

# **Submission to Transfund New Zealand from Greater Wellington Regional Council for Funding Assistance to Purchase, Refurbish and Renew the Rolling Stock and other Key Urban Rail Infrastructure Assets of Tranz Metro Wellington**

**November 2003**



# A Funding Request to Transfund New Zealand for the Purchase of Wellington Urban Rail Infrastructure

## 1. Executive Summary

This funding request is concerned with ensuring service continuity for urban rail services in the Wellington region. It seeks to achieve this in four stages by:

- Securing in public ownership the Tranz Metro Wellington urban rail rolling stock, other key infrastructure assets not transferred by Tranz Rail to Track Co (eg stations and commuter carparks) and track access
- Contracting with a quality urban rail operator to manage and operate the Wellington urban rail assets
- Refurbishing some specific rolling stock on an urgent basis to maintain existing services
- Reviewing and replacing infrastructure over the medium to long term to provide both improved quality and quantity of services.

The Council asks Transfund New Zealand to agree to the following request:

- a) A funding contribution of up to \$80m<sup>1</sup> at a financial assistance rate of 60% for the purchase of all the Tranz Metro Wellington rolling stock, other key infrastructure assets not being transferred by Tranz Rail to Track Co and track access.
- b) Assistance with a process to move to a long term contract with a quality rail operator.
- c) Funding support, at a level yet to be determined, for the urgent refurbishment of carriages on the Johnsonville and Wairarapa lines.
- d) Funding support at a level yet to be determined for the renewal and/or purchase of rolling stock and other infrastructure over the next ten years to maintain and improve the Tranz Metro Wellington services.

The Council does not yet have the formal mandate from the community or other stakeholders to proceed with the purchase of any urban rail infrastructure and therefore still needs to formally obtain that mandate. However, the Council is confident, from previous community surveys on this issue that public ownership is favoured by the majority of the community and ongoing discussions with key stakeholders indicate a recognition that public sector control of the key urban rail assets is a vital component of any long term solution to the rail issue. The sequence of events and timetable that the Council envisages is as follows:

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<sup>1</sup> This amount is the upper limit established by Grant Samuel in its review of the Toll Holdings bid to purchase Tranz Rail shares.

- A decision by Transfund New Zealand to assist the Council to fund the purchase of all the urban Tranz Metro Wellington infrastructure not transferred by Tranz Rail to Track Co and track access rights (November 2003)
- A formal Council resolution to consult the regional community on the possible purchase of all the Tranz Metro Wellington urban rail infrastructure and track access rights as a change to its adopted Long Term Council Community Plan (December 2003)
- Negotiation with Toll Holdings Limited for the purchase of all the Tranz Metro Wellington urban rail infrastructure and track access rights (December 2003 to March 2004)<sup>2</sup>
- Development of a detailed funding proposal and business case on the purchase of the key assets in question (December to March 2004)
- Community consultation on the proposal (March/April 2004)
- Formal application to Transfund New Zealand for funding assistance to purchase all the Tranz Metro Wellington urban rail infrastructure not transferred by Tranz Rail to Track Co and track access rights (April 2004)
- Formal decision by the Council to amend its LTCCP (May/June 2004).

This funding application contains some indicative costs for the purchase of infrastructure, its refurbishment and its renewal or replacement. The Council is unable to provide more detailed costs at this time as either that information is not, or cannot, be known until after the Toll Holdings agreement with the government regarding Track Co is finalised, or substantial further work is completed, as is the case with the refurbishment of ageing rolling stock and the medium to long term rolling stock requirements.

The following table is a statement of the current best estimates of these costs, their source and status.

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<sup>2</sup> It is not certain at this time whether Toll Holdings will be prepared to sell the key infrastructure assets separately from the Tranz Metro Wellington business as a going concern.

Stage	Total Estimated Cost \$m	Status/Source
Securing all Tranz Metro Wellington infrastructure and track access rights to position the Council to contract out the operation of rail services	80	Grant Samuel share price advice (to be negotiated with Toll Holdings)
Urgent refurbishment <ul style="list-style-type: none"> <li>• English Electric units</li> <li>• British Rail 'S' carriages (Wairarapa)</li> </ul>	27.1 19.1	Tranz Rail Professional Services Group, November 2003 (upper estimates)
Medium to long term <ul style="list-style-type: none"> <li>• Purchase of new and/or refurbishment of existing infrastructure</li> </ul>	212.5 <sup>3</sup>	Tranz Rail Limited (April 2000) incorporated into Council's LTCCP 2003-2013 and advised to Transfund earlier this year

## 2. Introduction and Background

Tranz Rail Limited announced in October 2000 its intention to sell Tranz Metro Wellington. Prior to that decision the Council and Tranz Metro Wellington had been working on a capital investment programme that would have seen the Tranz Metro Wellington system enhanced. Part of that enhancement programme was to be the refurbishment of rolling stock and the eventual purchase of new rolling stock. The sale announcement halted the development of this capital programme.

While presenting a series of problems the Council saw the decision by Tranz Rail to sell Tranz Metro Wellington as a key opportunity. Up until then the Council had been dealing with a monopoly supplier and as a consequence had no assurance of receiving value for money for its subsidy payment. In addition, Tranz Rail made no capital investments of its own, relying on the Council and hence Transfund New Zealand to provide at least 50% of all capital through the annual contract payments.

The decision to sell Tranz Metro Wellington provided an opportunity for the Council to gain control of the key monopoly assets and create the environment for a truly competitive process to find a new quality rail operator. The Joint Venture (JV) rail company was the vehicle the Council chose in 2001 to achieve this goal. This process was halted as a result of negotiations breaking down between Tranz Rail and the Council's JV.

<sup>3</sup> Please see Attachment 1 - Indicative Rail Infrastructure Investment Programme

In June 2003 the Council called for international tenders for the provision of the Wellington urban rail services using a Transfund New Zealand approved competitive pricing process. At that time Tranz Rail still owned the monopoly access rights necessary to operate the service and therefore any other bidder had to secure those rights from Tranz Rail. This tender process was subsequently suspended with the agreement of Transfund as a result of uncertainty over the control over key assets necessary to run the service.

Also the government has since passed legislation allowing regional councils to both own passenger transport infrastructure and have an interest in passenger transport services.

The government owning the track in future implies that access costs to the track for all operators will be at a reasonable price based on transparent pricing principles. Unfortunately, Toll Holdings currently retains exclusive rights to track access for the urban rail services. As a result, the purchase of key infrastructure assets must be accompanied by the public sector regaining control over track access.

Recently Toll Holdings has indicated that it does not wish to be involved in passenger rail services. This announcement again opens up the opportunity for the Council to secure the key monopoly urban rail assets, including track access, into public ownership and having done so provide a platform for the selection of a quality rail operator through a competitive process.

### **3. Strategic Planning Context**

Urban passenger rail services play an important part in the land transport strategy for the Wellington region. The strategic goal of the strategy is a sustainable and balanced transport system that meets the needs of the regional community. The objectives of the strategy relate to those of the New Zealand Transport Strategy and are:

- Access and economic development
- Affordability
- Safety
- Sustainability and
- Economic efficiency.

The Regional Land Transport Strategy 1999-2004 contains the following key policy relating to urban rail:

“Maintain urban rail as an arterial priority in the public transport network”.

The rationale for the long term continuation of urban rail is contained in the scenario modelling reports listed in the appendix to the Strategy. This work was fully peer reviewed by Transfund's own expert, Sinclair Knight Mertz. The annual benefits to road users of the region's rail network are estimated to be more than \$250 million. This implies a benefit to cost ratio of in excess of 10.

The Strategy advocates for a series of rail enhancements all of which the Council has accommodated within its LTCCP 2003-2013.

#### **4. Bus Replacing Rail Option**

The strategic plan supports urban rail, but this is not all. The Council has also reviewed the work it undertook in 1993 to look at the cost and practicalities of substituting an all bus network for the urban rail network. The consultants, Booz Allen Hamilton (BAH), were commissioned to do this work. They were able to use the up to date travel data obtained for the Council's updated transport model. The outcome of that exercise shows clearly that:

- Only 75% of current peak hour rail travellers would switch to the all bus system with the other 25% going to private car travel, as driver or passenger
- At least \$71 million of new "bus only" facilities would be required to provide a similar level of service quality
- Annual operating costs would be similar to the current rail operating costs.

No recent transport modelling work has been done to identify the increase in congestion costs resulting from a 25% mode shift from rail to private car. However, the key rail corridors parallel the main arterial roads into Wellington and therefore congestion resulting from such a major mode shift can be expected to be significant.

#### **5. Purchase of the Urban Rail Key Infrastructure Assets**

The Council sees that the preferred solution to its rail funding problems of the last ten years is the public sector purchase of the urban rail rolling stock, other key urban rail infrastructure and track access rights. The Council could then competitively tender for the management and operation of these assets to provide a quality urban rail service. This would provide the Council with the confidence to invest capital in further refurbishment and purchase of rolling stock and other projects without previous concerns over the assets being on sold to a third party. Also the Council would have increased certainty over the level of ongoing funding support required to retain and improve the rail services, increasing the Council's comfort over value for money.

The Land Transport Management Act makes it possible for the Council to purchase the urban rail infrastructure and as noted above Toll Holdings has indicated a desire to exit all passenger rail services, preferring to focus on its core business of freight.

However, before the Council can formally proceed with any purchase it needs to obtain a mandate from the community so as to amend its Long Term Council Community Plan (LTCCP) as its current plan does not include any financial implications of such a purchase. To change the LTCCP the Council will have to go through a special community consultative process.

At this stage the cost of the urban rail infrastructure is unknown. An indicative cost was provided at the time of the Toll Holdings original share purchase bid when Grant Samuel was asked by Tranz Rail to advise on the appropriateness of the Toll Holdings share price offer. Grant Samuel indicated a value for the Wellington Tranz Metro infrastructure to be in the range of \$70m to \$80m. The true price will only be revealed through negotiation with Toll Holdings, supported by a thorough due diligence process.

## **6. Contracting the Management of the Assets and the Operation of the Urban Rail Service**

The Council's long held objective for the Tranz Metro Wellington service has been a long term funding agreement with a quality rail operator that provides the Council with a high level of assurance that:

- It is receiving value for money
- The service is effective and efficient
- The service meets key quality and performance criteria
- Infrastructure assets are being maintained and managed appropriately.

The Council has already prepared a funding agreement along these lines as part of its previous, but now suspended, tender process. That agreement has been shared with Transfund New Zealand. Clearly it would need amendment if the Council were to successfully purchase the Tranz Metro Wellington rolling stock, other infrastructure and track access rights. However, the principle elements of that agreement would remain.

To allow a managed procurement process to select an appropriate operator once the Council is in a position of control over key assets, the Council will need to obtain Transfund New Zealand approval for the procurement process. There is therefore expected to be an interim period between the Council owning the Tranz Metro Wellington urban rail assets and it having in place a new rail operator. That interim arrangement might involve the current Tranz Metro Wellington business through Toll Holdings or the Council assuming operational control through a Council Controlled Trading Organisation. There may be other options dependent largely on the attitude of Toll Holdings to the sale of the Tranz Metro Wellington business (ie what is for sale and under what conditions?).

At some future time the Council intends to seek the assistance of Transfund New Zealand to establish a suitable process to move from the current unsatisfactory contract to a long term funding agreement with a new quality operator.

## **7. The Immediate Need After Purchase**

The Wellington rail network is well used with over ten million trips a year. Over recent times the services have been rescheduled to maximise the use of carriages and currently all serviceable vehicles are in use every day. Over time there will be a need to increase the number and quality of rolling stock to meet increasing demand, but the immediate need is to ensure that the existing fleet of carriages and EMUs is retained. There is therefore an urgent need to refurbish the English Electric multiple units and replace the Wairarapa carriages as both face being withdrawn at anytime for various reasons. To enable this work to proceed and the capital invested to be retained in public ownership the Council seeks funding support from Transfund New Zealand to purchase the entire Wellington urban rail infrastructure as noted in section 5 above, at a cost to be determined through negotiations, in addition to funding support for an urgent refurbishment programme as detailed below.

### **7.1 English Electric EMUs**

There are 35 English Electric carriages (EEs). Of these 35 carriages, two have already been refurbished by Tranz Rail prior to October 2000 at its own cost. Two EE carriages are not operational but could be returned to service if refurbished. Of the remainder, 18 carriages operate on the Johnsonville line and 15 carriages on the remainder of the network.

These carriages are in urgent need of refurbishment. Tranz Metro Wellington advise that they experience ongoing mechanical failures with these units due to their age. Eventually, sooner rather than later, a number of carriages will have to be removed from service, thus effecting the level of service on a number of lines.

Greater Wellington recently commissioned Tranz Rail Professional Services to update the estimate of refurbishment cost and to set out an indicative refurbishment programme.

Their estimated refurbishment cost per unit (two car set) is \$1.5m giving a total cost of about \$27.1m. These costs are considered to be upper estimates and able to be reduced by modifications to the specification. The detailed investigation and analysis report by Tranz Rail Professional Services is available, if necessary, to support these figures.

If funding support from Transfund is received further work will be necessary to harden up the exact nature of the refurbishment required and the estimated costs.

### **7.2 Wairarapa carriages**

The Wairarapa line diesel hauled carriages are also in urgent need of replacement. The capacity of the line needs to be increased to accommodate demand by the provision of additional carriages to provide a total of three sets of 6 carriages, an increase of 4 carriages.



The current Wairarapa carriages are wooden framed and should if at all possible be replaced by steel framed carriages. The ex British Rail 'S' car currently held by Tranz Rail Limited and used on the Palmerston North to Wellington Tranz Scenic service are ideal. Other second hand carriages may be available ex U.K. Whatever carriage is chosen the estimated cost per carriage is \$900,000 (more for the generator car).

Replacement of 18 carriages as three trains (6 cars per train) for the Wairarapa line is expected to cost an estimated \$19.1 million<sup>4</sup>. This programme will provide carriages with at least a 25 year life.

### **7.3 Conclusion**

Greater Wellington Regional Council seeks funding approval from Transfund New Zealand to make an immediate start on a refurbishment programme for English Electric carriages and British Rail 'S' carriages once the Council has secured the carriages by the purchase of the entire Wellington urban rail infrastructure and track access rights. The level of funding requested is 60% of the cost.

This initial request is to start the programme and would be followed by a more detailed request regarding the number of vehicles to be refurbished or replaced the nature of the refurbishment programme, estimated costs and the timescale. This is to enable the issue of purchasing new rolling stock to replace some of the older rolling stock, and the possible lowering of the Johnsonville tunnels to either accommodate Ganz Mavag carriages on that line or to enable new rolling stock to operate over it, to be fully worked through. The options for purchase of new rolling stock, have a long lead time and the balance between refurbishment and purchase of new rolling stock may be determined by the length of time between ordering new carriages and their delivery. The capacity of the New Zealand workshops refurbishing carriages will also be a factor.

## **8. The Medium and Long Term**

There are a number of rolling stock requirements that need consideration but are less urgent than the refurbishments already mentioned. These additional requirements involve the purchase of new rolling stock to provide capacity increases and to replace rolling stock being refurbished at the end of its economic life. It also involves further refurbishment of the Ganz Mavag units. The Council has recently appointed Halcrow to work on a medium to long term rolling stock strategy for Wellington.

### **8.1 Maintaining capacity**

The Ganz Mavag carriages are expected to need their second refurbishment within the next ten years, each refurbishment has a life expectancy of around ten years. This means that those Ganz Mavag carriages refurbished in the mid 1990s will be due the second refurbishment from around 2006/07 onwards. This second round of refurbishment could follow the pattern of the previous Ganz refurbishment, that is 4 two car sets a year for 11

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<sup>4</sup> These costs also come from the Tranz Rail Professional Services report (November 2003) that the Council commissioned.

years at an estimated cost of \$700,000 per two car set (ie a total of \$2.8 million a year from 2006/07). Again the Council needs the funding support of Transfund New Zealand before recommencing this refurbishment programme.

## **8.2 New capacity**

After the extension of the urban rail electrification to Waikanae there will need to be an increase in the number of carriages available to provide additional capacity. As noted above the purchase of new units has about a four year lead time, meaning a commitment to purchase will need to be made in the near future once there is certainty over the Waikanae electrification project.

The Council will need an approval from Transfund New Zealand to fund 60% of the cost of new units to be able to progress any purchase. Based on what Perth, Western Australia are paying for EMUs we estimate each new unit (a two car set) would cost around \$5.5 million.

While we have yet to investigate fully all the purchase options it is expected that additional units will be needed from around 2007. This implies that decisions on what to purchase need to be taken in the near future to assure delivery takes place by 2007. It may be possible to join a current purchase programme, such as Perth, which might ensure delivery a year or so earlier.

## **8.3 Possible joint rolling stock purchase agreement with Auckland Regional Council**

The New Zealand future urban rail rolling stock requirements will be small on the world stage. Therefore to achieve the best price it would clearly be advantageous for the Auckland and Wellington rolling stock requirements to be packaged as one national order. Issues of motive power and other specifications would need consideration but the cost advantages are expected to be significant.

As noted above the Council is appointing a rolling stock advisor, with that advisor likely to be the same as that employed by Auckland. This will allow joint working on a national rolling stock strategy to be achieved with hopefully clear national funding advantages.

## **8.4 Funding request**

The Council has included, in its LTCCP, funding for a ten year rolling stock refurbishment and renewal strategy amounting to about \$250 million. This strategy was provided by Tranz Rail Limited in 2000. A copy of the strategy was given to Transfund New Zealand for incorporation into any future national ten year funding forecasts. The Council, as stated above, is reviewing this rolling stock strategy and this may lead to changes to the next LTCCP. At this point the Council seeks support from Transfund New Zealand to work through this review and agreement to assist with the long term funding of the strategy.

## Attachment 1

## Indicative Rail Infrastructure Investment Programme (2003 to 2013)

	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
English Electric refurbishment (cars)		16	17	-	-	-	-	-	-	-
Cost \$m		13.1	14.0							
<i>Refurbishment of 33 of the 39 cars servicing the Johnsonville, Melling and Taita lines. Life of refurbishment estimated at 10 years.</i>										
British Rail cars refurbishment (cars)	-	6	18	-	-	-	-	-	-	-
Cost \$m	-	6.4	19.1	-	-	-	-	-	-	-
<i>Refurbishment of the existing 14 British Rail carriages used for the Wairarapa service, plus 4 additional carriages to provide the planned three 6 car trains each way. The extra 6 cars are to provide additional capacity on the Kapiti line once the electrification to Waikanae is complete. These refurbished carriages are expected to have a 20 year life.</i>										
Ganz-Mavag refurbishment (cars)	-	-		4	4	4	4	2	-	-
Cost \$m	-	-	-	1.4	1.4	1.4	1.4	0.7	-	-
<i>Second refurbishment of Ganz-Mavag cars. Life of refurbishment estimated at 10 years. Ganz-Mavag cars service Paraparaumu/Hutt/Melling lines. Total stock 88 cars or 44 two car sets.</i>										
British Rail convert to EMU (cars)	-	-	4	8	-	-	-	-	-	-
Cost \$m	-	-	6.0	12.0	-	-	-	-	-	-
<i>Conversion of British Rail carriages to 2 car sets through refurbishment and the addition of electric power units. This is a stop gap measure to provide capacity while awaiting the first new EMUs. Tranz Rail estimates that between 160 and 190 cars will be needed to service the Tranz Metro business. Refurbishments and conversions up to 2006/07 will result in a fleet of 163 cars.</i>										
New EMUs (cars)	-	-	-	-	8	10	10	10	10	6
Cost \$m	-	-	-	-	22.0	27.5	27.5	27.5	27.5	16.5
<i>Purchase of new units at an estimated price of \$2.75 million per car cannot begin until 2007/08. Regional Council advises that it would probably take four years from decision to fund to first delivery. Purchase is shown spread over about 20 years. It may be that manufacturing requirements result in 2 or 4 large orders. Acceleration of the programme as shown may be desirable to avoid a second round of refurbishment to the English Electric fleet.</i>										
<b>Other capital projects</b>										
Carpark improvement cost \$m	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
<i>Improved services have attracted additional park and ride commuters. An on-going programme of \$0.5 million per year will be needed.</i>										
Security cost \$m	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
<i>This item includes both security cameras and lighting at stations and station carparks.</i>										
Station and interchange upgrades cost \$m	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
<i>There is a significant backlog of this work and on-going funding is needed.</i>										

	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
Waikanae electrification (includes Lindale station) cost \$m	-	8.0								
<i>Extension of the electrification of the Kapiti line to Waikanae is an important element of the Regional Land Transport Strategy. The project includes construction of a new commuter station at Lindale north of Paraparaumu, to service the main growth area of the Kapiti District.</i>										
New Raumati station cost \$m	-	1.3	-	-	-	-	-	-	-	-
<i>This project is also part of the Regional Land Transport Strategy. It is necessary to relieve pressure on the Paraparaumu Station and to serve those commuters from Raumati who presently drive to Paekakariki to catch commuter trains.</i>										
Johnsonville tunnels lowering cost \$m	-	-	2.0	-	-	-	-	-	-	-
<i>This project would depend on the on-going viability of the Johnsonville line. Lower tunnel floors would allow this line to use the same rolling stock as other lines.</i>										
<b>Grand Totals</b>										
<b>Capital Cost \$m</b>	<b>2.20</b>	<b>31.00</b>	<b>43.30</b>	<b>15.60</b>	<b>25.60</b>	<b>31.10</b>	<b>31.10</b>	<b>30.40</b>	<b>29.70</b>	<b>18.70</b>

Total capital cost for 2003 to 2013 = \$258.7m

Total capital cost for EE refurbishment and Wairarapa carriages = \$46.2m

Total capital cost for 2003 to 2013 (excluding EE and Wairarapa) = \$212.5m

**Note:**

1. Only EE and Wairarapa costings updated to 2003 dollars. All other costs provided by Tranz Rail Limited in May 2000.
2. All costs and programmes are subject to review by the Council's rolling stock advisors, Halcrow.