



Australian Government

Department of Infrastructure, Transport,
Regional Development and Local Government

Bureau of Infrastructure, Transport and Regional Economics



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Tasmanian freight schemes parameter review

November 2008

Bureau of Infrastructure, Transport and Regional
Economics

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Department of Infrastructure, Transport,
Regional Development and Local Government
Canberra, Australia

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ISBN 978-1-921260-33-9

November 2008/INFRASTRUCTURE

This publication is available in hard copy or PDF format from the Bureau of Infrastructure, Transport and Regional Economics website at www.bitre.gov.au—if you require part or all of this publication in a different format, please contact BITRE.

An appropriate citation for this report is:

Bureau of Infrastructure, Transport and Regional Economics [BITRE], 2008, Tasmanian freight scheme parameter review 2008, BITRE, Canberra ACT.

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Published by

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Cover photographs of the 'Bass Trader' loading containers at Bell Bay Tasmania (courtesy Mark Seaton Photographics)

Typeset in Optima LT Std and Gill Sans MT.

Foreword

In March 2006 the Productivity Commission was asked to 'report on the merits and weaknesses of the current arrangements for subsidising containerised and bulk shipping between the mainland and Tasmania and provide recommendations on an appropriate future approach and/or arrangements.' This review covered both the Tasmanian Freight Equalisation Scheme and Tasmanian Wheat Freight Scheme.

The Department of Infrastructure, Transport, Regional Development and Local Government, and the Bureau of Infrastructure, Transport and Regional Economics were asked to revise the methodology for setting and updating the remaining parameters of the Tasmanian Freight Equalisation Scheme and Tasmanian Wheat Freight Scheme. BITRE was also asked to determine the interim rate for the Tasmanian Wheat Freight Scheme as part of its review of the methodology.

This report outlines the results of the parameter review. Tim Risbey and Mark Cregan prepared the report. Steve Manders and Paul Sciberras (Sinclair Knight Merz Pty Ltd) assisted with freight data and in the review of the operation of the Schemes.

Phil Potterton
Executive Director
November 2008

Executive summary

- On 21 March 2006 the former Australian Government referred the arrangements for subsidising containerised and bulk shipping between the mainland and Tasmania to the Productivity Commission. In its final report the Productivity Commission made a series of findings and recommendations to improve the operation of the Schemes.
- The former Australian Government (2007) accepted the Productivity Commission's recommendation that the Department of Infrastructure, Transport, Regional Development and Local Government and the Bureau of Infrastructure, Transport and Regional Economics, should revise the methodology for setting and updating the remaining parameters, and review them every three years.
- This report presents results of the Bureau of Infrastructure, Transport and Regional Economics' review of methodology and parameter values for both Schemes.
- The Tasmanian Freight Equalisation Scheme currently operates according to Ministerial Directions using the parameters recommended by the TFES Review Authority (1998).
- The Tasmanian Wheat Freight Scheme (TWFS) came into effect on 1 July 2004. It currently operates under separate Ministerial Directions approved by the then Minister for Local Government, Territories and Roads on 25 January 2006.

Tasmanian Freight Equalisation Scheme

- Under the Tasmanian Freight Equalisation Scheme a shipper's wharf-to-wharf freight bill, less the Road Freight Equivalent, determines how much assistance an individual shipper may be entitled to *before* adjustment for factors such as the heavy freight discount and Scheme incentive structure.

Wharf-to-wharf, intermodal costs and scaling factors

- BITRE suggests that the sea freight disadvantage for the Tasmanian Freight Equalisation Scheme should be calculated on the basis of wharf to wharf costs which include intermodal costs without itemisation.

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- BITRE suggests that the intermodal allowance be retained. Stakeholders provided evidence of costs of at least \$50 to \$86 per TEU due to the need for a sea journey that were not otherwise captured in wharf to wharf freight rates or by the current TFES formulae.
- BITRE suggests that the median sea freight cost be set at \$1160 per twenty-foot equivalent unit, the median value for all wharf-to-wharf shippers for 2006–07. The TFES Review Authority (1998) rate was \$952 per twenty-foot equivalent unit for 1996–97—a difference of \$208 (21 per cent).
- Where required scaling factors are currently used to adjust freight rates to a northern Tasmania to Victoria basis. If scaling factors are eliminated then shippers will need clear guidance as to what are considered reasonable Bass Strait freight costs. Should scaling factors be retained BITRE suggests the use of a three year average in order to reduce the volatility of year-on-year estimates.

Road Freight Equivalent parameter

- BITRE has used a road benchmark to estimate the land transport freight equivalent and suggests that B-double trucks be the benchmark for the Road Freight Equivalent parameter.
- BITRE suggests that separate Road Freight Equivalent rates be used for dry and refrigerated freight for the Tasmanian Freight Equalisation Scheme, and that a heavy freight discount continue to apply to the rate of assistance for a standard twenty-foot equivalent unit.
- The growth in road freight costs outstripped the growth in containerised sea freight costs, reducing the actual sea freight disadvantage for many Bass Strait shippers.
- BITRE suggests that the standard Road Freight Equivalent be \$507 per twenty-foot equivalent unit, the 'road limit equivalent' for an ambient temperature dry container with a net payload of 11.5 tonnes). This is for a level of empty running of 30 per cent.
- BITRE suggests that the Road Freight Equivalent for refrigerated freight be \$558 per twenty-foot equivalent unit, a 10 per cent premium on ambient temperature freight.
- These Road Freight Equivalent rates are likely to be conservative as they reflect the road freight rates typically paid by large shippers.
- The suggested Road Freight Equivalent rate for dry freight of \$507 per twenty-foot equivalent unit compares to the dry rate in the current Scheme of \$281 per twenty-foot equivalent unit.

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- BITRE considers a separate Road Freight Equivalent may not be needed as most live animal shippers are likely to have a higher sea freight disadvantage compared to dry freight even after adjusting for higher road transport costs. Live animal claims account for four per cent of total twenty-foot equivalent units.
- BITRE suggests the heavy freight discount apply at cargo stowage factors of 2.6 cubic metres or less to the tonne. Increasing the cargo stowage factor will increase the number of shipments receiving the heavy freight discount, reducing the amount of assistance paid. BITRE's suggested discount for heavy freight is 23 per cent.

Sea freight disadvantage

- The median sea freight disadvantage is used to determine shipper class boundaries, which in turn determine how quickly assistance is reduced as disadvantage increases.
- BITRE suggests that the sea freight disadvantage be based on the median wharf-to-wharf rate for dry freight. This was \$653 per twenty-foot equivalent unit in 2006–07, with refrigerated freight attracting a lower disadvantage of \$631 per twenty-foot equivalent unit reflecting the higher costs of road transport of refrigerated product.

Median sea freight disadvantage 2006–07 and 1996–97, dollars per twenty-foot equivalent unit

	BITRE estimates 2006–07		TFES Review Authority 1996–97	
	Dry	Reefer	Dry	Reefer
Median wharf-to-wharf sea freight rate	1160	1189	952	980
Road Freight Equivalent	507	558	281	309
Median sea freight disadvantage	653	631	671	671

a BITRE has used the population of all wharf-to-wharf shippers to estimate the median sea freight rate. TFES Review Authority states that it used the combined population of shippers shipping more than five TEU per annum and all door-to-door shippers.

Source BITRE; RFE based on SKM freight rates; TFES Review Authority (1998)

Incentive structure

- The suggested new Tasmanian Freight Equalisation Scheme parameters would result in a new maximum rate of assistance of \$735 per twenty-foot equivalent unit (excluding any allowance for intermodal costs), for the suggested median freight disadvantage of \$653 per twenty-foot equivalent unit. This compares to the maximum notional assistance of \$755 per twenty-foot equivalent unit under the current Scheme (excluding the intermodal allowance).

- BITRE concludes that the current four class incentive structure based on the median sea freight disadvantage does not give a balanced distribution of claims by twenty-foot equivalent unit. This means that shippers who account for approximately 80 per cent of TEU (full containers) have minimal incentive to reduce freight rates.

Shipper class boundaries: sea freight cost disadvantage and maximum assistance by shipper class, dollars

Shipper class	Proportion of disadvantage received	BITRE 2006–07			TFES Review Authority (1999)		
		From	To	Maximum assistance by class ^a	From	To	Maximum assistance by class ^a
Class 1	100	0	326.50	327	0	335.50	335
Class 2	75	326.51	653.00	571	335.51	671.00	587
Class 3	50	653.01	979.50	735	671.01	1006.50	755
Class 4	0	979.51	and above	735	1006.51	and above	755

a Values rounded up. Excludes the intermodal allowance.

Source BITRE estimates using the TFES claims database

Wheat

- BITRE analysis of Tasmanian Wheat Freight Scheme claims data for bulk wheat shipped to Tasmania in 2006–07 gives an average cost including loading and unloading of \$41.30 per tonne. This compares with a notional average cost for containerised wheat of \$1196 per twenty-foot equivalent unit across Bass Strait in 2006–07, or \$49.82 per tonne for a full container of 24 tonnes.
- BITRE estimates that the rail freight equivalent for wheat is \$29.40 per tonne.
- BITRE suggests that the subsidy rate for wheat be \$11.90 per tonne or \$285.50 for a 24 tonne container of wheat. This compares with a suggested new maximum subsidy of \$30.61 per tonne (assuming no high density discount) or \$566 per 24 tonne container of wheat under the Tasmanian Freight Equalisation Scheme.

Sea freight cost disadvantage for wheat, dollars per tonne

	Containerised sea		Bulk sea
	Compared to rail containers	Compared to bulk rail	compared to bulk rail
Sea freight rate	49.82	49.82	41.30
Rail equivalent rate	35.70	29.40	29.40
Sea cost disadvantage	14.12	20.42	11.90

Source SKM (2008) and BITRE

King Island and Flinders Island

- Current sea freight rates between Tasmania and King Island are \$950 per twenty-foot equivalent unit, approximately half the freight rate between Tasmania and Flinders Island.
- Current sea freight rates between King Island and Victoria are \$750 per twenty-foot equivalent unit, compared with \$2319 per twenty-foot equivalent unit between Flinders Island and Port Welshpool.
- BITRE suggests that the estimated sea freight disadvantage for Flinders Island may warrant specific consideration.

Sea freight disadvantage for King Island and Flinders Island 2007, dollars per twenty-foot equivalent unit

	<i>To and from Tasmania</i>	
	<i>King Island–Devonport</i>	<i>Flinders Island–Bridport</i>
Sea freight cost	950	1860
Road equivalent cost	675	259
Sea freight cost disadvantage	275	1601
	<i>To and from the Australian mainland</i>	
Sea freight cost	750	2317
Road equivalent cost	449	518
Sea freight cost disadvantage	301	1800

Source SKM (2008) and BITRE

BITRE

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Chapter 1 Background

Tasmanian Freight Equalisation Scheme

The Tasmanian Freight Equalisation Scheme (TFES) was originally introduced in July 1976. The Government's objective was to alleviate the freight cost disadvantage incurred by shippers of eligible non-bulk goods moved between the mainland and Tasmania by sea (Productivity Commission 2007).

The TFES and its subsidy rates have undergone review on several occasions, notably in 1985 and 1998. The 1998 review (the Nixon Report) was conducted by the TFES Review Authority (1998) chaired by the Honourable Peter Nixon (AO).

The current Scheme operates according to Ministerial Directions (Department of Transport and Regional Services, December 2006a) using the parameters recommended by the Nixon Report.

Eligibility to claim assistance under the TFES is limited to persons (including partnerships, companies and other bodies) that actually incur the costs of shipping the eligible goods.

The Department of Infrastructure, Transport, Regional Development and Local Government (DITRDLG) is responsible for funding and policy issues associated with the TFES. Funding is demand-driven and expenditure is uncapped.

Administrative matters, such as the processing of claims for assistance, are handled by Tasmanian Assistance Services (part of Centrelink).

Tasmanian Wheat Freight Scheme

In 1953 the Second Marketing Plan enacted a special arrangement, the Tasmanian Wheat Freight Levy (TWFL), to deal with costs associated with shipping wheat to Tasmania. This arrangement remained largely unchanged until 1989 when the Australian Government deregulated domestic wheat marketing arrangements and established a transitional arrangement, the Tasmanian Wheat Freight Subsidy Scheme.

The 1989 Tasmanian Wheat Freight Subsidy Scheme subsidised the cost of bulk shipments of wheat from the mainland to Tasmania by sea. Under the Tasmanian Wheat Freight Subsidy Scheme, a shipper may

have been eligible for a subsidy in respect of the wharf-to-wharf freight costs of a shipment of bulk wheat by sea from the mainland to Tasmania.

The current Tasmanian Wheat Freight Scheme (TWFS) came into effect on 1 July 2004. It operates under separate Ministerial Directions approved by the Minister for Local Government, Territories and Roads on 25 January 2006 (DOTARS 2006c). Funding is capped at \$1.05 million per annum. Consequently, the rates of assistance for grain shipped may vary across years according to the funding available and annual freight volumes.

The TWFS was established to subsidise the cost of bulk shipments of wheat from the mainland to Tasmania by sea. The TWFS rebate is not available for shipments of wheat shipped in shipping containers, crates or other forms of preshipment packaging; or where a claim for TFES assistance has been made.

Containerised wheat shipments remain eligible for assistance through the TFES.

Productivity Commission review

On 21 March 2006 the former Australian Government referred the arrangements for subsidising containerised and bulk shipping between the mainland and Tasmania to the Productivity Commission. The Commission was asked to report on the merits and weaknesses of the current arrangements for subsidising containerised and bulk shipping between the mainland and Tasmania and provide recommendations on an appropriate future approach and/or arrangements.

The Productivity Commission made a series of findings and recommendations to improve the operation of the Schemes (Productivity Commission 2007).

The former Australian Government (2007) responded to the report by recognising that Tasmanian producers can be at a freight cost disadvantage when competing in mainland markets by not having land access to the mainland States and Territories:

In this context, the Commonwealth agrees with the findings of the final Productivity Commission Report... and will implement its substantive recommendations. In particular the Commonwealth will ensure the Tasmanian Freight Equalisation Scheme (TFES) and the Tasmanian Wheat Freight Scheme (TWFS) more strongly focus on effectively addressing sea freight cost disadvantage, and will put in place further reforms ensuring that the Schemes operate effectively and to the benefit of the people of Tasmania (2007, p.1)

Key changes to the Schemes

The former Australian Government announced that:

- TFES assistance would only be payable on a wharf-to-wharf basis, on the basis of evidence of actual wharf-to-wharf costs. The major change was to remove the TFES parameter adjustment of \$230 per twenty-foot equivalent unit (TEU) for door-to-wharf and/or wharf-to-door costs.
- The TWFS would be expanded to include all bulk and containerised unprocessed wheat shipments, with unprocessed wheat no longer eligible under the TFES. Eligible shipments would be paid at the same rate and not be subject to a cap on TWFS payments.
- The interim rate for the TWFS would be determined as part of the methodology review. This rate per tonne would be reviewed on a three yearly cycle along with the TFES parameters, and the results of the review would be published.

This report

The former Australian Government (2007) accepted the Productivity Commission's recommendation that 'the Department of Transport and Regional Services (DOTARS) and the Bureau of Transport and Regional Economics (BTRE) should revise the methodology for setting and updating the remaining parameters, and review them every three years. In particular, they should review how wharf-to-wharf costs should be defined. The results of parameter reviews should be published.' (Productivity Commission, 2006, recommendation four, p. x)

This report presents BITRE's review of the Scheme's methodology and suggested parameter values. This report specifically aims to:

- Review the TFES methodology and definitions of wharf-to-wharf and intermodal costs
- Review the TFES intermodal cost parameter and the appropriateness of establishing a new benchmark
- Re-estimate TFES scaling factors on a wharf-to-wharf basis
- Establish a new benchmark for the TFES road freight equivalence rate
- Estimate a new TWFS subsidy per tonne for unprocessed wheat
- Estimate the level of sea freight disadvantage for King Island and Flinders Island to and from Tasmania, and to and from the Australian mainland

BITRE employed a consultant (Sinclair Knight Merz Pty Ltd) to assist with freight rate data and in reviewing the operation of the Schemes (SKM 2008).

Report structure

This background chapter outlines the Tasmanian freight schemes, the announced changes to the Schemes and the scope of the methodology review.

Chapter 2 summarises the operation of the two Tasmanian freight schemes and the flows of eligible freight.

Chapter 3 details the TFES methodology, freight rates, estimates of the sea freight disadvantage and suggested values for key TFES parameters.

Chapter 4 details the TWFS methodology, wheat freight rates and a suggested new per tonne subsidy.

Chapter 5 outlines the King Island and Flinders Island services, freight rates and indicative levels of sea freight disadvantage.

Chapter 2 Operation of the Tasmanian freight schemes

The Tasmanian Freight Equalisation Scheme

The Tasmanian Freight Equalisation Scheme (TFES) is based on the concept of sea freight cost disadvantage. The sea freight disadvantage is the increase in cost directly resulting from moving freight by sea across Bass Strait.

Sea freight disadvantage

The TFES Review Authority (1998, pp. 4–5) recognised that a gap was likely to exist between the actual cost of the trans-Bass Strait freight task and a comparable land freight equivalent. This gap arose through the absence of a land bridge and the inability to use either road or rail transport.

The Productivity Commission (2006, p. xvi-xvii) concluded that sea freight was inherently more expensive, relative to road freight, over shorter distances such as Bass Strait, and that additional sources of sea freight cost disadvantage arise from:

- Specialised packaging requirements.
- Intermodal transfers.
- Significant capital investments required to improve the efficiency of shipping services.
- The costs of freight consolidation.
- Reliance on shipping requiring higher input inventories and the capacity to store additional output.
- The need for greater investment in transport infrastructure (such as trailers and containers), given the longer shipping turn-around times.

The Commission also noted that other factors could widen the relative freight cost disadvantage:

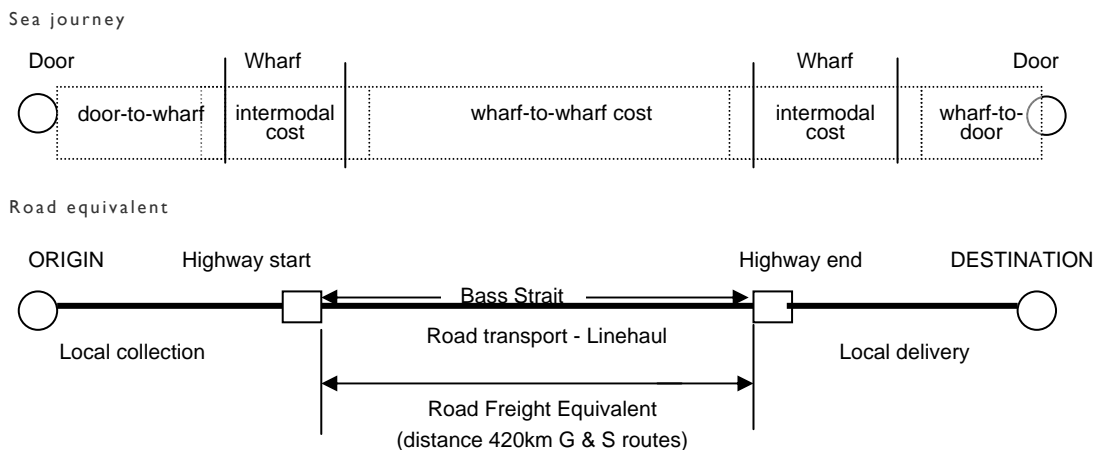
- Cabotage and coastal shipping regulation that adversely affects shipping costs.
- Any under-recovery of heavy vehicle road freight costs incurred by mainland producers.

Structure of the TFES

The notional entitlement to assistance is the notional wharf gate-to-wharf gate freight cost disadvantage. It is equivalent to the shipper's notional wharf-to-wharf freight cost less the road freight equivalent cost, plus the fixed intermodal cost.

Under the current TFES, most shippers are not entitled to receive the entire sea freight cost disadvantage. Figure 1 summarises the concepts underpinning the TFES.

Figure 1 Conceptual model and structure of the TFES



Source BITRE based on TFES Review Authority (1998) and Ministerial Directions (2006a)

The TFES uses a number of defined parameters to estimate the notional sea freight cost disadvantage:

- **Door-to-wharf parameter:** applied to door-to-wharf, wharf-to-door and door-to-door freight bills to estimate a notional wharf-to-wharf freight cost. The former Australian Government accepted the Productivity Commission recommendation that this parameter be eliminated and the BITRE has not re-estimated this parameter.
- **Wharf-to-wharf sea freight cost disadvantage.** This is estimated by subtracting the Road Freight Equivalent parameter from the notional wharf-to-wharf sea freight rate.
- **Intermodal cost parameter.** The current TFES applies a transfer allowance per TEU for each intermodal movement of \$50—a total \$100 per twenty-foot equivalent unit (TEU) (or transport unit).
- **An incentive structure is applied to the sea freight cost disadvantage to promote cost containment.**

Road Freight Equivalent

The TFES Review Authority defined the road freight equivalent (RFE) cost as the cost of transporting one TEU by road over a distance equivalent to the sea distance between northern Tasmania and Victoria. The Authority considered road to be the mode most likely to be adopted in the presence of a land bridge.

As the sea transport cost is based on the wharf gate-to-wharf gate (wharf-to-wharf) cost, the road freight equivalent is estimated on a comparable basis by incorporating the line haul component only. It therefore excludes the cost of local collection and delivery (Figure 1).

The TFES Review Authority defined wharf-to-wharf costs as the blue water, container hire, stevedoring and wharfage charges (TFES Review Authority 1998, p. 12).

The notional wharf-to-wharf freight cost is the shipper's freight cost on a wharf-to-wharf basis for a standard 6.1 metre container (a twenty-foot equivalent unit, or TEU), less the applicable GST component of the freight bill.

Adjustment for local delivery costs

The current TFES allows shippers to submit claims on a door-to-door, door-to-wharf, wharf-to-door or wharf-to-wharf basis.

Where claims are not submitted on a wharf-to-wharf basis, the freight bill is adjusted by subtracting a fixed amount per TEU (or transport unit) for each door-to-wharf or wharf-to-door movement to estimate the notional wharf-to-wharf equivalent freight bill.¹ The former Australian Government accepted the Productivity Commission (2006) recommendation that the door-to-wharf adjustment no longer apply and that all claims be submitted on a wharf-to-wharf basis.

Scaling rates to a Victoria–northern Tasmania basis

The notional wharf-to-wharf freight cost is expressed in terms of the cost for northern Tasmania–Victoria (Route G) or Victoria–northern Tasmania (Route S).

Where claims are submitted for other routes, scaling factors are used to adjust freight bills for these routes to a northern Tasmania and Victoria

¹ To a maximum of \$460 per TEU for a door-to-wharf claim.

(routes G and S) equivalent basis. TFES claims for eligible freight shipped between Victoria and Northern Tasmania (G&S routes) represented 77 per cent of all TEUs and 80 per cent of compensation paid in 2006–07 (BITRE analysis of TFES database).

This scaling of freight bills reflects the focus of TFES on the disadvantage imposed by the need to use sea transport across Bass Strait. When cargo is moved between points on the mainland before or after the Bass Strait sector, the transport options for Tasmanian shippers are the same as those available to other shippers.

Intermodal cost

The TFES Review Authority defined intermodal cost as the unavoidable transfer costs between the ship and land transport when cargo is moved by sea between northern Tasmania and Victoria—these costs are in addition to the blue water, container hire, stevedoring and wharfage charges (1998, p. 12).

Incentive structure

In its 1998 Advisory Opinion, the TFES Review Authority stated that payment of the full notional entitlement to assistance would weaken incentives to minimise freight bills (TFES Review Authority 1998, p. 25). The TFES Review Authority therefore recommended that the assistance payable to a shipper incorporate an adjustment to promote cost containment.

The shipper's notional entitlement to assistance—the freight cost disadvantage—is therefore adjusted to provide an incentive for shippers to minimise freight rates.

The Ministerial Directions (2006a) identified four classes of shippers, and that the shipper classes should receive the following proportions of the notional wharf-to-wharf freight cost disadvantage:

- 100 per cent of the first \$335.50 per TEU (Class 1 shipper); plus
- 75 per cent for the second \$335.50 per TEU (that is, up to the median wharf-to-wharf disadvantage of \$671.00²) (Class 2 shipper); plus
- 50 per cent for the third \$335.50 (that is, up to \$1006.50) per TEU (Class 3 shipper); plus
- nil for amounts above \$1006.50 per TEU (Class 4 shipper).

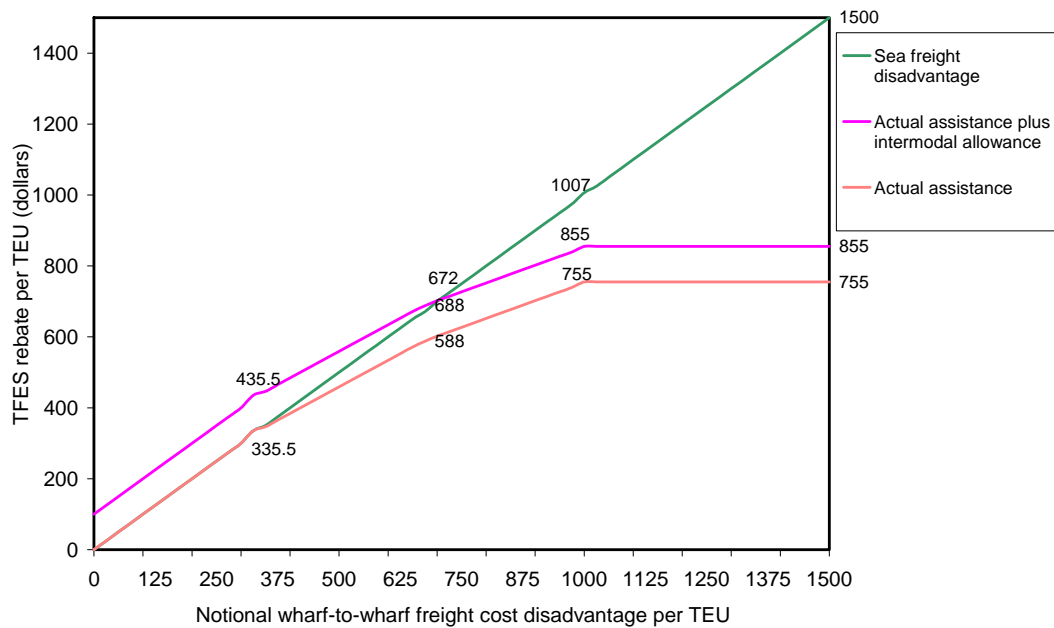
² As recommended by the TFES Review Authority (1998).

Assistance payable for a standard TEU

The actual assistance payable is the shipper’s notional entitlement to assistance—the sea freight cost disadvantage—less an adjustment to provide an incentive for shippers to minimise freight rates, plus an allowance for the intermodal costs.

The relationship between sea freight cost disadvantage and actual assistance payable is represented in Figure 2. The maximum assistance payable (which occurs with a notional wharf-to-wharf freight cost disadvantage of \$1006.51) is \$855 per TEU. This is \$755 per TEU for a class 4 shipper plus the intermodal allowance of \$100 per TEU.

Figure 2 Current TFES freight cost disadvantage and actual assistance for a standard TEU



Source Productivity Commission (2006)

High density adjustment

For cargo classified as heavy or high-density, the assistance payable is 60 per cent of the standard weight assistance (that is, a discount of 40 per cent). For the purposes of the Scheme, freight with an efficient cargo stowage factor of 1.1 tonnes cubic metres or less to the tonne is classified as ‘high density’.

What goods are eligible for assistance?

The TFES comprises a northbound component and a southbound component (DOTARS 2006a, p. 3). It excludes assistance to goods that are:

- shipped as air cargo, except in special circumstances ;
- shipped as bulk cargo; or
- intended to be shipped out of Australia, unless they undergo a manufacturing process on the mainland prior to export.

The northbound component of the TFES covers eligible³ goods that are produced or manufactured in Tasmania for permanent use or for sale on the mainland of Australia.

The southbound component of the TFES covers eligible non-consumer raw materials, machinery and equipment. It applies to persons engaged in the manufacturing, mining, agriculture, forestry and fishing industries in Tasmania. The Ministerial Directions (2006a) also identify goods that are not eligible for assistance under the southbound component:

- fuels and lubricants;
- goods of Tasmanian origin;
- building and construction materials/equipment;
- certain motor vehicles;
- imports via the Australian mainland that have not undergone a subsequent manufacturing process prior to shipment to Tasmania.

In addition to the northbound and southbound components, the TFES provides assistance for equipment used by professional entertainers and sportspersons. There is also assistance for Tasmanian-based brood mares and their progeny in specific circumstances.

Charitable organisations are eligible to receive the full notional entitlement to assistance (clause 15.3). That is, they are not subject to the adjustment intended to provide an incentive for shippers to minimise freight rates.

³ A Schedule attached to the Ministerial Directions (DOTARS 2006a) identifies 77 goods that are eligible for assistance under the northbound component. There is also provision for the Minister or Secretary to consider applications for the inclusion of other goods.

What proportion of trade is eligible?

The Productivity Commission (2006, p. 9) estimated that TFES assistance was available for about 40 per cent of Bass Strait containerised trade, with over three quarters of the subsidies paid on goods shipped northbound from Tasmania.

What was claimed under the TFES?

Shippers made TFES claims for more than 143 000 TEUs of eligible freight shipped in 2006–07 (excluding claims paid in 2006–07 for freight shipped in the previous two years and duplicate claims records totalling approximately 3000 TEUs). These claims received \$86.08 million in assistance.

Northbound TFES claims—76.5 per cent of total TEUs assisted—received \$66.05 million in TFES assistance for 2006–07. Major northbound commodities were newsprint (23 per cent of northbound TEUs assisted), frozen vegetables and vegetable products (16.4 per cent) and paper/paper products (10.4 per cent).

Southbound TFES claims—23.5 per cent of all TEUs assisted—received \$20.04 million for 2006–07. The main southbound commodity group was manufacturing and mining raw materials (75.3 per cent of southbound TEUs assisted).

Claims for wheat shipped by container to Tasmania totalled 2210 TEUs (6.6 per cent of southbound TEUs assisted).

Table 1 summarises TFES claims for the major commodity groups by direction for 2006–07.

Table 1 TFES shipments by direction and commodity groups 2006–07, twenty-foot equivalent units

<i>Southbound</i>	<i>TEUs</i>	<i>Proportion</i>
Manufacturing and mining raw materials	25330	75.3
Fodder (excluding wheat)	2864	8.5
Wheat	2210	6.6
Cattle	1406	4.2
Fishing - all other goods	469	1.4
Packaging material	180	0.5
Mixed and other grains	180	0.5
Barley	176	0.5
All other commodities	853	2.5
Total southbound commodities	33368	100
<i>Northbound</i>	<i>TEUs</i>	<i>Proportion</i>
Newsprint	25231	23.0
Frozen vegetables and vegetable products	18016	16.4
Paper	11372	10.4
Timber	6288	5.7
Confectionery and chocolate products	5625	5.1
Fresh vegetables and vegetable products	5587	5.1
Wood and cork products	4222	3.9
Beverages in cartons	3764	3.4
Metal waste and scrap	2520	2.3
Fresh fish and fish products	2516	2.3
Machinery and transport equipment	2357	2.2
Cheese	2342	2.1
Cattle	1725	1.6
Waste paper	1611	1.5
Sheep	1290	1.2
Dried milk, condensed and UHT milk	1178	1.1
Fruit and fruit preparations	1076	1.0
Aluminium powder metal and paste	962	0.9
Metal products and metal parts	878	0.8
Processed vegetables and vegetable products	766	0.7
All other commodities	10250	9.4
Total northbound commodities	109576	100
Note	Shipments for 2006–07, not claims paid, as shippers can lodge claims up to two years after a shipment. Excludes a small number of duplicate records. Trade summarised as TEUs as volume and weight (tonnes) data has omitted data.	
Source	BITRE analysis of TFES database.	

Tasmanian Wheat Freight Scheme

Assistance for bulk wheat under the Tasmanian Wheat Freight Scheme (TWFS) is paid at a flat rate per tonne, or the shipper's total 'wharf-to-wharf' costs, whichever is the lesser. Funding for the TWFS is capped at \$1.05 million.

The funding cap (currently \$1.05 million) effectively limits total annual bulk wheat shipments to 50 000 tonnes at the maximum rate of \$20.65 per tonne.

Productivity Commission review

The Productivity Commission concluded with respect to the TWFS that:

The uptake of assistance under this scheme has been very small and, despite freight rates for bulk shipping often being cheaper, there were no claims during 2005–06. Participants advised that this is because the net freight cost is lower if wheat is shipped in containers at subsidised rates under the TFES (2006, p.12).

The former Australian Government announced a number of changes to the TWFS in response to the Commission's report:

1. The TWFS would include both bulk and containerised unprocessed wheat shipments. Unprocessed wheat would not be eligible for TFES.
2. Removal of the annual cap of \$1.05 million.
3. A new rate for the TWFS would be determined as part of the methodology review to be undertaken by the BITRE. This rate would be reviewed on a three yearly cycle along with the parameters for the TFES, and the results of this published.

What was shipped?

There were no claims under the TWFS in 2005–06.

Bulk wheat shipments resumed in 2006–07 with claims for 31 600 tonnes of bulk wheat (Table 2). During the year there were four shipments of approximately 7000 tonnes and one of 3500 tonnes.

Between July 2004 and July 2007 bulk wheat shipments to Tasmania have been sourced from Melbourne, Port Lincoln in South Australia and Esperance in Western Australia.

Total assistance entitlements in 2004–05 and 2006–07 were less than the TWFS annual cap of \$1.05 million and all shippers received the maximum subsidy for bulk wheat of \$20.65 per tonne.

Table 2 provides details of bulk and containerised wheat claims to Tasmania from 1999–00 to 2006–07.

In 2006–07 the TWFS subsidy as a proportion of bulk freight costs was 50 per cent, down from 54 per cent in 2004–05 (table 2).

Table 2 Bulk and containerised wheat shipments to Tasmania, 1999–00 to 2006–07, tonnages and subsidy paid^a

	99–00	00–01	01–02	02–03	03–04	04–05	05–06	06–07
<i>Bulk wheat</i>								
Shipped tonnes	41653	49071	52300	49998	62774	27433	0 ^a	31602 ^b
Subsidy (\$m)	0.96	1.12	1.02	1.08	1.02	0.57	0	0.65
—\$ per tonne	22.96	22.76	19.54	21.59	16.33	20.65	-	20.65
—proportion of cost	78	74	62	68	49	54	-	50
<i>Containerised wheat</i>								
Shipped tonnes	10621	3652	9118	5589	10695	34813 ^d	69780 ^d	52777 ^d
Subsidy (\$m)	0.24	0.08	0.18	0.12	0.182	\$0.96	\$2.07	\$1.70
—\$ per tonne ^c	22.96	22.76	19.54	21.59	16.33	\$27.50	\$29.66	\$32.16
—proportion of cost	48	41	38	48	48	48	50	53

a. No bulk wheat claims in 2005–06.

b. Bulk wheat tonnes based on date shipped.

c. Assumes 24 tonnes of wheat per container.

d. Containerised wheat tonnage and subsidy based on date shipped (2004–05, 2005–06 and 2006–07) and not date of claim payment.

Source TFES database; DOTARS (2006b) p. 19 and BITRE analysis

Claims for containerised wheat shipments totalled an estimated 52 700 tonnes in 2006–07, a reduction of approximately 10 400 tonnes on 2005–06 (Table 2).

BITRE estimates that the subsidy per tonne for containerised wheat under the TFES was \$32.16 per tonne in 2006–07, up 8.4 per cent on 2005–06.

Chapter 3 Tasmanian Freight Equalisation Scheme parameters

Wharf-to-wharf and intermodal costs

The TFES Review Authority's definition of sea freight cost disadvantage included all costs incurred 'between the wharf gates' (1998, p. 12). This definition of cost disadvantage included blue water costs (including container hire), wharfage, stevedoring and 'presently undisclosed' intermodal transfer costs incurred in getting freight 'through the wharf gates' and onto the wharf apron (1998, pp.6-7).

With respect to intermodal costs, the Authority stated it was important that the basis for assistance should not influence which tasks should be undertaken inside and outside the wharf gates, stating 'This means that no attempt to list specific eligible 'other' wharf gate to wharf gate costs should be made.'

It also noted that, in most cases, no disaggregation of wharf-to-wharf costs was given for goods shipped through freight forwarders and charged for on a door-to-door basis (75 per cent of cases), let alone other costs incurred on the wharf apron (TFES Review Authority 1998, pp.12-13).⁴ It therefore recommended:

... a more practical basis for providing for assistance against unavoidable costs (other than wharfage, container hire and blue water costs) ... either inside or outside the wharf gates, is through a fixed allowance over and above notional or actual wharfage, container hire and blue water charges...

The Productivity Commission (2006) found that the Ministerial Directions for the TFES have no strict definition of which cost components should be included in 'wharf-to-wharf' claims, and that this may distort both the mean and median values of claims (p.30-31). The Commission recommended BITRE review the cost components to be included in wharf-to-wharf costs.

⁴ The TFES Review Authority (1998, pp.12-13) also considered the administrative difficulties that disaggregation would cause.

BITRE notes that any definition of intermodal and wharf-to-wharf costs is necessarily arbitrary. This can provide incentives for activities to be carried out at different points of the logistics chain, or for service providers to change the balance of charges.

Most identifiable costs involved in the movement of freight from land to sea, or sea to land, were defined by the TFES Review Authority as wharf-to-wharf costs. According to this definition, wharf-to-wharf includes tasks carried out by stevedores such as container lifts, storage and refrigeration for reefer, and port-related costs such as wharfage.

Other costs levied by ports and others (including pilotage, towage, mooring/unmooring, sewage disposal) are captured in the all-up freight rates that shippers pay. SKM (2008) states that:

In practice...charges for these services and activities are nearly always included in a single all up charge for door-to-door freighting arrangements, and they are usually included in wharf-to-wharf based arrangements. The most common exception is insurance, where shippers may have their own insurance, or may take the shipping line's insurance arrangements.

SKM (2008) concludes that the sea freight cost disadvantage is a function of all activities occurring between the receiving stevedore's gates and the despatching stevedore's gates, and that intermodal costs such as container hire, lifts and storage are in practice included in all up TEU rates. However, they recognise that there may be justification for recognising costs incurred before goods are sent to the wharf or after they are received at the destination.

A specific definition would require shippers to submit an invoice separating out the respective cost components on invoices, adding to the administration burden of the Scheme—including on-going reassessment process for new charges. The TFES Review Authority believed that 'It was undesirable that a difficult audit trail be imposed upon the scheme's administrators who would be charged with verifying claims if a list of other eligible costs were made explicit.'

In consultations with DITRD LG, some stakeholders stated that they incurred additional costs relating to the sea freight leg that were not captured either in the current wharf-to-wharf definition, or in freight rates paid. Examples included:

- Specialised packaging required for sea transport that would not be required for land transport.
- The need to give live animals a break after a sea leg, resulting in a longer duration than a hypothetical road journey.

The Productivity Commission documented examples of where shippers incurred higher costs including damage related to the sea journey (and

consequent higher insurance costs) and extra steps/processes required for containerisation of freight that would otherwise be shipped as pallets (2006, p.31–32, Box 3.2).

The TFES Review Authority reviewed arguments ‘that disadvantage goes beyond freight cost comparisons and extends to such matters as risk, sea voyage damage, increased inventory holdings, time delays and the like.’ It concluded ‘While accepting that these may constitute a competitive disadvantage, the Authority views them as inappropriate for inclusion as a basis for assistance. They are inextricably mixed with commercial best practice, vary widely across commodities in their importance and are, for practical purposes unmeasurable, even by way of some proxy measure.’ (1998, p.8)

Intermodal cost allowance

All eligible shippers currently receive a fixed intermodal allowance. The intermodal cost allowance incorporates the unavoidable intermodal costs that are incurred by a shipper moving goods by sea between northern Tasmania and Victoria.

The TFES Review Authority initially set the fixed intermodal cost at \$50 per twenty-foot equivalent unit (TEU) for each end of the journey—that is, a total of \$100 per TEU. This figure was based on information obtained from a sample of shippers (TFES Review Authority 1998, p. 12).

As discussed in the *Wharf-to-wharf and intermodal costs* section above, major charges associated with the transfer of containers between land and sea modes—stevedoring, container hire and wharfage—were defined by the TFES Review Authority (1998) as components of the ‘wharf-to-wharf’ cost.

Stevedoring costs include container lifts, terminal storage, container hire and cleaning.⁵ Other charges include wharfage, pilotage, bunkering (fuel), navigation charges, port services charges and water and sewerage disposal. In practice charges for these services and activities are nearly always included in a single all up charge for door-to-door freighting arrangements, and they are usually⁶ included in wharf-to-wharf based billing arrangements. This is consistent with advice from Tasmanian

⁵ SKM (2008) estimates that typical stevedoring charges comprise \$160 per TEU.

⁶ The most common exception is insurance, where shippers may have their own insurance, or may take the shipping line’s insurance arrangements. Larger shippers are more likely to have their own insurance; smaller shippers are more likely to use the shipping line’s insurance (SKM 2008). Where a shipper has taken the option of the shipping line insurance this is likely to be already captured in freight rates.

Assistance Services that invoices supporting claims do not generally itemise cost components (personal communication).

BITRE suggests that the sea freight disadvantage should be calculated on the basis of wharf to wharf costs which include intermodal costs without itemisation.

BITRE acknowledges that some shippers do incur higher costs because of the sea journey that are not included in the total sea freight rate paid. These costs are likely to vary significantly by commodity and shipment sizes. These may include:

- specialised packaging needed to prepare goods for sea freight that would not be needed on a hypothetical road journey.
- higher loading and unloading costs,⁷ as loading containers may be more labour intensive than pallets on tautliner trucks.
- greater inventory holdings due to slower journey times and lower reliability.

DITRDLG requested information from stakeholders on the scope and magnitude of costs over and above the wharf-to-wharf freight rate that would support the continued payment of an intermodal allowance. Two large shippers provided indicative confidential data on some of these additional costs. BITRE analysis indicates that the *quantifiable, incremental* costs that *attributable to the need for a sea journey* for these two shippers are at least \$50 and \$86 per TEU respectively.⁸ It is not known if this level is representative of the majority of shippers.

BITRE suggests that the intermodal allowance be retained. Stakeholders provided evidence of costs of at least \$50 to \$86 per TEU due to the need for a sea journey that were not otherwise captured in wharf to wharf freight rates or by the current TFES formulae.

⁷ This may include any higher loading/unloading costs due to the packing/unpacking of pallets into containers, but not other costs associated with less than full container loads.

⁸ Excludes costs of local pickup and delivery; costs that would also have been incurred on a hypothetical door to door road journey; costs due to the relative inefficiency of containers compared to pallets (already captured by using the net rather than gross container weight in the RFE benchmark); and higher inventory/warehouse costs (these reflect factors such as company policy making it difficult to identify the incremental cost due to the sea journey).

Wharf-to-wharf sea freight rates

In establishing a 'typical' sea freight cost disadvantage as a reference point for determining assistance, the TFES Review Authority (1998) stated it had tried to balance conflicting needs:

On the one hand, the use of average freight rates per TEU is likely to be unsatisfactory because of the very heavy influence of a few very large shippers who enjoy low freight rates and account for a high proportion of all TEUs shipped. On the other hand, the use of 'median shipper' can also have undesirable effects. The TFES database reveals... there are a significant number of shippers who apparently ship only one or two full containers per year of non reefer freight on a wharf-to-wharf basis at high freight rates. Their inclusion... is distortive because they skew the distribution.

In order to balance these influences, the Authority took the population of wharf-to-wharf shippers as all those who ship five TEUs or more annually on a full container load basis. To these were added the population of all door-to-door shippers, both reefer and non reefer, after notional adjustments had been made for door-to-wharf and wharf-to-door costs (1998, p.29).

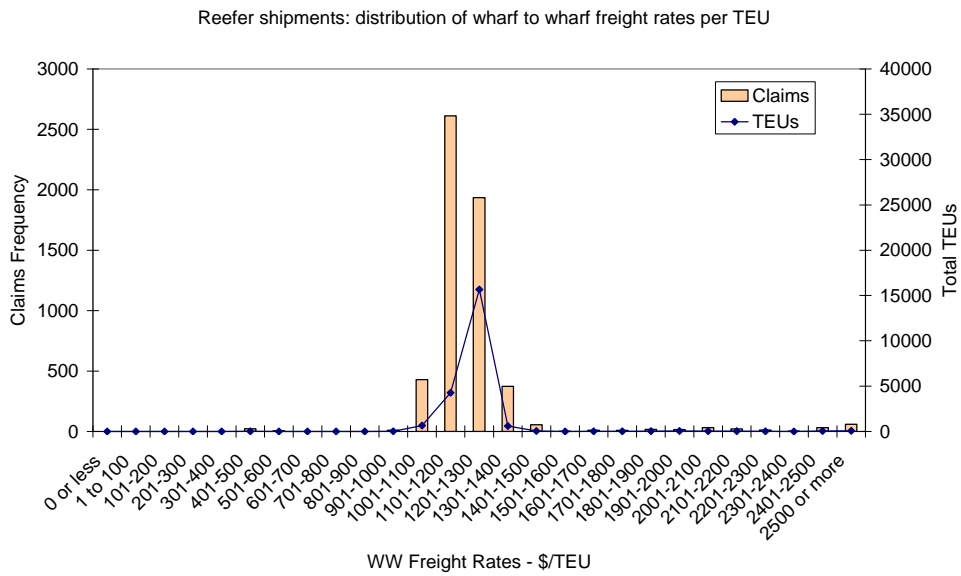
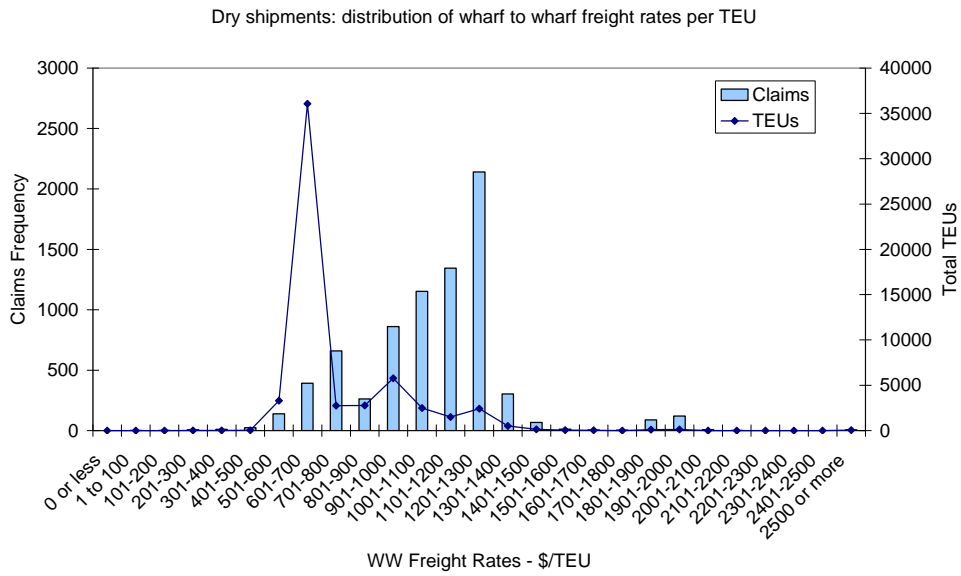
The Productivity Commission observed that the use of the median notional wharf-to-wharf freight rate 'has shown more volatility than any of the other parameters of the TFES' and that using the median exacerbates the weaker than normal commercial incentives for cost minimisation (2006, p. 74–75).

Figure 3 illustrates the distribution of wharf-to-wharf dry and reefer full container claims for 2006–07 on a rate per TEU basis. The distribution of full container load claims and TEUs for dry freight claims in Figure 3 confirms that a few large shippers with low wharf-to-wharf rates drive down the average rate per TEU.

Large shippers enjoy lower freight rates for a number of reasons:

- Their ability to negotiate lower average freight rates;
- Larger shippers are more likely to have their own insurance, whereas smaller shippers are more likely to use the shipping line's insurance;
- Streamlined processes and specialised delivery and packaging.

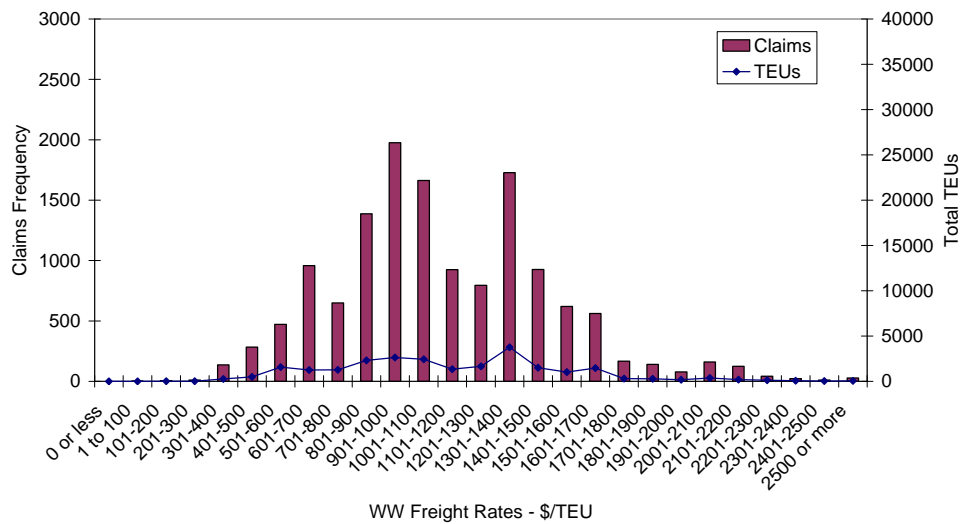
Figure 3 Distribution of full container wharf-to-wharf claims by number and TEUs



Source BITRE

Figure 4 shows the distribution of dry freight door-to-door, door-to-wharf and wharf-to-door full container claims and TEUs. The unevenness in the distribution appears to reflect variation in road transport costs rather than variation in sea freight costs. BITRE suggests that the only way to address this is to exclude the population of non-wharf-to-wharf shippers.

Figure 4 Dry and reefer shipments: distribution of full container door-to-door, door-to-wharf and wharf-to-door claims by number and TEUs



Source BITRE

The median and average rates per TEU for the different types of claims are summarised in Table 3. BITRE analysis of the TFES data for 2006–07 shows that:

- Wharf-to-wharf shippers accounted for 76 per cent of TEUs claimed for full container loads shipped between Victoria and northern Tasmania, with door-to-door, door-to-wharf or wharf-to-door shippers accounting for 24 per cent of all TEUs.
- Wharf-to-wharf shippers with less than five TEU shipped only 81 TEU—less than 0.1 per cent of full container loads. BITRE has therefore calculated the median and average wharf-to-wharf freight rates for all wharf-to-wharf shippers.
- While the median rates for wharf-to-wharf dry and reefer shipments were similar, the averages differ significantly.

BITRE suggests that the sea freight cost be the median value for dry freight of \$1160 per TEU for all wharf-to-wharf shippers.

Table 3 Median and average freight rates for Victoria–northern Tasmania routes, full container load claims, 2006–07

<i>Basis of Claim</i>	<i>Total TEUs</i>	<i>Number of claim line items</i>	<i>Median (\$/TEU)</i>	<i>Weighted Average (\$/TEU)</i>	<i>Standard Deviation (\$/TEU)</i>
Wharf-to-Wharf claims					
Dry Shipments	58191	7607	1160	770	280
Reefer Shipments	21606	5658	1189	1215	235
All wharf to wharf	78536	13265	1168	890	269
Door-to-Door, Door-to-Wharf or Wharf-to-Door claims					
Dry Shipments	20345	11251	1094	1168	395
Reefer Shipments	4314	2619	1032	1027	290
All non-wharf-to-wharf	25920	13870	1070	1144	380

Note The number of claim line items does not reflect the number of claims or the number of unique claimants. This is because a single shipper can make many separate claims for one or more full TEU units, or only one claim for a large number of TEUs. Each claim can have from one to many hundreds of claim line items.

a Notional wharf-to-wharf freight rates calculated by subtracting the door-to-wharf parameter from door-to-door, door-to-wharf, and wharf-to-door rates.

b. Includes small shippers (defined as less than five full container loads per annum) which accounted for only 81 TEU in 2006–07.

Source BITRE analysis of TFES database

Route scaling factors

Why are scaling factors used?

When a TFES claim is made for shipment on routes other than between northern Tasmania and Victoria, the wharf-to-wharf component of the freight bill is adjusted to a northern Tasmania and Victoria basis using route scaling factors.

For example, if wharf-to-wharf cost of shipping a full standard container from Perth to Devonport is \$2000, then this freight bill is divided through by the current scaling factor of 2.5 for Western Australia to northern Tasmania (table 4) to give a 'Bass Strait equivalent' freight cost of \$800.

In 2006–07 approximately 23 per cent of claims by volume (TEUs) and 20 per cent of all compensation paid was for claims submitted for routes requiring scaling factors.

How were the current scaling factors set?

The TFES Review Authority (1998) considered various ways of scaling wharf-to-wharf costs on other routes to make them comparable to the trans-Bass Strait routes. These were:

1. The minima used in the previous scaling formulae;
2. Scaling based on the ratio of sea distance for non-Victorian State capitals relative to the Victoria–Tasmania distance (420 kilometres); or
3. Scaling based on the reported *door-to-door* costs on other routes relative to the average door-to-door costs on Victoria–Tasmania routes (pp. 17-18).

Option 3 was subsequently adopted for the Scheme. The TFES Review Authority considered that basing scaling factors on actual costs ‘offered the most transparent approach and was less likely to suffer from an inappropriate implicit assumption that blue water costs per TEU are invariant with distance.’ (1998, p.18) The TFES Review Authority estimated the scaling factors using rates for all door-to-door TFES claims in the reference period.

Issues with estimating scaling factors

The Productivity Commission (2006, p. x) highlighted two concerns about the scaling factors used by the Scheme.

The first was the need to re-estimate the current TFES scaling factors given that the scaling factors, like other TFES parameters, had not been updated. The Commission found that ‘The majority of route scaling factors, estimated in 1996–97, are higher than the estimates in subsequent parameter reviews. A higher estimate results in a lower TFES rebate.’ BITRE notes that reducing scaling factors will increase rebates for non-Victorian shippers where they are not receiving the maximum rate of assistance.⁹

The second concern was that the existing scaling factors were based on capital city cost differences, but applied to activity throughout an entire state. This created competitiveness problems near borders (Productivity Commission 2006, p. 68). BITRE was unable to assess the importance of this distortion, as the TFES claims database does not record the freight point of origin or point of destination.

Extending route scaling factors outside the major ports would be likely to result in a relatively small number of claims for non-capital city shipments. Scaling factors are estimated using the freight rates declared by claimants, and a small number of claims results in volatility and less reliable estimates. For example, the small number of claims to/from the Northern Territory has resulted in significant instability of the estimates.

⁹ Everything else being constant, only class 1, 2 and 3 shippers would benefit.

Updating route scaling factors

The TFES Review Authority (1998) estimated scaling factors for door-to-door shipments. The former Australian Government's decision to accept the Productivity Commission recommendation to eliminate the door-to-wharf and wharf-to-door parameter will mean that future scaling factors will have to be estimated using the freight costs of wharf-to-wharf freight claims, not door-to-door claims.

BITRE has re-estimated route scaling factors on a wharf-to-wharf basis using freight rates for 2006–07 and a three year period (for 2004–05, 2005–06 and 2006–07), subtracting the door-to-wharf and wharf-to-door parameters to adjust raw freight bills to a notional wharf-to-wharf basis where required (Table 4).

Table 4 Wharf-to-wharf scaling factors: 1996–97, 2006–07 and three year average

Route	TFES Review Authority Advisory Opinion 1996–97	2006–07 average notional wharf-to-wharf freight cost (\$)	2006–07 wharf-to-wharf scaling factor estimate	Three year average notional wharf-to-wharf freight cost (\$)	Three year average wharf-to-wharf scaling factor estimate
Northern Tasmania to/from					
Victoria	1.0	1169	1.0	1146	1.0
New South Wales	1.8	2021	1.7	2003	1.7
South Australia	1.5	1795	1.5	1751	1.5
Queensland	2.4	2737	2.3	2526	2.2
Western Australia	2.5	1991	1.7	1863	1.6
Northern Territory	6.8	2852	2.4	4080	3.6
Southern Tasmania to/from					
Victoria	1.3	1492	1.3	1350	1.2
New South Wales	1.9	2274	1.9	2333	2.0
South Australia	1.3	2016	1.7	2076	1.8
Queensland	2.2	2058	1.8	2143	1.9
Western Australia	2.4	3223	2.8	2480	2.2
Northern Territory	4.6	5540	4.7	4822	4.2

Notes Three year average wharf-to-wharf scaling factors estimated using TFES claims data for 2004–05, 2005–06 and 2006–07.

Source BITRE analysis of the TFES database; TFES Review Authority (1998)

Previous scaling factor updates have shown volatility in markets with small number of claims, notably the Northern Territory.

If scaling factors are to be used, BITRE recommends the use of a three year average in order to reduce the volatility of year-on-year estimates.

Scaling factors for the majority of routes in Table 4 are less than the scaling factors used in the current TFES. The main exception to this is southern Tasmania–South Australia. A reduction in a route scaling factor increases the notional wharf-to-wharf freight cost disadvantage for this route, increasing the level of assistance for eligible shipments where shippers are not already receiving the maximum rate.

Applying the three year average scaling factors in Table 4 to all non-G&S route claims for 2006–07 (with all other parameters unchanged, and claims values unchanged) may have increased total subsidy payments by \$3.7 million.

Table 5 Summary of TFES claims for 2006–07 shipments by route

Route to/from	Claim items ^a		TEUs ^b		Tonnes ^c		Subsidy paid	
	number	per cent	number	per cent	'000	per cent	dollars	per cent
Northern Tasmania:								
Victoria	48 374	45	112 743	77	1376	78	71.2	80
New South Wales	7 611	7	3 844	3	47	3	2.5	3
South Australia	2 452	2	1 096	1	12	1	0.8	1
Queensland	4 013	4	3 245	2	40	2	2.4	3
Western Australia	2 338	2	14 571	10	150	9	4.5	5
Northern Territory	37	0	162	0	2	0	0.0	0
Total to/from northern Tasmania	64 825	61	135 661	93	1628	93	81.4	91
Southern Tasmania:								
Victoria	20 116	19	6 263	4	47	3	4.6	5
New South Wales	10 136	9	2 145	1	14	1	1.7	2
South Australia	3 542	3	469	0	5	0	0.4	0
Queensland	5 943	6	1 400	1	57	3	1.0	1
Western Australia	2 189	2	349	0	5	0	0.3	0
Northern Territory	25	0	14	0	0	0	0.0	0
Total to/from southern Tasmania	41 951	39	10 639	7	127	7	8.0	9
Total all routes	106 776	100	146300	100	1 755	100	89.4	100

Notes Totals may not sum due to rounding.

a Claim line items do not represent separate claims.

b Includes full and less than full container loads.

c Tonnage calculated using the TFES database, however, the database does not record tonnages for a significant number of claim items.

Source BITRE estimates using the TFES database

Sea freight can be competitive with road and rail on long haul routes. This is more likely to be case for Western Australia–Tasmania routes, with claims totalling 14 571 TEU (155 000 tonnes) in 2006–07, 10.2 per cent of TEUs and 5.4 per cent of TFES compensation paid (Table 5).

The TFES could be simplified by eliminating route scaling factors. This would require claimants to submit a freight bill separately itemising the freight charge for the Melbourne–Devonport sector, irrespective of actual freight origin–destination.

The advantage of removing scaling factors would be to reduce the complexity of the TFES, making the Scheme easier to understand and improving day-to-day administration.

The disadvantage of removing scaling factors is that it would make it difficult to identify shipments where there is no sea freight disadvantage—the fundamental underpinning of the TFES. In cases where it is cheaper to ship by sea than a hypothetical road land bridge, claimants should not receive a subsidy.

If scaling factors are eliminated then shippers will need clear guidance as to what are considered ‘reasonable’ Bass Strait freight costs. Should scaling factors be retained BITRE recommends the use of a three year average in order to reduce the volatility of year-on-year estimates.

Road Freight Equivalence parameter

The Road Freight Equivalent, in combination with a shipper’s actual wharf-to-wharf freight bill, determines how much assistance an individual shipper may be entitled to before adjustment for factors such as the heavy freight discount or the incentive structure.

Sea compared with land freight rates

The TFES Review Authority considered road the mode most likely to be adopted in the presence of a land bridge. It therefore defined the road freight equivalent (RFE) cost as the cost of transporting one TEU by road over a distance equivalent to the sea distance between northern Tasmania and Victoria.

Sea freight rates are more expensive over shorter journeys than road. Sea has much higher fixed costs, offset by lower variable costs as distances and tonnages per shipment increase. The trade off point between sea and road is between 1500 and 3000 kilometres, but varies according to whether freight is in bulk or containerised, the size of shipments, as well as market issues affecting rates at any given time.

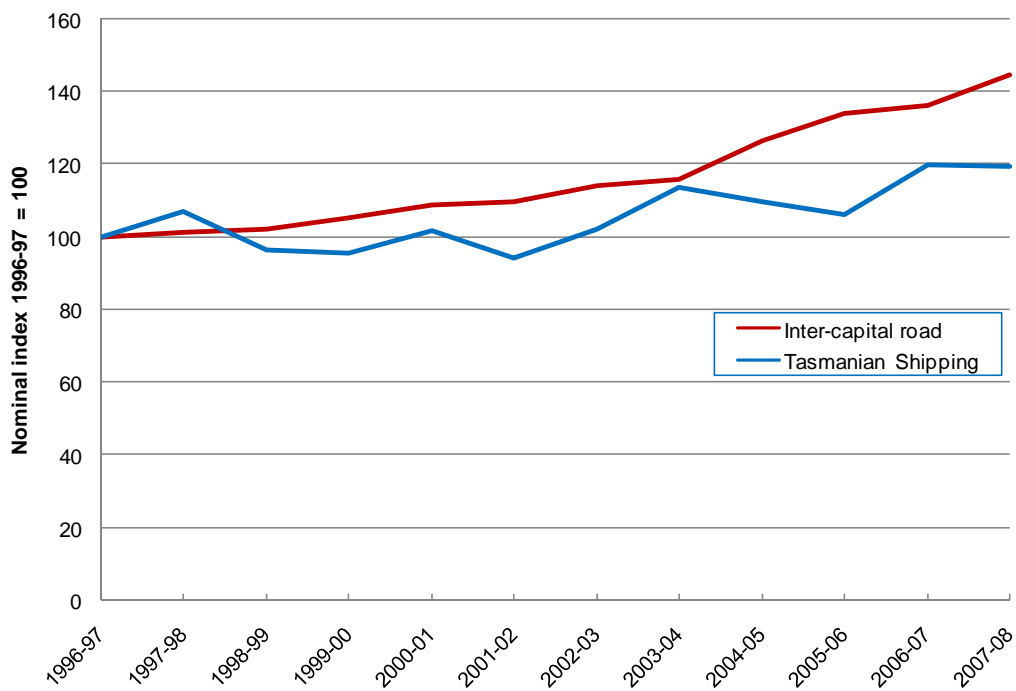
Rail transport has higher fixed costs than road, although lower than sea. The trade off point between rail and sea is typically between 3000 and 5000 kilometres, but factors such as transit times and sailing frequencies can have a substantial influence.

BITRE has used a road benchmark to estimate the land transport freight equivalent.

How have rates changed since 1996?

Figure 5 compares freight rates for Tasmanian sea transport with inter-capital road rates. Road rates increased faster than Tasmanian sea rates between 1996–97 and 2007–08 (Figure 5). The main reason for this divergence is fuel costs.

Figure 5 Nominal freight rates: road and Tasmanian shipping, 1996 to 2006



Note Tasmanian freight rates are weighted average nominal freight rates per TEU for wharf-to-wharf full container loads in the TFES database.

Source BITRE estimates

BITRE estimates show that the median freight rate for wharf-to-wharf shippers of dry freight 2006–07 was \$1160 per TEU. This is a nominal 21 per cent increase on the wharf-to-wharf rate of \$952 per TEU for 1996–97 used¹⁰ by the TFES Review Authority (1998).

The growth in road freight costs has outstripped the growth in containerised sea freight costs, reducing the actual sea freight disadvantage for many Bass Strait shippers.

For wharf-to-wharf full container shipments the average nominal Tasmanian freight rate in 2007–08 increased 19.7 per cent on 1996–97, compared to a nominal 44.6 per cent increase in road freight rates.

Current freight rates across Bass Strait

Typical container rates between northern Tasmanian ports and Melbourne are shown in Table 6. According to SKM (2008), Bass Strait freight rates are similar between all ports and differences generally reflect the proximity of the Tasmanian origin–destination to the competing ports.¹¹ These rates are lower than rates identified through the TFES claims database and other industry sources, tending to confirm that a small number of larger shippers obtain more favourable rates (SKM 2008).

Table 6 General Bass Strait freight rates between Melbourne and northern Tasmania

	<i>Dry</i>		<i>Reefer</i>	
	<i>Dollars per TEU</i>	<i>cents/net tonne kilometre</i>	<i>dollars per TEU</i>	<i>cents/net tonne kilometre</i>
<i>Container</i>				
Northbound	\$550	8.5	\$550	9.6
Southbound	\$625	7.1	\$640	9.6
<i>Trailer load</i>				
Northbound	\$1,300	14.1	\$1,350	14.6
Southbound	\$1,450	15.7	\$1,500	16.2
Note	Rates from SKM discussions with shipping companies. Rates in cents per net tonne kilometre calculated using average tonnages from TFES claims database and a distance of 420 kilometres. SKM has assumed trailer loads of 22 tonnes.			
Source	SKM (2008)			

¹⁰ The 1996–97 wharf-to-wharf rate is the notional sea freight disadvantage (\$671/TEU) plus the Road Freight Equivalent rate for dry freight (\$281/TEU) (TFES Review Authority 1998).

¹¹ Sea freight rates involving a more distant port will have to offer lower rates to compensate for greater road costs in Tasmania to arrive at a competitive door-to-door price (SKM 2008).

An important qualification is that the SKM freight database provides rates typically paid by a substantial shipper of goods spending around \$50 000–\$100 000 per month through transport contracts, rather than small shippers.¹²

SKM's freight rate information generally reflects actual rates negotiated and paid,¹³ for typical commodities carried in the normal way for a corridor. Road rates reflect the largest road vehicle capable of doing the job,¹⁴ while sea rates are for standard shipping containers. Rates also reflect the commonest level of urgency, not premium or low priority services.¹⁵

Estimating Road Freight Equivalent rates

The TFES Review Authority defined the road freight cost as 'the notional freight cost incurred by a shipper moving the same goods an equivalent distance (approximately 420 km) by land transport modes.' (1998, p.7)

There is no universal road equivalent freight cost for all journeys of any given distance, even for a standard load. Freight rates vary significantly for a large number of reasons, most commonly relating to the task requirements or circumstances at the time of negotiation.¹⁶ Substantial differences arise from the size and type of vehicle, the extent to which it is fully loaded on both forward and return journeys, as well as specific costs of refrigeration or looking after livestock.

The TFES Review Authority (1998, p.18) recognised that a single road freight equivalent rate would be controversial, but concluded that the

¹² Achieved freight rates are very sensitive to bargaining power, and small shippers often pay multiples of the rates paid by the largest consignors. Similarly, large shippers generally have more ability to arrange their affairs to minimise costs through more efficient load consolidation, greater potential for two way loadings and generally better understanding the costs in freighting, and acting to minimise those costs.

¹³ Actual rates paid are usually lower than tendered prices following post tender negotiations. SKM have taken this into account where shadow quotation prices have been used to supplement the freight rate database.

¹⁴ Consistent with the economies of direct origin to destination journeys versus depot-to-depot journeys in a larger vehicle which require separate pick up and delivery movements.

¹⁵ According to SKM (2008), premium services attract a loading of 15–50 per cent, but the proportion of goods moving this way is typically less than 15 per cent. Deferred or lower priority services (where despatch of goods can be deferred up to a specified period, commonly a week) for rates around 25 per cent less. SKM (2008) estimate that 20 per cent of freight is carried this way.

¹⁶ An example is backloading rates. These can be less than half of the forward rate (that is, the opposite direction on the same route). These relate to the fact that on many Australian freight routes, more freight flows in one direction than the other.

adoption of a large number of rates to tailor assistance to individual commodities would add significant administrative complexity. The current Scheme therefore uses two Road Freight Equivalence (RFE) parameters—\$281 per TEU for dry freight and \$309 per TEU for reefer. The latter is a premium of 10 per cent on the dry freight rate, reflecting higher operating costs for refrigerated trucks.

The TFES Review Authority's road freight equivalent calculation is based on the road cost of operating a semitrailer capable of carrying the contents of two TEUs on pallets on a tautliner or pantechnicon semitrailer. These trucks were assumed to meet the road freight weight constraint of 26 tonnes per semitrailer load—13 tonnes per TEU (1998, p. 7, 21). The Authority excluded the weight of the container in deriving its road freight equivalent.

Most non-bulk road freight is not containerised.¹⁷ BITRE assume that most non-bulk Bass Strait freight would not be containerised in the presence of a land bridge.¹⁸ SKM (2008) estimate that more than 80 per cent of non-bulk Bass Strait freight is despatched as containerised freight.¹⁹

Recommended RFE benchmark

Market rates for different types of trucks vary significantly. When fully loaded on forward and return journeys, current rates are:

- Around 14 cents per net tonne kilometre for semi trailers.
- 10–11 cents per net tonne kilometre for B-double loads.
- Nine cents per net tonne kilometre for double road trains.
- Eight cents per net tonne kilometre for triple road trains (SKM 2008).

SKM (2008) recommended that B-double trucks be used as the reference for the RFE, given they are now the predominant vehicle type for large freight movements in Tasmania, Victoria and most of the east coast of Australia. In 2006 B-doubles accounted for 31.3 per cent of total tonne

¹⁷ According to the last ABS Freight Movements Survey (2001), 24 per cent of non-bulk freight by tonnes was carried in containers and less than 10 per cent of non-bulk freight by tonne kilometres.

¹⁸ However, SKM note that containers provide substantially more protection to their contents and are more readily maintained at freezer temperatures (-40°C) than the most common curtain sided road trucks.

¹⁹ BITRE analysis of the TFES full container load claims indicates that 87 per cent of freight claimed under TFES is containerised, with the remainder carried on trailers (11.5 per cent) and pantechnicons (1.5 per cent).

kilometres carried by trucks, and 40.7 per cent of tonne kilometres carried by articulated trucks (Australian Bureau of Statistics 2006, p.15).

BITRE suggests that B-double trucks be the benchmark for the Road Freight Equivalent parameter.

The maximum length for B-doubles in most jurisdictions in Australia is 26 metres, enabling one B-double to carry three TEUs (Figure 6). B-double payloads are 36–39 tonnes for palletised general freight (Table 7).

Figure 6 Typical B-doubles – three 20 foot containers and a refrigerated pantechnicon



Source SKM (2008)

Table 7 Typical ISO container and road truck characteristics

	Containers		Road truck equivalents	
	20' (6.1 m)	40' (12.2 m)	Semi trailer	B-double
Length	20' (6.1 m)	40' (12.2 m)	Semi trailer trailer: 44' – 53' (13.4 m – 16.2 m)	A trailer typically 20' – 24' (6.1 – 8 m) plus B trailer: 44' – 53' (13.4 m – 16.2 m)
Cubic capacity	30 – 33 m ³	60 – 66 m ³	80m ³ – 120 m ³	120 m ³ – 180 m ³
Height	8' 0", 8' 6", 9' 0", 9' 6"	8' 0", 8' 6", 9' 0", 9' 6"	Up to 12' (3.6 m) from trailer deck to max legal height of 4.6 m	Up to 12' (3.6 m) from trailer deck to max legal height of 4.6 m
Maximum gross mass	24 tonnes	30.5 tonnes	45 tonnes (prime mover + trailer - varies around jurisdictions of Australia)	69 tonnes (prime mover + two trailers - varies around jurisdictions of Australia)
Tare weight	2 – 2.5 tonnes	3.5 – 4 tonnes	19 tonnes (prime mover + trailer)	30 tonnes (prime mover + two trailers)
Carrying capacity	21.5 tonnes	26.5 tonnes	26 tonnes	39 tonnes

Source SKM (2008)

SKM (2008) has assumed that this B-double truck travels 250 000 kilometres per annum. A level of empty running consistent with typical industry experience of 30 per cent is also assumed. Empty running captures all non fully productive truck time including empty running, less than full running, cancelled jobs leading to idle time, queuing and similar time not recovered through demurrage.

A road freight equivalent cost for a B-double carrying three TEUs averaging 11.5 tonnes net (13 tonnes gross) at 10.5 cents per net tonne kilometre over a 420 kilometre distance is \$44.10 per tonne.

How many tonnes are carried per TEU?

A key value needed to estimate the Road Freight Equivalent is the average tonnes per TEU. Container weights vary by direction with significantly higher average weights for southbound²⁰ claims (Table 8). This reflects in part different TFES eligibility criteria for north and south bound freight.

Important qualifications on Table 8 are that the calculations:

- exclude records with missing tonnage data. These excluded records account for 16 400 TEU (13 per cent of all full container load claims).
- include heavy freight which is paid a reduced rate of assistance.

Table 8 Average tonnes per TEU for full container load claims, 2006–07

<i>Direction</i>	<i>Dry</i>	<i>Reefer</i>	<i>Totals</i>
North			
Average tonnes per TEU	13.9	12.1	13.3
Gross mass per TEU	15.4	13.6	14.8
South			
Average tonnes per TEU	19.5	14.3	19.5
Gross mass per TEU	21.0	15.8	21.0
North and south			
Average tonnes per TEU	15.6	12.2	14.7
Gross mass per TEU	17.1	13.7	16.2

Note The average tonnes per TEU for all routes has been calculated using full container load claims in the TFES database. Records with no recorded tonnes or invalid data have been excluded. Gross mass per TEU includes SKM assumption of 1.5 tonnes for tare weight of a container.

Source BITRE; SKM (2008) container weight assumption

²⁰ Southbound are routes between the Australian mainland and Tasmania.

Should there be different road freight equivalents?

The current TFES differentiates between dry and refrigerated freight. Stakeholders have identified live animals as another area where shipment costs are significantly higher than for dry freight.

Rather than provide a separate road freight equivalent for heavy freight, the TFES Review Authority recommended a discount be applied to the standard assistance to reflect the higher cost of transporting heavy freight by road.

If the TFES is to be extended²¹ to provide additional assistance to King Island and Flinders Island, then separate RFE rates may be required. Chapter 5 provides estimates road freight equivalent rates for King Island and Flinders Island, both to the Australian mainland and to Tasmania.

Ambient and refrigerated freight

Approximately 25.0 per cent of Tasmanian freight assisted under TFES in 2006–07 was shipped in refrigerated (reefer) containers—however, this is directional with reefers comprising 32.3 per cent of northbound TEUs and only 1.3 per cent of southbound TEUs (SKM (2008)).

According to SKM (2008), road typically incurs a premium of around 10 per cent for chiller and 15 per cent for freezer freight in tautliners and pantechinon bodies where the transport company bears the fuel cost and reduction in vehicle payload from the weight and space of refrigeration equipment.

Road freight does not typically charge more for moving temperature controlled *containers* as these containers have their own refrigeration system powered by an integrated diesel generator and the shipper provides or pays for generator fuel.

This is different for sea as the shipment of refrigerated containers incurs higher costs for the shipping line:

- Higher capital cost for the containers: capital cost around \$40 000 per box compared with \$4500 for dry containers²²
- Higher maintenance costs: reefers containers typically \$750 per year compared with \$200 for a dry container

²¹ Shippers to/from King Island and Flinders Island have been identified as potentially requiring additional assistance.

²² Annual capital costs for reefers of \$12 000 per year (\$32.90 per day), compared with capital costs for dry containers of \$1300 per year (\$3.60 per day), assuming write off of assets over five years (SKM 2008).

- Electricity costs: around \$40 per day when on mains power and \$50 per day when on ship power
- More management time: temperature checking, recording and reporting (SKM 2008)

SKM (2008) estimate that reefer costs should be approximately \$200 more for a typical three day shipping requirement, with two days on power, one day on mains and one day on ship.

However, market data show little difference between reefer and dry container freight rates and SKM (2008) conclude that sea rate differences are minimal for larger shippers, but are likely to be greater for smaller shippers. They suggest that the higher costs for temperature-controlled freight are being cross-subsidised by ambient freight.

BITRE suggests that separate RFE rates continue to be used for dry and refrigerated freight for the TFES.

Live animals

The Productivity Commission noted that the cost of shipping some forms of freight by road, notably live animals, were likely to be significantly higher than standard containers (2006, p. x). BITRE analysis indicates that live animals comprised four per cent of total TEUs²³ in 2006–07.

SKM provided freight rate data indicating that the average cents per net tonne kilometre for live animals over a road distance of approximately 400 kilometres (Dubbo to Sydney) was 18.4 cents per net tonne kilometre in 2007 (Table 9).

Table 9 Road freight rates for live animals 2007

<i>Origin</i>	<i>Destination</i>	<i>Distances</i>	<i>c/ntk</i>
Roma	Brisbane	550 km	16.84
Dubbo	Sydney	400 km	18.38
Hamilton	Melbourne	300 km	19.72
Sale	Melbourne	225 km	19.72

Notes Estimates are based on current rates for typical movements from livestock production areas to nearest abattoir-meat processing centre or export port.

Source SKM (2008)

²³ Most TFES claims records do not record tonnage for live animals.

BITRE

The cost of shipping live animals over 400 kilometres represents a premium of 75 per cent compared with typical road freight rates of 10.5 cents per net tonne kilometre for a B-double. These higher road freight rates reflect in part the higher operating empty levels for live animal transports.

BITRE analysis of the TFES database shows that for 2006–07 across all routes for live animals (excluding fish):

- 2311 claim line items totalling 510 580 head and 5803 TEUs (4 per cent of all TEUs claimed).
- Median and average notional wharf-to-wharf rates for these claims were \$1860 per TEU and \$1696 per TEU (with standard deviation of \$650 per TEU).
- More than 96 per cent of 2006–07 live animals claims received the maximum rate of assistance under the current TFES.

Table 10 gives estimates of the sea freight disadvantage for live animals compared to dry freight, with and without a premium of 75 per cent on Road Freight Equivalent rates.

The sea freight rate disadvantage for live animals (\$973 per TEU) was higher than dry freight (\$653) even after factoring in a 75 per cent premium on the standard RFE of \$507. Using a higher RFE for live animals would reduce rebates to many shippers.

Table 10 Live animal sea freight disadvantage, 2006–07

	Dry freight	Live animals	
		Disadvantage with standard RFE	Disadvantage with 75 per cent premium on RFE
Median wharf-to-wharf freight rate	1,160	1,860	1,860
Road Freight Equivalent freight rate	507	507	887
Median sea freight disadvantage	653	1,353	973

Note Live animal freight rate is for all claims.

Source BITRE

BITRE considers a separate Road Freight Equivalent may not be needed as most live animal shippers are likely to have a higher sea freight disadvantage compared to dry freight even after adjusting for higher road transport costs. Live animal claims account for four per cent of total twenty-foot equivalent units.

What is the recommended standard RFE?

Costs per TEU for a 420 km journey are impacted by the weight of both the payload and the container itself. Taking standard²⁴ 20 foot boxes, possible values include:

- \$507.15 for a 'road limit equivalent' ambient temperature container with a net payload of 11.5 tonnes (gross mass of 13 tonnes including the container).
- \$557.87 for a 'road limit equivalent' refrigerated container (a 10 per cent reefer premium) with a net payload of 11.5 tonnes (gross mass of 13 tonnes including the container).
- \$573.30 for a 'road limit equivalent' gross mass of 13 tonnes (this implies container payloads of 11.5 tonnes after the tare weight of the container).
- \$653 for a typical full northbound 20 foot produce type container of 14.8 tonnes gross weight (13.3 tonnes of payload plus 1.5 tonnes for the container tare weight).
- \$714 for the average of all TFES eligible north and southbound boxes.
- \$926 for the typical full southbound 20 foot container of 21 tonnes (19.5 tonnes payload plus 1.5 tonnes for the container).
- \$1,146.60 for a 20 foot container at road limits of 26 tonnes.

There is a direct relationship between the choice of average container weight and heavy, or high density, freight. The current TFES applies a high density discount to the assistance paid for a standard box (see *Heavy Freight* section below).

BITRE suggests that the Road Freight Equivalent be \$507 per TEU, the 'road limit equivalent' for an ambient temperature container with a net payload of 11.5 tonnes.

This allows a standard container with a 13 tonne gross mass, permitting three TEU totalling 39 tonnes—the road mass payload limit for modern low tare B-doubles (SKM 2008). This is for a level of empty running of 30 per cent.

The suggested Road Freight Equivalent rate for dry freight of \$507 per TEU compares to the dry rate in the current TFES of \$281 per twenty-foot equivalent unit.

²⁴ SKM's analysis has not been extended to 40' containers as most Tasmanian sea freight is despatched in 20' boxes or on semitrailer trailers.

These suggested Road Freight Equivalent rates are likely to be conservative as they reflect the road freight rates typically paid by large road shippers.

Small or irregular shippers, those requiring a premium service or with shipments less than a container load, or non-standard product may expect to pay higher road freight rates.

BITRE suggests that the Road Freight Equivalent for refrigerated freight be set at \$558 per TEU—a 10 per cent premium on ambient temperature freight.

Heavy freight

In the case of heavy, or high density freight, the current Scheme applies a reduced rate of assistance to reflect the higher land freight equivalent cost. This recognises that the sea freight disadvantage is less for heavy containers as they are more expensive than lighter boxes to move by road and rail, but generally have the same sea freight rate.

The TFES Review Authority recommended that assistance should be less than that associated with standard freight, and that this should be implemented as a discount to the standard assistance rather than a separate 'heavy freight' road freight equivalent.

Density of cargo is measured by its stowage factor (cubic metres per tonne). A standard TEU has a volume of around 30 cubic metres. A full container with a stowage factor of 1.0 would weigh 30 tonnes and, with a stowage factor of 1.5, would weigh 20 tonnes. Heavy, or high density, freight is more expensive to freight by road than standard, or low density, freight. (Productivity Commission 2006).

How much freight currently receives the high density discount?

BITRE has used Centrelink's calculated gross claim compensation to identify high density shipments for freight shipped in 2006–07:

- Claims totalling an estimated 8123 TEUs (5.5 per cent of total eligible TEUs) received the reduced high density rate of 60 per cent of standard assistance, with payments of \$2.79 million.
- 6404 TEUs of high density claims were for mining and manufacturing raw materials (79 per cent of high density TEUs and \$2.17 million in payments).

If all identified claims for high density freight had received the standard TFES rate, then payments for 2006–07 would have increased by

\$1.86 million. Shippers of mining and manufacturing raw materials would have received an additional \$1.45 million.

BITRE suggests that a discount for heavy freight continue to apply to the rate of assistance for a standard TEU.

Is the current stowage factor appropriate?

For the purpose of the TFES cargo with a stowage factor of 1.1 cubic metres per tonne or less is classified as 'high density'. A stowage factor of 1.1 cubic metres per tonne equates to a container carrying 27.3 tonnes in a standard TEU. This would give a gross container weight of 28.8 tonnes (assuming container tare mass of at least 1.5 tonnes), higher than typical maximum gross weight for a standard 20 foot container of 24 tonnes (Table 7).

According to SKM (2008), standard twenty-foot containers have volumes of around 30 cubic metres, giving a stowage density of 2.6 cubic metres per tonne for contents of 11.5 tonnes (30 cubic metres/11.5 tonnes payload). The loaded box will have a cargo density of 2.3 cubic metres per tonne (that is, 30 cubic metres/13 tonnes gross).

In order to meet road loading standards for three TEU per B-double, cargo density within containers must be greater than 2.6 cubic metres per tonne, resulting in boxes with stowage density of 2.3 cubic metres per tonne or more.

SKM (2008) suggests that the criterion for heavy cargo should therefore be substantially higher than the existing 1.1 cubic metres per tonne, and note that the 2.6 cubic metres per tonne aligns well with road freight 'cubic conversion' applied to very light cargoes.

BITRE suggests the heavy freight discount apply at cargo stowage factors of 2.6 cubic metres or less to the tonne. Increasing the cargo stowage factor to 2.6 cubic metres per tonne would increase the number of shipments receiving the heavy freight discount, reducing the amount of assistance paid.

What discount should apply to high density freight?

The TFES Review Authority (1998) recommended assistance for high-density freight be discounted by 40 per cent. The Productivity Commission (2006) states "On the other hand, a single quote obtained by Circular Head Dolomite (sub. 87, para. 5) comparing B-double and single reefer road costs for its high density dolomite suggests a discount of 30 per cent may be more relevant."²⁵

²⁵ BITRE's previous citation of the Productivity Commission (2006) report was incorrect and this paragraph has been updated to cite the text in the PC's report (31 July 2009).

SKM (2008) states that a typical B-double can carry three TEU, but is limited to about 39 tonnes per truck, meaning that one B-double can only carry two TEUs exceeding 13 tonnes gross each, not three. The worst case scenario would be containers just exceeding the 13 tonne cut off: that is, 14 tonne boxes where only two can be carried per truck. Road trucks with empty slots are very commonly seen near container ports (see Figure 7), with this being the most common explanation (SKM 2008). BITRE has estimated the Road Freight Equivalent freight rate for a TEU of net weight of 11.5 tonnes (13 tonnes gross including 1.5 tonnes tare for the container). A total of three containers weighing 13 tonnes gross can be carried by a B-double with a gross mass limit of 39 tonnes.

Figure 7 Two TEUs per B-double with empty slot



Source CRT / Patrick b-double at Port Melbourne (S Manders)

Table 11 calculates indicative discount levels for heavy (between 11.5 tonnes and 18 tonnes net) and very heavy (greater than 18 tonnes net) containers for a B-double truck. The costs of transporting two heavy containers of 14 tonnes net and one very heavy container of 21.6 tonnes net are compared to the RFE reference of a B-double carrying three TEU of 11.5 tonnes net. **BITRE’s suggested discount for heavy freight is 23 per cent.**

Table 11 Discount for high density freight

	Road freight equivalent reference	Contents weight between 11.5 and 18 tonnes	Contents weight greater than 18 tonnes
Average net weight (tonnes per TEU)	11.5	14.0	21.6
Average gross weight (tonnes per TEU) ¹	13	15.5	23.1
Maximum number containers on a B double	3	2	1
Total net freight on a B double (tonnes)	34.5	28.1	21.6
Total gross freight on a B double (tonnes) ²	39	31.1	23.1
Rate per net tonne kilometre (\$)	50	61	80
Disadvantage over RFE reference (net)	na	23%	60%
Rate per gross tonne kilometre (\$)	44	55	75
Disadvantage RFE reference (gross)	na	25%	69%

1. Assumes container tare of 1.5 tonnes.
 2. Maximum B double gross weight is 39 tonnes.
 Source BITRE; SKM (2008) freight rates for B-doubles

Table 11 gives road cost estimates for a typical B-double carrying:

1. three containers with an average net weight of 11.5 tonnes or less per full TEU.
2. two containers with an average net weight of 14 tonnes—the average for those claims averaging between a net weight of 11.5 and 18 tonnes per full TEU (47 per cent full TEUs).
3. one container weighing 21.6 tonnes—the average weight per TEU for claims where a full TEU weighed more than 18 tonnes (19 per cent of TEUs full container load claims).

The maximum gross weight for a 20 foot container for sea loading is typically 24 tonnes (SKM 2008). While a discount of 60 per cent may apply to very heavy boxes carried on a B double—given only one TEU with a gross weight exceeding 18 tonnes can be legally carried—very heavy boxes comprised only 19 per cent of all full container load claims.

Very heavy boxes with a gross weight exceeding 18 tonnes are more likely to be carried on semi-trailers which have a maximum payload of 26 tonnes (Table 7). This suggests a discount for very heavy freight of 33 per cent based on SKM's current rate for a semi-trailer of around 14 cents per net tonne kilometre.

Estimated sea freight disadvantage

The median sea freight disadvantage for dry freight for 2006–07 is \$653 per TEU (Table 12). This is the difference between the estimated Road Freight Equivalent of \$507 for dry containers and the median dry freight rate paid by wharf-to-wharf shippers (see Table 3).

Table 12 Median sea freight disadvantage 2006–07 and 1996–97, dollars per TEU

		BITRE estimates 2006–07		TFES Review Authority 1996–97	
		Dry	Reefer	Dry	Reefer
Median wharf-to-wharf sea freight rate	(A)	1160	1189	952	980
Road Freight Equivalent	(B)	507	558	281	309
Median sea freight disadvantage	(A- B)	653	631	671	671

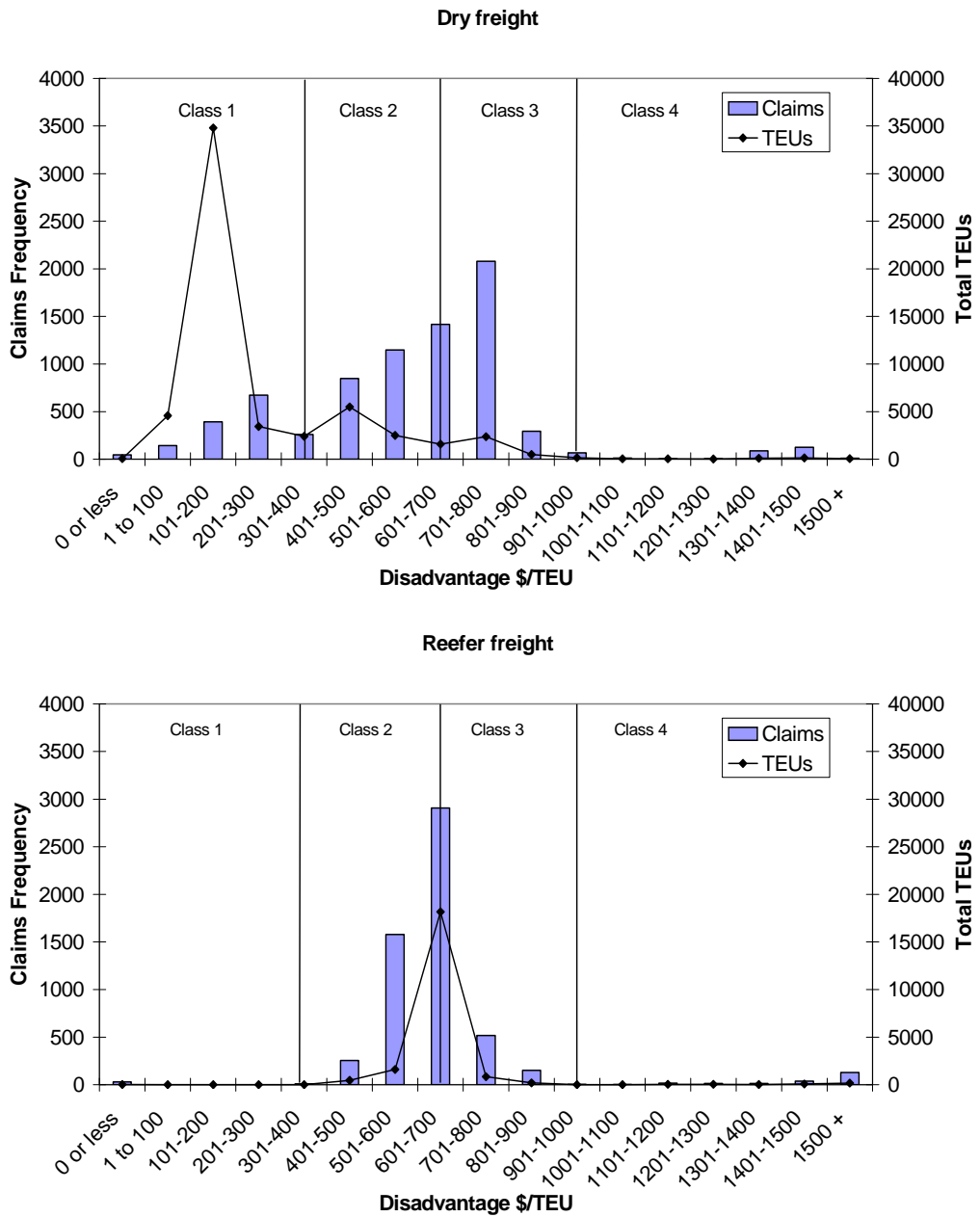
Note BITRE has used the population of all wharf-to-wharf shippers to estimate the median sea freight rate. TFES Review Authority states that it used the combined population of shippers shipping more than five TEU per annum and all door-to-door shippers. TFES Review Authority did not report values for wharf-to-wharf freight rates, these rates have been calculated by adding the sea freight disadvantage to the RFE rates to give wharf-to-wharf freight rates per TEU.

Source BITRE; RFE based on SKM freight rates; TFES Review Authority (1998)

BITRE suggests that the sea freight disadvantage be \$653 based on a median wharf-to-wharf rate for dry freight, with refrigerated freight attracting a lower disadvantage of \$631 to reflect the higher costs of road transport of refrigerated product.

Figure 8 gives the distribution of sea freight disadvantage by number of claim items and TEUs claimed. This shows the significance of a few large shippers of dry product, and the close alignment between claims and TEUs shipped for reefer claims.

Figure 8 Sea freight disadvantage claim distribution: full container load claims, dry and reefer 2006–07



Source BITRE analysis of TFES database

How will shipper classes change?

The median sea freight disadvantage is used to determine shipper class boundaries, which in turn determine how quickly assistance is reduced as disadvantage increases.

The TFES incentive structure generally causes a fall in the ratio of assistance to disadvantage as the level of disadvantage rises. This feature is designed to provide an incentive for claimants to seek out lower freight rates, and to limit the incentive for ship operators to 'price up to the assistance' (TFES Review Authority 1998, p. 24). The TFES Review Authority considered that a cap on compensation would prevent excessive claims for assistance from shippers using land transport for a major part of some longer journeys (for example, Hobart–Perth).

The Productivity Commission (2006, p.72) concluded that the incentives for most shippers to seek lower freight rates were weak. For 2005–06 it stated that 'about one-third of all claimants (56 to 67 per cent of TEUs) fall into classes 1 and 2 for TFES purposes. For these shipments, there is only a weak incentive (if any) for shippers to seek lower sea freight costs.'

Table 13 gives new and current shipper class boundaries as recommended by TFES Review Authority (1999). The distribution of claims and TEUs by shipper class is summarised in Table 14.

Table 13 Shipper class boundaries: sea freight cost disadvantage and maximum assistance by shipper class, dollars

Shipper class	Proportion of disadvantage received	BITRE 2006–07			TFES Review Authority (1999)		
		From	To	Maximum assistance by class ^a	From	To	Maximum assistance by class ^a
Class 1	100	0	326.50	327	0	335.50	335
Class 2	75	326.51	653.00	571	335.51	671.00	587
Class 3	50	653.01	979.50	735	671.01	1006.50	755
Class 4	0	979.51 and above		735	1006.51 and above		755

a Values rounded up. Excludes the intermodal allowance.

Source BITRE estimates using the TFES claims database

Under the suggested new parameters the new maximum rate of TFES assistance would be \$735 per TEU (excluding any allowance for intermodal costs) for the suggested median freight disadvantage of \$653 per TEU.

This compares to the maximum notional assistance of \$755 per TEU under the current Scheme (excluding the intermodal allowance).

Table 14 Grouping claims and TEUs by TFES shipment class, 2006–07

Shipper class	new parameters & new boundaries			current parameters & 1996–97 boundaries		
	Notional wharf-to-wharf disadvantage (dollars)	Claim items (per cent)	TEUs (prop.)	Notional wharf-to-wharf disadvantage (dollars)	Claim items (per cent)	TEUs (prop.)
1	0 to 326.50	12.5	45.8	0 to 335.50	5.7	15.5
2	326.50+ to 653	42.1	33.6	335.50+ to 671	20.9	39.1
3	653.01+ to 979.50	34.0	14.4	671+ to 1006.50	50.9	33.8
4	979.51+	11.4	6.2	1006.50+	22.5	11.7
All	Total	100.0	100.0	Total	100.0	100.0

Note BITRE suggested shipper classes boundaries are determined using the median wharf-to-wharf rate for full container load dry freight claims. Proportions of claims and TEUs by class are for dry and reefer full container load claims.

Source BITRE estimates using the TFES claims database

Table 14 shows that applying the new shipper boundaries would give a disproportionate number of TEUs in ‘class 1’ claims, reflecting claims made by a few large shippers for a large volume of dry freight.

BITRE concludes that the current four class incentive structure based on the median sea freight disadvantage does not give a balanced distribution of claims by twenty-foot equivalent unit. This means that the incentives for shippers who account for approximately 80 per cent of TEU (full containers) have minimal incentive to reduce freight rates.

BITRE

Chapter 4 Tasmanian Wheat Freight Scheme parameters

The Tasmanian Wheat Freight Scheme (TWFS) addresses sea freight cost disadvantage for *bulk* wheat shipments by providing up to a maximum rate of assistance per tonne of bulk wheat.

Shippers can currently claim a subsidy for wheat under either the TWFS or the Tasmanian Freight Equalisation Scheme (TFES), where the latter is assessed using the formulae and parameters set out in the Ministerial Directions (2006a).

The Productivity Commission (2006, p.18) observed that including containerised wheat shipments in the TFES has resulted in substantial growth in containerised shipments and—reflecting the higher cost of this mode of transport—an increase in the rate of transport subsidy per tonne of wheat shipped.

The former Australian Government accepted the Productivity Commission (2006) recommendation that unprocessed wheat should only be eligible for subsidy under the TWFS—this would mean that future wheat shipments would receive a fixed rate of assistance per tonne irrespective of how wheat is shipped.

Bulk wheat freight costs

Bulk wheat freight costs for the purposes of the TWFS are defined as the costs to a shipper of a contract of carriage and include any handling, loading or discharging charges to or from a ship incidental to the contract of carriage.

These freight costs do not include (DOTARS 2006b):

- the land transport costs incurred outside the terminal area;
- the cost of storage or warehousing at the ports of loading or discharge, any quarantine costs;
- any insurance costs;
- accounting fees or charges, or charges relating to the issuing of accounts or invoices; or
- any GST payable by the shipper.

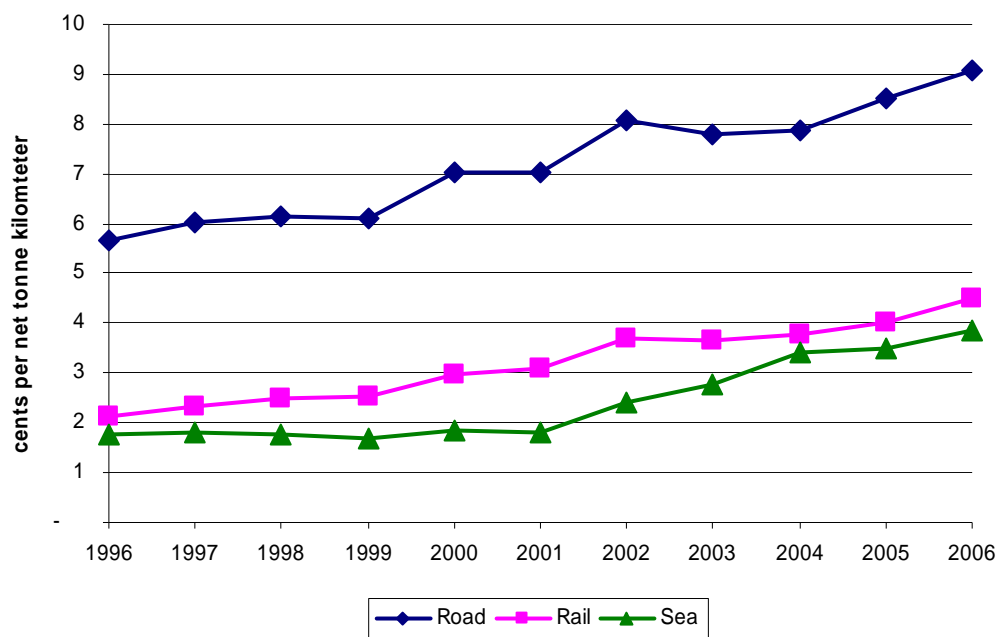
Trends in bulk wheat freight rates

The Productivity Commission considered that rail freight was the most appropriate proxy for sea freight costs (2006, pp. 120–121).

Rail rates vary according to the length of the haul, the size of the task, the extent of other rail traffic on the line—which shares fixed costs over more tonnes—and the standard and condition of the rail line, which affects efficiency through impacts on train size, axle loading limits, speed of operation (SKM 2008).

Rates for movement of wheat from major growing areas to export ports are shown in Figure 9. Since 1996 average bulk grain freight rates on major grain routes—between 200 to 400 kilometres—for rail and sea have more than doubled (Figure 9). However, in 2006 bulk rail and sea grain freight rates were less than half that for road on a cents per tonne kilometre basis.

Figure 9 Nominal average grain freight rates for major Australian routes by mode, 1996 to 2006



Source SKM freight rate database.

The freight rates in Figure 9 are representative of rates as at the end of 2007. On 11 December 2007, Asciano (owner of Pacific National, Australia’s dominant rail operator particularly in Victoria, New South Wales and Tasmania) stated that its rural rail services were

underperforming and ongoing drought conditions meant that the business outlook was poor (Asciano 2007). It announced that it was:

- downsizing grain operations in New South Wales.
- selling or closing Pacific National grain operations in Victoria.
- selling or closing its Pacific National intermodal business (container rail services in Tasmania).

Although these businesses may be sold as going concerns, SKM (2008) believes it is very likely that the current scale of Pacific National grain operations will reduce. Consequently, total grain hauled by rail in New South Wales and Victoria will decline—even in non-drought years—and grain freight rates will increase.

Bass Strait wheat freight rates

BITRE analysis of TFES claims data gives a notional average cost for containerised wheat of \$1196 per TEU across Bass Strait in 2006–07, or \$49.82 per tonne for a 24 tonne container of wheat.

BITRE analysis of TWFS claims data for bulk wheat shipped to Tasmania in 2006–07 give an average cost including loading and unloading of \$41.30 per tonne.

Estimating a rail freight equivalent

SKM (2008) suggest that the most relevant comparisons for a rail transport equivalent to the 420 kilometres across Bass Strait are the likely rate levels expected for New South Wales/Victoria to Geelong and New South Wales/Victoria to Melbourne.

SKM (2008) believe that the closure or sale of Asciano's rail grain haulage operations in Victoria and New South Wales will see rail rates increase quite substantially, with rates expected to increase to about 7–8 cents per net tonne kilometre. This expected increase in rail rates will substantially increase rail revenue, improving operator profitability and track infrastructure investment. These rates of approximately 7 cents per net tonne kilometre include rail access charges.

This compares with existing rail rates for bulk grain around 4.75 cents per net tonne kilometre. These existing rail rate levels reflect very low volumes due to drought, and they have not provided adequate revenue for either infrastructure maintenance (see the Victorian Rail Freight Network Review (2007))—or rail operator profitability (Asciano 2007).

SKM consider that rail rates for bulk grain will remain below road freight equivalents of 11–13 cents per net tonne kilometre for B-double movements. These higher road grain freight rates reflect substantially higher empty running levels (50 per cent) for road grain haulage—where trucks return empty for the next load—than for palletised goods (30 per cent).

Bulk rail grain rates of 7 cents per net tonne kilometre give a ‘rail freight equivalent’ of \$29.40 per tonne over a distance of 420 kilometres.

BITRE suggests a rail freight equivalent for the TWFS of \$29.40 per tonne.

Sea freight disadvantage

Table 15 summarises the sea freight disadvantage for bulk wheat compared to bulk rail, and containerised wheat compared to bulk rail and containerised rail haulage for distances of 420 kilometres.

Typical rail *container* rates for similar journeys are around 8.5 cents per net tonne kilometre, or \$35.70 per tonne (compared with SKM’s estimate of \$29.40 per tonne for bulk rail).

According to SKM (2006), road tends to be more cost effective than rail for journeys of 420 kilometres except where very large volumes of heavy containers are moved between two rail connected terminals.

BITRE suggests a subsidy rate for wheat of \$11.90 per tonne, equivalent to \$285.50 for a 24 tonne container of wheat. This compares with a suggested new maximum Tasmanian Freight Equalisation Scheme subsidy of \$30.61 per tonne (assuming no high density discount), or \$566 per 24 tonne container of wheat.

Table 15 Sea freight cost disadvantage for wheat, dollars per tonne

	<i>Containerised sea</i>		<i>Bulk sea</i>
	<i>Compared to rail containers</i>	<i>Compared to bulk rail</i>	<i>compared to bulk rail</i>
Sea freight rate	49.82	49.82	41.30 ^a
Rail equivalent rate	35.70	29.40	29.40
Sea cost disadvantage	14.12	20.42	11.90

a All bulk wheat claims for 2006–07 were for Port Lincoln to Devonport.

b Rates per tonne for containers calculated using an average of 24 tonnes per container. Weighted average 23.9 tonnes per TEU in 2006–07 (BITRE).

Source SKM

Chapter 5 Sea freight disadvantage for King Island and Flinders Island

Interstate movements between King Island and Flinders Island and the Australian mainland are eligible for TFES assistance. However, shippers to/from King Island and Flinders Island have been identified as potentially requiring additional assistance.

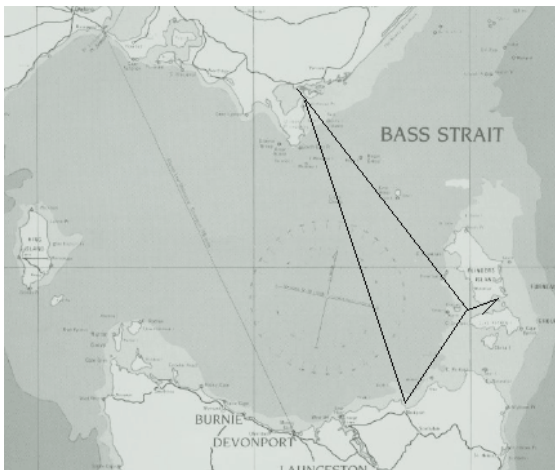
The incoming Australian Government has given an election commitment to extend the Tasmanian freight schemes to King Island and Flinders Island for intrastate trade with the Tasmanian mainland.

BITRE has estimated sea freight disadvantage to and from Tasmania, and to and from the Australian mainland.

Services to King Island and Flinders Island

King Island receives a weekly service from the Sea Road Mersey calling enroute from Devonport to Melbourne. Flinders Island receives a regular once a week service from Bridport operated by Southern Shipping, with roughly monthly services to Port Welshpool in Gippsland, Victoria (Figure 10).

Figure 10 Southern Shipping Company services to Flinders Island



Source <http://www.southernshipping.com.au/routes-timetables.htm>

Shipping distances are shown in Table 16.

Table 16 Bass Strait shipping distances

To/from	Bell Bay	Bridport	Burnie	Devonport	King Island	Welshpool
Melbourne	455km	-	405km	445m	285km	-
King Island	-	-	-	300km	-	-
Flinders Island	-	115km	-	-	-	230km

Source SKM

Current freight rates

Tables 18 and 19 gives sea freight rates for the most common movements between King Island–Melbourne, and Flinders Island–Bell Bay. These show significantly higher rates to/from Flinders Island than to/from King Island.

SKM (2008) notes that the freight rate quotes for Flinders Island were above the list rates specified in the Deed of Agreement between the Tasmanian Transport Commission and Southern Shipping Company Pty Ltd.²⁶ The difference is due to the inclusion of wharfage in the quoted rate, as well as application of an annual CPI increase and three fuel surcharges.

Livestock is a very important factor in the trade for Flinders Island. According to SKM (2008) livestock freight rates of around double those for containerised goods are not unusual due to the greater time and effort required in loading, unloading, feeding and cleaning. Livestock rates for Flinders Island are as in the Southern Shipping Deed of Agreement with the Tasmanian Government, and were correct as at 1 July 2007, and do not include wharfage. There have been several rate adjustments for annual CPI and fuel surcharge increases. Current total livestock rates including wharfage are estimated to be approximately 180 cents per net tonne kilometre (SKM 2008).

Sea freight rates between King Island and Tasmania (Tables 18) are substantially higher than rates between northern Tasmania and Victoria. Services are also less regular.

Freight rates between Tasmania and King Island are \$950 per TEU approximately half the rate per TEU (\$1860) between Tasmania and Flinders Island.

²⁶ See http://www.transport.tas.gov.au/__data/assets/pdf_file/0008/20231/Transport_Commission_and_Southern_Shipping_Company_Pty_Ltd_and_Geoffrey_Gabriel_18_July_2007.pdf

Table 17 Current rates Tasmania to / from King Island and Flinders Island

	Distance (kilometres)	Southbound		Northbound	
		Freight rate/unit	c/ntk	Freight rate/unit	c/ntk
20 foot containers:					
- King Island–Devonport	300	\$950/box	21.11	na	na
- Flinders Island–Bridport	115	\$1860/box	107.83	\$1860/box	107.83
Livestock (Flinders Island)					
Cows and steers	115	\$60.45/head	150.18	\$60.45/head	150.18
Sheep	115	\$6.60/head	127.54	\$6.60/head	127.54
Note	Livestock freight rates are based on 350 kilograms for a cow or steer, 45 kilograms for a sheep and published scheduled shipping rates. Calculations for cents per net tonne kilometre (c/ntk) are based on 15 tonnes per TEU.				
Source	SKM				

Sea freight rates between King Island and Victoria, and Flinders Island and Port Welshpool, are summarized in Table 18.

Sea freight rates between King Island and Victoria are \$750 per TEU, compares with over \$2300 per TEU between Flinders Island and Port Welshpool.

Table 18 Current rates Victoria to / from King Island and Flinders Island

	Distance (kilometres)	Southbound		Northbound	
		Freight rate/\$ unit	c/ntk	Freight rate/\$ unit	c/ntk
20 foot containers					
King Island – Melbourne	285	\$750/box	17.54	\$750/box	17.54
Flinders Island– Port Welshpool	230	\$2317/box	67.15	\$2317/box	67.15
Livestock (Flinders Island)					
Cows and steers	230	\$88.50/head	109.94	\$88.50/head	109.94
Sheep	230	\$13.75/head	132.85	\$13.75/head	132.85
Notes	Livestock freight rates are based on 350 kilograms for a cow or steer, 45 kilograms for a sheep and published scheduled shipping rates. Calculations for cents per net tonne kilometre (c/ntk) are based on 15 tonnes per TEU.				
Source	SKM				

Disadvantage to and from Tasmania

Road freight equivalent

SKM suggest that Road Freight Equivalents for movements to and from Tasmania be based on the typical freight configuration used in Tasmania. This is a semitrailer with a trailer length around 40–44 metres and carrying capacity around 23 tonnes, with gross mass up to 42.5 tonnes. The typical road freight rates for this typical configuration are around 15 cents per net tonne kilometre (SKM 2008).

This gives road freight equivalent costs of:

- \$45.00 per tonne for the 300 kilometre distance between King Island and Devonport.
- \$17.25 per tonne for the 115 kilometre distance between Flinders Island and Bridport.

Sea freight disadvantage

The estimated sea freight disadvantage between King Island and Devonport is \$275 per TEU (Table 19). This compares to a suggested sea freight disadvantage of \$653 for the TFES (see Chapter 3).

The estimated sea freight disadvantage between Flinders Island and Bridport is \$1601 (Table 19).

Table 19 Sea freight disadvantage for King Island and Flinders Island to and from Tasmania 2007, dollars

	<i>King Island–Devonport</i>	<i>Flinders Island - Bridport</i>
Sea freight cost	950	1860
Road equivalent cost / TEU	675	259
Sea freight cost disadvantage	275	1601
Notes	Assumes 15 tonnes per TEU.	
Source	SKM	

Disadvantage to and from Victoria

Road freight equivalent

BITRE suggests that Road Freight Equivalent for movements between King Island and Victoria be based on a typical B-double truck configuration (Table 7). This is the same benchmark suggested for the TFES.

The current cost of B-doubles is 10.5 cents per net tonne kilometre (SKM 2008). This gives a RFE rate of \$30 per tonne for the 285 kilometre distance between King Island and Melbourne.

Given the irregular nature of the service and lower volume, BITRE suggests that Road Freight Equivalent for movements between Flinders Island and Victoria be based on the typical freight configuration used in Tasmania. This is a semitrailer with a trailer length around 40–44 metres and carrying capacity around 23 tonnes, with gross mass up to 42.5 tonnes.

The typical road freight rates for this typical configuration are around 15 cents per net tonne kilometre (SKM 2008). This gives road freight equivalent costs of \$35 per tonne for the 230 kilometre distance between Flinders Island and Port Welshpool.

Sea freight disadvantage

BITRE's estimate of the sea freight disadvantage to and from Victoria is shown in Table 20.

Table 20 Sea freight disadvantage for King Island and Flinders Island to and from Victoria 2007, dollars

	<i>King Island–Melbourne</i>	<i>Flinders Island – Port Welshpool</i>
Sea freight cost	750	2317
Road equivalent cost / TEU	449	518
Sea freight cost disadvantage	301	1800
Notes	Assumes 15 tonnes per TEU.	
Source	SKM	

BITRE suggests that the estimated sea freight disadvantage for Flinders Island may warrant specific consideration.

BITRE

Appendix A Productivity Commission recommendations and Commonwealth Government response to the Report

Productivity Commission recommendations and Commonwealth Government response to the Productivity Commission Inquiry Report No. 39 ‘Tasmanian Freight Subsidy Arrangements’

The Commonwealth Government (‘the Commonwealth’) recognises that Tasmanian producers can be at a freight cost disadvantage when competing in mainland markets by not having land access to the mainland states and territories. The Commonwealth therefore remains strongly committed to the programmes it has in place to alleviate the cost disadvantages faced by passengers and freight across Bass Strait.

In this context, the Commonwealth agrees with the findings of the final Productivity Commission (‘the Commission’) Report and will implement its substantive recommendations. In particular the Commonwealth will ensure the Tasmanian Freight Equalisation Scheme (TFES) and the Tasmanian Wheat Freight Scheme (TWFS) (‘the Schemes’) more strongly focus on effectively addressing sea freight cost disadvantage, and will put in place further reforms ensuring that the Schemes operate effectively and to the benefit of the people of Tasmania.

Key changes to be implemented as a result of this decision are:

- (a) restructuring the basis for claiming TFES assistance to minimise the adverse incentives the current TFES generates. This will involve ensuring that, as far as is practicable, assistance is paid on the basis of the demonstrated sea freight cost disadvantage as a result of having to ship goods across Bass Strait;
- (b) enhancing the administration and auditing of the TFES, involving updating and enhancing systems and more comprehensive public reporting of information;
- (c) revising the methodology for setting and updating the parameters used to calculate TFES assistance;
- (d) expanding the TWFS to include all bulk and containerised unprocessed wheat shipments, and for eligible shipments to be paid at the same rate and not be subject to the current cap on TWFS payments; and
- (e) unprocessed wheat will no longer be eligible under the TFES.

These reforms will be subject to a report to the Commonwealth in three years from implementation to assess their effectiveness.

The Commonwealth intends to implement the changes from 1 July 2008. Prior to this date there will be extensive consultation with stakeholders to ensure the revised Schemes are implemented in a practical manner that minimises any additional burdens on claimants and other parties. The consultation process will focus on:

- (a) documentation and evidentiary requirements for the revised Schemes;
- (b) updating and enhancing the information technology systems used to administer the Schemes;
- (c) designing an appropriate auditing, compliance and fraud prevention programme for the revised arrangements;
- (d) updating the methodology for calculating the parameters used for the Schemes, and ensuring the parameters are reviewed every three years in future; and
- (e) designing the new methodology for calculating assistance under the TWFS.

In addition to these improvements, the Commonwealth has agreed to give further consideration to:

- (a) specific circumstances facing King and Flinders islands; and
- (b) assistance for packaging designed and used for multiple northbound trips.

The Commonwealth will finalise the details of the revised Schemes early in 2008 following consultations with stakeholders on the matters raised above.

The Commonwealth's responses to the individual Commission recommendations are as follows:

Recommendation 1

The basis for claiming TFES payments should be restructured to minimise the adverse incentives that the current Scheme generates.

Recommendation 2

Assistance under the TFES should only be payable on the basis of evidence of actual wharf-to-wharf costs:

- *Centrelink should specify the documentary evidence that it will accept as proof of wharf- to-wharf costs. As far as practicable, this should be based on original carrier wharf-to-wharf invoices.*
- *Parameter adjustments of \$230 per twenty foot equivalent unit (TEU) for door-to-wharf and wharf-to-door costs should no longer apply. Other parameter adjustments would continue to be used.*

Recommendation 4

Department of Transport and Regional Services (DOTARS) and the Bureau of Transport and Regional Economics (BTRE) should revise the methodology for

setting and updating the remaining parameters, and review them every three years. In particular, they should review how wharf-to-wharf costs should be defined. The results of parameter reviews should be published.

Commonwealth response:

The Commonwealth accepts recommendation 1, recommendation 2, and recommendation 4. The TFES is based on alleviating the cost disadvantage associated with being unable to use land transport across Bass Strait, and assistance is based on the sea freight cost disadvantage. The Commonwealth agrees that restructuring the TFES by making actual wharf-to-wharf costs the basis for assessing TFES claims will minimise the potential for a component of land freight costs to receive assistance, contrary to the Scheme objectives. The abolition of the \$230 per TEU door-to-wharf and wharf-to-door parameter adjustments is consistent with this.

The move to the sole use of actual wharf-to-wharf costs, and the associated removal of the parameter adjustments for land-based costs, will necessitate the introduction of new evidentiary requirements for Scheme claimants and a revision of the methodology for setting the remaining parameters. DOTARS will consult with the transport industry and other stakeholders about the documentary evidence required to support wharf-to-wharf claims. The intention of these consultations will be to ensure that a practical and sustainable approach to documentation is established, that will be consistent with audit and compliance requirements into the future. The Commonwealth will review the parameters every three years and results of the review will be published.

The Commonwealth will specify the documentary evidence required for wharf-to-wharf claims and the updated parameters in revised ministerial directions for the TFES to be in place when the revised arrangements are introduced, from 1 July 2008.

Recommendation 3

The administration and auditing of the TFES should focus more intensively on the verification of wharf-to-wharf costs:

- *The system required to administer the Scheme should be updated in the light of the more detailed evidence and data processing needed to verify wharf-to-wharf costs.*
- *There should be more comprehensive public reporting of information, including the annual payments to recipients.*

Commonwealth response:

The Commonwealth accepts recommendation 3. A new approach to verifying wharf-to-wharf costs will be developed and supported by an upgraded computer

system and risk management approach. The consultations with industry and other stakeholders will also canvas options for best practice approaches to lodging claims and compliance measures.

From 2008, the Commonwealth will publish comprehensive information about the TFES and TWFS. This will include:

- (a) payments to claim recipients receiving \$1,000 or more in a financial year;
- (b) the break down of assistance by industry/goods;
- (c) the results of the methodology and parameter review for 2008 and subsequent reviews; and
- (d) annual reporting on the Schemes and their audit/compliance.

Recommendation 5

DOTARS should monitor the operation of the revised Scheme to investigate whether there is evidence of ongoing gaming and overcompensation under wharf-to-wharf claiming arrangements. It should report to Government on this matter during 2009.

The report should also examine:

- *The effectiveness of administration and audit controls.*
- *The role of all actual and potential claimants who are not producers and shippers of goods assisted under the TFES.*
- *Any aspects of the ministerial directions judged to be causing difficulty at that time.*

If the Government concludes that gaming and overcompensation of freight cost disadvantage remain significant issues, it should introduce a flat-rate of assistance per TEU as per finding 7.1 to operate from 1 July 2010.

Commonwealth response:

The Commonwealth accepts recommendation 5 in part, with the report to the Commonwealth to be made within three years of the implementation of the revised arrangements and with the form and content of the review to be determined by the Commonwealth in 2010. The Commonwealth will monitor the Schemes and any amendments will be considered as part of this review in 2010.

Recommendation 6

The TWFS should pay the same level of assistance per tonne to wheat shipped in containers and in bulk:

- *Payments under the TWFS should not be capped.*
- *Wheat should no longer be eligible for assistance under the TFES.*

The level of assistance should be based on the least cost method of shipping wheat across Bass Strait and a rail freight equivalent cost:

- *Given the lack of recent data on these measures, the Bass Strait wharf-to-wharf container rate and the TFES road freight equivalent should be used in the interim. As such, for three years, the TWFS should pay assistance of \$23.12 per tonne, or the shipper's actual wharf-to-wharf costs, whichever is the lesser.*
- *In concert with the first three-year parameter and operational review of the TFES, the BITRE should estimate the cost of bulk shipments of wheat and the rough rate equivalent, to update the rate of subsidy from that time.*

Commonwealth response:

The Commonwealth accepts recommendation 6 in part. The TWFS will be expanded to include both bulk and containerised unprocessed wheat shipments, and the current cap of \$1.1 million per annum will be removed. The interim rate to be applied will be determined as part of the methodology review to be undertaken by the BITRE, and implemented from 1 July 2008. This rate will be reviewed on a three yearly cycle along with the parameters for the TFES, and the results of this published.

BITRE

Abbreviations

BTRE	Bureau of Transport and Regional Economics
BITRE	Bureau of Infrastructure, Transport and Regional Economics (formerly the Bureau of Transport and Regional Economics)
c/ntk	cents per net tonne kilometre
DITRLG	Department of Infrastructure, Transport, Regional Development and Local Government (formerly the Department of Transport and Regional Services)
DOTARS	Department of Transport and Regional Services
ntk	Net tonne kilometre
SKM	Sinclair Knight Merz
TEU	Twenty-foot equivalent unit
TFES	Tasmanian Freight Equalisation Scheme
TWFS	Tasmanian Wheat Freight Scheme

BITRE

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