

**Eco Impact Checklist**

<b>Title of report: Welsman Heat Decarbonisation</b>				
<b>Report author: Samuel Bryan</b>				
<b>Anticipated date of key decision 14<sup>th</sup> December</b>				
<b>Summary of proposals: Installation of air source heat pump at the Council's Welsman building.</b>				
Will the proposal impact on...	Yes/ No	+ive or -ive	If Yes...	
			Briefly describe impact	Briefly describe Mitigation measures
Emission of Climate Changing Gases?	Yes	+ve	The existing oil fired heating system is being replaced with air source heat pumps. ASHPs are a renewable form of heating, although the heat pumps consume electricity.	
		+ve	The Energy Service intends to procure renewable electricity in future supply contracts, which will minimise the greenhouse gas emissions associated with the new heating system.	
		+ve	A consultant has confirmed that the building is well enough insulated to ensure the efficient running of the heat pumps.	The heat pump location is yet to be finally decided, but will be based on ensuring that they operate as efficiently as possible. New pipework will be insulated.
		-ve	There will be embodied emissions from the ASHPs and potential emissions from any leakage of the refrigerant gas they use.	Embodied emissions will be part of the decision about which ASHP model to install. The Global Warming Potential of the refrigerant gas will be less than 150.

Bristol's resilience to the effects of climate change?	No		The ASHPs will not have a cooling function.	
Consumption of non-renewable resources?	Yes	+ve	Switch from existing oil boilers will reduce Council's consumption of fossil fuels.	
Production, recycling or disposal of waste	No	+ve	A small amount of waste will be created during installation and the removal of the existing heating system.	All waste produced will be treated according to the waste hierarchy and in compliance with waste law.
The appearance of the city?	No			
Pollution to land, water, or air?	Yes	+ve	Improvement in air quality as oil boilers are a source of NOx	No mitigation required.
		n/a	There is a risk of an oil spillage if the tank feeding the existing heating system is removed before being emptied, or leakage if the tank is left in situ, but still containing oil.	The emptying and removal of the tank will be undertaken separately by Building Practice and is not relevant to the work covered by this proposal.
		-ve	Because heat pumps are louder than boilers, are located outside and run	Following an acoustic survey, an acoustic fence will be installed at the same time as the heat

			constantly there is the potential for noise pollution	pumps to minimise noise transmission.
Wildlife and habitats?	No			
<b>Consulted with:</b>				
<b>Summary of impacts and Mitigation - <u>to go into the main Cabinet/ Council Report</u></b>				
<p>The significant impacts of this proposal are a reduction in emissions of climate changing gases and a reduction in consumption of non-renewable fossil fuels. The project also reduces emissions of NOx which has a negative impact on air quality.</p> <p>The proposal does not require any environmental mitigation measures as it is largely beneficial.</p> <p>The net effects of the proposals are positive</p>				
<b>Checklist completed by:</b>				
Name:			Sam Bryan	
Dept.:			Energy Service	
Extension:				
Date:			25/10/2021	
Verified by Environmental Performance Team			Giles Liddell, Project Manager – Environmental	