

Subway replacement battery locomotives

Date of meeting 13 June 2008

Date of report 27 May 2008

Report by Assistant Chief Executive (Operations)

1. Object of report

To gain Partnership approval to appoint a contractor to supply two replacement Subway battery powered locomotives.

2. Background

The Subway operates battery locomotives as an essential item of equipment in the support of its passenger service. The battery locomotives are used nightly to haul plant and materials around the system to numerous worksites. They are connected to various works wagons specifically converted for their roles, such as the re-railing wagons, the compressor wagon and the general purpose 'flat' wagon. During such periods, the normal 600volt traction power is not available.

The locomotives are also used, when necessary, for the recovery of disabled passenger trains or train movement when an incident requires the isolation of the 600volt supply.

The Subway currently operates three battery locomotives. Two of these were purchased new in 1977 during the Subway modernisation. The third locomotive was constructed from the remains of two Taylor Woodrow locomotives modified for use on their re-railing contract during modernisation. These two locomotives which constitute the third unit were purchased by the Subway in 1987 following open air storage of some six and a half years, and cannibalised to produce a single useable unit.

The regular and essential use of these locomotives now requires that they are either replaced or refurbished. The recommendation to replace is based on a number of factors:

- The cost of basic general refurbishment (excluding any modifications) is estimated to be in excess of 70% of the replacement cost.
- The parking braking system is in need of redesign and modification to meet current safety standards. This will avoid the current manual procedure introduced to prevent the locomotive moving without command when parked on site.
- The driver's cabs are extremely basic and need to be re-designed to meet modern ergonomic standards. The 1987 unit is particularly unpopular with drivers due to its cramped and uncomfortable driving position.

- The control system needs upgraded to give the fine speed control and improved safety now available for these locomotives that often are required to operate in close proximity to maintenance staff. This includes the addition of radio control operation remote from the driver's cab – particularly useful for coupling and re-railing operations.
- The increasing difficulty in sourcing spare parts for these three units due to obsolescence.

3. Outline of proposals

Following formal procurement procedures, expressions of Interest were received from four suppliers, three of whom were invited to tender. Only one priced tender was received, the other two invited tenderers withdrawing following issue of specification.

The tender received from Clayton Equipment Ltd is fully compliant. Clayton Equipment Ltd is a world renowned supplier of below ground haulage equipment with a reputation for dependability and reliability. In addition they have significant experience in bespoke solutions applicable to the Subway requirements. The tendered costs are as follows:

<u>Item</u>	<u>Cost</u>	<u>No</u>	<u>Value</u>
Design Cost	£24,000	1	£24,000
Commissioning and Training	£2,300	1	£2,300
Locomotives	£183,150	2	£366,300
Charging Units	£1,900	2	£3,800
<u>Total Value</u>			£396,400

It is recommended that the tender from Clayton Equipment Ltd be accepted.

4. Conclusion

The tender received from Clayton Equipment Ltd represents value for money and provides a solution for the replacement of existing battery locomotives which are an essential part of both maintenance work and recovery of disabled passenger trains. The new battery locomotives will also allow the introduction of better safety and risk controls within the maintenance environment.

5. Partnership action

The Partnership is asked to support the award of the contract to supply two new battery powered locomotives to Clayton Equipment Ltd in the amount £396,400.

6. Consequences

Policy consequences	<i>Supports safety improvements in the Subway.</i>
Legal consequences	<i>A contract with Clayton Equipment Ltd will require to be formally executed.</i>
Financial consequences	<i>Budget provision of £400k has been made in the 08-09 capital budget under the heading Replacement of Battery Locomotives.</i>
Personnel consequences	<i>Drivers will require training on the new equipment. Initial Driver Training is included within the scope of supply.</i>
Social Inclusion consequences	<i>None</i>
Risk consequences	<i>Obsolescence of equipment and inability to perform maintenance and recovery functions would seriously affect operation of the Subway.</i>

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