

Retrofits for “Yellow” buses

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Background

- WYCA owns 165 Euro III/IV BMC condor vehicles which provide 230 school bus services across West Yorkshire.
- In 2013, WYCA was grant funded £1m from CBTF to retrofit 119 Euro III vehicles with SCRT.
- In 2014, further award from to retrofit the 46 Euro IV vehicles.
- WYCA funded 'Greenroad' driver performance management system and refurbishment and repainting buses.
- Eminox used to fit SCRT equipment.

Emission Targets

- Contract awards based on a requirement to meet the following emission targets:
 - -70% NO_x
 - -50% NO₂
 - -90% PM
- Limit emissions of N₂O, NH₃ and other green house gases

Millbrook Test results (Euro III)

The BMC Condor vehicles were tested on a TfL MLTB Millbrook cycle pre and post fitting of the SCRT equipment. The results were as follows:

97.1% NO_x reduction

55.6% NO₂ reduction

93.7% PM reduction

Zero Methane and limited ammonia

In Service Test Results

- The buses operate services in urban and rural areas with significant variations in topography, journey length and stopping arrangements – so roadside monitoring was not a suitable measuring tool.
- A secondary NO_x sensor was fitted one vehicle, which was used provide a range of service types over a 3 month period.
- c80-90% NO_x reductions we achieved on all routes.

Lessons Learned/Going Forward

- Complex logistical exercise. Requirement for SCRT installation to fit around 6 weekly inspections, MOTs, FTA checks and ensure 150 of 165 buses available for operation.
- Early engagement with operator and partnership work with supplier and operator essential.
- Maintenance costs for SCRT equipment should be capitalised within grant.
- More Information/advice to smaller operators on the suitability of engines for conversion and the cost/availability of conversion kits.

Thank you. Any questions?

