

Report to	<b>Fire and Rescue Authority</b>
Date	<b>21<sup>st</sup> October 2024</b>
Lead Officer	<b>Justin Evans, Assistant Chief Fire Officer</b>
Contact Officer	<b>Tim Christensen Environment and Climate Change Manager</b>
Subject	<b>Heating Decarbonisation Plan</b>



## PURPOSE OF REPORT

- 1 This report sets out the details of our Heating Decarbonisation Plan, which provides detailed measures and timescales to mitigate the carbon emissions arising from the heating of our estate for the period up to 2030.

## RECOMMENDATION

- 2 That Members approve the Heating Decarbonisation Plan.

## EXECUTIVE SUMMARY

- 3 Under Welsh law, we are required to mitigate our operational carbon footprint by 2030. This Plan addresses the emissions from the heating of our estate, with a detailed plan to eliminate these emissions as required under our Environmental Strategy.
- 4 The plan proposes an end to the installation or significant refurbishment of hydrocarbon-fuelled heating systems from the end of the current financial year. Following this, we plan to undertake a phased programme of replacement of existing gas or LPG systems, which will be requested as part of the draft budget each year.

## BACKGROUND

- 5 The Environment (Wales) Act 2016 requires Welsh Government to enact a series of carbon budgets, setting out a path for Wales as a nation to be carbon neutral by 2050. Under Carbon Budget 2, the Welsh public sector is required to have reached this goal by 2030.
- 6 To comply with this ambition, the Authority adopted an Environmental Strategy on 17<sup>th</sup> July 2023 covering the period 2023-2030. Among other targets, this Strategy mandated the development of a Heating Decarbonisation Plan, setting out how we would mitigate the Scope 1 (direct) carbon emissions arising from the heating of our estate.

- 7 A Members Working Group was convened between April and July 2023 to provide Members with relevant information and to obtain strategic direction for the development of detailed decarbonisation plans. This group endorsed the heating decarbonisation strategy set out in this report.

## INFORMATION

- 8 The Plan sets out a range of low or zero-carbon technologies which will be considered for each site on an individual basis. The proposed approach is to divide sites into two categories based on their level of occupancy.
- 9 For sites with high occupancy levels – typically day crewed and 24hr stations, a higher cost, high efficiency approach will be taken, typically this will include installation of an air source heat pump.
- 10 For lower occupancy sites (typically retained fire stations) we will aim to install lower cost but less efficient decentralised electric heating systems. These will be typically be installed with timed controls so that heat is only provided when spaces are actually occupied or there is a need to protect the building fabric from low external temperatures.
- 11 We plan to replace existing heating systems in a phased programme, likely to be one high occupancy site and three low occupancy sites per year. A Working Group has been established with Service personnel to prioritise and plan these projects, considering age, efficiency and condition of existing systems.
- 12 This Working Group will also examine the future heating needs of appliance bays on a case-by-case basis.

## IMPLICATIONS

Well-being Objectives	The proposed Plan aligns with the Authority's stated Well-being Objectives.
Budget	<ul style="list-style-type: none"> <li>• Significant capital costs to install new heating systems, estimated to be around £600,000 per year for the foreseeable future, however many of the existing heating systems are beyond end of life and require replacement at the point of failure in any event.</li> <li>• Running costs on larger sites should be considerably lower than existing gas and LPG systems. Electric systems at smaller sites will be less operationally efficient but we hope to offset</li> </ul>

	<p>this through better controls and installation of solar photovoltaic arrays.</p>
Legal	<p>Risk of non-compliance with Well-being of Future Generations (Wales) Act 2015 and Environment (Wales) Act 2016.</p>
Staffing	<p>No changes to staffing levels are anticipated as a result of this Plan</p>
Equalities/Human Rights/ Welsh Language	<p>EDI Manager consulted through the development of this Plan, no issues raised.</p>
Risks	<ul style="list-style-type: none"> <li>• Budgetary risks due to complexity of individual projects and potential need for rewires / other work.</li> <li>• Temporary demobilisation of stations will be required in many cases, creating operational risks. We will endeavour to provide temporary suitable alternative facilities at each site wherever possible to allow station crews and assets to remain available.</li> </ul>