

GREATER MANCHESTER INTEGRATED TRANSPORT AUTHORITY

REPORT FOR INFORMATION

DATE: 18th December 2009
SUBJECT: DfT Green Bus Fund Submission
REPORT OF: Interim Bus and Rail Director, GMPTE

PURPOSE OF THE REPORT

To provide Members with a final update on GMPTE's submission to DfT's Green Bus Fund, and to inform Members of the results of the competition.

RECOMMENDATIONS

Members are recommended to:

- i) Welcome the success of GMPTE in being awarded £3.16 million from DfT's Green Bus Fund to support the purchase of 66 low-carbon vehicles, which will require capital investment of up to an estimated £9.08 million by GMPTE, plus £1.17 million from SEMMMS Minor and Wigan TIF.
- ii) Welcome the successful bids submitted by three local bus operators, with the support of GMPTE, which will result in 48 further low-carbon vehicles deployed on key bus corridors in Greater Manchester, contributing to the service enhancements under the Transport Fund Accelerated Package.
- iii) Note that further reports will be submitted to Policy and Resources Committee once more detailed implementation plans have been initiated.

BACKGROUND DOCUMENTS

Information held on file in GMPTE offices

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1. Background

- 1.1 As previously reported, officers were developing a bid submission to the DfT's Green Bus Fund competition, to support the purchase of low-carbon vehicles by GMPTE. Three bids for 66 vehicles were submitted on time on Wednesday 18th November, after obtaining approval via the delegated authority process previously agreed at the Authority meeting on 16th October 2009.
- 1.2 The competition offered an opportunity to bid for funding for the incremental cost of low carbon buses ordered before the end of March 2011 and delivered by March 2012. Minibuses were not eligible for funding, nor were any other associated costs, such as infrastructure or installation costs. The guidance also emphasised that the lower the percentage of the incremental greening costs sought from DfT, the higher a bid's chance of success. The maximum value of bid was capped at £5 million per bidder.
- 1.3 The purpose of this report is to provide details of the final submission and inform Members of DfT's award of funding for all three bids. A summary of each successful bid is provided below.
- 1.4 Furthermore, three local commercial operators also submitted separate bids to enhance their fleets, which have also been successful. The nature of those bids is also outlined below.

2. Summary of Final Submission

- 2.1 Three bids were submitted by GMPTE for low-carbon hybrid diesel-electric vehicles for three separate service types. The total value of the submission was £3.16 million to support the purchase of 66 vehicles. DfT has awarded the full amount of funding requested for all these vehicles, which will require GMPTE to fund the base capital cost, estimated to be £9.07 million. The successful submission is summarised below:
 - Funding of £1.14 million for 20 vehicles to be deployed on Manchester city centre Metroshuttle service
 - Funding of £0.84 million for 16 Yellow School Buses
 - Funding of £1.17 million for 30 vehicles to be deployed on general subsidised services
- 2.2 The remaining investment by GMPTE will be financed through borrowings, to be repaid by the projected future savings to be made from operating the vehicles. The ITA's Finance Officer reviewed the scheme prior to submission and gave his endorsement to the proposal.
- 2.3 For each service type, a range of potential vehicle solutions was included within each bid document, ahead of a full procurement exercise to identify the final vehicle choice. The prices shown here and in the bid itself are therefore only indicative, and may change following the tender process. It

is intended that vehicles will be procured using existing framework agreements currently available through external purchasing organisations. The value of the grant from DfT is fixed at the percentage requested after tendering, within a maximum capped level.

- 2.3 For each service type, the preferred vehicle option was modelled over its whole life and as a result, each bid generated a positive net present value (NPV). The percentage of the estimated additional capital costs sought in each bid is detailed below, and the estimated values shown, based on the preferred vehicle option for each service, are summarised in Table 1.
- 2.4 An independent consultant undertook an evaluation of the available products to help inform the development of the bid, including product specifications, technology maturity and whole life costs including replacement units and general repair and maintenance costs. These on-going costs were included in the financial modelling of each vehicle type, but have not been included in the base vehicle costs shown in Table 1; however the base costs do include an extended 5-year warranty and additional vehicle equipment, such as CCTV, fuel telematics and tracking devices.

3. Bid 1 – Metroshuttle

- 3.1 A successful bid to support the purchase of 20 vehicles to operate the whole city centre Metroshuttle service, following the expiry of the current contract, was submitted. Given the likely need for a shorter-term operating contract reflecting the widely based external funding arrangements, it is expected that, by supplying vehicles with the operating contract, GMPTE will benefit from a wider market of interested operators and lower tender prices.
- 3.2 Two scenarios were modelled; one based on all routes operating with hybrid vehicles and one based on two routes operating with hybrids with the third operating with full electric vehicles. Modelling of the latter option demonstrated poor value for money. It was assumed that an additional vehicle would be required in the operational cycle to allow for the electric vehicles to be re-charged over the course of the day, which would increase the capital investment required, including estimated replacement battery costs of £75,000. Against this, since the mileage of the route is relatively low, fuel savings would not be high enough to off-set these costs and, unlike hybrid vehicles, the electric fleet would not be eligible for Bus Service Operators Grant.
- 3.3 As a result of this modelling, the bid was developed for 20 hybrid buses to operate the entire city centre service. This includes an additional vehicle to enhance service reliability, subject to funders' agreement. A letter of support for the bid from Manchester City Council was also submitted.
- 3.4 The estimated costs of buying, financing and operating a vehicle for this service were modelled against the estimated costs of procuring the same

service on the current 'bought in' basis. From this, the level of 'greening' costs needed from DfT in order to deliver a positive net present value was calculated, while still maintaining adequate contingency in case estimated benefits are not wholly realised. For Metroshuttle, this required a bid for 59% of the estimated additional capital costs of the preferred vehicle, which equated to a bid of £1.14 million to DfT, with the remaining £2.95 million being met by GMPTE. These costs are shown in Table 1.

4. Bid 2 – Yellow School Bus

4.1 This bid for 16 hybrid diesel-electric vehicles for use on Yellow School Bus services has been awarded in its entirety. It includes 2 vehicles funded via Wigan Transport Infrastructure Fund and 6 vehicles funded from SEMMMS Minor, this funding to include initial 5-year repair and maintenance contracts. Discussions have been held with officers from both Wigan and Stockport regarding the financial and operational implications of low-carbon vehicle options, and a letter of support was submitted from both districts. A further 8 vehicles will be match-funded against this external contribution by GMPTE through borrowing, to allow YSBs to be deployed more widely across the county.

4.2 There are very few low-carbon YSB vehicle options. Two suppliers have proposed a low-carbon model, based on their existing hybrid technology; however neither product is currently on the market. Officers have received written confirmation from both suppliers that vehicles will be available for delivery before DfT's stated vehicle order and delivery deadlines of 31st March 2011 and 2012 respectively, including the type approval and low-carbon emission certification process. Notwithstanding this, the grant will only be taken up by GMPTE if the supplier is able to demonstrate that the hybrid bus meets the required standards within the vehicle specification during the procurement process.

4.3 Based on the estimated costs of buying, financing and operating a vehicle for this service against the estimated costs of procuring the same services on the current 'bought in' basis, the proposed level of 'greening' costs needed from DfT in order to deliver a positive net present value, including contingency, was 60% of the estimated additional capital costs for the YSB option. This equated to a bid totalling £0.85 million to DfT, with an estimated remaining investment of £2.33 million for all 16 vehicles, split equally between both internal and external sources. This is shown in Table 1.

4.4 These vehicles will replace vehicles on existing conventional schools services, which will be selected using the standard criteria, such as analysis of current loadings, level of anti-social behaviour and school travel plan data.

5. Bid 3 – General Services

- 5.1 Officers identified sufficient subsidised services across the whole of Greater Manchester for a bid for 30 low-carbon small single deck vehicles, including complementary evening and Sunday services to maximise vehicle use; DfT has allocated the full funding requested.
- 5.2 Details of routes to be operated were not submitted to DfT as part of the bid in order to retain flexibility in the vehicles' future deployment following the results of the resource contract tendering process. Officers will report the proposed deployment of vehicles to Members for approval before implementation.
- 5.3 Based on the estimated costs of buying, financing and operating vehicles for these services against the estimated costs of procuring the same services on the current 'bought in' basis, the proposed level of 'greening' costs needed from DfT in order to deliver a positive net present value, including contingency, was 40% of the estimated additional capital cost. This equated to a bid totalling £1.17 million to DfT, with the remaining £4.96 million to be met by GMPTE.

6. Finance

- 6.1 In determining the proportion of the 'greening' premium to be bid for as described in sections 3 to 5 above, the financial business case for each vehicle was modelled. These financial models include the following key financial assumptions, which have been used in evaluating the business cases:

Table 1: Breakdown of value of Green Bus Fund bids

	M'shuttle	YSB	General Services	Total
Interest rate on borrowings	6%			
Life of vehicle (years)	12	20	15	N/A
Ongoing cost inflation p.a.	2%			
Number of vehicles in bid	20	16	30	66
'Base' vehicle capital cost	£107,000	£110,500	£107,000	N/A
'Greening' capital cost premium	£97,500	£88,000	£97,500	N/A
% of estimated 'greening' cost bid for	59%	60%	40%	N/A
Amount of Green Bus Funding	£1.14m	£0.85m	£1.17m	£3.16m

awarded				
Upfront capital funding required	£2.949m	£2.331m*	£4.965m	£10.244m*

*Includes external contribution of £1.165 million, comprising £0.87 million from SEMMMS Minor and £0.29 million from Wigan Transport Infrastructure Fund

6.2 The upfront capital financing requirement shown above is to be funded from future savings to be made from operating the vehicles that are the subject of this bid. These savings have been calculated by comparing:

- The current costs paid to procure the operation of the services from third party operators, on the basis of the supply, operation and maintenance of the vehicles; less
- The estimated cost to operate the service on the basis that GMPTE provides the vehicles and is responsible for the costs of maintaining the vehicles i.e. the third party operator just provides resource to operate the service.
- All costs associated with maintaining the vehicles, including the cost of a mid life refurbishment, have been factored into the ongoing costs, and have been validated by an independent consultant, as described at section 2.4.

6.3 A summary of the output from each of these models is shown below:

Table 2: Financial model outputs

	Metroshuttle		Yellow School Bus		General Services	
	Per vehicle (£)	For 20 vehicles (£)	Per vehicle (£)	For 16 vehicles (£)	Per vehicle (£)	For 30 vehicles (£)
Base capital cost	107,000	2,140,000	110,500*	1,768,000*	107,000	3,210,000
'Greening' capital cost premium	97,500	1,950,000	88,000	1,408,000	97,500	2,925,000
Capital to be funded by GMPTE	147,463	2,949,250	145,700*	2,331,200*	165,000	4,965,000
Average operating cost saving per annum	20,132	402,642	13,961	223,380	19,384	581,514
Net present value	130	2,605	522	8,350	18,010	540,296

* Includes 50% external funding contribution for base capital cost

6.4 The Metroshuttle bid had the weakest financial business case of the three, delivering a marginal NPV over the period; however there are also strategic reasons for pursuing this route as discussed at section 3.1 above. This may allow for a higher level of operational savings than has been modelled. It should also be noted that no volume discount has been built into the projections for purchase of the vehicles. The projections assume that after 8 years the vehicles will be taken off the Metroshuttle routes and put into the General Services Network. Officers have confirmed that sufficient subsidised services exist to fully utilise

these buses in addition to the 30 buses in the general services bid. They also assume that GMPTE will be able to reduce its percentage contribution to the ongoing operating costs, in order that it can recover its upfront investment in capital costs and share in the overall benefits with the other funding partners.

7. Operator Bids

7.1 Interest in the competition among local bus operators was fairly limited, largely due to the level of remaining investment involved and reluctance to pilot new technology. Notwithstanding this, three operators submitted their own bids, which included a letter of support from GMPTE. All three bids have been successful:

- Stagecoach Manchester: 30 double-deck hybrid buses to completely convert the 42/3 services, giving a combined 5 minute frequency along the Wilmslow Road corridor. It is anticipated that the new buses will come into service in October 2010.
- Bullocks Coaches: 4 double-deck hybrid buses to convert the 147 Oxford Road Link, currently operated with mostly single deck buses, running every 10 minutes from Piccadilly Rail Station via the Higher Education Precinct to Manchester Royal Infirmary. It is anticipated that the new buses will start to enter service from early 2011.
- First Manchester: 14 double-deck hybrid buses to operate, subject to route availability, a proposed cross-city service on the 123/124 routes, running every 10 minutes along the Rochdale and Oxford Road corridors from early 2012.

7.2 In total, with GMPTE's allocation of 66 vehicles and 48 operator vehicles, 114 low-carbon vehicles will be deployed in Greater Manchester which represents 33% of the total number of vehicles funded across England by DfT.

8. Proposed Way Forward

8.1 As previously noted, a proposed procurement route has been identified, and this will shortly be reviewed by the PTE's Strategic Procurement Review Group. This strategy has been developed to ensure that the first vehicle order can be placed by April 2010.

8.2 Officers are developing implementation plans for each service type and will report to Policy and Resources Committee once progress in delivering these plans is further advanced.

9. Conclusions

- 9.1 Officers submitted three bids for 66 vehicles to DfT's Green Bus Fund, on 18th November, with a total value of £3.16 million. DfT has awarded this full funding allocation to GMPTE.
- 9.2 Together with funding for 48 vehicles awarded to local operators, 114 low-carbon vehicles will be deployed in Greater Manchester, which is 33% of all vehicles funded by DfT.
- 9.3 Members are asked to endorse the final submission and welcome the successful award by DfT of the full amount of funding bid for by GMPTE.

10. Recommendations

- 10.1 See front sheet of report for recommendations

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