Background Document

Eco Impact Checklist

Title of report: Clean Bus Technology Fund
Report author: Jacob Pryor
Anticipated date of key decision: Cabinet 5th March 2018
Summary of proposals: 1. Bristol City Council has been issued a Statutory Direction by government to bring levels of NO_2 within EU limit values in the shortest time possible. Poor air quality is having a detrimental impact on the health of residents, in particular vulnerable groups such as the elderly, children and those with existing cardiovascular and respiratory conditions 2. Buses and coaches contribute to approximately 23% of all NOx in the city 3. The proposal would see 166 buses retrofitted with Selective Catalytic Reduction Technology (SCRT) which would reduce NOx by approximately 60,226 kg/year – equivalent to a 92% reduction across the considered bus fleet. 4. The effectiveness of SCRT has been proven through previous projects that the council have delivered using the technology and have been verified by the 'CVTF & CBTF Programmes Evaluation Report' (August 2017).

Will the proposal impact on...	Yes/ No	+ive or -ive	If yes...	
			Briefly describe impact	Briefly describe Mitigation measures
Emission of Climate Changing Gases?	Y	-ve	The deployment of Selective Catalytic Reduction Technology (SCRT) imposes a small fuel efficiency penalty through use of a particulate filter. The government's review of retrofit technologies shows a 3-5% increase in CO_2 post retrofit.	E-Fans have been included in the funding bid to government. The deployment of E-fans work to cool the engine and negate the CO_2 penalty arising from the SCRT unit
Bristol's vulnerability to the effects of climate change?	Y	-ve	See above	
Consumption of non-renewable resources?	Y	-ve	See above.	
Production, recycling or disposal of waste	N/A			
The appearance of the city?	N/A			
Pollution to land, water, or air?	Y	+ve	The retrofitting of buses will reduce the	Vehicles likely to use

			impact of health-harming air pollutants. Specifically NOx and PM emissions are reduced by SCRT typically by >90% depending on make and model of bus	routes through the Air Quality Management Area (AQMA), and buses complying with older Euro standards should be prioritised, to maximise the benefits.
Wildlife and habitats?	N/A			

Consulted with:

Summary of impacts and Mitigation - <u>to go into the main Cabinet/ Council Report</u>

The proposals are expected to be mainly beneficial, reducing Nitrogen oxides (NOx) and particulate (PM) emissions by at least 75%, depending on the retrofit technology used and the age of the vehicles being retrofitted. If the routes used by the retrofitted vehicles go through the Air Quality Management Area, the relative benefits will be greater. If Selective Catalytic Reduction Technology is used, it is likely to increase carbon emissions slightly, which puts it in conflict with the citywide carbon reduction target for 2020. However, the NOx emissions from traffic are a significant health and local pollution hazard in UK cities, so the likelihood is that the benefits from significantly reducing NOx emissions from buses will outweigh slight increases in carbon emissions.

Checklist completed by: Giles Liddell, Environmental Performance Team, with air quality advice from Andrew Edwards, Sustainable City and Climate Change Team

Name:	Jacob Pryor
Dept.:	Growth and Regeneration
Extension:	07837 006 372
Date:	19/02/2019
Verified by	Nicola Hares (Environmental Project Manager)