

AVON FIRE AUTHORITY

MEETING:	Policy and Resources Committee
MEETING DATE:	Tuesday, 1 October 2024
REPORT OF:	Chief Fire Officer
SUBJECT:	Annual Environmental Report

1. **SUMMARY**

- Each year the Avon Fire & Rescue Service produces a report on the Service's environmental performance, initiative and plans.
- This report seeks to update the committee on progress within the 2023/2024 financial year.

2. **RECOMMENDATIONS**

2.1 The Committee is asked to:

- a) Note the contents of the report.

3. **BACKGROUND**

3.1 In the 2023/2024 financial year positive improvements have continued to be made to the Service's environmental impact.

3.2 The Service is currently ahead of the targeted emission reduction, with a 54% reduction compared to the 2019/2020 baseline, against a target of 40%.

3.3 The acceleration can be attributed to the solar arrays installed within the previous financial year coming on line, along with the district heating scheme at Temple Fire Station.

3.4 Progress continues in many areas to continue to manage the Service's environmental impact and further improve this.

4. **FINANCIAL IMPLICATIONS**

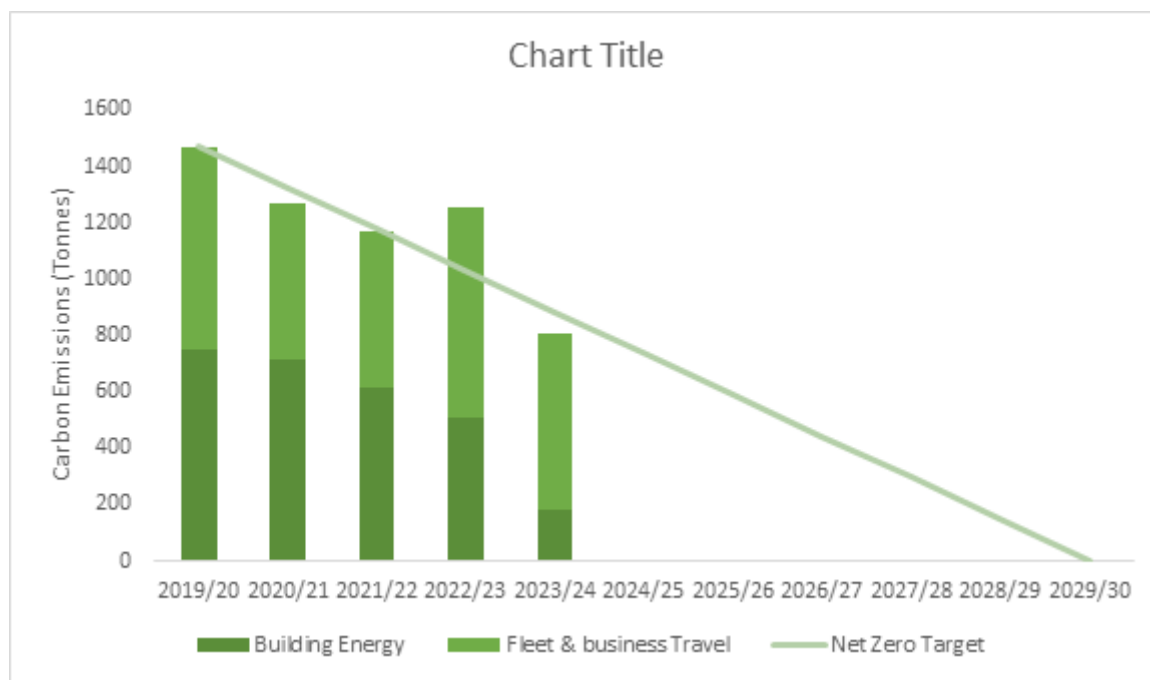
4.1 This report has no financial implications.

5. KEY CONSIDERATIONS

Net Zero Carbon by 2030 – Commitment Progress

Performance Indicator	Target 2022/23	Actual 2022/23	Trend	Target 2023/24	Actual 2023/24	Trend
Carbon Emissions reduction from 2019/2020 baseline towards Net Zero by 2030	30% reduction	15%	↓	40% reduction	54%	↑

- 5.1 By the end of 2023-2024 emission reductions were ahead of target, achieving a 54% reduction against the 40% target, based on a linear 10% reduction target per year from the 2019-2020 baseline. The acceleration against the target is due to solar arrays at Nova Way beginning to produce energy, alongside the connection of Temple Fire Station to the local district heating system. It is likely that in future years, performance against the target will be affected by the adoption of technologies that are, or are not yet, available to the Service.



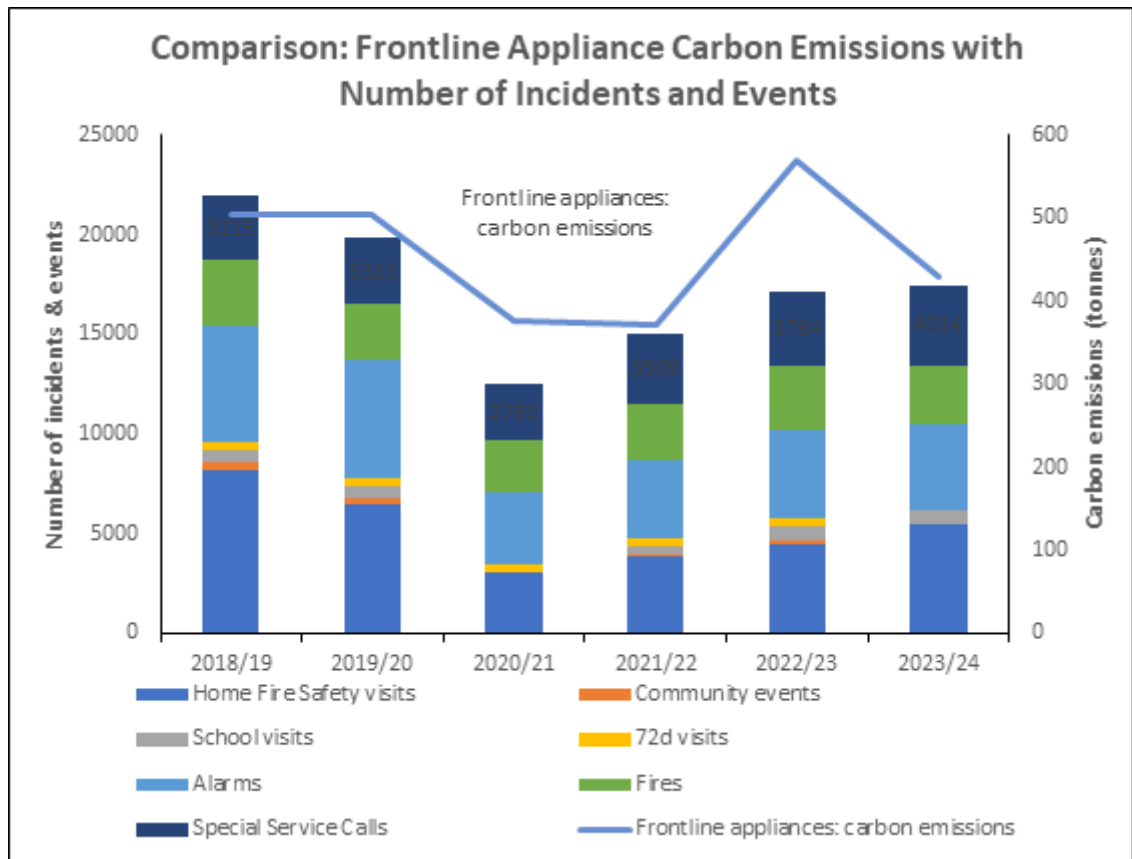
- 5.2 In 2023/2024, fleet emissions accounted for 77% of emissions and buildings accounted for 23%. This continues the trend of the Service's estate reducing its carbon faster than the fleet, and widens the gap between the two, even though emissions have fallen in both areas.

Estate performance

- 5.3 The emissions of the Service's estate continues to reduce significantly due to the continued investment in renewable energy generation and the capital programme of building improvements. Additionally, the Service has engaged further with Bristol City Council to secure energy providers who can certify that the electricity and gas utilised by the estate is produced via renewable means. The Service now has the requisite certificates to prove this. In future years the energy usage of the estate will no longer carry through any emissions to be included on the emissions calculations.
- 5.4 Estate initiative will continue to reduce energy consumption, through behavioural change, fabric improvements, the installation of renewable energy measures on sites and new technologies to unlock the lowest environmental impact during operation as possible.

Fleet Performance

- 5.5 The carbon emissions of the fleet continue to fall due to a range of factors such as:
- i. Further introduction of electric vehicles within the fleet to 25
 - ii. Reduction in mileage continuing due to embracing new ways of remote working
- 5.6 However, the fleet continues to be faced with technological blockers to progress at significant pace. Electric appliances are currently being trialled within other Services with mixed results. Due to the costs involved in the research and development of such technologies the Service is not currently directly trialling any such technologies on front line appliances but continues to monitor progress within the market to identify opportunities when possible.
- 5.7 One such opportunity that the Service is looking to implement is the introduction of Hydrogenated Vegetable Oil (HVO) in place of diesel within the fleet. This is currently being adopted successfully within North Wales Fire Service. HVO utilises a waste product from the agricultural industry to fuel vehicles. The HVO can be used as a direct swap, with no need to modify any vehicles. As the fuel is a waste product it carries a much lower carbon factor on the carbon emissions calculation and will reduce emissions in those vehicles that can use HVO to almost zero. The Service will look to trial HVO in the support fleet in 2023/2024, if the trials are successful the fuel will be adopted in a future year.



5.8 The above graph shows that the number of vehicle movements is now becoming less linked to the levels of carbon emissions being produced, due to improvements in the fleet's efficiency.

Demonstrating Environmental Leadership in the Fire & Rescue Sector – Progress

- 5.9 The Service has continued to demonstrate environmental leadership in the sector over the past year, such as being pro-active in managing and reducing potential risks associated with the use of fluorinated firefighting foams ahead of legislative changes.
- 5.10 The next stage of the management of the fluorinated firefighting foam risk to carry out a number of initial ground investigations at our highest risk sites. This will be undertaken within the 2024/2025 year.
- 5.11 Regular environmental communications have kept staff informed of progress and initiatives that they can be involved in. This includes articles in the Shout and on the intranet sharing knowledge, litter picks, and updates in the sustainable travel initiatives.

Environmental Performance

5.12 Other achievements against each of the Environmental Strategy's Strategic Aims include:

5.13 Efficient & Effective Estate

- i. The average energy performance rating of the Service's buildings is now B, on a scale of A to G, with A being the most efficient and G the least. Improved efficiency within our buildings and generating more of our own electricity has mitigated over £50,000 as energy prices continue to increase.
- ii. Biodiversity initiatives have included a 'No Mow May' approach across the estate, introduction of outdoor well-being area in most stations with a focus on promoting nature, and an increased partnership with environmentally focused community groups in Pill who help to manage the outside space, promoting biodiversity.
- iii. The ditch the print campaign, as part of the digitisation of the Service, has continued to reduce paper and energy usage. In 23/24 there was a 16% saving of paper, compared to the baseline data, with a 5% reduction in energy usage from the previous year and a 17% reduction compared to the baseline energy usage.
- iv. Pollution prevention measures taken include, Trade Effluent Consents present in all bar 3 stations. The remaining stations are required to travel to local stations with consents in place to carry out washing, this reduces the risk of pollutants entering local water sources.

5.14 Renewable Energy

- i. The proportion of electricity demand met by on-site renewable sources in 23/24 was 28%. Which is linked to the solar installations that came online within the year.
- ii. Supply with 100% renewable electricity and 100% green gas in 2023/2024
- iii. Within the 2023/2024 the Feed in Tariff generated an income of just over £13,000.

5.15 Cleaner Transport & Travel

- i. The fleet continues to include 25 electric vehicles, with plan to expand this within 2024/2025

- ii. More sustainable travel initiative have continued to be rolled out to staff, increased cycle storage has been introduced at a number of stations and access to free bike maintenance through Dr Bike has continued.

5.16 Sustainable Procurement in Practice

- i. Impact assessments are becoming embedded practice within the Service, enable environmental measures and concerns to be considered throughout the procurement process.

5.17 Ambitious Environmental Management

- i. The environmental management system is now in place and being implemented as planned. The EMS review committee is meeting annually to review and set targets appropriately.

5.18 Environmental Strategy 2020-2030: Strategic Aims

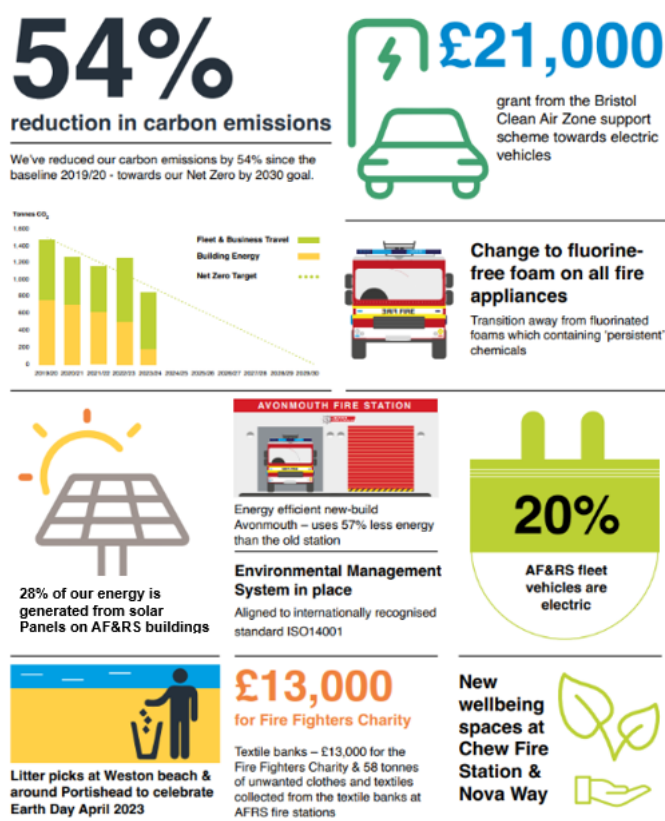
- i. Update 2023-2024

Description	Comments/Progress
1. An efficient & effective estate	
Develop Estates Net Zero Plan	Atkins Realis (prev known as Faithful and Gould) contracted reports to progress over winter 2024
Trade effluent consent works	Works completed at all but 1 feasible site, 3 stations will continue to wash elsewhere, final station works to be completed early 2025
Establish data for all waste streams	Work on-going to collate data for all waste streams with procurement
Establish waste matrix & update site waste maps	Waste matrix completed; Nova Way waste map updated; Env & Supplies to produce updated waste map for all other sites
Establish Ecological Grounds maintenance plans	Ecological Grounds Maintenance Plan added to Grounds Main tender spec as a requirement - tender exercise to be actioned late 2024.
Continue to support & establish Wellbeing Spaces	Wellbeing spaces at Nova Way & Chew Magna completed
Ensure Sustainability Outcomes for new builds & refurbishments	On-going as & when required
2. Renewable energy generation	
PSDS Phase 1: 3 yrs annual monitoring reports (2023-2025)	1st year sent April 2023, 2 nd year reporting not yet open
Further LCSF & PSDS funding	Awarded LCSF funding June 2023; decision not to apply for PSDS Phase 3c Oct 2023 due to match funding requirements
Feasibility for additional renewable generation capacity	All sites to be considered as part of Atkins Realice as part of HDPs
Implement renewables/low carbon techs identified in HDPs/Net Zero plan	Strategy to be produced from instructed reports produced by Atkins Realis, discussion required to allocate appropriate funding

Procurement of renewable electricity & green gas	Gas contract renewed 100% green gas (LASER framework); new 100% renewable electricity contract established (LASER framework)
Establish Power Purchase Agreement for future electricity supply	Plan is to be supplied from BCC sleeved pool from 2024/2025
3. Cleaner transport & travel	
Develop travel policy based on sustainable travel hierarchy	Policy published end 2023
Develop Service-wide Travel Plan	Published May 2023
Review business travel data (Scope 3)	Reviewed with Finance - requirements integrated into new finance expense system; need to liaise with Procurement/Supplies to access rail & air data
Implement sustainable travel initiatives	Improved bike storage at stations - in progress; registered for Travel to Work survey 2024; travel poster (Big Shout Dec 2023); reminder issued via SMs for crews to switch off appliances when non-critical;
Establish Fleet Decarbonisation Strategy	Fleet Manager to progress. 20% fleet is electric.
4. Best practice in environmental protection	
Environmental Protection NatOGs compliance work programme	Ongoing: requirement for an EP working group; EP training review; & implementation of ops assurance system to check that EP OINs/procedures are put into practice at incidents & reviewed
Bulk foam transition to fluorine-free foam	PFAS management strategy published June 2023. Procurement for Bulk Foam awaiting new national framework - scheduled 2024/2025
5. Sustainable procurement in practice	
Work programme based on self-assessment Public Sector Flexible Framework	Ongoing
6. Ambitious environmental management	
Regular stakeholder meetings	Regular updates at SEN; 1st Mgt Review meeting Sept 2023
On-going management of EMS incl 2 yearly site audits; ISO14001 certification; internal audit;	Ongoing - 20 sites audited 2022-24 to date; 1st stage ISO14001 audit Sept 2023
On-going monitoring/reporting - carbon, energy, waste & water	On-going
Review & support Environmental Impact Assessments	On-going
Review Environment Matters e-learning & continue to roll-out	E-learning mandatory for all staff. Review of module needed including review of carbon literacy training for senior staff.
Regular environmental comms & intranet updates	Ongoing
Networking - local authorities, emergency services etc	Ongoing
Keep Net Zero tool up to date	Overcomplicated - suggest this is abandoned!
Review Carbon Calculation Methodology and Scope 3 calculations.	To be progressed in 2023/24 - align with ESESG working group and other FRS
Offsets	Assess potential offset schemes incl via fuel card contract once awarded 2024

5.19 Updated Service Infographic

Environmental performance Avon Fire & Rescue Service 2024



6. RISKS

- 6.1 The activities undertaken in the 2023/24 year continue to work towards managing CR21 on the corporate risk register.

7. LEGAL / POLICY IMPLICATIONS

- 7.1 The work carried out in 2023/24 continued to ensure that the Service was compliant with all relevant environmental legislation.
- 7.2 Further investigation into the presence of fluorinated fire fighting foams in the environment around our stations, to ensure that the Service stays ahead of any legislative changes.

8. BACKGROUND PAPERS

- 8.1 Policy and Resources Committee - September 2023 – Item 13
<https://avonfire.moderngov.co.uk/ieListDocuments.aspx?CId=170&MId=412>

9. APPENDICES

None

10. REPORT CONTACT

Patrick Hollins, Head of Estates, Jane Williams-Lock, Deputy Director of Corporate Services.