largest emitter overall behind SHQ, however it has the second lowest emissions and energy intensities, also behind SHQ. All but one station, St Mary's, perform better than CIBSE fire and rescue service benchmarks in terms of fossil fuel intensity.

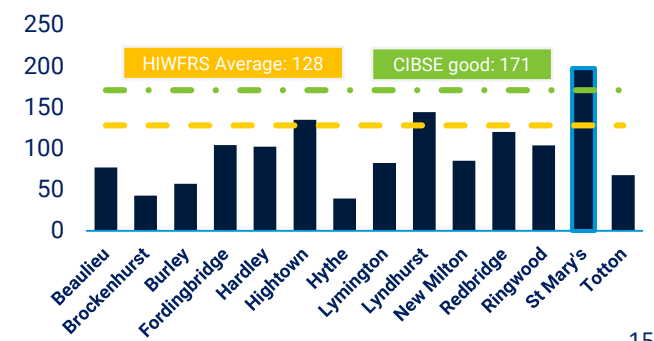
Five sites have electricity intensity that is above the CIBSE good benchmark for fire and rescue services: Beaulieu, Brockenhurst, Burley, Fordingbridge, and New Milton.

Site	Emissions intensity (tCO ₂ e/m ²)	Absolute Emissions (tCO ₂ e)
Beaulieu	0.04	7
Brockenhurst	0.03	5
Burley	0.03	6
Fordingbridge	0.03	8
Hardley	0.03	30
Hightown	0.04	69
Hythe	0.02	7
Lymington	0.02	7
Lyndhurst	0.04	23
New Milton	0.03	14
Redbridge	0.03	67
Ringwood	0.03	12
St Mary's	0.05	68
Totton	0.02	4

Electricity intensity (kWh/m²)



Fossil Fuel intensity (kWh/m²)





Basingstoke Fire Station

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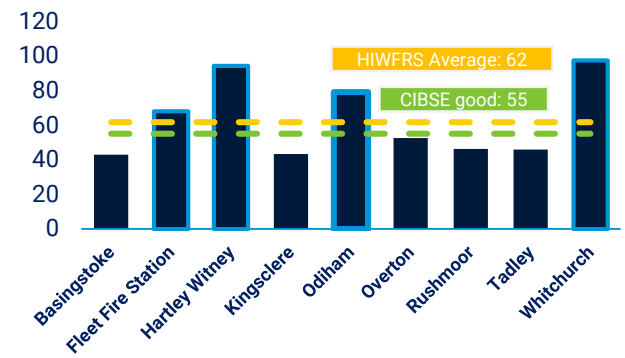
North Hampshire

The 10 stations in North Hampshire make up ~10% of building emissions with an overall floor area of 5524 m² (11%). Basingstoke and Rushmoor are the two wholetime sites in the region and as such have the highest absolute emissions.

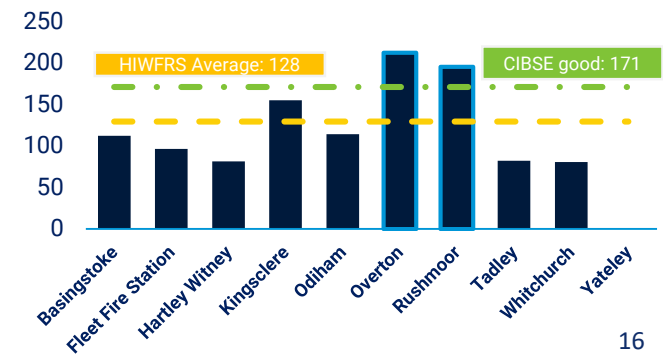
- 1) Whitchurch, Hartley Witney, and Odiham all have electricity intensities above the HIWFRS average.
- 2) Overton and Rushmoor are the two sites with the highest fossil fuel intensities in the region. Decreasing these intensities will reduce the overall emissions intensities for both sites.

Site	Emissions intensity (tCO ₂ e/m ²)	Absolute Emissions (tCO ₂ e)
Basingstoke	0.02	35
Fleet Station	0.04	8
Hartley Witney	0.04	7
Kingsclere	0.04	7
Odiham	0.05	9
Overton	0.05	11
Rushmoor	0.05	84
Tadley	0.03	5
Whitchurch	0.04	6
Yateley	0.02	5

Electricity intensity (kWh/m²)



Fossil Fuel intensity (kWh/m²)





Portsmouth, Havant and East Hampshire

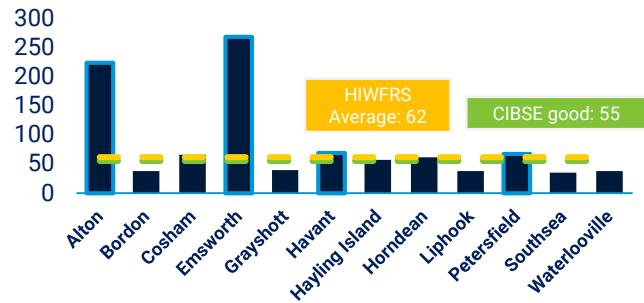
The 12 stations in the Havant and East Hampshire region make up ~14% of building emissions with an overall floor area of 6265m² (12.5%). Overall this region has the third largest total emissions and has the worst performance in terms of emissions intensity. Cosham, Havant, and Southsea are the three wholetime site in the region and contribute the largest amount of emissions.

Bordon stands out for high fossil fuel intensity. Its is one of three sites alongside Havant and Hayling Island that have a fossil fuel intensity exceeding the CIBSE good benchmark and the HIWFRS average.

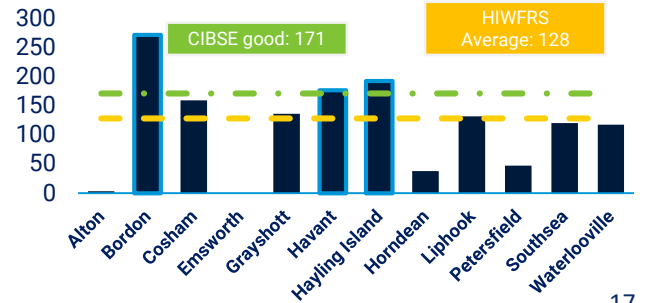
Alton and Emsworth both have very high electricity intensities. Its worth understanding what electric heating equipment may be in use in these stations.

Site	Emissions intensity (tCO ₂ e/m ²)	Absolute Emissions (tCO ₂ e)
Alton	0.06	29
Bordon	0.06	18
Cosham	0.05	30
Emsworth	0.07	8
Grayshott	0.04	6
Havant	0.05	37
Hayling Island	0.05	10
Horndean	0.02	4
Liphook	0.03	6
Petersfield	0.03	8
Southsea	0.03	80
Waterlooville	0.03	11

Electricity intensity (kWh/m²)



Fossil Fuel intensity (kWh/m²)





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Winchester and Test Valley

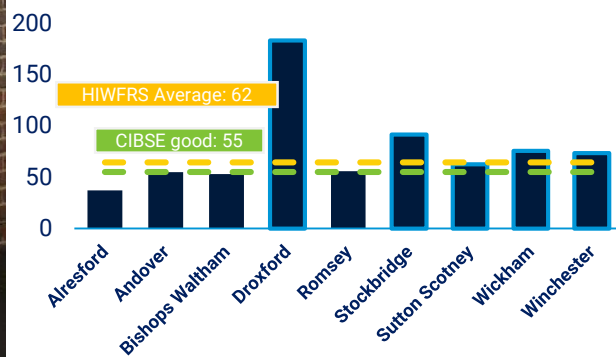
The 9 stations in Winchester and the Test valley make up ~11% of building emissions and ~11% of overall floor area (5192 m²). Andover and Winchester are the two wholetime sites in the region and as such have the highest absolute emissions. Overall Winchester has a very low fossil fuel intensity. In combination with a electricity intensity of 73 kWh/m²/year which is just above a CIBSE typical intensity of 69 kWh/m²/year, Winchester has an overall low emissions intensity.

Droxford and Stockbridge have the highest electricity intensity but also used no fossil fuels.

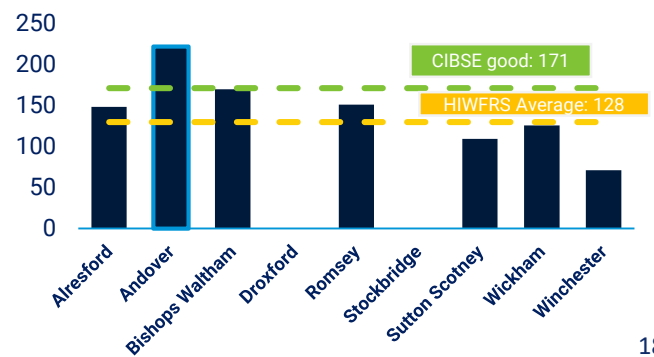
Andover has relatively high fossil fuel intensity which increases its overall emissions intensity.

Site	Emissions intensity (tCO ₂ e/m ²)	Absolute Emissions (tCO ₂ e)
Alresford	0.05	17
Andover	0.05	33
Bishops Waltham	0.04	6
Droxford	0.05	6
Romsey	0.04	13
Stockbridge	0.02	5
Sutton Scotney	0.04	8
Wickham	0.04	7
Winchester	0.03	99

Electricity intensity (kWh/m²)

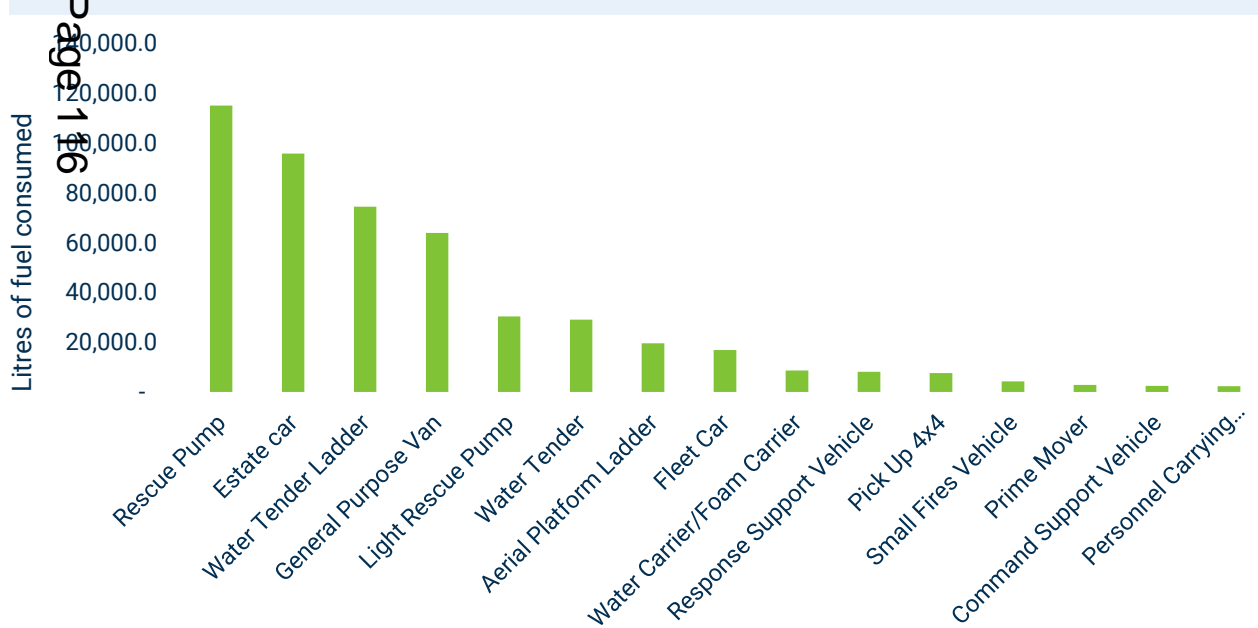


Fossil Fuel intensity (kWh/m²)



Footprint in Detail: Fleet

- Fleet fuel consumption represents 43% of HIWFRS scope 1 and 2 emissions.
- HIWFRS is responsible for over 400 vehicles that consumed an estimated 532,522 L of fuel in the reporting period.
- 98% of fuel consumed was diesel (2% petrol).
- The 15 largest fuel consuming groups of vehicles are shown in the graph below and represent 91% of fleet fuel use.



Science Based Target

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Science-Based Targets

What is a science based target?

In the Paris Climate Agreement 195 nations agreed to limit the increase in global average temperatures to 2°C and pursue efforts to limit the increase to 1.5°C, relative to pre-industrial levels. A carbon emissions target is defined as science-based if it is in line with the scale of reductions required to keep global temperature increase below 2°C.

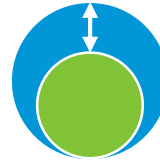
How are emissions reductions aligned with 2°C or 1.5°C?

Science based targets start by understanding the global carbon budget, or the total amount of emissions that can be still be put into the atmosphere and keep temperatures below 2°C. Organisations can choose to either align with a 1.5 °C (1.5DS) scenario or a well-below 2 °C scenario (2DS). From here, the individual carbon budget for an organisation can be determined by using one of two methodologies:

- 1) **Absolute contraction:** defines a minimum year-on-year percentage reduction that must be achieved by all sectors in all regions of the world to achieve the stated scenario. For a two degree scenario, the annual reduction is 2.5% of the baseline year; for a 1.5 degree scenario, the annual reduction is 4.2% of the baseline year.
- 2) **Sectoral Decarbonisation Approach (SDA):** takes into account the challenges and costs that different sectors face when decarbonising. The emissions intensities of all organisations within a specific sector must converge at 2060.

The absolute contraction methodology has been applied to HIWFRS. The methodology underpinning SDA has not been applied to fire and rescue services. Additionally, SDA is limited to understanding a 2DS target.

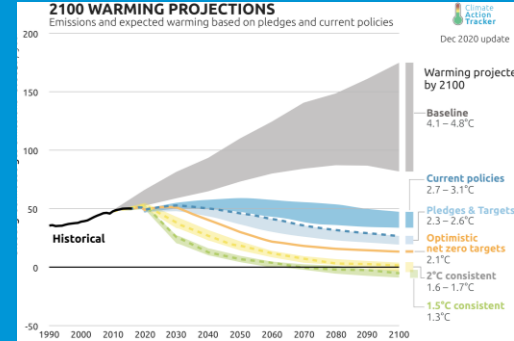
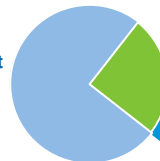
1. Assess the global carbon budget
How large is the pie?



2. Calculate your organisation's carbon budget
How large is my slice?



3. Compare your budget and your footprint
Am I eating too much?



Emissions pathways and warming projections

What is Net Zero?

In 2019 the UK Government set a target for the UK to achieve net zero emissions by 2050. This target was recommended by the Committee for Climate Change in order to meet the UK's Paris Agreement commitments.

Net zero means reducing emissions close to zero and using offsets or greenhouse gas removal to account for any remaining emissions that are extremely difficult to eliminate. For most sectors net-zero requires reducing emissions close to zero without offsetting. There is no one agreed definition of what net zero means for an individual company or organisation though there is general consensus that it is a ambitious target. The Carbon Trust defines net zero for a company or organisation as a target that reduces scope 1, 2 and 3 emissions in line with 1.5 ° C science-based target and compensates for any residual emissions with greenhouse gas removals.

The scope of this work was to look at science based targets, nonetheless on the next page we try to understand these targets in the context of the UK's net zero target.

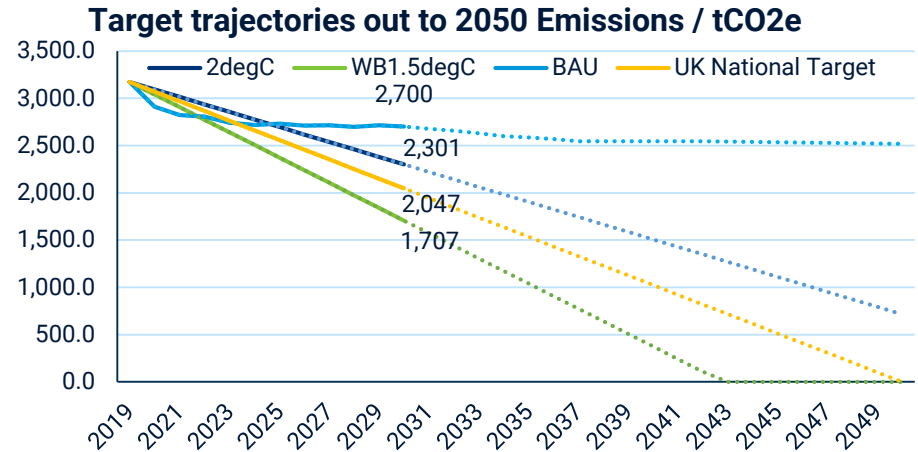
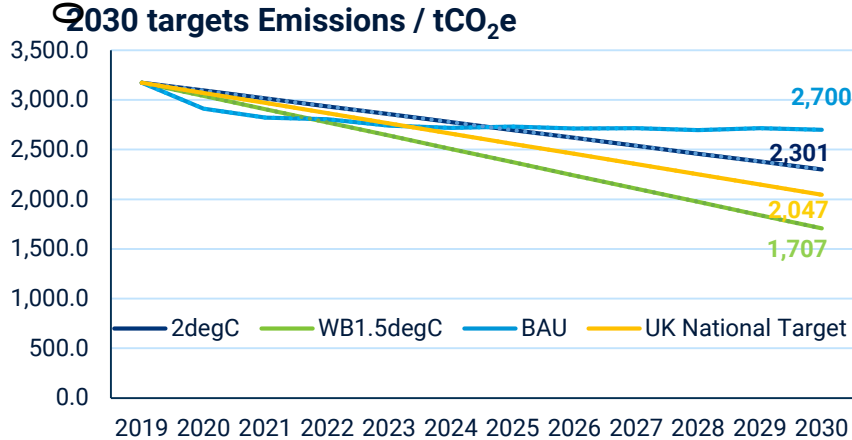
Targets for HIWFRS

Four scenarios have been modelled to help decide an appropriate 2030 emissions reduction target for the HIWFRS:

- 1) A do-nothing or **business-as-usual (BAU)** scenario
- 2) Science-Based Target: A **well-below 2 ° C (2degC)** scenario
- 3) Science-Based Target: A **1.5° C (1.5degC)** scenario
- 4) A **UK National Target** scenario

Scenario	2030 target (tCO ₂ e)	Percentage reduction 2019-2030	Year on Year emissions reduction (tCO ₂ e)	Percentage reduction 2031-2050
Business-as-usual (BAU)	2,700	16%	Varies	6%
Science Based: 2 ° C	2,301	28%	79.3	68%
Science Based: 1.5° C	2,047	46%	133.3	100%
UK National Target	1,707	35%	102.4	100%

The graph below on the left shows the emissions target options between now and 2030. Emissions reduce under a BAU scenario due to decarbonisation of the electricity grid. The **1.5° C science-based target** is the most ambitious target, the **well-below 2 ° C** is less ambitious. We've mapped the trajectory of these targets out to 2050 in the right hand graph in order to understand how they perform in the context of the UK's 2050 net zero target, show by the **UK National Target** scenario. The **well-below 2 ° C** is not ambitious enough to be on the path to zero emissions by 2050. On the other hand, the **1.5° C target** is on a path to achieve zero emissions by 2043.





Target Landscape

When setting targets it can be useful to understand what similar organisations are doing. Below the carbon strategy and targets are provided for three fire and rescue services.



The London Fire Brigade aims to continually reduce their carbon and air quality impacts by focusing on the emissions that they can control from their fleet and buildings. Some of their actions to date include: complete electrification of their car fleet, installed vehicle charge points accessible to the public at 9 stations, maintained ISO 14,001 accreditation for management and 10 high risk stations, and planted forest.



The Avon Fire and Rescue Service set a 1.5 degree – aligned target to reduce emissions from its sites and operations by 50% by 2020 and 65% by 2030 (2009 baseline). The service also committed to generate 20% of energy demand from renewable sources.













The Greater Manchester Fire and Rescue Service set an overall target to be carbon positive by 2050, meaning that “the service averts more greenhouse gases than it produces”. The service’s Interim target is to achieve a 50% reduction by 2020 (against a 2008/9 baseline) in line with 1.5 degrees.



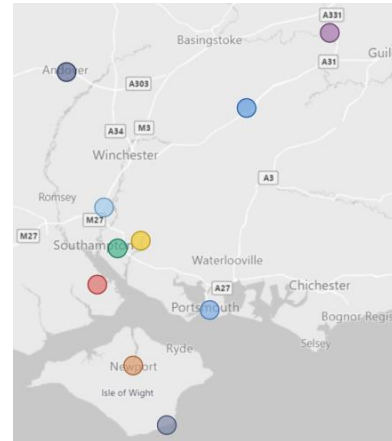
Carbon Reduction Opportunities

Introduction to Project Identification

The Carbon Trust has performed desk-based analysis across 10 sites to identify decarbonisation initiatives. In-person site visits could not be conducted as the project was delivered amidst national travel restrictions due to the COVID-19 pandemic. The 10 sites were selected to provide a representative overview of HIWFRS's estate such that recommendations could be extrapolated across the wider estate where possible. The 10 sites include:

	Alton		Service Headquarters (SHQ)
	Andover		Newport
	Botley		Rushmoor
	Hardley		Southsea
	Hightown		Ventnor

A data collection phase was initiated for each site. The project identification was based on the data received, primarily condition surveys, past audit reports, and boiler service reports. **This chapter explores the carbon savings and the estimated costs associated with implementing different decarbonisation measures at the 10 sites identified above and does not quantify the anticipated extrapolation to the wider estate.** The decarbonisation measures considered include:



Between now and 2030, the carbon intensity of the UK's national grid is expected to reduce by 64%.

The carbon intensity of the UK's electricity supply is reducing as renewable generation (e.g. wind, solar) is replacing traditional fossil fuels (e.g. coal, natural gas). Many of the recommendations made in this report focus on the 'electrification' of conventional fuel sources so that this greener electricity can be utilised by the Service.

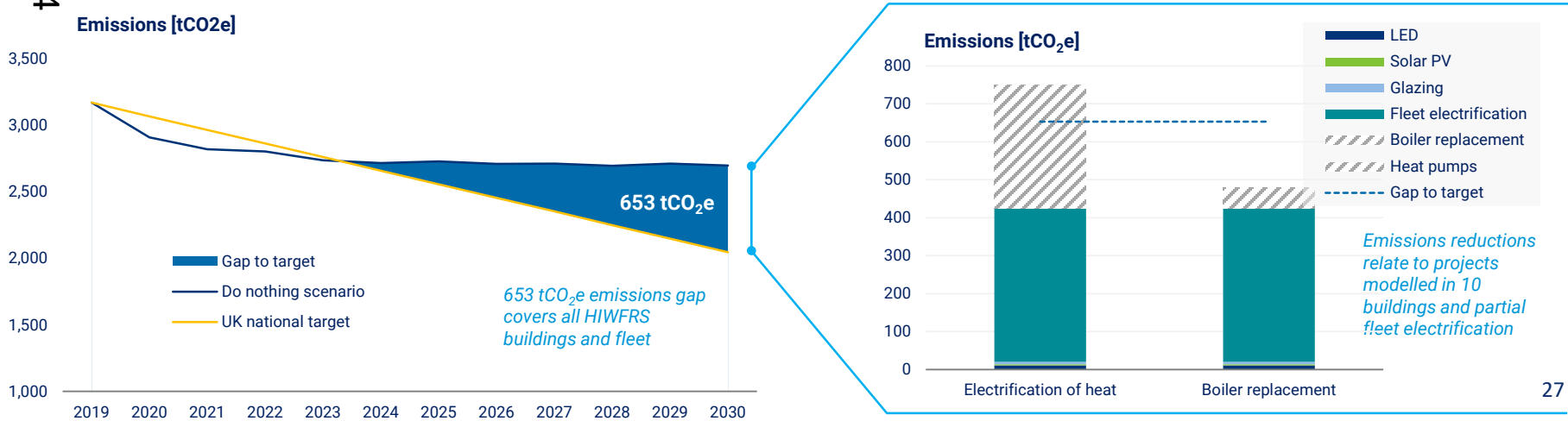
-  Lighting upgrade to LED
-  Building heating
-  Solar PV
-  Fleet electrification
-  Double glazing and wider building fabric measures
-  General energy management

Project Summary

In a do-nothing scenario, HIWFRS’s footprint is expected to decrease due to the decarbonisation of the national grid. In this scenario, HIWFRS has an anticipated gap-to-target of **653 tCO₂e** by 2030 against the UK national target option. These are emissions that the Service will have to proactively reduce to reach their decarbonisation target. The results below show the expected impact of the implementation of projects at the 10 sites considered towards the UK national target, and **do not account for extrapolation of the measures across the wider estate.**

Two scenarios were modelled to understand how the target might be achieved (*below*). The two scenarios demonstrate the potential to reduce emissions from the installation of low carbon technologies across the 10 sites evaluated as well as partial fleet electrification. The scenarios vary in terms of their approach to heat decarbonisation. One scenario replaces gas boiler systems with heat pumps, whilst the other assumes a like-for-like replacement with more efficient boilers. In practice complete electrification of heat through the use of heat pumps may not be achievable due to building characteristics; it’s likely that a hybrid approach will be taken which implements the most appropriate heating technology based on site specific conditions including building fabric and overall efficiency. Nonetheless, the results underscore the importance of electrification and demonstrate that it will be required for HIWFRS to achieve their decarbonisation ambitions.

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Project Summary

For each of the 10 sites considered the anticipated financial requirement was estimated, including capital costs (CAPEX), annual savings, and cost of carbon abated. This financial assessment was also undertaken for the fleet electrification projects considered. The results are summarised in the table below and show that the environmental and business case for many of the technologies are conflicting. This demonstrates the need for HIWFRS to:

- Actively include environmental considerations and weighting in procurement decisions
- Avoid siloing individual projects and take an estate-wide view to optimise the distribution of technologies across the estate
- Retain an active view of the market (e.g. cost reductions, government support) and be prepared to engage with specialised market instruments to improve the financial viability of marginal business cases (e.g. specialised tariffs)

Additionally, the financial results by-site indicate a disparity between retained and wholetime sites that will require consideration. In particular, the business case for retained sites is weakened by the lack of consumption and therefore annual savings. In the short-term, we recommend targeting resource at the wholetime sites and retained outliers, where the environmental gains are largest and the business case is stronger. The following pages explore these projects in more detail. The assumptions used to develop these estimations can be found in the appendix.

Below: financial summary of the projects analysed over the 10 sites and fleet

Project	CAPEX [GBP]	Annual savings [GBP]	Simple payback [yrs]	Carbon savings '19 – '30 [tCO ₂ e]	CAPEX/tCO ₂ e
LED	101,700	14,125	7.20	171	595
Solar PV	43,740	3,958	11.1	46	951
Gas boiler replacement	78,998	12,041	6.56	662	119
Heat pumps	648,500	21,009	30.9	3,702	175
Glazing	195,375	2,276	85.8	82	2,382
Fleet electrification	3,279,228	210,857	15.6	4,597	713

Solar Photovoltaic (PV)

Summary Recommendations. Solar PV is the most affordable method of producing on-site renewable electricity. In the absence of feed-in-tariffs, solar PV should be prioritised where on-site usage can be maximised. Emission reductions relative to the National Grid will decrease out to 2030 and solar will increasingly be viewed from a financial standpoint, rather than one that achieves significant emissions reductions across the estate.

Introduction. Solar PV is a modular, scalable technology that allows for renewable electricity to be produced at source. Cost reductions over the past decade have made it an increasingly-attractive technology and resulted in its accelerated roll-out at both utility and small-scale.

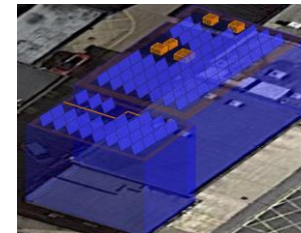
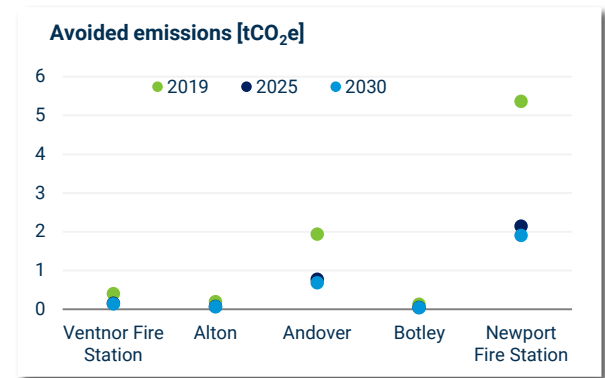
State of play. HIWFRS has ~700kW of solar PV installed across 16 sites, which generated 560MWh of electricity in FY 18/19 and avoided 144 tCO₂e of emissions. The market in the UK is established and there are plentiful providers of solar PV and related services. However, UK government support for small-scale projects has been significantly curtailed and any project will be subject to market prices.

Project identification. HelioScope software was used to model rooftop Solar PV on 5 of the Project ID stations, Ventnor, Alton, Andover, Botley, and Newport. The remaining 5 Project ID sites already have solar PV installed. Key findings include:

- A further **48.6 kW** of solar PV could be feasibly installed, generating 43,107 kWh per annum
- Across retained and whole-time sites, it is envisaged this would result in an onsite energy saving of **31,483 kWh** with 11,624 kWh being exported to the grid
- This represents an **8 tCO₂e** emission saving using 2019 emission factors, which is projected to decrease to **3 tCO₂e by 2030**
- The financial case for solar PV is significantly improved when more solar PV is consumed on site (displacing grid electricity at 12 p/kWh) as opposed to exporting to the grid (5 p/kWh)

Emission reduction

The avoided emissions of solar installations will decrease out to 2030 as the national grid decarbonises and the variance between local, zero-carbon generation and national generation decreases.



Right: Helioscope software was used to model solar PV installations on HIWFRS sites
(Pictured: Newport fire and rescue station)

LED

Summary Recommendations. Good quality LED luminaires offer superior illumination, control and energy performance over many of the Service's incumbent lamp types. They should be installed by default across the estate, either proactively or reactively. The business case for LED lighting improves with increasing occupancy hours; a proactive approach to LED roll-out across wholetime sites should be conducted, whilst a reactive replacement schedule for retained sites is recommended to maximise the reach of annual budgets.

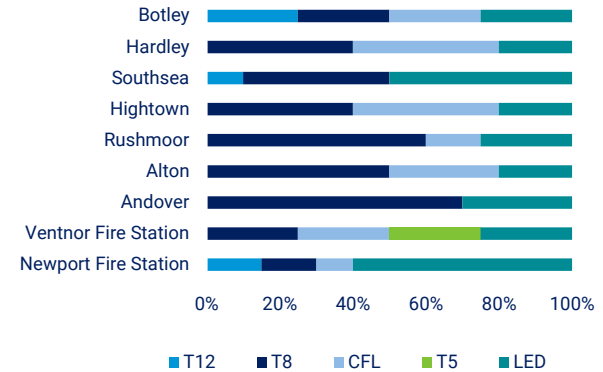
Introduction. LEDs have the highest efficiency and lamp life of all widely used lighting types. Cost reductions and a step-change in the technological performance of LED lighting over the past 10-15 years has made them the mainstream solution for the vast majority of lighting applications in the UK.

State of play. HIWFRS has a mixture of lighting installed across the sites: incandescent tungsten, tubular fluorescent lamps (T12, T8, T5) compact fluorescent lamps (CFLs), and LEDs. The Service is actively trying to roll-out efficient LED lighting across the estate and has recently performed a lighting upgrade at Hamble Fire and Rescue Station that will serve as a blueprint for future lighting-replacement programmes.

Project identification. Available condition surveys and audit reports across the 10 project ID focus sites were used to determine the installed lighting types. The costs and emission savings from upgrading the sites to LED were estimated. Key findings include:

- An annual electricity saving of **117,705 kWh** was estimated across 9 sites, equating to fuel savings of ~£14,000 yr.
- By 2030, this is expected to save **10.8 tCO₂e** annually.
- The financial case for LED lighting depends on the usage of the newly-installed lighting. For wholetime sites the simple payback varies from 5.0 – 8.1 years (depending on the incumbent lighting). For retained sites, the average payback is > 10 years (see assumptions).

Installed lighting estimate [% of floor area]



Fire & rescue station	kWh saving	2019 tCO ₂ e	2030 tCO ₂ e
Botley	1,966	0.50	0.18
Hardley	8,430	2.15	0.77
Southsea	32,838	8.39	2.99
Hightown	19,339	4.94	1.76
Rushmoor	34,199	8.74	3.11
Alton	3,871	0.99	0.35
Andover	5,225	1.34	0.48
Ventnor	319	0.08	0.03
Newport	11,518	2.94	1.05
TOTAL	117,705	30.1	10.8

Heat Hierarchy: a Strategic Approach to Heat Decarbonisation

Gas consumption for space and water heating in buildings accounts for 35% of HIWFRS's measured footprint. Compared to electricity, the emission factor for gas usage is less sensitive to policy and technology changes and is expected to remain relatively constant between now and 2030. In order to achieve their decarbonisation targets, HIWFRS will therefore have to proactively target a significant reduction in gas use across the estate.

The challenge of heat decarbonisation is multifaceted and there is no one-size-fits-all solution that can be implemented across the estate. However, we recommend that any approach to heat decarbonisation should consider the heat hierarchy outlined below. The hierarchy has four key stages, which should be addressed in chronological order:

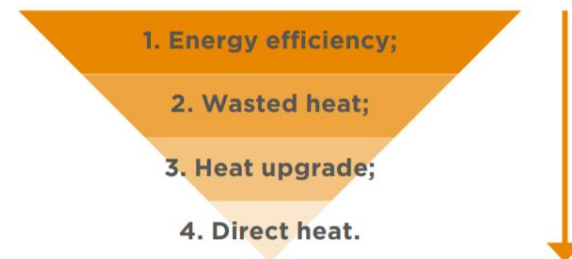
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Energy efficiency. Reduce the heating demand of the building by improving its thermal performance through fabric upgrades (e.g. insulation, draught proofing). As the initial step, this is referred to as a fabric-first approach and should be maximised for each building within the bounds of reasonable viability (i.e. respecting technical and financial constraints) regardless of the heat source.

Wasted heat. Utilise any heat that is already being produced in other processes but wasted.

- **Heat upgrade (i.e. heat pumps).** 'Upgrading' heat refers to the process of raising a low-temperature heat source to a higher temperature that can be utilised in heating system. This process requires an energy input (e.g. electricity) and is the function of heat pumps.
- **Direct heat.** This is where energy is directly inputted for the *creation* of heat (e.g. fuel into a boiler). This should be restricted to when wasted heat is not available, or the use of a heat pump is not technically or financially feasible.

A net-zero HIWFRS will likely involve a combination of the above measures in varying proportions. The appropriateness of each option needs to be assessed in the context of the fabric and efficiency of each building to ensure that the space is adequately heated. Due to the remote nature of the assessment, the service should look to consolidate this work with further site specific investigations, using the heat hierarchy as a foundation.



Above: the heat hierarchy

Source: ADE, *A framework for net-zero for new and existing buildings.*

Building Fabric - Glazing

Summary Recommendations. Improving thermal performance across the estate should be a short-term priority for the Service, and a coordinated approach to upgrades should be formalised. Fabric upgrades will achieve emission reductions and improve user comfort regardless of the heating mechanism, and will be essential for the Service to adopt low-temperature electric heating.

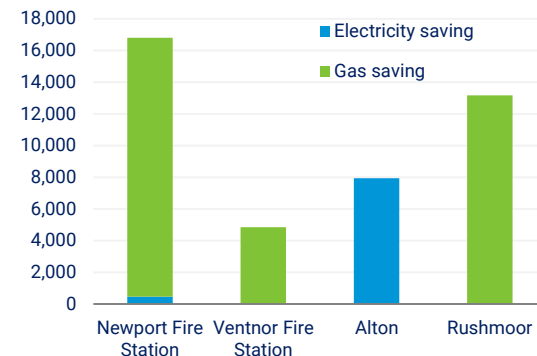
Introduction. Building fabric refers to the components of a building that regulate interactions between the interior and exterior of the building (e.g. windows, roofs, walls). The combined effect of a building's fabric governs temperature, air, and moisture transfer of a building, and a balance of these interacting elements is required to ensure effective building management and user comfort.

State of play. Benchmarking identified that HIWFRS is in the top 20% of best performing sites with respect to fossil fuel consumption, signalling that the thermal fabric of the general building stock is sound. The condition surveys analysed were non-intrusive and could not provide details on insulation. Of the buildings inspected, the majority were reported to be either fully or partially double glazed. Some audit reports (e.g. Alton, Newport) did indicate that additional sealant was required for draught-proofing and to prevent moisture build-up.

Project identification. Using information from condition surveys, the impact of upgrading single glazed units to double glazing across 4 sites was modelled. Key findings include:

- Across the four sites, energy savings of **34,373 kWh per year** can be realised, equating to 7-8 tCO₂e of emission reductions across gas and electricity
- Payback times vary between **44.1 to >100 years**, with electrically heated sites benefitting from lower payback terms due to higher tariff rates. The business case for sites with higher specific consumption (kWh/m²) is significantly more favourable.

Annual energy savings [kWh]



% requiring upgrading	80%	100%	100%	20%
Upgraded glazing m²	217	22	77	53

N.B. The remote assessment has limited the degree to which building fabric recommendations can be made. However, this report has identified building fabric as a core priority for the Service to investigate in the short-medium term. It is recommended that an updated estate-wide analysis is undertaken to prioritise buildings for fabric improvements.

Heat Pumps

Summary recommendations. The installation of heat pumps should be considered for every heating system requiring replacement and installed as standard in new builds. Heat pumps are not a like-for-like replacement with gas boilers or conventional electric heating and improved energy efficiency in buildings is a pre-requisite for heat pump retrofit. Whilst not practically suitable for all applications, the electrification of heat at some sites will be required for the Service to achieve their decarbonisation targets.

Introduction. Heat pumps are a highly efficient form of electric heating. They can save ~60-70% of emissions compared to conventional electric heating and have lower running costs if operated efficiently. Heat pumps perform optimally at lower temperatures than conventional heating systems and require a thermally efficient site to operate effectively.

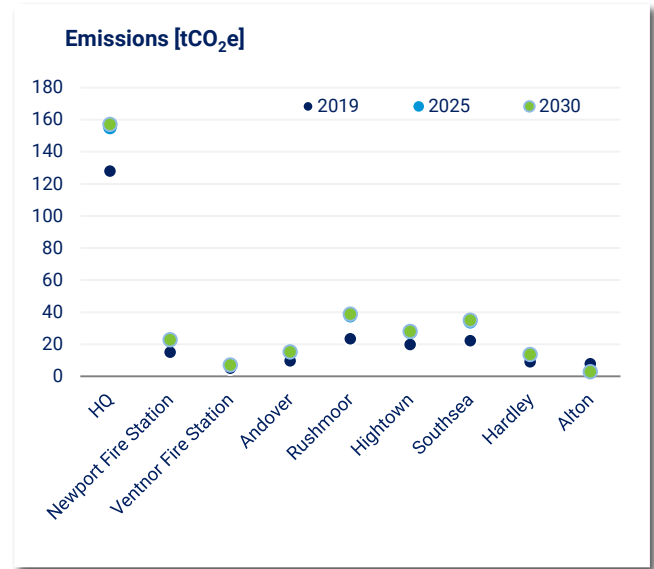
State of play. Currently, there are no heat pumps installed in the HIWFRS estate. They have been considered in the Service’s briefing framework where it recommends that a site-by-site options appraisal is conducted to determine the suitability of heat pumps.

Project identification. The replacement of existing central heating systems with an efficient heat pump was modelled for 9 sites. Any supplementary heating was excluded from the analysis. Key findings include:

- A reduction of **425 tCO₂e** could be achieved by 2030. Installation of a heat pump at the SHQ alone is estimated to reduce emissions by 160 tCO₂e.
- The business case for installing a heat pump is poor for the majority of sites and **environmental weighting** will have to be included to promote their procurement. Current government support to incentivise heat pump use in the form of the non-domestic renewable heat incentive (RHI) is due to finish in March 2021. New support mechanisms are expected to replace RHI, which HIWFRS should consider when announced.

Emission reduction

The emission savings associated with electrifying heat increase as the national grid decarbonises. This will be further improved if the heat pump is powered by on-site renewable power.



Boiler Upgrades

Summary recommendations. In accordance with the heat hierarchy, alternative heat sources are preferred solution over boiler upgrades. However, it is recognised that technical and/or financial constraints may limit the feasibility of these alternative sources (e.g. heat pumps). When this is the case, boiler upgrades can contribute to decarbonisation through efficiency gains while also making sure that the building is heated properly.

Introduction. Gas boilers being the preferred heating mechanism in the UK, with 1.67 million gas boilers sold in 2019. Though gas-fired boilers are carbon intensive, they provide flexibility in heating several building archetypes and often present attractive business case relative to low-carbon alternatives. Advances in boiler design has increased the efficiency of new boilers to over 90%.

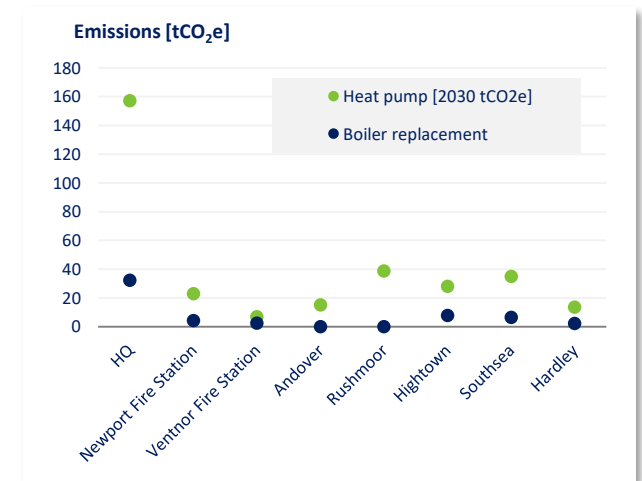
State of play. Most sites have gas-fired boilers connected to central heating with radiators. Underfloor heating exists in some sites. Supplementary electric heating was found in several sites, suggesting a lack of efficacy from the main heating system or that the central heating does not cover all areas. Four stations that were not selected for project ID, Alresford, Sutton Scotney, Beaulieu, and Odiham, use boilers fuelled by gas oil, which is more emissions intensive than gas.

Project identification. The replacement of incumbent boiler systems operating at an efficiency of less than 80% with a condensing boilers (operating at 92% efficiency) was modelled at 8 sites. Key findings include:

- Annual **gas savings of 301,028 kWh** can be realised, resulting in cost savings of £12,041 and emission savings of **55 tCO₂e**
- Replacement gas boilers present a strong financing case. However, the emission savings associated with their widespread replacement is not compatible with the Service's decarbonisation ambitions, particularly for larger sites.

Emission reduction

Emission savings can be realised through increased efficiencies and the reduction in gas consumption for a given heat load. However, their relative carbon intensity means that the Service should only pursue like-for-like replacement when the financial or technical constraints for low-carbon technologies are overwhelming.



Applying the Heat Hierarchy and Moving to Low Carbon Heat

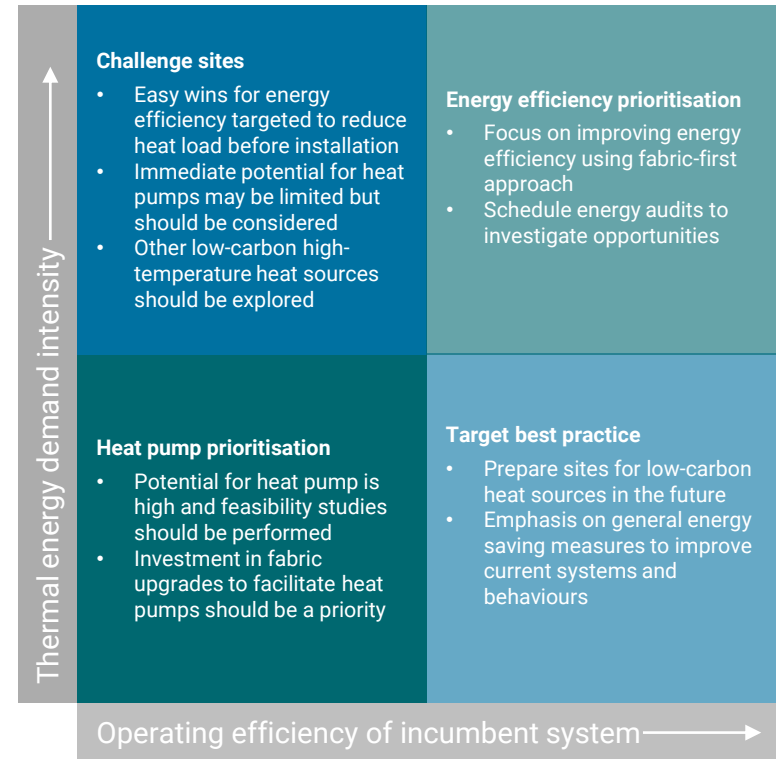
A broad approach to applying the heat hierarchy should be understood and established. However, it should be recognised that site specific conditions at each station will ultimately determine which technologies and interventions are both appropriate and financially viable.

Technology Replacement Mapping. As a good first step, mapping the expected heating technology replacement timeline and the operation efficiency of current systems will help prioritise sites for energy audits and heat pump assessment. This mapping should be updated regularly; any heating system that comes up for renewal should have an assessment performed that considers alternative heating technologies including heat pumps.

The approach will vary site-by-site. The matrix to the right explores likely actions depending on the thermal energy demand intensity of the site and the immediacy of heating technology replacement. This matrix is only a start, each site is unique in practice, and the approach will be different site-by-site. Low carbon heating will be technically feasible for every site, but some sites will be financial prohibitive due to the amount of retrofit required to achieve the required levels of thermal performance.

Top tips for low carbon heating:

- Understanding flow temperature is important. Lower flow temperatures are more compatible with the efficient operation of heat pumps, and heat pump business cases become favourable when temperatures are <45°C.
- Flow temperatures are a function of the building's thermal retention and area of heat emitters (e.g. radiators). A building with high heat retention and large heat emitters is a prime candidate for installation of a heat pump.



Fleet

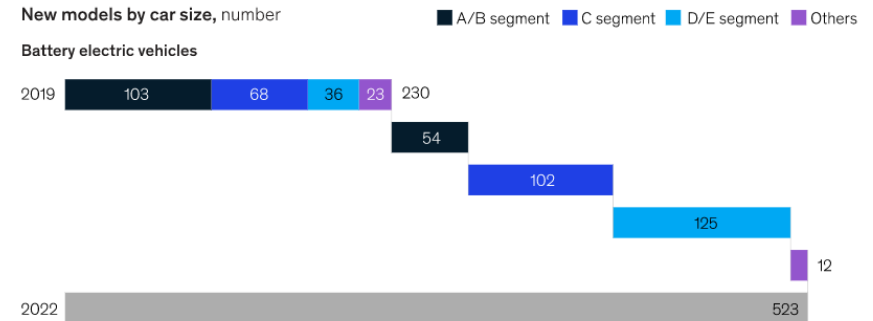
Summary Recommendations. Significant fuel-switching of the fleet is required for the Service to achieve their decarbonisation ambitions. The Service should commit to a phased fuel-switching of the fleet, accounting for vehicle type and use. The supporting infrastructure requirement is the largest constraint to electric vehicle (EV) deployment and the Service should, as a priority a) ratify internal support for infrastructure roll-out, b) understand the financial and technical requirements accounting for local constraints, c) explore potential funding avenues, and d) seek collaborative partnerships.

Introduction. Fuel consumption in the Service’s fleet accounts for 43% of the baseline footprint. As with gas, the emission factors associated with liquid fossil fuels will not decrease significantly between now and 2030 and fuel-switching will be required to achieve meaningful reductions in emissions. However, the provision of a reliable, efficient and available fleet is central to the Service’s function and cannot be compromised in any decarbonisation strategy.

State of play. HIWFRS currently operate a fleet of over 460 vehicles and have 2 EVs in active service (Nissan Leaf). Uptake and use of EVs has been low, predominately due to their limited range and lack of understanding amongst users. However, EV technology has improved drastically in recent years and the market is becoming far more saturated and competitive as mainstream manufacturers begin to offer electric ranges. This is expected to continue, and McKinsey estimate that 523 new electric vehicle models will be launched between 2019 – 2022 across a variety of vehicle sizes.

Despite the growing market, a technology review and targeted interviews identified that the low-emission vehicle market for larger specialised vehicles in the fleet is largely in concept phase and not suitable for immediate consideration. The focus of this plan is therefore on the fleet cars and vans where there is a far more established market for low-to-zero emission vehicles.

HIWFRS benefit from a CAPEX discount on all vehicles under the CCS framework. Government grants are also available for the procurement of electric cars and vans.



Above: the global EV market is undergoing a period of rapid growth

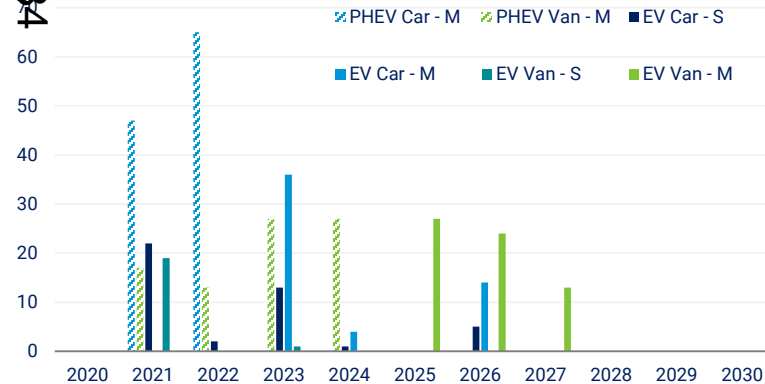
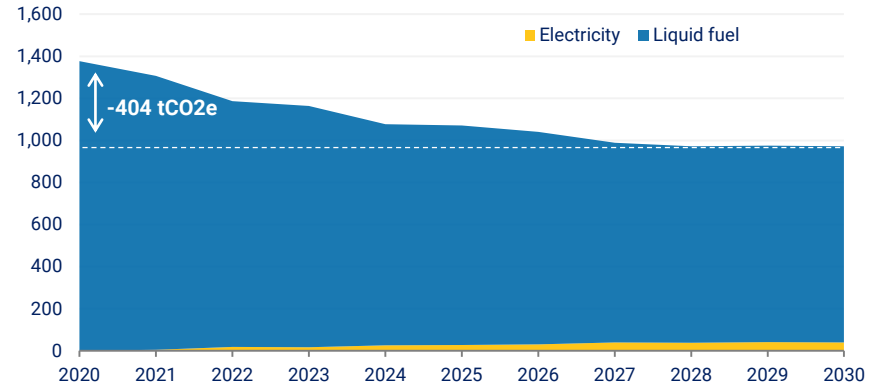
Source: McKinsey, Electric Vehicle Index 2020

Fleet

Project identification. The Service operate a multiservice fleet that covers 33 individual types of vehicle. Of these, 7 were of appropriate size to be considered for full or partial electrification in this plan. Each vehicle type was categorised into a generic vehicle type (car or van) and size (small or medium), for which a suitable internal combustion engine (ICE), plug-in hybrid electric vehicle (PHEV) (only medium-sized vehicles), and electric vehicle (EV) models were identified. Key findings include:

- **377 vehicles** that are due for replacement between now and 2030 are suitable for full or partial electrification. These vehicles account for ~170,000 L of annual fuel consumption (32% of the Service’s total). ‘Suitability’ has been determined from a sectoral market review only and is designed to show the potential impact of fleet electrification. As detailed on the next slide, significant advances in charging infrastructure will also be required to support the roll-out.
- At the point-of-use the **business case for PHEVs and EVs is competitive** for the majority of vehicle types and sizes compared to ICE equivalents.
- The proposed electrification could result in reductions in annual emission reductions of **404 tCO₂e** and annual operating costs of **£210,857** by 2030.

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Vehicle phasing [no. of vehicles]**Fleet emissions [tCO₂e]**

N.B. These calculations assume that PHEV’s are operated according to manufacturer’s specifications. Some studies have shown that the real-world environmental performance of PHEV’s is significantly compromised by inefficient operation (e.g. relying solely on the liquid fuel without electric charge). The Service should make any users of PHEV aware of this and promote optimised usage through training, signage etc.

Electric Vehicle Infrastructure

The business and environmental case for PHEV and EVs at the point-of-use is competitive and will continue to improve. The Service should prioritise securing access to a robust and available charging network to facilitate the roll-out of electric vehicles. Detailed technical and economic analysis of infrastructure requirements is outside of the scope of this assessment, however it is recommended that the Service:

Understand the financial and technical requirements accounting for local constraints

Charging infrastructure costs vary significantly based on the number, wattage and specification of chargers required. Higher wattage charge-points are more expensive but required if vehicles need to charge rapidly over shorter periods of time, whereas more lower-wattage charge-points could be installed if it's feasible for EVs to charge over longer periods. The specification for any given-wattage varies too; the cost of a basic 7.4 kW charger (common for van charging) could be as low as £300 but rise to over £1,200 if smart-charging is incorporated. Civil and engineering costs have to be taken into account, which are heavily influenced by site conditions (e.g. length of any trenchwork, ground conditions); assessments in some areas of the UK estimate the installation cost of a 7kW charger at £5,000 with the caveat that these can vary significantly. Once the charging requirement is estimated, a site survey should be conducted to determine the available grid capacity at the site. Depending on local network capacity, grid upgrades may be required that will carry significant additional cost.

Explore potential funding avenues

Recognising the potential costs of EV infrastructure, grant schemes and innovative financing mechanisms exist that can support infrastructure deployment. The UK Government operates a workplace charging scheme, offering a grant contribution of £500 per socket for charge points installed at the workplace. Depending on ownership model preferences, various levels of private-sector involvement can also be sought to minimise the upfront financial requirement. Due to the size and predictability of the fleet, the Service is in a strong position to attract private sector funding by guaranteeing a substantial level of demand for installed charge points.

Seek collaborative partnerships and engage with support schemes

Local and national-level initiatives exist that can help the Service develop a network of usable infrastructure. ESPO Vehicle Charging Infrastructure and CCS Vehicle Charging Infrastructure Solutions are two national frameworks that can support Central Purchasing Bodies in the procurement and installation of infrastructure. At a local level, Hampshire County Council manager the Central Southern Regional Framework that is open to public sector organisations across Hampshire. Additionally, Energy Savings Trust offer free fleet strategic assessment the UK that can assist with initial strategic and technology advice. Currently, Flexible Power Systems Ltd. is also offering free fleet strategy assessments for vans that are monitored with telematics or a job management system as part of an Innovate UK funded project.

General Energy Saving Measures

Energy and cost savings can be readily achieved through the implementation of best-practice energy management and engagement. The associated costs of these measures are often relatively low and can be generically applied across the estate with limited site-specific considerations. These include:

- Page 136
- a) **Pipework insulation.** Several condition surveys report a lack of insulation around pipeline, flanges, and valves. Significant energy savings can be made by incorporating low cost, insulating covers on exposed areas. This is of particular importance in plant rooms where the water is hottest and the heat loss to the environment is greatest. This is easy to implement and payback can be expected to be <1 year under normal operating conditions.
 - b) **Enhanced controls** can be used to better align site usage to occupancy, weather/loads compensators can be readily applied to boiler systems (typical payback 2-3 years) and where practically feasible lighting controls should be integrated with the role out of LEDs (typical payback 2-3 years).
 - c) **Reinforcing and communication an energy management strategy** will provide guidance for the operation of buildings. It was evident from the review of conditional surveys that various levels of supplementary heating is used throughout the estate. A rationalised approach to heating (and other operational considerations) should be provided for various site-types (e.g. wholetime vs. retained).
 - d) **Staff awareness.** Carbon Trust experience shows that typically around three-quarters of staff in a workforce are keen to help their employer reduce their environmental impact but often don't feel engaged. Engagement with staff yields energy savings in two main ways: changing of day-to-day behaviour and the generation of ideas. A successful engagement strategy goes beyond just displaying posters, and should:
 - Include everyone from the chief executive to the part-time worker
 - Be part of an overall energy management strategy
 - Involve general awareness training for all staff and specialist training for some
 - Provide regular feedback on progress towards targets



Looking Towards a 2030 Target

Analysis of the 10 sites has identified several objectives in the context of a 2030 decarbonisation target. A phased outlook is also presented that presents a view on how the Service should approach decarbonisation in the next decade:

- General energy saving measures (page 39) and LED lighting are no-regret measures that should be considered as BAU across the estate and implemented as common practice.
- Solar PV should be prioritised where on-site usage can be maximised and the business case is strong. From a carbon-centric perspective, budget allocation to Solar PV should not diminish the budget available for heat or fleet decarbonisation.
- Recognising budgetary constraints, it is recommended that expenditure to achieve carbon savings is focused on a) heat decarbonisation, either through thermal improvements to a building or installation of a low-carbon heat source, and b) transition to low emission vehicles.

Short term outlook (2021 – 2023)

Form an estate-wide approach to priority decarbonisation areas:

- Clarify a 2030 decarbonisation target, and agree a governance structure and responsible person(s) for the annual reporting of the Service's carbon footprint to monitor progress against the target. If possible, an annual budget for priority decarbonisation initiatives should be ringfenced that should be additional to BAU upgrades.
- Perform estate-wide mapping of incumbent heating systems and thermal performance of buildings to form the basis of an estate-wide heat decarbonisation strategy. The heat hierarchy should be integrated into the Service's decision making and facilities managers should become familiar with it's implementation.
- Estates and fleet teams should co-ordinate the roll-out of electric vehicle charging infrastructure. Priority sites should be identified and early engagement with local stakeholders should be pursued as a priority to identify delivery and funding mechanisms. To the extent that infrastructure permits, EV procurement should commence in parallel.
- A campaign to promote EV uptake and raise awareness of their correct use should be performed to ensure they are adopted by fleet users.



Looking Towards a 2030 Target

Medium and long term recommendations are inherently subject to greater degrees of uncertainty. These actions are made based on the current state-of-play and should be reviewed and updated as part of the annual reporting and governance.

Mid term outlook (2023 – 2027) *Embed the strategies into estate operations, and begin to consider indirect impacts*

- The heat decarbonisation strategy should be implemented such that the heat hierarchy principles are embedded into the running of the estate, and a rolling cycle of fabric improvements and installation of low-carbon heat sources initiated. Fossil-fuel boiler replacements should be isolated to challenge sites and low-carbon heating should become the default option for system replacements.
- Fully electric vehicles should become the default option for vehicle replacement across all non-specialised vehicles. The service should leverage available charging infrastructure in the local area in addition to the installation of private charge points to ensure adequate vehicle availability.
- Begin to consider the wider environmental impact of the Service (i.e. supply chain), and measure and report on the Service's scope 3 emissions. Separate action planning and target setting should be considered for these emission sources.

Long term outlook (2027 – 2030) *Integrate harder-to-decarbonise areas into HIWFRS's decarbonisation strategy*

- Approach harder-to-decarbonise areas of the estate (e.g. specialised fleet vehicles, challenge sites) as anticipated technology advancements, cost reductions and policy support create a more favourable environment for action.
- In general operation, replacement of assets with fossil fuels should be viewed as a special case and low-carbon technologies should be implemented on a BAU basis.
- Implementation of a scope 3 action plan (e.g. supply chain engagement, green procurement) to reduce the Service's indirect emissions.



Resources to Help Deliver Decarbonisation

Resource Name	Resource type	Notes	Link
Salix Finance	<ul style="list-style-type: none"> Interest-free finance Recycling Fund 		https://www.salixfinance.co.uk/
Non-domestic Renewable Heat Incentive (RHI)	Financial incentive; payments received based on heat generation	Due to finish March 2021; expected to be replaced by another mechanism	https://www.ofgem.gov.uk/environmental-programmes/non-domestic-rhi
Energy Technology List	List of the top performing equipment to help make sure new purchases are efficient. Includes heat pumps, boiler equipment, automatic monitoring and targeting equipment, and more.		https://etl.beis.gov.uk/purchasers
Local authorities and sixth carbon budget	A guide for local authorities on their local contributions to the sixth carbon budget		https://www.theccc.org.uk/wp-content/uploads/2020/12/Local-Authorities-and-the-Sixth-Carbon-Budget.pdf
Smart Export Guarantee	Financial support mechanism for renewables up to 5 MW (replaced the feed-in-tariffs)	For solar PV self-consumption or privately selling the power generated generally give better returns than the smart export guarantee	https://www.ofgem.gov.uk/environmental-programmes/smart-export-guarantee-seg/about-smart-export-guarantee-seg#:~:text=The%20smart%20export%20guarantee%20(SEG)%20is%20an%20obligation%20set%20by,force%20on%201%20January%202020
The Workplace Charging Scheme	voucher-based (grant) scheme that provides support towards the up-front costs of the purchase and installation of electric vehicle chargepoints.		https://www.gov.uk/government/publications/workplace-charging-scheme-application-form
Plug In Vehicle Grant	Grant	Not that noticeable because this comes off the retail price	https://www.gov.uk/plug-in-car-van-grants
Public Sector Decarbonisation Fund	Grant funding	Administered by Salix, but different from their normal offering. Currently oversubscribed but could well be back for another round.	https://www.salixfinance.co.uk/PSDS
OZEV grant schemes	OZEV grant schemes for the installation of electric vehicle charging infrastructure		https://www.gov.uk/government/collections/government-grants-for-low-emission-vehicles
RE-fit	A procurement initiative for public bodies wishing to implement energy efficiency measures and local energy generation projects on their assets, with support to assist you in the development and delivery of the schemes		https://localpartnerships.org.uk/our-expertise/re-fit/

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Appendix: Detailed financial results & Assumptions

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Detailed Financial Results

Solar PV

Site	Installed capacity [kWp]	Generation [kWh]	Of which on-site [%]	CAPEX [GBP]	Annual OPEX [GBP]	Annual saving [GBP]	NPV [GBP]	IRR [%]
Ventnor	7.5	7,912	20%	£6,750	£62	£444	£639	4%
Alton	5.4	4,001	20%	£4,860	£45	£212	-£1,938	-1%
Andover	8.1	7,587	100%	£7,290	£67	£844	£5,003	10%
Boley	2.7	2,617	20%	£2,430	£22	£145	-£363	2%
Newport	24.9	20,990	100%	£22,410	£205	£2,313	£11,134	8%

Heat pumps

Site	Assumed heat load [kWhg]	Heat pump size [kW]	CAPEX [GBP]	Annual saving [GBP]	Simple payback [yrs]	NPV [GBP]	IRR [%]
HQ	713,490	251	£376,500	£16,530	22.8	(£430,895)	-
Newport	118,970	42	£35,700	£237	150.6	(£98,503)	-
Ventnor	32,050	11	£9,350	£284	32.9	(£23,244)	-
Andover	85,772	30	£25,500	(£80)	-	(£73,228)	-
Alton	52,380	18	£15,300	£3,658	4.2	£26,829	-
Rushmoor	231,577	82	£69,700	(£823)	-	(£207,124)	-
Hightown	125,665	44	£37,400	£1,135	32.9	(£92,977)	-
Southsea	194,427	68	£57,800	(£73)	-	(£164,744)	-
Hardley	70,983	25	£21,250	£141	150.6	(£58,633)	-

Detailed Financial Results

Replacement boilers

Site	Assumed heat load [kWhg]	Boiler size [kW]	CAPEX [GBP]	Annual saving [GBP]	Simple payback [yrs]	NPV [GBP]	IRR [%]
HQ	713,490	160	£17,967	£7,031	2.6	£63,018	39%
Newport	118,970	140	£10,069	£905	11.1	£356	4%
Ventnor	32,050	40	£5,399	£515	10.5	£538	5%
Hightown	125,665	135.4	£15,244	£1,717	8.9	£4,534	7%
Southsea	194,427	300	£17,967	£1,409	12.8	(£1,740)	2%
Hardley	70,983	130	£12,352	£463	26.7	(£7,020)	-6%

Electrification of the fleet (N.B. figures presented are counterfactual to procurement of ICE vehicles, and do not include charging infrastructure)

Vehicle type/ size	Number of vehicles	CAPEX [GBP]	Grant [GBP]	Annual savings [GBP]	Simple payback [yrs]	NPV [GBP]	IRR [%]
EV - Car - S	43	£560,208	£129,000	£18,187	23.7	(£279,951)	-13%
PHEV - Car - M	112	£689,374	£0	£85,833	8.0	£24,463	4%
EV - Car - M	54	£781,286	£162,000	£30,925	20.0	(£362,094)	-11%
EV - Van - S	20	£235,557	£140,084	£9,973	9.6	(£12,531)	0.8%
PHEV - Van - M	84	£1,038,375	£0	£11,832	87.8	(£1,036,279)	-
EV - Van - M	64	£917,511	£512,000	£54,106	7.5	£44,468	6%

Detailed Financial Results

Double glazing

Site	Total window area [m ²]	Upgradable area [%]	CAPEX [GBP]	Annual saving [GBP]	Simple payback [yrs]	NPV [GBP]	IRR [%]
Newport	271.59	80%	£119,500	£710	168.2	(£106,950)	-10%
Ventnor	21.9	100%	£12,045	£194	61.9	(£8,610)	-5%
Andover	76.5	100%	£42,075	£953	44.1	(£25,233)	-3%
Rushmoor	263.7	15%	£21,755	£418	52.0	(£14,371)	-4%

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Site	Incumbent lighting [-]	Upgradable area [%]	CAPEX [GBP]	Annual saving [GBP]	Simple payback [yrs]	NPV [GBP]	IRR [%]
Newport	T8 / T12 / CFL	40%	£11,226	£1,382	8.1	£9,738	11%
Ventnor	T5 / T8 / CFL	75%	£2,710	£38	70.8	(£2,079)	-7%
Andover	T8	70%	£6,586	£627	10.5	£2,925	8%
Alton	T8 / CFL	80%	£6,324	£464	13.6	£1,331	5%
Rushmoor	T8 / CFL	75%	£20,437	£4,104	5.0	£41,807	20%
Hightown	T8 / CFL	80%	£21,252	£2,321	9.2	£16,997	10%
Southsea	T8 / T12	50%	£19,863	£3,941	5.0	£39,903	19%
Hardley	T8 / CFL	80%	£11,117	£1,012	11.0	£5,556	8%
Botley	T8 / T12 / CFL	75%	£2,186	£236	9.3	£1,702	10%

Assumptions

Financial figures have been estimated from industry standard benchmarks and the desktop survey. Where data gaps exist we have used reasonable assumptions to complete the data. This Action Plan and the figures presented should only be used as a high level guide; for any detailed business case preparation multiple quotes from suitably qualified suppliers/installers should be sought for specific suggested projects, and all suggested projects will require verification and detailed assessment prior to proceeding with implementation. All opportunities included have each been assessed independently in terms of their potential for saving energy and payback. The overall savings figures shown may not fully be achievable due to interactions between measures.

General assumptions include:

- Natural gas and electricity prices of 3p/kWh and 12p/kWh respectively.
- Excluding fleet, any annual maintenance savings are not considered at this stage but increased maintenance costs (e.g. cleaning on solar panels) are incorporated.
- Costs provided are indicative figures for supply and install only. No cost allowance is included for measurement and verification and other on costs such as contingency, overhead and profit, asbestos removal, design, project management, VAT, business rates etc.
- Life Cycle Cost Analysis was undertaken with a 0.035 discount rate and energy cost escalation in line with a Fixed 0% scenario.
- It has been assumed that site data provided (e.g. building condition reports) are accurate and no significant changes have been implemented since.

Project-specific considerations include:

Double glazing

- Costs assume a typical glazing-to-floor area ratio of 10 - 15% and a capital cost of £550/m². The CAPEX was based on a small sample of costs provided by HIWFRS and is higher than the market average due to the specification required. The costs and paybacks are therefore higher than would be deemed 'typical'.
- Energy savings assume that 26% of heat loss occurs through windows and U-values of 4.8 W m⁻² K⁻¹ and 2.0 W m⁻² K⁻¹ for single and double glazed windows respectively.

Assumptions

Boiler replacement

- Boilers were sized based on a like-for-like replacement with the current installation, and reductions in boiler sizes can be expected if fabric upgrades are performed prior to installation.
- Cost data has been taken directly from SPONS and is reflective of standard industry estimates (<https://www.priceguidesdirect.co.uk/spons/all-spons-titles>)

Heat pumps

- Heat pumps have been sized according to the current heat demand, which will likely decrease as fabric improvements are made. The heat pumps are assumed to operate at coefficients of performance (COP) of 2.5 for air-source, and 4 for ground-source. This condition assumes the efficient operation of the heat pump that will require a low-temperature heating system and likely require fabric upgrades and/or larger heat emitters. The costs of these ancillary requirements have not been included, and the costs presented are specific to the heat pump only.
- Costs data is a combination of SPONS and soft market testing conducted by the Carbon Trust.
- The displacement of any supplementary heating is not included. A detailed feasibility study should account for the required heat load of the whole site, and displacing any supplementary electric heating is expected to improve the presented financial case.
- Due to the heat load of SHQ, a ground-source heat pump (GSHP) has been modelled. An air-source heat pump (ASHP) has been modelled for all the remaining sites.

LED

- Existing light fittings were assumed from qualitative condition survey reports. Baseline annual lighting hours were estimated for wholetime (2,236 hours) and retained sites (728 hours) and adjusted on a site-by-site basis in alignment with expected consumption benchmarks for lighting (~20-30% of total electricity consumption).
- The costs include replacement of whole luminaire and therefore represent conservative capital costs. Paybacks are expected to be lower if the fitting can remain in-situ and lamp replacement is conducted only. Savings and costs have been calculated on a per m² floor area basis, which has a large associated uncertainty and should be verified with in-person site audits. The payback for LED lighting is accepted to be 2-3 years in most scenarios.

Assumptions

Solar PV

- Solar capacity and generation were modelled using HelioScope software. Capital costs were estimated using an assumed cost of £900/kWp, and annual cleaning/service costs total £8.25/kWp.
- Retained sites assumed to consume 20% of generated electricity on-site, increasing to 100% for wholetime sites. Any exported electricity brings in revenue of 5p/kWh, whilst on-site energy usage displaces electricity at 12p/kWh.

Fleet

- Prices and fuel economy figures were derived from a market review of mainstream manufacturers. Where there are a range of EV models available, the model with the highest range has been selected to better fit the requirements of the service. It should be noted that cheaper models are available, however interviews with the Service made it clear that there is a cultural barrier to uptake and procurement of high quality EVs was prioritised to encourage their uptake.
- All costs assume outright ownership and sell-on income at the end of the vehicle lifetime (estimated from an annual depreciation of 5%). The lifetime use of cars and vans was assumed to be 6 and 8 years respectively. The annual mileage of the vehicles was estimated from typical consumption of the vehicles in the baseline data.
- HIWFRS procure vehicles through approved 'blue light' frameworks that provide capital discounts. From soft market testing these were assumed to be: ICE vehicles, 22.5%; hybrid vehicles, 17.5%; fully-electric vehicles, 6.5%. These were applied in addition to the plug-in grants available for eligible cars and vans.
- The cost of charging infrastructure has not been included. All costs are presented as counterfactual to the procurement of an equivalent ICE model.
- Where actual fuel data was not available the average fuel consumption for the given vehicle type across the service was used as an approximation.

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EESG Sustainability Charter

The Emergency Services Environment and Sustainability Group (EESG) includes members from UK Police Forces, Fire & Rescue Services, Ambulance Services and other Emergency Services who meet to share best practice and discuss emerging technologies, government policy and legislative requirements.

This Sustainability Charter has been developed for members to pledge their support to work towards a set of common goals and aspirations, embed sustainability within their own organisations, and achieve national and international sustainability objectives. It will also enable members to identify positive effects on sustainability within their communities and manage any negative effects and risks.

All members shall consider the Sustainability Charter aspirations in the development and delivery of their own policies and strategies. It is acknowledged that members are at different stages of their sustainability journey and will have different priorities depending on their core business activities and regional issues.

This Charter has adopted the United Nations Sustainable Development Goals to provide a consistent framework with consideration to all areas of sustainability. Key goals are linked under the People, Planet and Public Purse headings to enable all members to identify relevant areas of sustainability and incorporate these back into their own organisations.

For EESG sustainability means:

Reducing the negative impacts associated with our operations, whilst working towards positive and long-lasting outcomes for our planet, the people within our organisations, the communities we serve and the public purse.

Our organisation recognises that all emergency services have the potential to affect the local and global environment, society and the wider economy. We also recognise that climate change and global trends will continue to have an impact on the demands placed upon our emergency services. We need to be proactive in recognising these impacts to continuously provide an efficient and effective service, and therefore aspire to:

People

- ▶ Take action in our local areas to contribute to the transition to more sustainable cities and communities.
- ▶ Proactively manage our resources as communities change and develop to continue to be receptive to their needs.
- ▶ Provide our staff with the tools and resources required for them to make informed sustainable decisions both in the workplace and at home.
- ▶ Provide a safe and healthy working environment and improve wellbeing for all staff.
- ▶ Continue to improve equality, diversity and inclusion in our organisations and in the communities we serve.
- ▶ Reduce the harmful emissions associated with our operations, to improve local air quality, reduce pollution and enhance the wellbeing of our communities.





Planet

- ▶ Work towards net zero carbon emissions through improving the energy efficiency of our estate and sustainable business and personal travel.
- ▶ Improve resource efficiency and adopt circular economy approaches to reduce waste and save money.
- ▶ Restore and enhance local biodiversity through considered management of our estates.
- ▶ Adapt to inevitable climate change through proactively managing our ability to respond to extreme weather events and changes to service demand.
- ▶ Take action to avoid or mitigate pollution of water courses.
- ▶ Minimise our reliance on fossil fuels by actively seeking to generate renewable energy at our sites, and through the adoption of greener technologies and fuels for our fleet.



Public Purse

- ▶ Use our spending power to promote and adopt sustainable procurement practices
- ▶ Proactively manage the opportunities brought by new technologies to maximise financial budgets.
- ▶ Proactively prosecute wildlife crime.
- ▶ Support our staff and local supply chains to develop and maintain the skills needed to meet our organisational needs and sustainability goals.
- ▶ Maximise Social Value contributions through the contracts we procure.



By signing this Charter

[Redacted signature area]

is agreeing to embed sustainability considerations throughout our organisation. We will measure and monitor progress and will strive to continually improve.

Signed:

NAME: [Redacted] TITLE: [Redacted] DATE: [Redacted]

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