



Report 05.143
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Committee Passenger Transport Committee
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Wellington trolley bus operation and upgrade

1. Purpose

Note that Land Transport New Zealand has approved the procurement and funding for the upgrade and continued operation of the trolley bus system over the next 10 years; to seek endorsement of Land Transport New Zealand's use of Crown funding for this purpose, and; to authorise officers to conclude negotiations for the upgrade and operation of the system.

2. Significance of the decision

The matters in this report do not trigger the significance policy of the Council or otherwise trigger section 76(3)(b) of the Local Government Act 2002.

3. Background

At its meeting on 17 July 2003 (report 03.392) the Committee endorsed the continuation of the trolley bus system in the following resolution:

Resolved (Cr Buchanan / Cr Evans.)

- (1) That the report be received.*
- (2) That the Committee:*
 - a. Endorses the continuation of trolley bus usage as provided for in the LTCCP.*
 - b. Requests the ownership of the trolley bus overhead be discussed with Wellington City Council.*
 - c. Seeks approval from Transfund New Zealand for a sole supply CPP for the purchase of the trolley bus service in Wellington City with a maximum contract of ten years.*

- d. Negotiates a 10 year contract for the supply of trolley bus services with Stagecoach Wellington, once there is an approved trolley bus CPP.*

Since that resolution officers have been in discussions with Land Transport New Zealand (formerly Transfund), Wellington City Council, the Wellington Cable Car Company, and Stagecoach Wellington to progress the Committee's resolutions.

3.1 Procurement process and funding application to Land Transport New Zealand

In September 2004 the Board of Land Transport New Zealand considered a request from Greater Wellington to approve a procurement procedure for the provision of trolley bus services. The request was declined subject to the Board receiving an application from Greater Wellington for funding for the upgrading of the trolley buses and overhead wires.

Greater Wellington submitted an application for funding (note Attachment 1, Evaluation of Wellington Trolley Bus Replacement), and resubmitted an application for a procurement process to the Land Transport New Zealand board meeting on the 24th March 2005. At the meeting the Board approved the procurement process for the provision of trolley bus services and funding for its share of the upgrade costs. With regard to funding, the Board resolved to:

- a) approve(s) funding of up to \$750,000 (Land Transport NZ share) per year over and above the cost of providing equivalent services by diesel bus over the next 10 years from the Crown allocation to the Wellington region for the purpose of assisting rebuilding and operation of the trolley bus fleet and overhead wiring;*

3.2 Rationale for upgrading trolley bus system

In supporting the upgrade of the trolley bus system, Land Transport New Zealand concluded that:

“Retention of trolley bus services using refurbished vehicles offering greater user convenience and reliability is consistent with the Wellington RLTS and contributes strongly to the environmental and public health objectives of the NZTS. Through user preference, there is also a contribution to the economic development objective of the NZTS.”

The following reasons were among those identified in Land Transport New Zealand's board paper as contributing to the reasons to support upgrading of the trolley buses:

- (a) Financial benefit. Customer surveys have shown a user preference for trolleys over diesels. There is likely therefore to be a benefit to the operator and the GWRC from not changing to diesel buses and a further benefit from the use of trolleys on non-peak services. These financial benefits have not been quantified, however experience

overseas is that passenger numbers can fall by approximately 15% where existing trolley services are converted to diesel, and where new trolley services are introduced to replace diesel, patronage increases between 10 and 18% have been achieved. The economic analysis assumes 1.7%pa growth in patronage on diesel buses and 3.6% pa growth in trolley bus patronage.

- (b) Improvements in reliability of the refurbished buses. In particular a 50% reduction in 'dewiring' incidents.
- (c) Local Health Effects. Trolley buses have clear advantages over diesel buses in the areas of exhaust emissions and noise for people adjacent to the route. This is especially marked in Courtney Place, Manners Street and Lambton Quay at peak times when the noise and fumes from diesel buses can be intrusive.
- (d) National Environmental Effects. Carbon dioxide is thought to be the most significant greenhouse gas behind global warming. Approximately 40% of non-naturally occurring CO₂ comes from transportation. Where the motive power for the trolley fleet is hydroelectricity, which is almost true in New Zealand, the trolley bus is a true zero-emission vehicle and no CO₂ is produced. Even in the UK where electricity is predominantly produced from fossil fuels, trolley buses produce between 50% and 65% of the CO₂ produced by diesel buses.
- (e) Energy Efficiency. The trolley bus electric motor is up to 90% efficient. The diesel engine is approximately 40% efficient in converting fuel into motive energy. CNG buses consume more fuel per km than diesel buses. A fuel cell bus is currently 20% as efficient as diesel in converting fuel to motive energy.

The trolley bus efficiency figure of 90% does not recognise generation and transmission losses, but while the bulk of power for trolley propulsion comes from renewable resources, the environmental consequences of these losses are minimal.

3.3 Total cost of operating the trolley bus network

Subject to the final contract, the total subsidy for trolley bus operation will be in the vicinity of \$4 million per annum, to be met approximately 50 / 50 from regional transport rates and government grant.

As a component of the total subsidy, the extra costs of trolley bus operation versus diesel will be met from Crown funding from the Wellington Transport Package. This is expected to be in excess of \$1 million per annum.

3.4 Government transport funding package

In January 2005 the Government announced a \$225 million transport funding package for the Wellington region. The Cabinet Paper that approved the funding package noted that:

Maintaining sufficient passenger transport (PT) levels of service to retain mode share should be the top priority for further investment in Wellington transport. This is critical to maintain access and avoid exacerbating congestion on heavily used strategic roads.

Of the \$225 million, \$65 million was identified for retaining public transport mode share. The upgrade and operation of the trolley bus network was identified as one of the projects to which the \$65 million could be applied and officials identified that approximately \$10 million should be available to this purpose.

Additional Crown funding may be available from the Enhanced Public Transport component of the Wellington Transport Package.

4. Communication

A media release describing the Committee's decision will be distributed following the meeting.

5. Recommendations

- 1. Note that Land Transport New Zealand has approved the procurement process and funding for the upgrade and continued operation of the trolley bus system over the next 10 years.*
- 2. Endorse Land Transport New Zealand's use of Crown funding from the Wellington Transport Package.*
- 3. Authorise officers to conclude negotiations for the upgrade and operation of the trolley bus system.*

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Attachment

1 - Evaluation of Wellington Trolley Bus Replacement