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Tasmanian Freight Equalisation Scheme: Discussion Paper September 1996

Working Paper

This report examines the appropriateness of established rates of assistance for the shipping of cargo to and from Tasmania and proposes rate amendments for different commodities and different units for the shipment of those commodities. It was undertaken by the BTCE as a preliminary analysis to assist the Tasmanian Freight Equalisation Scheme Review Authority to undertake a more thorough examination of these issues at the request of the Minister for Transport and Regional Development.







Bureau of Transport and Communications Economics

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TASMANIAN FREIGHT EQUALISATION SCHEME: DISCUSSION PAPER

September 1996

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FOREWORD

This Working Paper is the outcome of a preliminary, in-house analysis of general rates of assistance offered under the Tasmanian Freight Equalisation Scheme (TFES). It has been made available to the TFES Review Authority to provide a framework and some data for submissions to the Authority's review of rates of assistance, which has been requested by the Minister for Transport and Regional Development.

We stress that the analysis and views expressed in this paper are entirely those of the Bureau of Transport and Communications Economics and the paper in no way reflects or prejudges the deliberations of the members of the Authority.

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Bureau of Transport and Communications Economics Canberra September 1996

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SUMMARY

This report examines the appropriateness of established rates of assistance for the shipping of cargo to and from Tasmania and proposes rate amendments for different commodities and different units for the shipment of those commodities. It was undertaken by the BTCE as a preliminary analysis to assist the Tasmanian Freight Equalisation Scheme Review Authority to undertake a more thoroughgoing examination of these issues at the request of the Minister for Transport and Regional Development.

Background

The assistance levels provided to shippers under the Tasmanian Freight Equalisation Scheme (TFES) were determined by the Inter-state Commission (ISC) in 1985 and were based on the actual wharf-to-wharf freight rates across Bass Strait from Northern Tasmania to Victoria. This route was chosen on the grounds that Bass Strait is the source of any transport disadvantage that Tasmanian shippers suffer. It is also the most trafficked route for Tasmanian cargo. Having reached the mainland, of course, Tasmanian shippers would have the same access to a range of transport options as their counterparts in other Australian states. Because assistance rates are designed only to assist the cost of moving cargo across Bass Strait, they are the same for all origins and destinations.

The ISC calculated the level of assistance as 60 per cent of the wharf-to-wharf freight rate for low density cargoes and one third of the wharf-to-wharf freight rate for high density cargoes.

Actual freight rates can differ significantly from the indicative freight rates used by the ISC to calculate rates of assistance. The full level of assistance is paid only if the wharf-to-wharf freight rate is above a specified threshold level, calculated as the sum of the rate of assistance and an amount known as the minimum payment. Levels of assistance are reduced by 50 cents for every dollar the wharf-to-wharf freight rate is less than the threshold.

Although levels of assistance are based on wharf-to-wharf freight rates, in practice many freight bills are based on door-to-wharf, wharf-to-door or door-to-door services. The ISC introduced a set of adjustments to convert non-wharf-

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to-wharf freight bills to notional wharf-to-wharf freight costs for the purpose of calculating assistance payments.

Analytical approach

Although minor amendments have been made to the rates of assistance available under TFES since 1985, there has yet to be a thorough re-examination of the continuing validity of formulas used, in view of changes in the costs of transport or freight rates. Nor is there an agreed theoretical basis for calculating levels of assistance. The BTCE therefore took as its starting point the ISC method of calculating levels of assistance and current wharf-to-wharf freight rates for the route from Northern Tasmania to Victoria.

Before focussing the research on particular commodity classifications, it was necessary to address a number of threshold issues which have an important impact on levels of assistance. These were:

- whether 'high density' goods should continue to attract a lower rate of assistance than 'all other goods';
- whether 9 metre trailers with similar capacity to 12 metre trailers should receive less assistance due to assistance being pro-rated according to the length of the unit, and;
- whether the level of parity of assistance between containers and trailers is equitable (i.e. places neither unit at a disadvantage).

Proposed amendments to individual assistance rates were then calculated on the basis of existing wharf-to-wharf freight rates between Northern Tasmania and Victoria and taking into account changes suggested in the examination of the threshold issues. Estimations were also made of:

- the appropriate adjustments to calculate notional wharf-to-wharf freight rates from wharf-to-door, door-to-wharf and door-to-door rates; and
- minimum payments on all routes.

An assessment of the likely impact on TFES payments was also undertaken.

Results

Threshold issues

Levels of assistance for high and low density containers

When the ISC set the levels of assistance in 1985, greater assistance was extended to low density than to high density cargo. The rationale for the differentiation was that ships are more suited to high density cargoes than trucks, so that, in a competitive transport market, sea freight rates for low density goods would be relatively higher than road freight rates for the same commodity.

The BTCE's investigation of actual freight rates and levels of assistance paid by and to Tasmanian shippers in 1994–95 and 1995–96 revealed that, in fact, high density commodities attracted higher freight rates, but lower levels of assistance, than did low density cargoes. Possible reasons for this outcome are canvassed on page 8 of this report. It is suggested that the distinction between commodities based on density should be removed and the proposed rates are calculated on this basis.

Assistance to trailers

An examination of freight rates applying to different lengths of trailer in 1994– 95 and 1995–96 revealed that for trailers less than 10 metres long there is a definite tendency for freight rates to increase in proportion to the increase in length, but that this pro rata increase disappears for trailers above that size. Consequently it is suggested that the existing ascending levels of assistance applying to trailers 10 metres and over should be replaced by a constant level of assistance.

Parity of assistance between trailers and containers

The original rates of assistance were set to maintain a parity between commodities carried in 12 metre trailers and 12 metre containers. Since then freight rates for containers have fallen relative to 12 metre trailers. Indeed the 1994–95 freight rate for 12 metre containers was less than two thirds of that for 12 metre trailers. Moreover, following a 1986 ISC review recommending reduced assistance rates for 12 metre trailers, the relative rate of assistance for containers has risen. In order to restore parity and to bring levels of assistance for 12 metre containers into line with reduced transport costs it is suggested the level of assistance for 12 metre containers be reduced relative to 12 metre trailers. Amendments in line with this recommendation have been made to the proposed assistance schedule.

Calculation of new rates of assistance

The recommended new rates of assistance, minimum payments and door-towharf and wharf-to-door adjustments for different units of carriage and for particular types of commodities are reported in appendix III. They take into account current wharf-to-wharf freight rates on the route from Northern Tasmania to Victoria and the effect of increased land transport costs since the ISC reported in 1985.

Impact of the proposed changes

Given significant changes in the costs of shipping goods and given a relative increase in land transport freight rates relative to Bass Strait freight rates, it is not surprising that the proposed amendments introduce significant changes to

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the overall levels of TFES assistance, as well as with respect to particular commodity classifications.

Overall, if the proposed amended schedules had been applied to TFES payments to shippers in 1994–95, the total level of payments would have been reduced by between 17.4 and 17.9 per cent.

The main beneficiaries of the amendment would have been general shippers of high density cargoes, timber and livestock. The gains for shippers of newsprint through removal of newsprint from the list of specified goods would have been more than offset by the proposed reductions in assistance levels for the units in which newsprint is commonly shipped.

Door-to-door shippers would have been affected more than wharf-to-wharf shippers, principally because of an increase of 50 per cent in the door-to-wharf and wharf-to-door adjustments.

Shippers of cargo on routes other than the route from Northern Tasmania to Victoria would have attracted a higher level of minimum payments because of the impact of higher land transport charges and, as a consequence, lower levels of assistance.

Notwithstanding the above, the overall level of assistance under the amended rates would still have left Tasmanian shippers receiving significant assistance. This is best measured by the ratio of assistance to wharf-to-wharf freight rates. For containers and trailers the level of assistance falls from 58 per cent of the freight rate to 46 per cent. For LCL (less-than-container-load) and livestock, assistance falls from 29.4 per cent of the freight rate to 28.6 per cent.

INTRODUCTION

The present arrangements for the Tasmanian Freight Equalisation Scheme (TFES) came into operation on 1 September 1985. Since then only minor changes have been made. The Inter-state Commission reviewed the assistance rates in 1986 and recommended reductions in the rates for 12 metre trailers because of a 25 per cent reduction in freight rates since the introduction of the revised scheme. A further change was a 5 per cent increase in assistance levels from 1 September 1993 as compensation for increased excise rates for marine fuels in the budget for that year. The TFES Review Authority has also considered and made recommendations concerning specific aspects of the scheme.

In anticipation of a review of the scheme the Department of Transport and Regional Development asked the BTCE to undertake a preliminary investigation to determine the appropriate rates of assistance for all commodity classifications, given the changes, if any, in the level of the cost disadvantage incurred by Bass Strait shippers. The BTCE was also asked to:

address the following possible rate anomalies and other issues:

- whether 'high density' goods should continue to attract a lower rate of assistance than 'all other goods';
- whether 9 metre trailers with similar capacity to a 12 metre trailer should receive less assistance due to assistance being pro-rated according to the length of the unit;
- whether the level of parity of assistance between containers and trailers is equitable so that neither unit is disadvantaged;
- the appropriateness of the level of the door-to-wharf and wharf-to-door adjustment used to convert door-to-door freight rate charges to a notional wharf-to-wharf amount; and instances of where it is possible for a claimant to receive 100 per cent returns of freight paid.

Rationale for the Scheme

Right from the time of Federation recognition has been given to the transport difficulties faced by Tasmanians. The arguments for assisting transport between Tasmania and the mainland were largely based on equity considerations. More recent investigations have also introduced efficiency arguments.

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Nimmo report

Commissioner Nimmo in his report of 1976 made the following findings:

- I. The door-to-door charges for moving most goods over sea routes between Tasmania and the mainland are higher than the charges for moving similar goods over comparable distances by road or rail on the mainland.
- II. The prime cause of the higher than Mainland transport charges is the physical separation of Tasmania from the Mainland.
- III. There is a case for the Commonwealth Government to make financial assistance available to offset the disadvantages caused by Tasmania's physical separation from the mainland:

A. Tasmania is a sovereign State;

B. in federating the States in effect agreed to share resources;

- C. Tasmania is at a disadvantage;
- D. the excess transport and associated costs have militated against development of industry in Tasmania.
- IV. The aims of a scheme of transport to relieve the financial burden would be-

A. to relieve the financial burden experienced;

- B. stimulate the use and development of Tasmania's resources;
- C. promote a more efficient transport system. (ISC 1985a, pp. 128, 129)

Commissioner Nimmo's case for financial assistance (point II) suggests that equity was the major consideration. However, efficiency is an important factor in the stated aims of his proposed scheme.

The Government's objectives for the Tasmanian Freight Equalisation Scheme implemented after the Nimmo report were stated in the guidelines (DOT 1978, p. 1):

The scheme arises out of the fact that, under current conditions of transport and transport costs, the people of a State that is wholly separated by sea from all other States and Territories of the Commonwealth inevitably suffer a disadvantage by reason of their State's lack of access to road or rail transport services to the other States or to the Territories. The Commonwealth wishes to adopt measures that will help to alleviate this disadvantage. Tasmania is the only such State and the object of this scheme is to take some steps towards removing the disadvantage suffered by Tasmania and its people by reason of its lack of access to road or rail transport services to the Mainland. It will achieve this object by subsidising transport services by sea between Tasmania and the Mainland in order to make the door-to-door costs of the Tasmanian consignor approximate the door-to-door costs for moving similar goods by road or rail over the same distance on the Mainland.

The thrust of the Government's objective at that time was apparently to achieve equity between Tasmanian shippers and shippers of similar goods on the mainland.

ISC report

The ISC investigated the scheme in 1985. It took an approach based essentially on efficiency criteria. It argued that the case for assistance was not because Tasmania was an island, but because of the consequences of that fact (ISC 1985a, p. 97). The consequences were a result of differing government policies for the different modes of transport. It said that:

(t)he choice of mode or route is strongly influenced by the effects of government policies on the freight rates which users must pay. In the case of transport between Tasmania and the various mainland locations, the alternative sea and, for some part of the journey, land routes, have freight rates which reflect these policies. Other things being equal, the user selects from available modes on the basis of these freight rates. It is possible that the user, in making a choice which is efficient from his or her point of view, will make a choice which is inefficient from the point of view of the economy as a whole. (ISC 1985a, p. 73)

The transport disadvantage faced by Tasmanian shippers is therefore:

a consequence of several factors: the effects of public-interest regulation of coastal shipping, which increases the costs and freight rates for transport of nonbulk goods between Tasmania and the mainland without similarly increasing the costs and freight rates of transporting such goods between mainland origins and destinations by road and rail; the effects of mainland interstate rail freight charges policy, which result in assisted rail freight rates; and the less significant effects of mainland interstate road freight charges, which may not adequately reflect the appropriate costs of supplying and maintaining the road track required by the large vehicles typically used in interstate non-bulk transport. (ISC 1985a, pp. 77–78)

The ISC noted that it was not the intention of governments to lower the incomes of Tasmanian shippers when the relevant legislation was introduced (ISC 1985a, p. 75). There was thus an equity argument to compensate Tasmanian shippers for the unintended consequences of transport policies. 'If recognisable groups of individuals experience a reduction in their income as an unintended consequence of policies pursued by governments, equity may require that the level of income of that group be restored to the level at which it would have been in the absence of that policy act' (ISC 1985a, p. 77).

Although the ISC recognised that there was an equity case for providing assistance, it maintained that the actual level of assistance should be based on efficiency criteria. It said that 'the best attainable solution for economic efficiency so far as non-bulk goods are concerned would be the difference between the present freight rates which users of sea transport of general goods must pay and the freight rates which users would have to pay if 'best-practice shipping' could be used. ... The effects of assisted rail and road services on the mainland must also be taken into consideration' (ISC 1985a, p. 79).

The ISC view, if accepted, suggests that policy initiatives since 1985 to bring Australian flag shipping costs more into line with 'best practice' and to bring

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about increased levels of cost recovery in interstate road and rail transport would warrant a lower level of assistance to Tasmanian shippers.

However, the Government rejected the ISC's assessment that the aim of the scheme should be to compensate shippers for the unintended effect of government policies (DOT 1985). The scheme as it now exists has no agreed theoretical basis for estimating the transport cost disadvantage faced by Tasmanian shippers. As the TFES Review Authority noted (1995, p. 6) 'the Authority considers that it must take the existing Scheme as its point of reference. That is, in the absence of an agreed theoretical basis for calculating the ISFCD (interstate freight cost disadvantage), the Authority must accept the existing rates as the measure of ISFCD.' The BTCE has also taken as its starting point the existing rates of assistance as a measure of the freight cost disadvantage in 1985 and assessed them against current freight rates using data extracted from the TFES database.

METHOD

Although the scheme provides assistance for transport of Tasmanian produced goods from Tasmania to all parts of Australia, the assistance levels are based on the wharf-to-wharf rates across Bass Strait. The ISC concluded that compensation for Tasmania's freight disadvantage should be based only on freight rates for sea transport across Bass Strait. This was because the Bass Strait link could not be avoided by using another surface transport mode. This was referred to as 'the end at Melbourne' principle. A consequence of this principle is that freight rates from Northern Tasmania to Victoria are the relevant ones for assessing assistance levels, as shippers located in Southern Tasmania can choose to use land transport, for which Tasmania suffers no unique disadvantage, to move their cargoes to northern Tasmanian ports.

The ISC calculated the level of assistance for low density cargoes as 60 per cent of a representative wharf-to-wharf freight rate on the route from Northern Tasmania to Victoria. For high density cargoes, the assistance was calculated at 33¹/₃ per cent of the freight rate. The full level of assistance is paid only if the actual wharf-to-wharf freight charge exceeds a specified threshold level, calculated as the sum of the rate of assistance and an amount known as the minimum payment. Assistance is reduced by 50 cents for every dollar the actual freight rate is less than the threshold. Appendix I briefly describes how assistance levels are calculated and the role of the minimum payments provisions. Minimum payments levels were set for the route from Northern Tasmania to Victoria so that the level of assistance plus the minimum payment totalled 85 per cent of the representative freight rate.

The ISC provided little information on how it calculated minimum payments for other routes. Because the level of assistance is based on freight rates across Bass Strait, it seems logical that the purpose of the minimum payments for other destinations is to, in effect, adjust the notional wharf-to-wharf freight rates on these routes to an equivalent Bass Strait wharf-to-wharf rate.

Threshold issues in the terms of reference provided by the Department of Transport and Regional Development needed to be resolved before estimation of appropriate levels of assistance could be commenced. The issues are those concerning 'high density' goods, relative assistance rates for 9 metre and 12 metre trailers, and the parity of assistance between containers and trailers.

After resolution of these issues, the analysis proceeded in four stages:

- 1. Estimate a new set of rates based on actual wharf-to-wharf rates from Northern Tasmania to Victoria (route G in the TFES database¹).
- 2. Estimate adjustments to bring door-to-wharf, wharf-to-door and door-todoor rates to equivalent wharf-to-wharf rates based on actual door-to-door rates on route G.
- 3. Estimate minimum payments on routes other than route G using the results of 1 and 2 and actual freight rates.
- 4. Estimate the likely impact on TFES payments.

ASSISTANCE FOR HIGH AND LOW DENSITY CARGOES

Figure 1 shows the level of assistance received for wharf-to-wharf shipments across Bass Strait. The scheme provides for a lower level of assistance for high density cargoes than low density cargoes. The level of assistance for high density cargoes averaged just over \$300 per container in 1994–95 and 1995–96 compared with just over \$500 for low density cargoes. In contrast, throughout the period from 1985–86 to 1995–96 high density cargoes attracted higher freight rates than low density cargoes. It is also of interest to note that over 90 per cent of high density freight rates are within the range from \$800 to \$900 and over 70 per cent of low density freight rates are in the range from \$600 to \$700 (figure 2).

Rationale for separate rates of assistance for high and low density cargoes

The ISC (1985a) argued that high density cargoes suffered a lesser disadvantage compared with low density cargoes. This assessment was based on the observation that road transport and sea transport have very different cargo carrying characteristics. The ISC (1985b, p. 245) noted that trucks are more suited to the carriage of low density cargoes than ships. Under competitive conditions, this would result in sea freight rates which are relatively higher than road freight rates for low density commodities. The ISC went on to say (ISC 1985a, p. 246) that 'Given that sea transport must be used, regardless of cost, compensation payments based on freight rates which reflect the carrying capacity of road transport create an additional economic inefficiency which would be avoided if the payments were based on the freight rates of the ships which will actually be transporting the goods'.

1. The codes used for the routes in the TFES database are listed in table II.1 in appendix II. Other tables in appendix II also indicate that in terms of assistance paid, route G is by far the most important route.

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FIGURE 1 AVERAGE WHARF-TO-WHARF FREIGHT RATES AND ASSISTANCE FOR 6 METRE CONTAINERS

Source BTCE estimates based on TFES database.

FIGURE 2 DISTRIBUTION OF WHARF-TO-WHARF FREIGHT RATES FOR 6 METRE CONTAINERS, 1994–95





Source BTCE estimates based on TFES database.

The technology in common use at the time of the ISC investigation may have had an influence on the ISC's assessment. Containers in common use at that time were the high-gate and low-gate 5.08 metre containers. Both container types had a weight capacity of 16 tonnes but whereas the low-gate container had a volume capacity of 16 cubic metres and was more suitable for high density cargoes, the high-gate container had a volume capacity of 26 cubic metres and was suitable for lower density cargoes (ISC 1985a, p. 202). The containers were designed to make best use of the roll-on roll-off vessels in use on the Bass Strait trade at that time. The ISC's recommendation specifically defined high density cargoes as those with a stowage factor of 1.1 cubic metres BTCE Working Paper 28

or less per tonne or which 'are normally regarded as suitable for shipment in containers designed for high density cargoes, such as the low-gate 5.08 unit, or which, in fact are shipped in such units' (ISC 1985a, p. 285).

Table 1 illustrates the freight rates for high-gate and low-gate containers published by the ISC (1985a, p. 465). The table indicates that the high density cargoes attracted lower freight rates per container than the low density cargoes carried in high-gate containers. In addition, high-gate and low-gate containers could be used as a pair (staked pair) to maximise the use of shipping space. The height to which the container pair can be loaded depended on the density of the cargo. Low density cargoes could be loaded to a larger height than the high density cargoes. The freight rates in table 1 therefore suggest that for staked pairs, high density cargoes were charged lower rates than low density cargoes.

However, at the present time 5.08 metre containers are rarely, if ever, used across Bass Strait. In the analysis for this report, no 5.08 metre containers were identified in the data extracted for 1994–95 or 1995–96. Cargo is most commonly carried in 6 metre containers (see table II.3).

Figure 1 suggests that high density cargoes carried in 6 metre containers do not have the advantages claimed by the ISC. The consistently higher freight rates and lower levels of assistance since 1985–86 for high density freight suggests that high density cargoes are at a greater relative disadvantage compared with low density cargoes.

There may be a number of reasons for the higher charges for high density cargoes. Containers loaded with high density cargoes may be more difficult for the shipping company to handle. There are far fewer high density containers (1348 in 1994–95 on route G) than low density ones (16 276 in 1994–95 on route G). The largest shippers of high density containers may be much smaller

TABLE 1 FREIGHT RATES CHARGED ON 5.08 CONTAINERS SHIPPED BETWEEN NORTHERN TASMANIA AND THE MAINLAND, JANUARY 1985

(\$ per unit)

	Northbol	und	Southbo	Southbound	
Cargo unit	Melbourne	Sydney	Melbourne	Sydney	
Single 5.08 unit:					
Low-gate	599	964	599	958	
High-gate	709	1 155	759	1 121	
Staked pair:					
Loaded to 3.75 m	1 014		1 120		
Loaded to 4.25 m	1 150	1 668	1 256	1 613	
Loaded to 5.30 m	·	2 101	—	2 049	

Source ISC 1985a, p. 466.

than large shippers of low density containers and have a correspondingly weaker bargaining position in negotiating freight rates, resulting in larger average freight rates for high density cargoes.

For LCL cargo, freight forwarders tend to mix both high density and low density cargo in an attempt to maximise the use of a container's volume and mass carrying capability. Therefore there seems to be no advantage or disadvantage in carrying high density LCL cargo.

The evidence suggests that the distinction between high and low density cargoes no longer has validity and that a more equitable outcome would be achieved by removing the distinction in the levels of assistance based on cargo density.

ASSISTANCE TO TRAILERS

For a number of commodities trailers provide an alternative means of transport to 6 metre containers. The services available through the use of trailers are likely to be different from those provided by containers. As a result freight rates will be different, but the issue is how the rates of assistance should compare.

It could be argued that the choice between which trailer or container is used will depend on factors such as flexibility in use, convenience, freight rate, stowage factor and protection of the contents. Although a trailer takes more space on a ship than a container with the same capacity, it is much more easily loaded and discharged than a container. These two factors tend to offset each other, so that a reasonable starting point could be that the degree of disadvantage faced by containers and trailers is much the same. That is, calculation of assistance rates using the same principles, but on the actual rates applicable to each transport unit, should lead to an equitable result.

Wharf-to-wharf freight rates for trailers of all lengths were estimated from claimants claiming on the basis of wharf-to-wharf freight rates for route G (Northern Tasmania to Victoria). Data for both 1994–95 and 1995–96 were used to increase the sample size for some size categories.

Figure 3 shows that there is a definite trend to increasing freight rates with increasing trailer length for trailers up to 10 metres in length. Above 10 metres the freight rate, although variable, shows no particular trend. The straight line in figure 3 was fitted using regression techniques to obtain the best fit to the data and, for trailers up to 10 metres, the line explains 95 per cent of the variation.

The evidence suggests that for trailers less than 10 metres in length the level of assistance should be proportional to the length and that a constant level of assistance should be applicable for trailers 10 metres and longer.

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FIGURE 3 WHARF-TO-WHARF TRAILER FREIGHT RATES ON ROUTE G, 1994–95 AND 1995–96 COMBINED



PARITY OF ASSISTANCE BETWEEN CONTAINERS AND TRAILERS

Figure 4 illustrates the distribution of wharf-to-wharf freight rates for both 12 metre containers and 12 metre trailers. It is obvious that the average freight rate for the 12 metre containers is much less than for 12 metre trailers. The average freight rate for 12 metre containers in 1994–95 and 1995–96 was \$835 compared with \$1428 for 12 metre trailers; that is, the freight rate for 12 metre containers was 58 per cent of that for 12 metre trailers.

The ISC report of 1985 recommended the same level of assistance for both 12 metre trailers and containers. The recommended assistance rate of \$1130 per unit was based on a freight rate of \$1884. The rate for 12 metre trailers was reduced following the 1986 ISC investigation, but that for 12 metre containers remained the same until September 1993 when it was increased to \$1190 as part of the general increase of 5 per cent in assistance rates at that time.

The present assistance schedule provides greater assistance to 12 metre containers than to 12 metre trailers even though the freight rate for containers is less than two thirds that of trailers. Furthermore the scheduled rate of assistance for 12 metre containers (\$1190) is larger than the wharf-to-wharf freight rate paid by most claimants (95 per cent paid less than \$1000 in 1994–95 and 1995–96).

The rate of assistance recommended by the ISC for 12 metre containers was almost exactly twice that for 6 metre containers. It seems that the ISC decided to recommend that the ratio between the two container types should be the same as the ratio of their sizes. The tables of freight rates reported by the ISC (1985a) did not include a rate for the 12 metre container, so presumably the ISC had no actual freight rates upon which to base its recommendation. The data presented



FIGURE 4 WHARF-TO-WHARF FREIGHT RATES FOR 12 METRE CONTAINERS AND TRAILERS, 1994–95 AND 1995–96 COMBINED

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Source BTCE estimates based on TFES database.

in figure 4 strongly suggests that the current level of assistance is far above the rate the ISC would have recommended had it had better information.

TIMBER AND ZINC

Under the existing arrangements, timber and zinc come under the 'Specified goods' classification. Rates of assistance are based on the tonnes of zinc or the volume of timber irrespective of whether they are carried as LCL or as containerised cargo.

The TFES Review Authority (1995) recommended that newsprint be removed from the specified goods classification. An important argument used by the Authority was that as newsprint was now 'shipped with similar transport characteristics, on the same vessel, over the same route and with similar freight rates (as other paper products), then on the basis of equity the rates of assistance should be the same' (TFES Review Authority 1995, p. 17).

At the time of the ISC report timber was largely packed in bolsters and shipped as general cargo. Transport arrangements have changed since that time so that now the timber is almost entirely unitised and shipped in bolsters on a steel flat, or in collapsible containers, 6 metre containers, or a trailer.

Similarly the transport arrangements for zinc have changed substantially since the ISC report. At that time zinc was often shipped on special flats and with newsprint (ISC 1985a, p. 459). These special arrangements no longer apply and zinc is now shipped in 6 metre containers.

For both timber and zinc, the transport arrangements are the same as for many other products and attract similar freight rates. There seems little reason why the differentiation recommended by the ISC should continue. Consequently, the

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assistance rates estimated by the BTCE treat timber and zinc in the same manner as any other product. Similarly the analysis is based on the assumption that the Review Authority's recommendation for newsprint will be adopted.

RATES OF ASSISTANCE

The ISC gave no guidance in its report (1985a) on how it estimated the appropriate levels of assistance. However, in an attachment to a letter to Transport Tasmania it reported that the proposed assistance level for 6 metre containers was based on a wharf-to-wharf freight rate for the Northern Tasmania to Victoria route of \$930. The ISC believed that \$930 was an indicative rate for the trade. Interestingly, the ISC used the same freight rate for both high and low density cargoes despite its conclusion that high density cargoes were at a lesser disadvantage than low density cargoes.

The scheduled level of assistance for low density 6 metre containers was then set at 60 per cent of the indicative rate of \$930 (rounded to the nearest multiple of \$10). The scheduled level was therefore \$560. The minimum payment was then calculated so that the level of assistance was reduced for freight rates of less than 85 per cent of the indicative rate (that is, for freight rates less than 0.85×930 , or \$800 rounded up to the next multiple of \$10). The minimum payment was therefore calculated at \$800 - \$560 or \$240.

The method for calculating the base rate for high density cargoes was similar, except that the base rate was set at one third of the indicative freight rate. The document setting out the method of calculation justified the lower rate for high density cargoes on the basis that such cargoes would be suitable for sea transport even if they were consigned on the mainland, which is a rather different argument compared with that put forward in the 1985 report. The resulting base rate was thus \$310, giving a minimum payment of \$490.

The adjustments in September 1993 increased the scheduled rates by 5 per cent but did not adjust the minimum payments.

Containers, trailers and pantechnicons

Containers

Using the ISC approach and the average freight rate in table 2 gives an assistance rate of \$420 and a minimum payment for route G of \$170 for 6 metre containers. An identical approach was used for 12 metre containers (12C in table 2).

The sample size for many of the other units was small, and a blind application of the ISC method to the estimated freight rates could lead to inconsistent results. Where the sample size was small the freight rate on which the assistance level was based was related to another unit for which a useful sample

(\$/unit)						
Туре	Minimum	Average	Maximum	Number		
3	236	293	350	2		
6	6 6	691	2 582	29 990		
12C	430	835	1 843	282		
8P	600	827	1 280	3		
10P	1 550	1 550	1 550	1		
12P	500	1 488	2 950	55		
L6	450	991	2 322	247		
L3T	200	200	200	1		
L6T	975	1 382	2 040	3		
L8T	650	796	943	2		
L12T	1 750	2 272	4 959	224		

TABLE 2 WHARF-TO-WHARF FREIGHT RATES FOR CONTAINERS, LIVESTOCK TRAILERS AND PANTECHNICONS, 1994–95 AND 1995–96 COMBINED

Source BTCE estimate based on TFES database.

size was present. For example, there were only two 3 metre containers in the data. Rather than accept the mean freight rate of two containers, half the rate for 6 metre containers was used instead.

Trailers and pantechnicons

Similarly, freight rates for trailers were those produced by the regression equation used to produce the fitted line in figure 3 rather than the actual freight rates. Pantechnicons were allocated assistance rates at the same level as the same length trailer.

Livestock trailers were treated in a similar manner to normal trailers. A single rate was set for trailers 10 metres and longer. The rate for the longer trailers was based on the freight rate for 12 metre trailers of \$2290, which is slightly more than the average of \$2272, but equal to the rate paid for most livestock trailers of this length. For trailers less than 10 metres, assistance was based on a freight rate that declined with trailer length at the same rate as for normal trailers.

The recommended rates of assistance and minimums for route G together with the freight rate upon which the level of assistance was based are shown in table 3.

Apples

Approximately half of the apple transport task across Bass Strait is performed by 6 metre containers (560 cartons per container) and half by 12 metre trailers (1120 cartons per trailer). The assistance rate for apple cartons was therefore

	(\$)						
Unit	Freight rate	Assistance	Minimum	Existing rate			
Containers							
3	350	210	90	275			
6	690	420	170	590			
12C	840	510	210	1 190			
6L	900	540	230	550			
Trailers							
2		135	60	155			
3	290	180	70	230			
4	450	270	120	310			
5	610	370	150	385			
,6 , .	770	470	190	460			
7	930	560	240	540			
8	1090	660	270	615			
9	1250	750	320	695			
10	1430	860	360	770			
11	1430	860	360	850			
12	1430	860	360	940			
13	1430	860	360	1 000			
14	1430	860	360	1 080			
15	1430	860	360	1 155			
16	1430	860	360	1 230			
Livestock trailers	· · · ·	н					
L3T	460	280	120	245			
L4T	720	430	180	335			
L5T	980	590	250	420			
L6T	1240	740	320	500			
L7T	1510	900	380	585			
L8T	1770	1060	450	670			
L9T	2030	1220	510				
L10T	2290	1380	570				
L11T	2290	1380	570	920			
L12T	2290	1380	570	1 020			
Pantechnicons							
8P	1150	690	290	615			
10P	1500	900	380	770 °			
12P	1500	900	380	940			

TABLE 3 RECOMMENDED LEVELS OF ASSISTANCE FOR CONTAINERS, TRAILERS AND PANTECHNICONS

Source BTCE estimates based on TFES database.

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calculated as the mean of the rate obtained by dividing the 6 metre container rate by 560 and the 12 metre trailer rate by 1120.

LCL cargo

Freight rates for LCL cargo are distributed over a large range.² Instead of using LCL freight rates to estimate a new assistance rate, a different approach based on the mass and volume of cargo carried in 6 metre containers was adopted. The average mass of cargo carried in a 6 metre container was found to be approximately 21 tonnes and the average volume of freight was 30 cubic metres. The assistance level for tonnage rated cargo was set at an amount equal to the rate for a 6 metre container divided by 21 (\$20) and that for cubic rated cargo was set at the rate for a 6 metre container divided by 30 (\$14). Minimum payments were calculated in the same way.

Livestock

Livestock freight rates are generally high for less than trailer loads. Levels of assistance based on these freight rates would provide an incentive to transport consignments of livestock as less than trailer loads that could be sent as full trailer loads. To avoid this potential incentive for inefficiency, the BTCE estimated livestock rates by dividing the rate for a livestock trailer or container by the number of stock that would be carried if the unit were fully loaded. A fully loaded unit was defined for this purpose as one that carried at least the same number of stock as 90 per cent of livestock units (that is, the 90th percentile).

The TFES database was used to estimate the number of stock actually carried in each unit. The results of this analysis are shown in table 4. The rate per head was estimated by dividing the rate for the trailer or container by the number of head for both the 90th percentile and the number of stock for the unit carrying largest number of the stock. If the existing level of assistance was in the range given by the two numbers, the level of assistance was left unchanged. If the existing level of assistance fell outside the range, the new level of assistance was adjusted to lie within the range. For most types of stock, the level of assistance remained unchanged. The recommended rates of assistance per head are shown in table 5.

^{2.} The standard deviations of the freight rates for cubic and low density cargo were almost as large as the mean.

Container code	Livestock code	Stock type	Total no. of stock	No. trailers	Min. no. stock	Av. no. stock	Max. no. stock	90th percentile
L12T	34A	Adult sheep	118 927	258	64	461	620	512
L12T	34B	Stud sheep	60	1	60	60	60	
L12T	34C	Lambs	94 441	198	31	477	850	540
L12T	34H	Pigs	464	. 3	53	155	358	
L12T	341	Adult cattle	12 335	189	31	65	150	94
L12T	34J	Stud cattle	309	6	39	52	60	
L12T	34K	Calves	624	6	92	104	127	
L3T	34L	Horses	2	1	2	2	2	
L6	34A	Adult sheep	22 743	148	30	154	332	210
L6	34B	Stud sheep	2 170	24	30	90	142	131
L6	34C	Lambs	127 186	759	20	168	338	201
L6	34D	Adult goats	85	1	85	85	85	
L6	34H	Pigs	15	1	15	15	15	
L6	341	Adult cattle	4 871	233	6	21	107	35
L6	34J	Stud cattle	109	15	3	7	12	10
L6	34K	Calves	1 758	48	15	37	75	44
L6	34L	Horses	264	2	132	132	132	
L6T	34A	Adult sheep	825	5	25	165	256	
L6T	34C	Lambs	12 155	65	138	187	273	215
L6T	341	Adult cattle	259	10	6	26	50	
L6T	34J	Stud cattle	68	4	- 9	17	23	
L6T	34K	Calves	136	4	33	34	35	
L8T	34J	Stud cattle	15	2	6	8	9	
Total		· · · · ·	399 866	1 983				

TABLE 4	NUMBER OF STOCK CARRIED BY DIFFERENT TYP	ES OF LIVESTOCK UNITS,
	1994–95 AND 1995–96	

Source BTCE estimates based on TFES database.

DOOR-TO-DOOR ADJUSTMENT

Because assistance is based on wharf-to-wharf freight rates, claims lodged on the basis of door-to-door rates are adjusted to a notional wharf-to-wharf rate. The adjustment is currently a reduction of \$400 for all containers and trailers and pro-rata amounts for LCL cargo and livestock. The adjustment for claims lodged on the basis of door-to-wharf or wharf-to-door freight rates is one half of the adjustment for door-to-door. Since 1985 the freight rates charged by road transport operators have increased significantly and it could be anticipated that the \$400 door-to-door adjustment is likely to understate the appropriate adjustment.

(\$/head)						
Livestock code	Description	Minimum rate	Maximum rate	Current rate	Suggested rate	Suggested minimum
34A	Adult sheep	2.23	2.70	2.20	2.30	1.10
34B	Stud sheep	3.80	4.12	2.90	3.80	2.10
34C	Lambs	1.60	2.69	1.80	1.80	0.90
34D	Adult goats			2.20	2.30	1.10
34E	Kids			1.80	1.80	0.90
34F	Adult deer			4.70	4.70	3.20
34G	Fawns			1.80	1.80	0.90
34H	Pigs			11.50	11.50	6.30
341	Adult cattle	9.20	14.68	17.00	15.00	8.40
34J	Stud cattle	23.00	24.64	23.00	23.00	16.00
34K	Calves	7.20	12.27	11.50	11.50	6.30
34L	Horses	93.00	93.00	84.00	93.00	37.70
34M	Foals	47.00	47.00	42.00	47.00	18.90
72	Ostriches	36.42	111.00	63.00	63.00	26.00

TABLE 5 RECOMMENDED RATES OF ASSISTANCE FOR LIVESTOCK ON A PER HEAD BASIS

Source BTCE estimates based on TFES database.

The difference between average door-to-door and wharf-to-wharf freight rates for 6 metre containers on route G was approximately \$700. However, in figure 5 the average door-to-door freight rate of \$1380 is representative of only very few 6 metre containers moving under door-to-door rates. A more representative freight rate is in the range from \$1200 to \$1300, suggesting a door-to-door adjustment of around \$600.

A second approach was to take a weighted average difference between door-todoor and wharf-to-wharf freight rates for other containers and trailers on route G. The result of \$645 is reasonably consistent with \$600.

There is difficulty in estimating a single figure that is representative of all doorto-door freight movements. The wide range in freight rates in figure 5 illustrates the difficulty. Door-to-door freight rates cover a wider range of destinations than is possible with wharf-to-wharf freight rates and may cover a wider range of services. It is therefore not surprising that the dispersion of freight rates is much greater for door-to-door rates compared with wharf-towharf rates.

The challenge is to select a rate that does not distort shippers' transport decisions and at the same time results in a reasonable estimate of door-to-door freight rates. If the adjustment is too low, shippers could have an incentive to always claim on the basis of door-to-door rates to maximise the assistance they

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FIGURE 5 DISTRIBUTION OF DOOR-TO-DOOR FREIGHT RATES FOR 6 METRE CONTAINERS ON ROUTE G, 1994–95



Source BTCE estimates based on TFES database.

receive. If it is too high, shippers have the option of avoiding the problem by reporting wharf-to-wharf freight rates. However, because of uncertainties in estimating minimum payments for routes other than route G, there is an argument to keep the door-to-door adjustment lower than might be the case if it were the only TFES parameter under investigation.

Taking these factors into consideration, a value of \$600 for the door-to-door adjustment seems to be a fair revision of the current value of \$400. As in the current schedules, the adjustments for door-to-wharf and wharf-to-door are each half the door-to-door adjustment. Adjustments for LCL cargo and livestock were estimated by dividing \$600 by 21 for tonnage based cargo, by 30 for volume based cargo, and by the number of stock used in estimating livestock assistance rates per head. The minimum rate for apple cartons was calculated as the mean of the rate obtained by dividing the 6 metre container minimum by 560 and the 12 metre trailer minimum by 1120.

ESTIMATION OF MINIMUM PAYMENTS FOR ROUTES OTHER THAN ROUTE G

Claimants are only eligible for the full rate of assistance if the difference between the wharf-to-wharf freight rate and the appropriate assistance rate (referred to as the net freight cost) is greater than the minimum payment specified in the Schedule of Rates. That is, for the full rate of assistance:

 $F_m - A \ge Min$

(1)

where F_w is wharf-to-wharf freight rate, A is assistance rate, and Min is minimum payment.

Because the rate of assistance is based on the freight rates across Bass Strait, F_w is also the Bass Strait wharf-to-wharf freight rate. For routes other than route G, the notional wharf-to-wharf freight rate (i.e. the freight rate calculated after deducting the door-to-door adjustment) will also include a land transport component that must be allowed for in the minimum payment amount. The ideal result would be that full assistance would be paid only if the Bass Strait component of the notional wharf-to-wharf freight rate satisfied equation 1.

The Bass Strait component of the notional wharf-to-wharf freight rate satisfies the following equation:

$$F_{rrn} = F_1 + F_r \tag{2}$$

where F_{nw} is notional wharf-to-wharf freight rate, F_i is land transport component of the freight rate, and F_w is Bass Strait wharf-to-wharf freight rate.

Substituting for F_{w} in (1) gives:

$$F_{nw} - F_l - A \ge \operatorname{Min}_{g} F_{nw} - A \ge \operatorname{Min}_{g} + F_l$$
(3)

where Min_g is minimum payment for route G.

From (3) the minimum payment for routes other than route G is equal to the sum of the land transport component of the freight rate and the minimum payment for route G. Using (2) then gives the following relationship for estimating minimum payments for routes other than route G:

$$Min_0 = Min_g + F_l$$

$$Min_0 = Min_g + F_{nw} - F_w$$
(4)

where Min_0 is minimum payment for routes other than route G.

Equation (4) formed the basis for estimating minimum payments for routes other than route G. Data were not available or very sparse on several combinations of routes and container/trailer combinations. Some judgement was exercised in interpolating between results from other routes and using results for other containers and trailers. Although some of the results may not be very accurate, only small volumes of cargo are likely to be affected.

The results are shown in the revised assistance schedules in appendix III.

POSSIBILITY OF 100 PER CENT RATES OF ASSISTANCE

Assistance rates of 100 per cent are possible if the minimum payment is less than the scheduled rate of assistance. This condition is only relevant on route G and for some cargo units on the route from Southern Tasmania to Victoria.

There were a few instances where claimants received 100 per cent rates of assistance under the current assistance rates. Although there a number of ways of avoiding the payment of 100 per cent rates, the realignment of the schedules

to more accurately reflect prevailing freight rates should ensure that it occurs very rarely if ever. For example, for a 6 metre container shipped on route G, the freight rate below which assistance levels became 100 per cent of the freight rate is \$350 (wharf-to-wharf) under the existing schedule, but is reduced to \$250 under the proposed schedule.

The problem is not a large one. During 1994–95, 114 6 metre containers (0.8 per cent of all 6 metre containers on route G) received assistance rates of 100 per cent; under the proposed rates the number would have been 5 (0.03 per cent).

It is preferable to avoid recommending changes to eliminate what will be a very minor problem under the revised schedules, in addition to the already major changes to assistance rates and minimum payments.

IMPACT OF THE REVISED RATES OF ASSISTANCE

Based on 1994–95 data, the proposed rates of assistance are expected to reduce total assistance payments, before discounting, by 18.4 per cent (table 6).³ Because large shippers will receive reduced payments, the discount to their assistance will also be reduced. If all shippers subject to discounting had their before-discounting assistance reduced by the average of 18.4 per cent, the overall reduction, after discounting, would be reduced to 17.9 per cent. However, the larger shippers would generally be more likely to ship in containers or on trailers. If, instead of using the average reduction for all cargo, the reduction of 22.2 per cent for containers and trailers were used, the effect on the level of discounting is increased and the overall impact of the proposed assistance levels falls to 17.4 per cent. In summary, the proposed schedules would have reduced the total assistance payments by between 17.4 and 17.9 per cent in 1994–95.

The impact varies considerably between routes and pack types, and there will also be considerable variation between shippers. The impact is greater on doorto-door shippers than wharf-to-wharf shippers. This is because of the increase in the door-to-door adjustment that is not relevant to wharf-to-wharf shippers. However, if the new door-to-door adjustment over-adjusts the freight rate, door-to-door shippers can increase the level of assistance they receive by submitting claims on the basis of wharf-to-wharf freight rates.

In general, shippers of high density cargoes, timber and livestock gain out of the proposed arrangements. The removal of the anomaly for newsprint resulted in some gains, but were more than offset by the proposed reductions in

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^{3.} Large shippers have their assistance payments reduced to reflect their bargaining power in negotiating freight rates. In any one financial year assistance payments between \$300 000 and \$1 million are discounted by 10 per cent. Assistance payments in excess of \$1 million are discounted by 20 per cent.

Pack type [®]	Transport task⁵	Total freight paid (\$M)	Existing rates (\$M)	New rates (\$M)	Change (per cent)
Containers	WW	27.481	15.822	12.683	-19.8
Containers	DD	51.444	17.985	13.622	-24.3
Total containers		78.926	33.807	26.306	-22.2
LCL	ww	24.321	7.151	6.949	-2.8
LCL	DD	13.477	2.546	2.251	-11.6
Total LCL		37.799	9.698	9.200	-5.1
Total		116.725	43.505	35.506	-18.4

TABLE 6 SUMMARY OF IMPACT OF PROPOSED ASSISTANCE RATES

Note Figures may not add to totals due to rounding.

a. Containers includes trailers and LCL includes livestock.

b. WW = wharf-to-wharf; DD = door-to-door.

Source BTCE estimates based on TFES database for 1994-95 and current and proposed assistance schedules.

assistance levels. Overall, the total level of assistance for newsprint will be lower by around 13 per cent, which is between 5 and 6 percentage points less than the average reduction in the rate of assistance.

The increased minimum payments on routes other than route G have a major effect on reducing the overall level of assistance. The current minimum payments have not been adjusted since the ISC reported in 1985. Since then there have been significant increases in road freight rates. One measure of these rates, the rates paid to subcontractors as reported in *Transport and Communications Indicators*, increased by 47 per cent from the first quarter of 1985 to the first quarter of 1995. Therefore it is not surprising that a large increase in the minimum payments is a result of the analysis.

The overall reduction in assistance, although large, still leaves Tasmanian shippers receiving significant assistance. This is best measured by the ratio of assistance to wharf-to-wharf freight rates. For containers and trailers the assistance levels fall from 58 per cent of the freight rate to 46 per cent. For LCL and livestock the assistance falls from 29.4 per cent of the freight rate to 28.6 per cent.

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CONCLUSION

Since 1985 when the ISC recommended the current system and level of assistance, there has been considerable change in freight rates and the transport arrangements adopted by Tasmanian shippers. Average sea freight rates for 6 metre containers have declined in nominal terms. Moreover, on the admittedly limited analysis of the evidence which we were able to undertake for this paper, road transport costs appear to have increased significantly and some of the technology common in 1985, such as 5 metre containers, is no longer in use.

Because of the significant changes, it is not surprising that the application of the ISC approach to estimating assistance levels should now result in substantial changes to the assistance schedules. Also because of the relative increase in land transport freight rates relative to Bass Strait freight rates it is not surprising that the overall level of assistance should fall. Nevertheless the assistance as a proportion of the Bass Strait freight rate is still generous for most Tasmanian shippers.

It would be preferable to have more frequent reviews in the future to avoid the necessity of major changes to the assistance schedules. Such a review might only need consider Bass Strait freight rates and the appropriate level of the door-to-door adjustment, with a more detailed review at longer intervals.

APPENDIX I BRIEF DESCRIPTION OF THE SCHEME

Calculation of assistance payments is based on four parameters:

- freight rate paid by the shipper;
- scheduled rate of assistance;
- minimum payment; and
- door-to-wharf and wharf-to-door adjustments.

Minimum payments

Under the current TFES regulations, there is one standard rate of assistance (the rate of assistance specified in the Schedule of Rates) for each type of consignment irrespective of its origin or destination. The payment is subject to the claimant meeting a specified amount of the wharf-to-wharf freight bill after receipt of the assistance. If this condition is not met, the assistance is reduced. The TFES Operations Manual describes the provisions as follows:

Claimants are only eligible for the full rate of assistance specified in the Schedule of Rates if the difference between the wharf-to-wharf freight bill and the appropriate assistance rate (the net freight cost) is greater that the minimum payment specified in the Schedule of Rates.

Assistance payments are to be reduced by 50 cents for each dollar by which the net freight cost falls short of the specified minimum amount. Separate minimum payment amounts apply for cargoes moving between Northern and Southern Tasmania and different destinations on the mainland. (TFES Operations Manual, Section 4.2.1)

Door-to-wharf and wharf-to-door adjustments

The TFES Operations manual describes the adjustments as follows:

The wharf-to-wharf freight bill is defined as including the relevant parts of those onshore costs incurred at the wharf that are incorporated in the freight rates charged by the shipping company. The wharf-to-wharf freight bill can include stevedoring, terminal and cargo related port authority charges (i.e. wharfage) where these items are charged and paid separately by the shipper.

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Where a freight bill other than a wharf-to-wharf bill is provided in support of a claim for assistance the bill is to be adjusted to a notional wharf-to-wharf basis to enable the minimum payment provisions to be applied.

The adjustments for converting the freight bill are itemised in the Schedule of Rates. A single adjustment is to be deducted where the freight bill is a wharf-todoor or door-to-wharf bill. Where the freight bill is a door-to-door bill two adjustments are deducted from the freight bill to convert it to a notional wharfto-wharf bill. (TFES Operations Manual, Section 4.2.2)

Example

•••

The following example is from the TFES Operations Manual (Section 4.6).

How to calculate assistance payable for a 6.1 metre container of wool shipped from North Tasmania to Melbourne at a door-to-door freight payment of \$1100:⁴

Step A: Determine appropriate assistance rate:

1997) 1997 - 1997 1997 - 1997	Scheduled Assistance Rate (6.1 metre container—'all othe goods') (see TFES Operations Manual table 3 Schedule of Rates)	er \$590
Step B:	Calculate the net freight cost:	
	Door-to-door payment	\$110 0
	<u>less</u> door-to-wharf and wharf-to-door adjustments (2 × \$200) (see TFES Operations Manual table 3 Schedule of Rates)	\$400
	Notional wharf-to-wharf freight bill	\$70 0
	less Scheduled Assistance Rate (Step A)	\$59 0
,	Net freight cost	\$11 0
Step C:	Assess if the assistance payable should be reduced, and so by how much:	if
	Specified minimum payment (6.1 metre container—'all o goods—North Tasmania to Victoria) (see table 3 Schedul Rates)	ther e of \$240
	less net freight cost (Step B)	\$110
	'Excess payment'	\$130
	Reduction in assistance required (50 cents in the dollar)	\$65

4. The example is based on the Schedule of Rates in existence in June 1996.

Step D:	Calculate the assistance payable:			
	Assistance Rate (Step A)	\$590		
	less Reduction in assistance (Step C)	\$65		
	Assistance payable	\$525		
Step E:	Check whether the payment should be reduced u discount provisions and deduct 10 per cent or 20 necessary from the assistance payment.	inder the per cent if		

Discount provisions

The discount provisions are designed to reduce the rate of assistance for large shippers who are in a better position to negotiate favourable freight rates than smaller shippers. The discount recognises that the larger shippers are at a lesser disadvantage because of their superior bargaining position. The provisions are described in the TFES Operations Manual as follows:

From the beginning of each financial year ... assistance payments are to be calculated ... up to the stage at which the claimant has received, or is entitled to receive, in respect of shipments during the financial year, a total of \$300,000 in assistance payments.

Subsequent payments in respect of shipments that financial year are to be calculated at the full rates less a discount of 10 per cent up to the stage at which the claimant has received, or is entitled to receive, a total of \$1,000,000 (including the \$300,000 previously received).

Once a claimant has received, or is entitled to receive in respect of shipments in that financial year, \$1,000,000 in assistance payments, further payments shall be calculated at the full rates less a discount of 20 per cent.

For the purposes of these discount arrangements the total payments to each claimant include all payments of assistance in relation to all classes of cargo and in respect of both the northbound and southbound components of the Scheme. (TFES Operations Manual, Section 4.5.1)

APPENDIX II TFES ROUTES

TABLE II.1 TFES ROUTE CODE LIST

Route	Code
Northbound	
Southern Tasmania to Victoria	А
Southern Tasmania to New South Wales	В
Southern Tasmania to South Australia	С
Southern Tasmania to Queensland	D
Southern Tasmania to Western Australia	E
Southern Tasmania to Northern Territory	F
Northern Tasmania to Victoria	G
Northern Tasmania to New South Wales	Н
Northern Tasmania to South Australia	1
Northern Tasmania to Queensland	J
Northern Tasmania to Western Australia	К
Northern Tasmania to Northern Territory	L
Southbound	
Victoria to Southern Tasmania	М
New South Wales to Southern Tasmania	N
South Australia to Southern Tasmania	0
Queensland to Southern Tasmania	Р
Western Australia to Southern Tasmania	Q
Northern Territory to Southern Tasmania	R
Victoria to Northern Tasmania	S
New South Wales to Northern Tasmania	Т
South Australia to Northern Tasmania	U
Queensland to Northern Tasmania	V
Western Australia to Northern Tasmania	W
Northern Territory to Northern Tasmania	Х

Source TFES Operations Manual appendix 12.

(\$'000)									
Route	Name	Assistance							
G	Northern Tasmania to Victoria	26 385							
Α	Southern Tasmania to Victoria	6 973							
S	Victoria to Northern Tasmania	3 988							
В	Southern Tasmania to New South Wales	3 627							
Μ	Victoria to Southern Tasmania	2 451							
н	Northern Tasmania to New South Wales	1 508							
Κ	Northern Tasmania to Western Australia	912							
D	Southern Tasmania to Queensland	358							
E	Southern Tasmania to Western Australia	327							
J	Northern Tasmania to Queensland	325							
Т	New South Wales to Northern Tasmania	197							
1	Northern Tasmania to South Australia	196							
N	New South Wales to Southern Tasmania	192							
С	Southern Tasmania to South Australia	103							
U	South Australia to Northern Tasmania	63							
W	Western Australia to Northern Tasmania	28							
Ρ	Queensland to Southern Tasmania	18							
V	Queensland to Northern Tasmania	17							
Ó	South Australia to Southern Tasmania	13							
Other		. 3							

TABLE II.2 TFES ROUTES BY TOTAL LEVEL OF ASSISTANCE, 1994–95

Source BTCE estimates based on TFES database.

Pack type	Assistance
6	29 514
LCL ^ª	10 496
12T	1 956
12C	1 800
CAR	1 163
эт	1 052
L6	450
12P	448
L12T	414
N9T	191
10T	127
5T	12
11T	10
L6T	10
7T	7
- 6T	5
14T	4
8T	4
15T	4
13T	4
9C	3
10P	. 2
L3T	2
8P	2
16T	1
4T	1
L8T	1
Other	2

TABLE II.3 TFES ASSISTANCE BY PACK TYPE, 1994–95 (\$'000)

a. LCL includes all claims without a container or trailer recorded in the TFES database.

Source BTCE estimates based on TFES database.

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Route	Name	Pack type	Assistance
G	Northern Tasmania to Victoria	6	19 015
G	Northern Tasmania to Victoria	LCL	3 114
Α	Southern Tasmania to Victoria	6	3 067
S	Victoria to Northern Tasmania	6	2 462
Α	Southern Tasmania to Victoria	LCL	2 359
В	Southern Tasmania to New South Wales	LCL	2 005
М	Victoria to Southern Tasmania	6	1 727
В	Southern Tasmania to New South Wales	6	1 304
S	Victoria to Northern Tasmania	LCL	982
H	Northern Tasmania to New South Wales	6	962
М	Victoria to Southern Tasmania	LCL	485
К	Northern Tasmania to Western Australia	LCL	409
Κ	Northern Tasmania to Western Australia	6	403
Н	Northern Tasmania to New South Wales	LCL	326
Е	Southern Tasmania to Western Australia	LCL	263
N	New South Wales to Southern Tasmania	6	110
Т	New South Wales to Northern Tasmania	LCL	103
J	Northern Tasmania to Queensland	LCL	97
J	Northern Tasmania to Queensland	6	97
т	New South Wales to Northern Tasmania	6	88
D	Southern Tasmania to Queensland	LCL	84
Ν	New South Wales to Southern Tasmania	LCL	82
1	Northern Tasmania to South Australia	LCL	78
1.	Northern Tasmania to South Australia	6	71
С	Southern Tasmania to South Australia	LCL	55
D	Southern Tasmania to Queensland	6	52
Е	Southern Tasmania to Western Australia	6	38
U	South Australia to Northern Tasmania	6	32
С	Southern Tasmania to South Australia	6	31
U	South Australia to Northern Tasmania	LCL	31
W	Western Australia to Northern Tasmania	6	24
Р	Queensland to Southern Tasmania	6	13
V	Queensland to Northern Tasmania	6	11
0	South Australia to Southern Tasmania	LCL	7
V	Queensland to Northern Tasmania	LCL	6
P	Queensland to Southern Tasmania	LCL	5
0	South Australia to Southern Tasmania	6	5
W	Western Australia to Northern Tasmania	LCL	4
Other			3

TABLE II.4 TFES ASSISTANCE BY ROUTE FOR 6 METRE CONTAINERS AND LCL CARGO, 1994–95

(\$'000)

Source BTCE estimates based on TFES database.

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APPENDIX III RECOMMENDED RATES OF ASSISTANCE

1.1

Note that the following tables are numbered to match the Schedule 2 tables found in appendix 8 of the TFES Operations Manual.

TABLE 1 SPECIFIED GOODS

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	Assistance		Southern Tasmania Northern Tasmania								Wharf-to-	Door-to-			
Cargo class/unit		Vic	NSW	SA	Qld	WA	NT	Vic	NSW	SA	Qld	WA	NT	door adj.	wharf adj.
Timber (per shipping cubic metre)	REPLACED	EPLACED BY ALL OTHER GOODS RATES													
Zinc (shipped in containers per tonne)	REPLACED	BY AL	L OTH	IER G	OODS	RATE	S								
Apples (per carton)	0.75	0.65	1.75	1.80	3.10	3.35	3.80	0.30	1.80	1.85	3.10	2.00	2.35	0.40	0.40
Fodder excluding wheat (per tonne)	16	27	50	61	72	62	91	23	46	53	61	62	88	12.50	12.50

TABLE 2 LIVESTOCK

		Minimum payments and routes													
Cargo class/unit			Sc	outherr	n Tasm	nania			N	ortheri	Wharf-to-	Door-to-			
	Assistance	Vic	NSW	SA	Qld	WA	NT	Vic	NSW	SA	Qld	WA	NT	door adj.	wharf adj.
Full container load															
6.1 metre container	540	690	1450	1310	2120	2400	2730	230	660	1200	2370	1520	1770	300	300
12.2 metre trailer	1380	2340	2900	3420	4730	6000	6830	570	3300	2020	5290	3800	4430	300	300
Less than container load (per head)															
Lambs, kids & fawns	1.80	3.00	3.90	4.50	6.20	7.80	8.90	0.70	4.20	2.70	7.00	5.00	5.80	0.40	0.40
Adult sheep & goats	2.30	3.60	5.30	5.70	8.30	10.10	11.50	1.00	4.60	4.00	9.30	6.40	7.40	0.80	0.80
Stud sheep	3.80	4.90	10.20	9.20	14.90	16.90	19.20	2.10	4.60	8.40	16.70	10.70	12.50	2.10	2.10
Adult deer	4.70	6.10	12.60	11.40	18.40	20.90	23.70	2.60	5.70	10.40	20.70	13.20	15.50	2.60	2.60
Calves & pigs	11.50	20	24	29	39	50	57	5	28	17	44	32	37	3.00	3.00
Adult cattle	15	25	32	37	52	65	74	6	35	23	58	41	48	3.50	3.50
Stud cattle	23	38	50	57	80	100	114	16	52	36	90	64	74	6	6
Horses	93	119	250	226	365	413	470	40	114	207	408	262	305	52	52
Foals	47	60	126	114	185	209	238	20	57	104	206	132	154	26	26
Ostriches	63	81	169	153	247	280	319	27	77	140	277	177	207	35	35

TABLE 3 ALL OTHER GOODS

		Southern Tasmania							No	orthern	Wharf-to-	Door-to-			
Cargo class/unit	Assistance	Vic	NSW	SA	Qld	WA	NT	Vic	NSW	SA	Qld	WA	NT	door adj.	wharf adj.
Full container load									-						
2.34m container	210	200	570	510	830	940	1060	90	580	560	920	590	690	300	300
6.1m container	420	390	1130	1020	1650	1870	2120	170	1150	1120	1840	1180	1380	300	300
9.84m container	510	660	1910	1730	2790	3160	3590	210	1950	1900	3110	2000	2340	300	300
12.2m container	510	660	1910	1730	2790	3160	3590	210	1950	1900	3110	2000	2340	300	300
12.2m trailer/pantech	860	640	1700	2000	3680	3760	4240	360	1750	1880	3280	2100	2480	300	300
Less than container load							-								
Less than container load (per tonne)	20	19	54	49	79	89	101	8	55	53	88	56	66	14	14
Less than container load (per cubic metr	re) 14	13	38	34	55	62	71	6	38	37	61	39	46	10	10

		Minimum payments and routes													
		Southern Tasmania								orthern	Wharf-to-	Door-to-			
Cargo class/unit	Assistance	Vic	NSW	SA	Qld	WA	NT	Vic	NSW	SA	Qld	WA	NT	door adj.	wharf adj.
High densitySEPARATE CLASSIFICATION REMOVED															
All other goods															
2 metre	135	100	270	310	580	590	670	60	270	300	510	330	390	300	300
3 metre	180	130	360	420	770	790	890	70	370	390	690	440	520	300	300
4 metre	270	200	530	630	1160	1180	1330	120	550	590	1030	660	780	300	300
5 metre	370	280	730	860	1580	1620	1820	150	750	810	1410	900	1070	300	300
6 metre	470	350	930	1090	2010	2050	2320	190	960	1030	1790	1150	1360	300	300
7 metre	560	420	1110	1300	2400	2450	2760	240	1140	1220	2140	1370	1610	300	300
8 metre	660	490	1300	1530	2820	2890	3250	270	1340	1440	2520	1610	1900	300	300
9 metre	750	560	1480	1740	3210	3280	3700	320	1530	1640	2860	1830	2160	300	300
10 metres and longer	860	640	1700	2000	3680	3760	4240	360	1750	1880	3280	2100	2480	300	300
Livestock															
3 metre	280							115						300	300
4 metre	430							180						300	300
5 metre	590							245						300	300
6 metre	740							310						300	300
7 metre	900							380						300	300
8 metre	1060							440						300	300
9 metre	1220							510						300	300
10 metres and longer	1380							570						300	300

TABLE 5 RATES OF ASSISTANCE FOR TRAILERS OTHER THAN 12.2 METRES

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REFERENCES

Nimmo, J.F. (Commissioner) 1976, Report of the commission of inquiry into transport to and from Tasmania, AGPS, Canberra.

DOT 1978, Tasmanian Freight Equalisation Scheme – Northbound, unpublished paper, Canberra, cited in ISC 1985a.

DOT 1985, 'Changes to Tasmanian Freight Equalisation Scheme', Media Release 92/85, Canberra, 26 July.

ISC 1985a, An Investigation of the Tasmanian Freight Equalisation Scheme, vol. 1, AGPS, Canberra.

ISC 1985b, Attachment to a letter to Transport Tasmania.

Minister for Transport and Communications 1992, 'Directions by the Minister for Transport and Communications for the operation of the Tasmanian Freight Equalisation Scheme', Canberra.

TFES Review Authority 1995, 'Advisory Opinion; Rates of Assistance for Newsprint', Canberra.

ABBREVIATIONS

TFESTasmanian Freight Equalisation SchemeISCInter-state CommissionISFCDinterstate freight cost disadvantageLCLless-than-container-load