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Department of Infrastructure and Regional Development
Bureau of Infrastructure, Transport and Regional Economics

STATISTICAL REPORT


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# Tasmanian Freight Schemes – Parameter Review 2013

Bureau of Infrastructure, Transport and Regional Economics

# Tasmanian Freight Schemes – Parameter Review 2013

## Statistical report

Department of Infrastructure and Regional Development
Canberra, Australia

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# Foreword

This Bureau of Infrastructure, Transport and Regional Economics' report outlines the results of a scheduled review of the parameters underpinning the Tasmanian Freight Equalisation Scheme and Tasmanian Wheat Freight Scheme for the period 1 July 2010 to 30 June 2012.

Tim Risbey and Mark Cregan prepared this report. Steve Manders (Sinclair Knight Merz Pty Ltd) assisted with freight data and in the review of the operation of the Schemes. The Transport Access team within Surface Transport Policy provided valuable input and advice.

Gary Dolman
Head of Bureau
Bureau of Infrastructure, Transport and Regional Economics
Canberra
November 2013

# At a glance

- Shippers were paid $191 million under the Tasmanian Freight Equalisation Scheme (TFES) for more than 274 000 twenty-foot equivalent units (TEUs) of freight shipped between 1 July 2010 and 30 June 2012.
  - Preliminary 2011–12 TFES claims data shows shippers were paid $90.64 million for more than 128 000 TEUs shipped between 1 July 2011 and 30 June 2012.
  - Northbound claims account for approximately 75 per cent of TEUs.
- Bulk wheat is eligible for assistance under the Tasmanian Wheat Freight Scheme (TWFS).
  - There have been no claims for bulk wheat under TWFS since 2009–10.
  - Shippers are able to claim TFES assistance for containerised wheat shipped to Tasmania. Preliminary TFES claims data for 2011–12 indicates shippers received $2.87 million for containerised wheat (8.6 per cent southbound TEUs).
- **The interstate TFES is administered using 1996–97 parameters.** The Bureau of Infrastructure, Transport and Regional Economics (BITRE) suggests these 1996–97 parameters be updated to 2011–12 market rates and road freight benchmarks by:
  - Increasing the Road Freight Equivalent (RFE) to $650 per TEU for dry freight and $715 per TEU for refrigerated (reefer) freight ($281 per TEU and $309 per TEU, respectively, in the 1996–97 parameters).
  - Reducing the high density discount to 30 per cent (40 per cent in the 1996–97 parameters).
  - Increasing the stowage factor for high density freight to 2.6 (up from 1.1 in the 1996–97 parameters).
- **The intrastate TFES is administered using 2006–07 parameters.** BITRE suggests these 2006–07 parameters be updated to 2011–12 values by:
  - Increasing the King Island RFE to $950 per TEU for dry freight (up from $675 per TEU in the 2006–07 parameters).
  - Increasing the Furneaux Group of Islands RFE to $364 per TEU for dry freight (up from $259 per TEU).
- **Road freight rates have increased more than non-bulk Tasmanian sea rates since 1996–97, reducing sea freight disadvantage for Bass Strait shippers.**
- This trend continued for the interstate TFES with the estimated sea freight disadvantage for dry freight reducing by $101 since 2009–10.

- The sea freight cost disadvantage for 2011–12 was $448 per TEU for dry freight (**down** from $671 per TEU in 1996–97) and $415 per TEU for refrigerated freight (**down** from $671 per TEU in 1996–97).

- For the intra-State TFES the sea freight cost disadvantage for 2011–12 was:
  - $350 per TEU for dry freight between King Island and Tasmania (**up** from $275 per TEU 2006–07).
  - $1226 per TEU for dry freight for Furneaux Group–Tasmania (**down** from $1601 per TEU in 2006–07).
- **Updating the TFES parameters to reflect 2011–12 values as suggested would significantly reduce payments to most shippers.**
  - TFES payments may have fallen by up to $90 million for freight shipped between 1 July 2010 and 30 June 2012 if the suggested 2011–12 parameters (except the stowage factor) had applied.
- **Updating the TWFS subsidy rate per tonne is unlikely to affect payments** as shippers are expected to continue shipping wheat in containers and making claims under the TFES.
  - BITRE suggests a TWFS rate of $28.35 per tonne of bulk wheat, equivalent to $680.40 for a 24 tonne container of wheat. The current maximum rate of TWFS assistance for bulk wheat is $20.65 per tonne.
- BITRE estimates at least 31 per cent of non-bulk Tasmanian sea freight shipped in 2011–12 received a TFES subsidy payment (preliminary data).
- If all non-bulk Tasmanian freight had been eligible, this may have resulted in TFES claims for an equivalent of:
  - Up to an extra 162,000 TEUs of coastal non-bulk freight; and
  - An estimated additional 88,000 TEUs of non-bulk international trade.

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# Executive summary

This report presents results of the Bureau of Infrastructure, Transport and Regional Economics' (BITRE) 2013 parameter review of the Tasmanian Freight Equalisation Scheme (TFES) and the Tasmanian Wheat Freight Scheme (TWFS).

## *Tasmanian Freight Equalisation Scheme*

The TFES operates according to Ministerial Directions (2012) using parameters recommended by the TFES Review Authority (1998).

- Shippers were paid $191 million under the TFES for more than 274 000 TEUs of eligible freight shipped between 1 July 2010 and 30 June 2012.
- Preliminary data for 2011–12[1] shows shippers were paid $90.64 million for 128 000 TEUs shipped between 1 July 2011 and 30 June 2012. BITRE estimates that claims lodged after 30 November 2012 for freight shipped between 1 July 2011 and 30 June 2012 could add $10 million–$20 million to total 2011–12 payments.
- Of the total, northbound claims (73 per cent of TEUs) received $65.07 million. Major commodities were newsprint, and prepared and fresh vegetables.
- Southbound claims (27 per cent of TEUs) received $25.57 million. Major commodities were beer, wheat, and fodder/straw or pellets.

### How the TFES works

Under the TFES, a shipper's wharf-to-wharf freight bill on a northern Tasmania–Victoria basis—less the Road Freight Equivalent—determines how much assistance an individual shipper may be paid (the 'sea freight disadvantage') *before* adjustment for the heavy freight discount and Scheme incentive structure.

The Scheme incentive structure means that shippers with significantly higher freight costs are not paid for their full 'sea freight disadvantage', with the maximum TFES payment currently capped at $855 per twenty-foot equivalent unit ($755 per twenty-foot equivalent unit plus the intermodal allowance of $100).

1 Department of Human Services claims data as at 30 November 2012.

# TFES 2011–12 parameter estimates

## Door-to-door parameters

Where claims are made on a door-to-door basis, the freight bill is converted to a wharf-to-wharf basis by subtracting fixed parameters. BITRE has re-estimated these door-to-wharf and wharf-to-door parameters using TFES claims data.

- BITRE suggests updating the door-to-wharf and wharf-to-door parameters to $335 per TEU for each end of the journey—total of $671 for a door-to-door shipment.
- This compares with the 1996–97 parameter values of $230 per TEU at each end, or $460 for a door-to-door shipment.

**TE 1 Door-to-door and Wharf-to-wharf costs and adjustment factors, 2011–12**

| | |
|---|---|
| Door-to-door freight cost | 1 800 |
| Wharf-to-wharf freight cost | 1 129 |
| Door-to-door parameter | 671 |
| Door-to-wharf or Wharf-to-door adjustment factor | 335 |

Note Tasmania to Victoria and Victoria to Northern Tasmania (G&S) routes full container load shipments for large shippers claiming more than five full container loads per year.

## Scaling factors

Where required, scaling factors are used to adjust the wharf-to-wharf freight bill to a northern Tasmania to Victoria basis. BITRE has re-estimated scaling factors using the general approach of the TFES Review Authority (1998) using a three year average to reduce the year-on-year volatility evident for routes with low claim volumes (BITRE 2008, 2010).

Routes with significant changes in scaling factors include South Australia and the Northern Territory, where scaling factors increased.

## Road freight equivalent parameters

The key benchmark underpinning the main TFES calculation of shippers' sea freight disadvantage is the notional cost of shipping the same amount of freight 420 kilometres by road on the mainland—this is the 'road freight equivalent'.

BITRE uses a road benchmark for a B-double truck carrying three TEUs to estimate the land transport freight equivalent for the TFES Road Freight Equivalent parameter with a level of empty running of 30 per cent (BITRE 2008, 2010).

BITRE suggests 2011–12 Road Freight Equivalent rates for the main TFES of:

- $650 per TEU for dry freight, the 'road limit equivalent' for an ambient temperature dry container with a net payload of 11.5 tonnes (up from the $281 per TEU 1996–97 parameter value).
- $715 per TEU for refrigerated (reefer) freight, a 10 per cent premium on dry freight (up from the $309 per TEU 1996–97 parameter value).

While most of the parameters for the intrastate TFES are the same as the interstate Scheme, the Road Freight Equivalent parameters are based on freight rates for a semi-trailer in Tasmania for the respective distances to Tasmania (BITRE 2008, 2010). BITRE suggests KIFG Road Freight Equivalent parameters for 2011–12 of:

- $950 per TEU dry freight for King Island (up from $675 per TEU from the 2006–07 parameters).
- $364 per TEU dry freight Road Freight Equivalent for the Furneaux Group of Islands (up from $259 per TEU from the 2006–07 parameters).

## Estimated levels of sea freight disadvantage

Based on these estimated Road Freight Equivalent rates and median wharf-to-wharf freight rates, the sea freight cost disadvantages for 2011–12 were:

- $448 per TEU for dry freight (down from $671 per TEU in the 1996–97 parameters).
- $415 per TEU for refrigerated freight (down from $671 per TEU in 1996–97 parameters).
- $350 per TEU for dry freight King Island–Tasmania (up from $275 per TEU in the 2006–07 parameters).
- $1226 per TEU for dry freight Furneaux Group–Tasmania (down from $1601 per TEU from the 2006–07 parameters).

**TE2 Median sea freight disadvantage 2011–12 and 1996–97, dollars per TEU**

| | | BITRE estimates 2011–12 | | TFES Review Authority 1996–97 | |
|---|---|---|---|---|---|
| | | Dry | Reefer | Dry | Reefer |
| Median wharf-to-wharf sea freight rate | (A) | 1 098 | 1 130 | 952 | 980 |
| Road Freight Equivalent | (B) | 650 | 715 | 281 | 309 |
| Median sea freight disadvantage | (A–B) | 448 | 415 | 671 | 671 |

Note BITRE has used the population of all wharf-to-wharf shippers to estimate the median sea freight rate. TFES Review Authority (1998) stated that it used the combined population of shippers shipping more than five TEU per annum and all door-to-door shippers, but did not report wharf-to-wharf freight rates which have been calculated by adding the sea freight disadvantage to the Road Freight Equivalent rates.

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

**TE 3** Sea freight disadvantage for King Island and Flinders Island to and from Tasmania 2011–12, dollars per TEU

| | BITRE estimates 2011–12 | | BITRE estimates 2006–07 | |
|---|---|---|---|---|
| | King Island – Devonport | Flinders Island – Bridport | King Island – Devonport | Flinders Island – Bridport |
| Sea freight cost | 1 300 | 1 590 | 950 | 1 860 |
| Road equivalent cost/TEU | 950 | 364 | 675 | 259 |
| Sea freight cost disadvantage | 350 | 1 226 | 275 | 1 601 |

Notes Assumes 15 tonnes per TEU.

Source BITRE estimates based on SKM (2010, 2013); BITRE (2008, 2010)

## Incentive structure

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

BITRE re-estimated shipper class boundaries for the 2011–12 parameters. If the BITRE's suggested parameters were adopted:

- the new maximum rate of assistance would be $504 per TEU ($604 per TEU including a $100 allowance for intermodal costs), based on the median sea freight disadvantage of $448 per twenty-foot equivalent unit.
- The current maximum assistance is $755 per twenty-foot equivalent unit under the current scheme ($855 including the $100 intermodal allowance).

## Reduced rate of assistance for high density freight

Shippers of eligible heavy, or high density, freight receive a reduced rate of TFES assistance to reflect the higher road transport costs for heavy freight. This recognises the sea freight disadvantage is less for heavy containers as they are more expensive than lighter boxes to move by road, but generally have the same sea freight rate.

Where freight is identified as 'high density' the Ministerial Directions (2012) state that the shipper should receive a 40 per cent reduction in the standard assistance per TEU. Freight is classified as 'high density' when the stowage factor is 1.1 cubic metres per tonne or less.

To calculate stowage factors, both tonnes and volumes are needed. In approximately 10 per cent of claim line items shippers do not declare either tonnes or volumes, and it is therefore not possible to calculate a stowage factor to determine eligibility for the full or reduced rate of TFES assistance. This creates the potential for both over- and under-payments.

BITRE (2008, 2010) concluded that the 40 per cent rate of discount and stowage factor of 1.1 cubic metres per tonne are no longer appropriate benchmarks as freight markets have changed significantly since 1996. It suggested that the new benchmark should be a B-double heavy vehicle carrying 3 TEUs with a stowage factor of 2.6 cubic metres per tonnes or less. Using this benchmark, BITRE suggests that:

- High density freight should continue to receive a reduced rate of assistance.
- The discount for heavy freight, based on B-double road rates, should be 30 per cent (currently 40 per cent).
- The heavy freight discount should apply at cargo stowage factors of 2.6 cubic metres per tonne or less (currently 1.1 cubic metres per tonne or less).

While shippers who currently receive the reduced rate of assistance would benefit from this lower rate, increasing the stowage factor from 1.1 to 2.6 would significantly increase the number of shipments classified as high density, reducing TFES payments to this second group of shippers.

### Expenditure implications of updating the TFES parameters

Updating TFES parameters to reflect 2011–12 road freight rates and benchmarks would significantly reduce payments to most shippers.

If the suggested 2011–12 parameters—other than the stowage factor—had applied for between 1 July 2010 and 30 June 2012, BITRE estimates that:

- TFES payments may have fallen by up to $90.3 million.
- This reduction is larger than previously estimated by BITRE (2008, 2010) because the non-bulk sea freight disadvantage has reduced further over the last two years—from $549 per TEU in 2009–10 to $448 per TEU in 2011–12.
- If the higher stowage factor of 2.6 had applied then this would have further reduced aggregate TFES payments.
- These are estimates only and assume no change in shipper behaviour, and give a general indication only of the likely change in expenditure.

## *Tasmanian Wheat Freight Scheme*

The TWFS operates under Ministerial Directions approved on 25 January 2006.

- The maximum rate of TWFS assistance for bulk wheat is $20.65 per tonne. The annual subsidy is also capped at $1.05 million.
- Between 1 July 2007 and 30 June 2010 shippers were paid $1.26 million for 60 916 tonnes of bulk wheat shipped under the TWFS.
- There have been no TWFS claims for bulk wheat shipped since 2009–10.
- TFES claims for containerised wheat totalled 62244 tonnes (2659 TEUs) in 2010–11, increasing to 81459 tonnes (3403 TEUs) in 2011–12. The average TFES subsidy for containerised wheat was $35.18 per tonne in 2011–12.
- BITRE suggests a TWFS subsidy rate for wheat of $28.35 per tonne ($28.20 in 2009–10 and $11.90 in 2006–07), which is equivalent to $680.40 for a 24 tonne container of wheat.

# CHAPTER 1
# Tasmanian Freight Schemes

## History

### *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 has undergone review in 1985, 1998[2] and 2007[3].

The current TFES (1998) operates under Ministerial Directions (November 2012), with the major change since 1998 being:

- On 1 July 2008 the Australian Government extended TFES to include intrastate sea freight shipped between King Island and the main island of Tasmania, and between Flinders Island and the main island of Tasmania.
- On 16 November 2008 this was further extended to include shipments of freight between any island in the Furneaux Group and the main island of Tasmania.

The intrastate component has become known as the King Island and Furneaux Group (KIFG) intrastate component. Since 16 November 2008 the eligible sea freight routes for the TFES intrastate component are between:

- any port on King Island and any port on the main island of Tasmania; and
- any port in the Furneaux Group and any port on the main island of Tasmania.

2 The 1998 review (the Nixon Report) was conducted by the TFES Review Authority (1998) chaired by the Honourable Peter Nixon (AO)

3 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.

The Ministerial Directions state that:

The aim of the Scheme is to assist in alleviating the sea freight cost disadvantage incurred by the shippers of eligible non-bulk goods moved by sea between:

- the mainland of Australia and Tasmania; and
- King Island and the main island of Tasmania; and
- Flinders Island and the main island of Tasmania.

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 and Regional Development (formerly the Department of Infrastructure and Transport) 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 the Department of Human Services (DHS) (formerly Tasmanian Transport Programs – Centrelink).

## *Tasmanian Wheat Freight Scheme*

In 1953 the Second Marketing Plan enacted 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 bulk wheat scheme—the Tasmanian Wheat Freight Scheme (TWFS)—came into effect on 1 July 2004. The TWFS was established to subsidise the cost of bulk shipments of wheat from the mainland to Tasmania by sea. This scheme is administered by the Minister for Infrastructure and Regional Development in accordance with Ministerial Directions approved on 25 January 2006 by the then Minister for Transport and Regional Services.

TWFS funding is capped at $1.05 million per financial year. Consequently, the rates of assistance for grain shipped may vary across years according to the funding available and annual freight volumes.

# How the current Schemes work

## *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 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

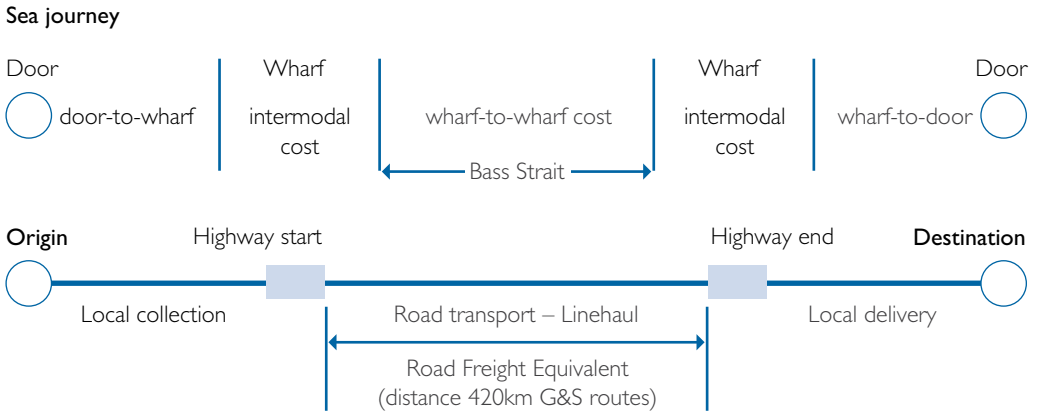
A key calculation is a shipper's notional wharf–to–wharf freight cost disadvantage. This is equivalent to the shipper's notional wharf-to-wharf freight cost less the road freight equivalent cost, plus the fixed intermodal cost (Figure 1).

The TFES uses a number of defined parameters to estimate a shipper's 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.
- 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 TFES applies a transfer allowance per TEU for each intermodal movement. In the 1996–97 parameters this is $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. Consequently, most shippers do not receive the entire sea freight cost disadvantage

**Figure 1** Conceptual model and structure of the TFES




Note G&S routes are Victoria–Northern Tasmania.

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

## 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. 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).

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 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.

If claims are not submitted on a wharf-to-wharf basis, the freight bill is adjusted by subtracting a fixed amount per TEU for each door-to-wharf or wharf-to-door movement to estimate a notional wharf-to-wharf equivalent freight bill.[4]

## 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 (routes G and S) equivalent basis. TFES claims for eligible freight shipped between Victoria and Northern Tasmania (G&S routes) represented 78 per cent of all TEUs and 79 per cent of payments in 2011–12 (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 amount of 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 TFES therefore specifies that a shipper's sea freight cost disadvantage be adjusted in order to provide an incentive for shippers to minimise freight rates.

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

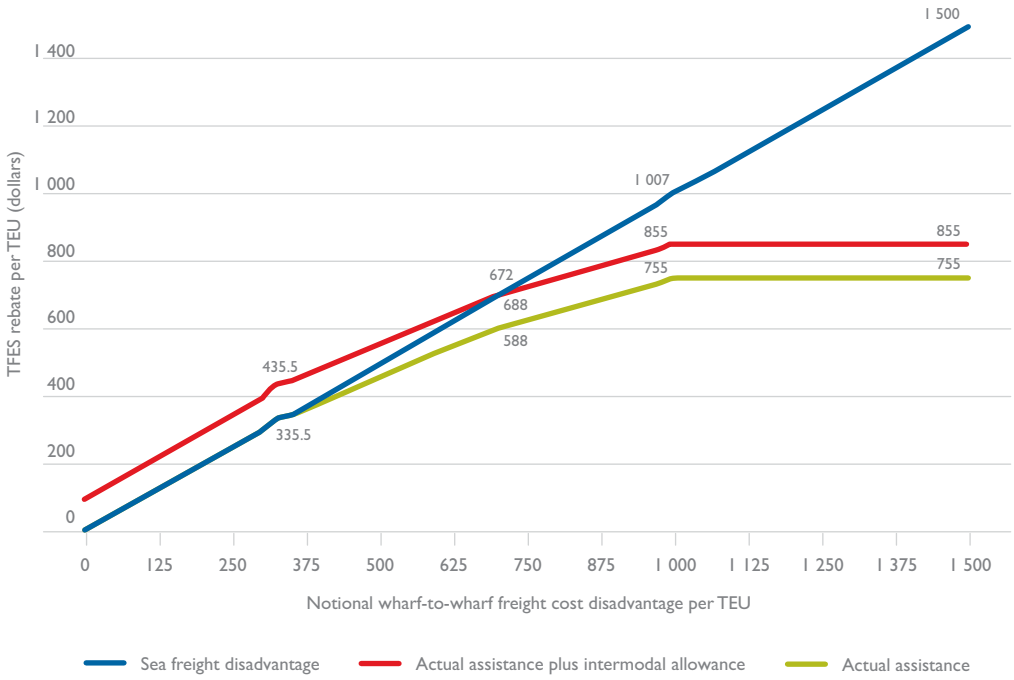
The Ministerial Directions (2012) identified four classes of shippers, and that the shipper classes should receive the following proportions of the notional wharf-to-wharf freight cost disadvantage:

- 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 $671.00[5]) (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).

## Assistance payable for a standard TEU

The actual assistance payable is the shipper's calculated sea freight cost disadvantage less an adjustment to provide an incentive to minimise freight rates, plus the fixed allowance for intermodal costs. The relationship between sea freight cost disadvantage and actual assistance payable is represented in Figure 2.

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




Source Productivity Commission (2006)

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.

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

## High density adjustment

Under the current TFES parameters, the assistance payable to cargo classified as heavy or high-density is 60 per cent of the standard weight assistance (that is, a discount of 40 per cent on the standard rate of assistance).

For the purposes of the Scheme, freight with an efficient cargo stowage factor of 1.1 cubic metres per tonne or less is classified as 'high density'.

## What goods are eligible for TFES 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 eligible[6] goods 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, the TFES provides assistance for:

- equipment used by professional entertainers and sportspersons.
- Tasmanian-based brood mares and their progeny in specific circumstances.
- Charitable organisations are eligible to receive the full sea freight disadvantage (clause 15.3). That is, they are not subject to the adjustment intended to provide an incentive for shippers to minimise freight rates.

6 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.

The intrastate component of the TFES covers eligible[7] goods that are produced or manufactured in Tasmania for permanent use or for sale on King Island and the Furneaux Group of Islands, as well as eligible goods that are produced or manufactured in King Island or the Furneaux Group of islands for permanent use or for sale in Tasmania.

The intrastate component of the TFES also covers eligible non-consumer raw materials, machinery or equipment manufactured or produced in Tasmania (or King Island and the Furneaux Group of islands) for use in King Island or the Furneaux Group of Islands (for use in Tasmania). It applies to persons engaged in the manufacturing, mining, agriculture, forestry and fishing industries in King Island and the Furneaux Group of islands (in Tasmania).

## *Tasmanian Wheat Freight Scheme*

Under the Tasmanian Wheat Freight Scheme (TWFS) shippers of bulk wheat may receive a flat rate per tonne, or their total 'wharf-to-wharf' costs, whichever is the lesser. Funding for the TWFS is capped at $1.05 million. The TWFS is unchanged since the Ministerial Directions were approved on 25 January 2006.

The Productivity Commission found 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).

7 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.

# CHAPTER 2
# Freight shipped and freight rates

## *Tasmanian Freight Equalisation Scheme*

As at 30 November 2012, shippers had made TFES claims for more than 274 000 TEUs of eligible freight and received over $191 million in subsidy payments for freight shipped between 1 July 2010 and 30 June 2012.

The number of claim line items processed by the Department of Human Services for freight shipped in this period was just over 390 000.

Preliminary[8] data for 2011–12 show shippers made TFES claims for more than 128 000 TEUs of eligible freight shipped as at 30 November 2012. These claims had received $90.64 million in assistance (Table 1). BITRE estimates that claims lodged after 30 November 2010 for freight shipped between 1 July 2011 and 30 June 2012 will add $10 million to this total.

In 2011–12 northbound TFES claims—72.5 per cent of total TEUs assisted—received $65.07 million in TFES payments for 2011–12. Major northbound commodities were:

- newsprint (17 per cent of northbound TEUs assisted)
- vegetables – frozen/processed/prepared (11 per cent)
- vegetables – fresh (9 per cent).

In 2011–12 southbound claims—27.5 per cent of all TEUs assisted—received $25.57 million in TFES payments. The main southbound commodities were:

- beer – bottles or cans (11.2 per cent of southbound TEUs assisted),
- cereals – wheat (8.6 per cent) and;
- raw vegetable material – fodder/straw or pellets (7.8 per cent).

Preliminary TFES data shows that claims paid for containerised wheat shipments:

- for 2011–12 were 81 459 tonnes (3403 TEUs), receiving $2.87 million in TFES payments. This represented 8.6 per cent of southbound TEUs assisted.
- for 2010–11 were 62224 tonnes (2659 TEUs), receiving $2.25 million in TFES payments.

8 Data for 2011–12 and 2010–11 are preliminary as claims can be lodged up to two years after shipment. BITRE estimates that 10 per cent of claims for 2011–12 and 5 per cent of claims for 2010–11 may not have been lodged and/or processed as at 30 November 2012, with a small number of claims likely to be outstanding for previous years.

## Table 1 TFES claim lines, TEU's and payments by commodity category, 2009–10 to 2011–12

| Year ending June | Claim line items | Total TEUs | Total payments ($'000) |
|---|---|---|---|
| **2009–10** | **217 185** | **150 344** | **99 185** |
| Agriculture, forestry and fishery products | 29 983 | 25 480 | 20 480 |
| Ores and minerals; electricity, gas and water | 1 638 | 1 947 | 990 |
| Food products, beverages, tobacco, textiles, apparel, leather products | 81 250 | 56 569 | 41 560 |
| Other transportable goods: not metal/machinery/equipment | 59 064 | 60 040 | 32 429 |
| Metal products, machinery and equipment | 45 190 | 6 199 | 3 669 |
| Sportspersons, Professional Entertainers, Racehorses | 60 | 109 | 58 |
| **2010–11**[a] | **210 440** | **145 640** | **100 615** |
| Agriculture, forestry and fishery products | 28 406 | 25 734 | 21 017 |
| Ores and minerals; electricity, gas and water | 1 019 | 533 | 283 |
| Food products, beverages, tobacco, textiles, apparel, leather products | 76 337 | 62 991 | 46 409 |
| Other transportable goods: not metal/machinery/equipment | 55 901 | 48 450 | 28 215 |
| Metal products, machinery and equipment | 48 687 | 7 768 | 4 591 |
| Sportspersons, Professional Entertainers, Racehorses | 90 | 164 | 100 |
| **2011–12**[a] | **179 894** | **128 556** | **90 637** |
| Agriculture, forestry and fishery products | 27 762 | 26 496 | 21 736 |
| Ores and minerals; electricity, gas and water | 1 089 | 656 | 399 |
| Food products, beverages, tobacco, textiles, apparel, leather products | 64 788 | 48 152 | 36 665 |
| Other transportable goods: not metal/machinery/equipment | 47 001 | 45 793 | 27 200 |
| Metal products, machinery and equipment | 39 121 | 7 181 | 4 469 |
| Sportspersons, Professional Entertainers, Racehorses | 133 | 279 | 169 |

Note Shipments for relevant year, not claims paid, as shippers can lodge claims up to two years after a shipment. Trade summarised as TEUs. Excludes entries with nil payments. Data rounded to whole values. Estimated values presented in this table may differ to actual values paid. TFES claims data was provided by Department of Human Services as at 30 November 2012 and is therefore preliminary. Based on previous years, BITRE expects that 10 per cent of claims for freight shipped in 2011–12 and 5 per cent of claims for 2010–11 are yet to be lodged or processed. A small number of claims for 2009–10 are also likely yet to be processed.

Source BITRE analysis of TFES database.

## Table 2 TEUs and payments by direction and route 2009–10 to 2011–12

| | 2009–10 | | 2010–11[a] | | 2011–12[a] | |
|---|---|---|---|---|---|---|
| Direction and Route | Total TEUs | Payments ($'000) | Total TEUs | Payments ($'000) | Total TEUs | Payments ($'000) |
| **Northbound** | 107 770 | 71 829 | 109 268 | 75 052 | 93 154 | 65 068 |
| Northern Tasmania to Victoria | 80 636 | 55 000 | 84 572 | 59 234 | 69 975 | 49 658 |
| Southern Tasmania to Victoria | 5 382 | 4 022 | 5 983 | 4 531 | 7 551 | 5 773 |
| Northern Tasmania to Queensland | 3 790 | 2 630 | 3 061 | 2 191 | 4 590 | 2 736 |
| Northern Tasmania to Western Australia | 8 185 | 2 635 | 7 312 | 2 814 | 4 087 | 1 536 |
| Northern Tasmania to New South Wales | 3 810 | 2 963 | 3 155 | 2 334 | 3 118 | 2 373 |
| Southern Tasmania to New South Wales | 2 334 | 1 833 | 2 210 | 1 713 | 1 693 | 1 334 |
| Southern Tasmania to Queensland | 1 105 | 884 | 1 092 | 881 | 767 | 626 |
| Northern Tasmania to South Australia | 1 143 | 866 | 724 | 531 | 582 | 467 |
| Southern Tasmania to Western Australia | 442 | 364 | 474 | 392 | 254 | 216 |
| Southern Tasmania to South Australia | 619 | 457 | 287 | 219 | 227 | 178 |
| Main island of Tasmania to Furneaux Islands | 228 | 121 | 179 | 93 | 161 | 91 |
| Main island of Tasmania to King Island | 86 | 48 | 209 | 115 | 143 | 78 |
| Northern Tasmania to Northern Territory | 3 | 2 | 11 | 5 | 4 | 3 |
| Southern Tasmania to Northern Territory | 6 | 5 | 0 | 0 | 0 | 0 |
| **Southbound** | 42 574 | 27 356 | 36 372 | 25 562 | 35 402 | 25 569 |
| Victoria to Northern Tasmania | 36 194 | 22 940 | 30 479 | 21 293 | 30 389 | 21 860 |
| Victoria to Southern Tasmania | 2 683 | 1 811 | 2 581 | 1 771 | 2 128 | 1 478 |
| New South Wales to Northern Tasmania | 799 | 398 | 404 | 288 | 638 | 443 |
| Furneaux Islands to Main island of Tasmania | 1 021 | 862 | 1 070 | 869 | 616 | 526 |
| Queensland to Southern Tasmania | 847 | 635 | 861 | 642 | 609 | 468 |
| King Island to Main island of Tasmania | 344 | 291 | 395 | 336 | 444 | 373 |
| Queensland to Northern Tasmania | 162 | 93 | 171 | 115 | 265 | 199 |
| South Australia to Northern Tasmania | 200 | 134 | 152 | 101 | 199 | 142 |
| Western Australia to Northern Tasmania | 146 | 71 | 120 | 52 | 54 | 32 |
| New South Wales to Southern Tasmania | 142 | 94 | 89 | 61 | 52 | 41 |
| South Australia to Southern Tasmania | 32 | 24 | 44 | 28 | 5 | 3 |
| Western Australia to Southern Tasmania | 3 | 2 | 5 | 4 | 4 | 3 |
| Northern Territory to Southern Tasmania | 0 | 0 | 1 | 1 | 0 | 0 |
| Northern Territory to Northern Tasmania | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | 150 344 | 99 185 | 145 640 | 100 615 | 128 556 | 90 637 |

Note Shipments for relevant year, not claims paid, as shippers can lodge claims up to two years after a shipment. Trade summarised as TEUs. Excludes entries with nil payments. Data rounded to whole values. Estimated values presented in this table may differ to actual values paid. TFES claims data was provided by Department of Human Services as at 30 November 2012 and is therefore preliminary. Based on previous years, BITRE expects that 10 per cent of claims for freight shipped in 2011–12 and 5 per cent of claims for 2010–11 are yet to be lodged or processed. A small number of claims for 2009–10 are also likely yet to be processed.

Source BITRE analysis of TFES database.

## *Tasmanian Wheat Freight Scheme*

Table 3 provides details of both bulk and containerised wheat claims to Tasmania from 1999–00 to 2011–12.

There were no claims under the TWFS for bulk wheat shipped in 2005–06, 2009–10, 2010–11 and 2011–12.

TWFS assistance paid for bulk wheat since 2004–05 has been less than the annual cap of $1.05 million and all shippers therefore received the maximum subsidy for bulk wheat of $20.65 per tonne.

The TWFS subsidy as a proportion of bulk freight costs was just under 40 per cent of total shipping costs between 2007–08 and 2009–10 (Table 3). This proportion has fallen from 78 per cent of shipping costs in 1999–00.

Claims paid for containerised wheat under the TFES totalled 62244 tonnes in 2010–11, increasing to 81459 tonnes in 2011–12 (Table 3). The average TFES subsidy paid for containerised wheat was $35.18 per tonne in 2011–12.

## Table 3 Bulk and containerised wheat shipments to Tasmania, 1999–00 to 2011–12, tonnages and subsidy paid

| | 99–00 | 00–01 | 01–02 | 02–03 | 03–04 | 04–05 | 05–06 | 06–07 | 07–08 | 08–09 | 09–10 | 10–11 | 11–12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bulk wheat (TWFS) | | | | | | | | | | | | | |
| Shipped tonnes | 41 653 | 49 071 | 52 300 | 49 998 | 62 774 | 27 433 | 0[a] | 31 242[b] | 40 571 | 20 345 | 0[a] | 0[a] | 0[a] |
| Subsidy ($m) | 0.96 | 1.12 | 1.02 | 1.08 | 1.02 | 0.57 | 0 | 0.65 | 0.84 | 0.42 | 0 | 0 | 0 |
| —$ per tonne | 22.96 | 22.76 | 19.54 | 21.59 | 16.33 | 20.65 | - | 20.65 | 20.65 | 20.65 | - | - | - |
| —prop. of cost | 78 | 74 | 62 | 68 | 49 | 54 | - | 50 | 39 | 37 | - | - | - |
| **Containerised wheat (TFES)** | | | | | | | | | | | | | |
| Shipped tonnes | 10 621 | 3 652 | 9 118 | 5 589 | 10 695 | 34 813[d] | 69 780[d] | 52 777[d] | 61 460[d] | 48 666[d] | 43 199[e] | 62 244 | 81 459 |
| Subsidy ($m) | 0.24 | 0.08 | 0.18 | 0.12 | 0.182 | 0.96 | 2.07 | 1.70 | 2.12 | 1.62 | 1.49 | 2.25 | 2.87 |
| —$ per tonne[c] | 22.96 | 22.76 | 19.54 | 21.59 | 16.33 | 27.50 | 29.66 | 32.16 | 34.55 | 33.37 | 34.66 | 36.18 | 35.18 |
| —prop. of cost | 48 | 41 | 38 | 48 | 48 | 48 | 50 | 53 | 44 | 46 | 44 | 43 | 43 |

a There were no claims for bulk wheat shipped in 2005–06, 2009–10, 2010–11 and 2011–12.

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 to 2009–10) and not date of claim payment.

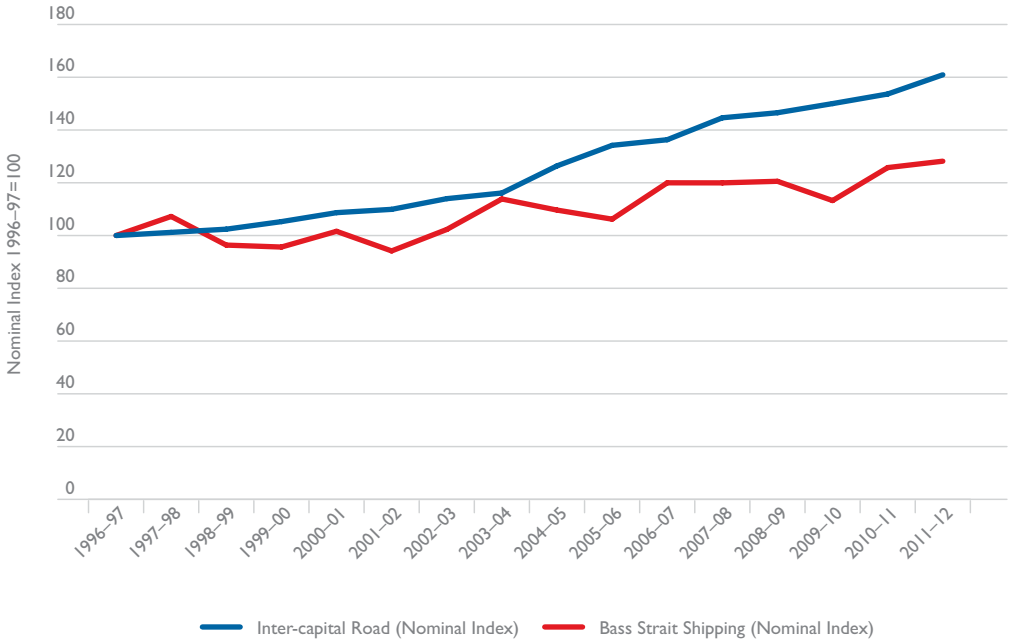
e Revised 2009–10 data.

Source TFES database; DITRDLG personal communications and BITRE analysis.

## *Non-bulk freight rates since 1996–97*

Figure 3 illustrates freight rate trends using a nominal index. Road freight rates had increased 24.8 per cent more than sea freight rates by 2007–08. By 2011–12 this difference had increased to 32.7 per cent.

**Figure 3** Nominal freight rate indices: road and Bass Strait shipping, 1996 to 2012




Note Estimated Bass Strait freight rates are weighted average nominal freight rates per tonne for wharf-to-wharf full container loads in the TFES database. Inter-capital road rates assume zero empty running.

Source BITRE Information Sheet 28, BITRE Estimates based on TFES data and SKM 2013 Road Rates.

# CHAPTER 3
# Tasmanian Freight Equalisation Scheme parameter estimates

This chapter presents BITRE's 2011–12 parameter estimates for the TFES. The interstate parameter estimates are presented first, followed by the intrastate components of the Scheme.

## *Interstate parameters*

### Door-to-wharf and Wharf-to-door parameters

BITRE has estimated new values for the door-to-wharf and wharf-to-door parameters using the 2011–12 TFES claims data.

Table 4 gives the difference between median door-to-door (DD) freight costs and median wharf-to-wharf freight costs for all shippers on the Northern Tasmania–Victoria routes shipping more than five TEUs in 2011–12. Route S comprises all southbound routes from Victoria to Tasmania and route G comprises all northbound routes from Tasmania to Victoria.

**Table 4** **Median full container load freight costs and estimated 2011–12 adjustment factors, dollars**

| | |
|---|---|
| Door-to-door freight cost | 1 800 |
| Wharf-to-wharf freight cost | 1 129 |
| Door-to-door adjustment factor | 671 |
| Door-to-wharf or Wharf-to-door adjustment factor | 335 |

Note Northern Tasmania–Victoria (G&S routes) for full container load (FCL) shipments by shippers who ship more than 5 FCL per year.

Source BITRE analysis of TFES claims database.

### Scaling Factors

Scaling factors are used to adjust freight bills for those routes other than the northern Tasmania and Victoria equivalent basis (that is, for all routes other than the G and S routes).

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.

## Table 5 Average door-to-door freight rates for 2009–10 to 2011–12 and scaling factors estimates 2011–12.

| | | Average door-to-door freight cost ($) | | | | Scaling factor | | | | Advisory Opinion |
|---|---|---|---|---|---|---|---|---|---|---|
| Route | Route code | 2009–10 | 2010–11 | 2011–12 | 3 Year Average | 2009–10 | 2010–11 | 2011–12 | 3 Year Average | 1996–97 |
| Northern Tasmania to/from | | | | | | | | | | |
| Victoria | G & S | 1 649 | 1 787 | 1 859 | 1 765 | 1.0 | 1.0 | 1.0 | **1.0** | 1 |
| New South Wales | H & T | 2 731 | 2 608 | 2 620 | 2 653 | 1.7 | 1.5 | 1.4 | **1.5** | 1.8 |
| South Australia | I & U | 2 407 | 2 351 | 2 553 | 2 437 | 1.5 | 1.3 | 1.4 | **1.4** | 1.5 |
| Queensland | J & V | 3 383 | 3 620 | 3 494 | 3 499 | 2.1 | 2.0 | 1.9 | **2.0** | 2.4 |
| Western Australia | K & W | 3 101 | 3 442 | 3 786 | 3 443 | 1.9 | 1.9 | 2.0 | **2.0** | 2.5 |
| Northern Territory | L & X | 7 964 | 11 836[a] | 10 450 | 10 083 | 4.8 | 6.6 | 5.6 | **5.7** | 6.8 |
| Southern Tasmania to/from | | | | | | | | | | |
| Victoria | A & M | 2 024 | 2 090 | 2 122 | 2 079 | 1.2 | 1.2 | 1.1 | **1.2** | 1.3 |
| New South Wales | B & N | 3 088 | 3 380 | 3 504 | 3 324 | 1.9 | 1.9 | 1.9 | **1.9** | 1.9 |
| South Australia | C & O | 3 105 | 3 335 | 3 354 | 3 264 | 1.9 | 1.9 | 1.8 | **1.8** | 1.3 |
| Queensland | D & P | 3 186 | 3 104 | 2 944 | 3 078 | 1.9 | 1.7 | 1.6 | **1.7** | 2.2 |
| Western Australia | E & Q | 4 054 | 4 201 | 5 400 | 4 552 | 2.5 | 2.4 | 2.9 | **2.6** | 2.4 |
| Northern Territory | F & R | 8 959[a] | 10 013[a] | 15 884[a] | 11 619 | 5.4 | 5.6 | 8.5 | **6.6** | 4.6 |

Note Full container load, door-to-door shipments only, except for values with 'a' where less than full container >= 0.01 TEU was utilised.

Source BITRE analysis of TFES claims database

BITRE has re-estimated scaling factors using the same approach as the TFES Review Authority (1998), which scaled freight bills based on the reported door-to-door costs on other routes relative to the average door-to-door costs on Victoria–Tasmania routes. Table 5 reports BITRE's estimates of scaling factors using claims data for 2009–10 to 2011–12.

## Containerised sea freight cost benchmark

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

> 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 TFES 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 (TFES Authority 1998, p.29).

BITRE has used the population of all wharf-to-wharf full container load shippers to calculate the median wharf-to-wharf freight rate. Door-to-door shippers have been excluded because the notional wharf-to-wharf freight rate for the door-to-door shippers would be overstated since the door-to-wharf and wharf-to-door adjustment factors have increased markedly from the original 1996-97 parameter value of $230 ($335 in 2011–2012).

BITRE has therefore calculated median wharf-to-wharf freight rates paid by all wharf-to-wharf full container load shippers for 2010–11 and 2011–12 (table 6).

**Table 6 Median wharf-to-wharf freight rates, 2010–11 and 2011–12, dollars**

| | 10–11 | 11–12 |
|---|---|---|
| **Median** | | |
| Dry shipments | 1 047 | 1 098 |
| Reefer shipments | 1 138 | 1 130 |
| Dry and reefer shipments | 1 109 | 1 129 |

Note Median rates calculated using claims data for all wharf-to-wharf full container load shippers on Victoria-Northern Tasmania (G&S) routes.

The TFES data set is administrative data used by the Department of Human Services (DHS) to administer claims. Its structure reflects how shippers arrange freight shipments and make claims. A shipper may claim for multiple shipments of freight as a single claim with one combined item or a large number of separate sub-items, or as a large number of separate claims. The chosen claim method can affect the median calculation where a large quantity of freight and/or a large number of shipments are involved.

Source BITRE analysis of TFES claims database.

As noted above, the TFES Review Authority (1998) chose median freight rates rather than weighted averages for this key benchmark parameter. Compared with Table 6, the weighted average freight rates in Table 7 for 2011–12 are significantly lower for dry freight and slightly higher for refrigerated freight (reefer) claims.

**Table 7 Average wharf-to-wharf freight rates, 2010–11 and 2011–12, dollars**

| | 10–11 | 11–12 |
|---|---|---|
| **Median** | | |
| Dry shipments | 902 | 978 |
| Reefer shipments | 1 179 | 1 193 |
| Dry and reefer shipments | 1 036 | 1 046 |

Note Weighted average rates calculated using claims data for all wharf-to-wharf full container load shippers on Victoria-Northern Tasmania (G&S) routes.

Source BITRE analysis of TFES claims database.

## Road Freight Equivalent

BITRE has used the same methodology as BITRE (2010) to calculate the Road Freight Equivalent (RFE). This assumes:

- 30 per cent empty running. BITRE (2010) suggested that approximately one third of potential carrying capacity on average may not be utilised for inter-capital, long haul routes. The average level of under-utilisation has a significant effect on the sea freight cost disadvantage.
- A maximum payload for a B-double heavy vehicle of 39 tonnes. This means that a B-double heavy vehicle can carry a maximum of three TEU averaging 11.5 tonnes net (13 tonnes gross including the container weight).

BITRE estimated RFE benchmark freight rates for B-double heavy vehicles carrying three TEUs by adjusting freight rates provided by Sinclair Knight Merz (SKM) (2013) for a 30 per cent empty running rate. This gave a RFE rate of 13.46 cents per net tonne kilometre for a 420 kilometre road distance, or $56.53 per tonne.

BITRE therefore suggests a 2011–12 RFE rate for dry freight of $650 per TEU, based on the 'road limit equivalent' for an ambient temperature container with a net payload of 11.5 tonnes. This 2011–12 RFE rate for dry freight compares to the current inter-state RFE of $281 per twenty-foot equivalent unit based on 1996–97 road freight rates and a two TEU benchmark.

SKM (2010) suggest a 10 per cent loading for refrigerated road freight compared with dry road freight. A 10 per cent premium results in a RFE rate for reefer freight of $715 per TEU.

## Sea freight disadvantage

The containerised sea freight disadvantage is calculated by subtracting the Road Freight Equivalent from the median wharf-to-wharf sea freight rate for 2009–10. The estimates of containerised sea freight disadvantage are given in Table 8.

The level of sea freight disadvantage for dry freight has decreased from $671 (1996–97 parameters) to $448 in 2011–12 (down from $549 in 2009–10).

**Table 8 Median sea freight disadvantage, nominal dollars per TEU**

| | | BITRE estimates 2011–12 | | TFES Review Authority 1996–97 | |
|---|---|---|---|---|---|
| | | Dry | Reefer | Dry | Reefer |
| Median wharf-to-wharf sea freight rate | (A) | 1 098 | 1 130 | 952 | 980 |
| Road Freight Equivalent | (B) | 650 | 715 | 281 | 309 |
| Median sea freight disadvantage | (A–B) | 448 | 415 | 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)

## Incentive structure

Shippers do not necessarily receive the full containerised sea freight cost disadvantage as payments are subjected to an incentive structure originally intended to encourage efficiency.

Shipper class boundaries provide a step down phasing out of assistance as a shipper's measured sea freight disadvantage increases. Shipper class boundaries are calculated using the median sea freight disadvantage ($448 per TEU) for dry freight. Table 9 gives new boundaries for BITRE's 2011–12 containerised sea freight disadvantage, excluding the intermodal allowance.

**Table 9 Shipper class boundaries for sea freight disadvantage and maximum payments, 2011–12 parameter estimates, dollars**

| Shipper Classes | Lower Limit | Upper limit | | Maximum ($) |
|---|---|---|---|---|
| Class 1 | 0 | 224 | 100 per cent freight cost disadvantage | 224 |
| Class 2 | 224.01 | 448 | Plus 75 per cent freight cost disadvantage | 392 |
| Class 3 | 448.01 | 672 | Plus 50 per cent freight cost disadvantage | 504 |
| Class 4 | 672.01 | No Limit | No refund for freight cost disadvantage | 504 |

Source BITRE analysis

## Intermodal parameter

All eligible shippers 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).

BITRE (2008) acknowledged that some Bass Strait shippers do incur higher costs that are not included in the total sea freight rate paid. 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[9] as loading containers may be more labour intensive than pallets on tautliner trucks.
- greater inventory holdings due to slower journey times and lower reliability.

BITRE (2008) suggested that the intermodal allowance of $100 per TEU be retained, as analysis of data provided by two large shippers[10] indicated that the quantifiable, incremental costs that were attributable to the need for a sea journey was at least $50 and $86 per TEU respectively.[11] It is not known if this level is representative of the majority of shippers.

BITRE suggests that the $100 per TEU intermodal allowance be retained.

## High density discount

Heavy or high density freight is more expensive to transport by road than standard or low density freight (Productivity Commission 2006).

The TFES Review Authority recommended that assistance for high density freight 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.

The current Scheme reduces the standard assistance rate by 40 per cent for high density freight to reflect the higher land freight equivalent cost. This recognises that the sea freight disadvantage is less for heavy containers which are more expensive than lighter boxes to move by road and rail, but generally have the same sea freight rate.

For the purpose of the TFES, cargo with a stowage factor of 1.1 cubic meters per tonne or less is classified as 'high density'.

9 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.

10 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 2008).

11 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).

To calculate stowage factors both tonnes and volumes are needed. In approximately 10 per cent of claim line items shippers do not declare either tonnes or volumes, and it is therefore not possible to calculate stowage factors to determine eligibility for the reduced rate of TFES assistance. This creates the potential for both over-payment and/or under-payment of TFES subsidy.

BITRE analysis of DHS TFES data identifying high density claims paid for freight shipped between 1 July 2010 and 30 June 2012 indicates that:

- 18 147 TEUs (6.6 per cent of total TEUs) of claims were paid the reduced level of assistance. Total payments were $8.02 million (a reduction of $5.35 million on the standard rate of assistance).
- 3 557 TEUs of claims were for mineral or chemical fertilisers, receiving $1.52 million over the two year period.
- 205 high density claim line items did not declare a weight value. Excluding these missing values, claims for high density freight totalled approximately 396 000 tonnes over the two year period.

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

The current 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.

SKM (2008) states that a typical B-double heavy vehicle can carry three TEUs, but is limited to about 39 tonnes per truck. BITRE (2008, 2010) 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). This benchmark means that a total of three containers weighing 13 tonnes gross can be carried by a B-double with a gross mass limit of 39 tonnes.

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).

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

BITRE recalculated 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 heavy vehicle (Table 10). These reference weights were obtained from the 2010–11 and 2011–12 TFES dataset for full container load high density claims. The costs of transporting two heavy containers of 13.2 tonnes net and one very heavy container of 24.1 tonnes net are compared to the RFE reference of a B-double heavy vehicle carrying three TEU of 11.5 tonnes net.

## Table 10 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 | 13.2 | 24.1 |
| Average gross weight (tonnes per TEU)[a] | 13 | 14.7 | 25.6 |
| Maximum number containers on a B double | 3 | 2 | 1 |
| Total net freight on a B double (tonnes) | 34.5 | 26.4 | 24.1 |
| Total gross freight on a B double (tonnes)[b] | 39.0 | 29.4 | 25.6 |
| Rate per net tonne kilometre ($) | 50 | 74 | 80 |
| **Disadvantage over RFE reference (net)** | **na** | **30 per cent** | **43 per cent** |
| Rate per gross tonne kilometre ($) | 57 | 66 | 76 |
| Disadvantage RFE reference (gross) | na | 32 per cent | 52 per cent |

a Assumes container tare of 1.5 tonnes.

b Maximum B double gross weight is 39 tonnes.

Source BITRE; SKM (2008, 2010, 2013) freight rates for B-doubles

Table 10 gives road cost estimates for a typical B-double carrying:

- three containers with an average net weight of 11.5 tonnes or less per full TEU.
- two containers with an average net weight of 13.2 tonnes—the average for those claims averaging between a net weight of 11.5 and 18 tonnes per full TEU.
- one container weighing 24.1 tonnes—the average weight per TEU for claims where a full TEU weighed more than 18 tonnes.

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 make up the bulk of the full container load claims for 2010–11 and 2011–12, accounting for 92 per cent of FCL high density 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 25 tonnes (SKM 2010). This suggests a discount for very heavy freight of 32 per cent based on SKM's current rate for a semi-trailer of around 15.7 cents per net tonne kilometre.

BITRE's suggested discount for heavy freight in 2011–12 is 30 per cent.

## *Intrastate parameters*

The estimated level of sea freight disadvantage for freight in the KIFG intrastate component of the TFES differs from the interstate component of the Scheme due to the shorter shipping distances and the different nature of Tasmanian freight market.

### Road freight equivalents for the KIFG

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 19 metres and carrying capacity around 23 tonnes, with gross mass up to 42.5 tonnes. The typical road freight rates for this configuration in Tasmania are around 21.11 cents per net tonne kilometre (SKM 2013).

The shipping distances involved in these operations are shown in Table 11.

**Table 11 Bass Strait shipping distances**

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

Source SKM (2013)

Based on the freight rate for a Tasmanian semitrailer and shipping distances in Table 11, BITRE suggests road freight equivalent costs for 2011–12 of:

- $63.34 per tonne for the 300 kilometre distance between King Island and Devonport. This gives a Road Freight Equivalent rate of $950 for a 15 tonne dry freight TEU (currently $675 per TEU).
- $24.28 per tonne for the 115 kilometre distance between Flinders Island and Bridport. This gives a Road Freight Equivalent rate of $364 for a 15 tonne Dry freight TEU (currently $259 per TEU).

BITRE analysis of the limited volume of claims data for King Island and Flinders Island for 2010–11 and 2011–12 suggests that, on average, weights are heavier than 15 tonnes per TEU. This suggests that the Road Freight Equivalent rate may be under-estimated, overstating the level of sea freight disadvantage.

### Freight rates to and from Tasmania

BITRE analysis of the limited claims data for King Island and Flinders Island for 2010–11 and 2011–12 indicates a wide variation in rates across commodity types. The small number of full container load claims—other than fertiliser claims for which rates are substantially higher than average—mean it is not possible to use claims data to determine an appropriate full container load rates benchmark.

Table 12 gives sea freight rates for the most common movements between King Island–Devonport, and Flinders Island–Bridport provided by SKM (2013). Sea freight rates between

King Island/Flinders Island and Tasmania are substantially higher than rates between northern Tasmania and Victoria. Services are also less regular.[12]

While the gap in freight rates between the Islands has narrowed, freight rates between Tasmania and Flinders Island are still higher than between Tasmania and King Island.

**Table 12 Freight rates Tasmania to/from King Island and Flinders Island, June 2012**

| | | Southbound | | Northbound | |
|---|---|---|---|---|---|
| | Distance (kilometres) | Freight rate/ unit | c/ntk | Freight rate/ unit | c/ntk |
| 20 foot containers: | | | | | |
| – King Island–Devonport | 300 | $1300/box | 30.41 | $1300/box | 30.41 |
| – Flinders Island–Bridport | 115 | $1590/box | 92.17 | $1590/box | 92.17 |
| Livestock[a,b] (Flinders Island) | | | | | |
| Cows and steers | 115 | $1400/crate | 95 | $1400/crate | 95 |
| Sheep | 115 | $1400/crate | 90 | $1400/crate | 90 |

a 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.

b Livestock freight rates are estimates 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 (2013).

## Sea freight disadvantage

The estimated sea freight disadvantages for 2011–12 are:

- $350 per TEU between King Island and Devonport ($460 per TEU in 2009–10).
- $1226 per TEU between Flinders Island and Bridport ($1203 per TEU in 2009–10).

These estimates of the sea freight disadvantage compare with BITRE's estimate for mainland–Tasmania freight of $448 per TEU for 2011–12 (Table 13).

**Table 13 Sea freight disadvantage for King Island and Flinders Island to and from Tasmania 2012, dollars**

| | King Island–Devonport | Flinders Island–Bridport |
|---|---|---|
| Sea freight cost | 1 300 | 1 590 |
| Road equivalent cost/TEU | 950 | 364 |
| Sea freight cost disadvantage | 350 | 1 226 |

Notes Assumes 15 tonnes per TEU.

Source BITRE estimates based on SKM (2013) freight rate data.

12 King Island receives a weekly service from the Sea Road Mersey calling enroute from Devonport to Melbourne. The Flinders Island once a week service from Bridport operated by Southern Shipping ceased when Southern Shipping went into receivership in 2009. Furneaux Freight began operating between Bridport and Flinders Island early in 2010 using the Furneaux Navigator and Matthew Flinders III. Furneaux Freight sails between Welshpool and Flinders Island approximately every three weeks. LD Marine also offers an on-demand service between Bell Bay and Flinders Island with the Statesman (SKM, 2013).

# CHAPTER 4
# Tasmanian Wheat Freight Scheme

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 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 subsidy per tonne of wheat shipped.[13]

## *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.

13 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, however the assistance available for both containerised and bulk wheat shipments has been unchanged since 2006.

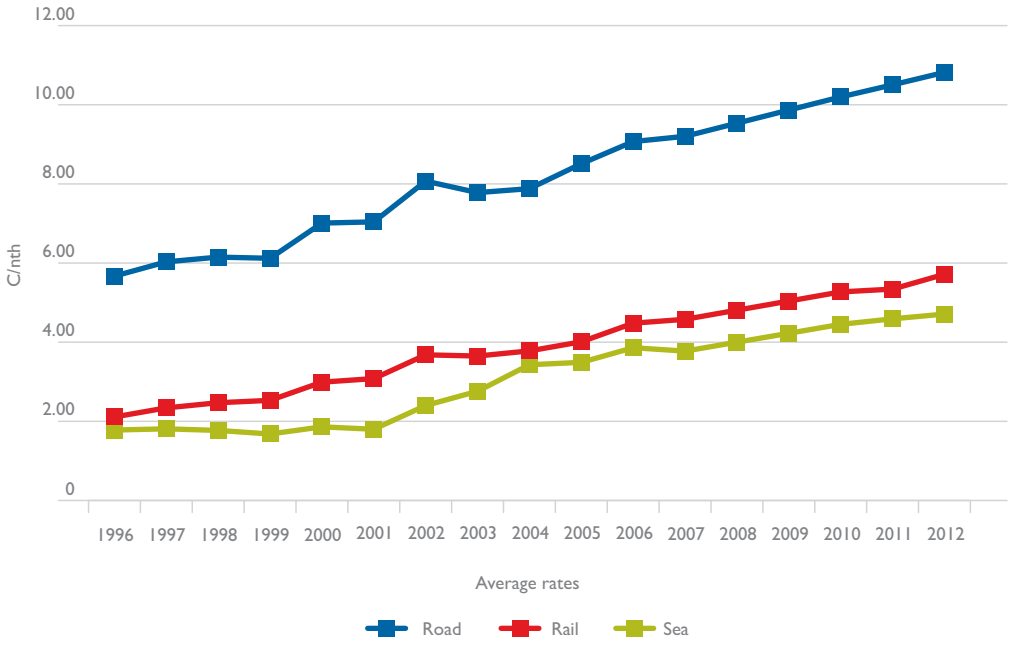
## *Trends in bulk wheat freight rates*

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 4. Since 1996 average bulk grain freight rates on major grain routes—between 200 to 400 kilometres—for rail and sea have more than doubled in nominal terms. Despite this, bulk rail and sea grain freight rates are still less than half road freight rates.

**Figure 4** Nominal average grain freight rates for major Australian routes by mode, 1996 to 2012[1]




Note Freight rates for 2011–12 are as at June 2012. Rates for previous years are as at December of that year.

Source SKM freight rate database.

## Bass Strait wheat freight rates

TWFS claims for bulk wheat shipped to Tasmania show that the average cost—including loading and unloading—was $41.30 per tonne in 2006–07. This had increased to $55.10 per tonne in 2008–09. There have been no bulk wheat shipments since 2008–09.

The nominal average cost per tonne for bulk wheat increased 33.3 per cent between 2006–07 and 2009–10 due to increased loading and unloading costs.

BITRE analysis of TFES claims data gives an average freight rate for containerised wheat of $1945 per TEU in 2011–12 ($1489 per TEU in 2009–10) across Bass Strait in 2011–12, or $81.04 per tonne ($62.06 in 2009–10) for a 24 tonne container of wheat.

## Estimating a rail freight equivalent

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

SKM (2013) suggests a rail rate for bulk grain of 6.75 cents per net tonne kilometre for the 420 km journey—slightly more than 2010.

BITRE therefore suggests a rail freight equivalent for the TWFS of $28.35 per tonne (6.75 cents per net tonne kilometre over a distance of 420 kilometres).

## Sea freight disadvantage

Table 14 summarises the sea freight disadvantage for bulk wheat compared to bulk rail for distances of 420 kilometres.

BITRE suggests a subsidy rate for wheat of $28.35 per tonne ($11.90 in 2006–07), equivalent to $680.40 for a 24 tonne container of wheat.

According to SKM (2008), 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. 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 $28.35 per tonne for bulk rail rates).

**Table 14** Sea freight cost disadvantage for wheat, dollars per tonne

| | 2011–12 | 2006–07 |
|---|---|---|
| Sea freight rate | 55.10[a] | 41.30 |
| Rail equivalent rate | 28.35 | 29.40 |
| Sea cost disadvantage | 26.75 | 11.90 |

a No bulk wheat claims since 2008–09, all bulk wheat claims for 2008–09 were used as a proxy

b Rates per tonne for containers calculated using an average of 24 tonnes per container.

Source BITRE estimates based on SKM rates data; BITRE (2010)

# CHAPTER 5
# Expenditure implications

## *Effect of applying the 2011–12 parameters*

TFES payments may have been reduced by up to $90.3 million over the last two years if BITRE's suggested 2011–12 TFES parameters—other than the high density stowage factor and revised scaling factors—had applied (Table 15). This reduction is larger than previously estimated (BITRE 2008, 2010). BITRE notes that:

- These are estimates only and assume no change in shipper behaviour, and give a general indication only of the likely change in expenditure.
- If the parameters were changed, then the expected savings would not be fully realised for a number of years as shippers may take up to two years to lodge claims and a further 12 months for claims to be processed and paid.

**Table 15** TFES payments by year of shipment, current and revised parameters ($ million)

| Year of shipment | 1996–97 parameters (TFES Review Authority 1998) | 2011–12 parameters | Difference |
|---|---|---|---|
| | TFES payments[a] | Estimated payments | 2011–12 to 1996–97 |
| 2010–11 | 100.61 | 52.34 | -48.27 |
| 2011–12 | 90.63 | 48.58 | -42.05 |
| **2 year total** | **191.24** | **100.92** | **-90.32** |

a TFES claims data as at 30 November 2012 summarised by date of shipment. Data is incomplete for 2010–11 and 2011–12. Based on previous years, BITRE expects that 10 per cent of claims for freight shipped in 2011–12 and 5 per cent of claims for 2010–11 are yet to be lodged or processed.

Source BITRE analysis of TFES Database

BITRE's suggested parameters for 2011–12 are given in Table 16 and Table 17.

**Table 16 TFES parameters, 1996–97, 2009–10 and 2011–12**

| | 1996–97 parameters (current) | 2009–10 parameter estimates | 2011–12 parameter estimates |
|---|---|---|---|
| Road Freight Equivalent (dry freight) | 281 | 578 | 650 |
| Road Freight Equivalent (reefer freight) | 309 | 635 | 715 |
| Door-to-door adjustment factor | 460 | 444 | 671 |
| Door-to-wharf/Wharf-to–door adjustment factors | 230 | 222 | 335 |
| Wharf-to-wharf sea freight cost disadvantage | 671 | 549 | 448 |
| Intermodal costs allowance | 100 | 100 | 100[a] |
| High density adjustment factor | 0.6 | 0.9 | 0.7 |

a BITRE suggests that the intermodal cost allowance of $100 per TEU be retained, given BITRE (2008) analysis showing costs for two large shippers of at least $50 and $86 per TEU respectively.

Source BITRE analysis of TFES Database; BITRE (2008, 2010)

**Table 17 TFES intrastate parameters estimates**

| | 2006–07 parameters (current) | 2009–10 parameter estimates | 2011–12 parameter estimates |
|---|---|---|---|
| King Island | 675 | 775 | 950 |
| Road Freight Equivalent (dry freight) | | | |
| Road Freight Equivalent (reefer freight) | 742 | 852 | 1045 |
| Furneaux Group | 259 | 297 | 364 |
| Road Freight Equivalent (dry freight) | | | |
| Road Freight Equivalent (reefer freight) | 285 | 327 | 400 |

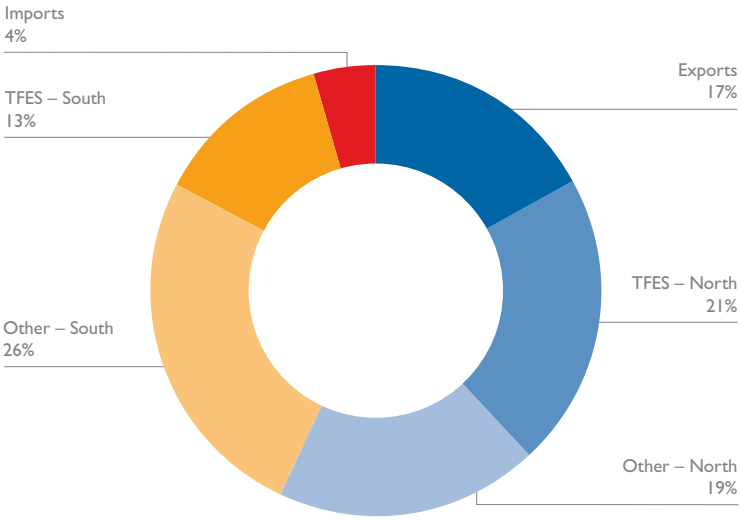
Source BITRE estimates.

## *TFES and the Tasmanian freight market*

Non-bulk Tasmanian freight shipped in 2011–12 is approximately 4.9 million tonnes (Figure 5, Table 18). This estimate includes direct and transhipped international trade, but excludes empty containers and packaging, and freight shipped between Tasmanian ports or between Tasmania and Antarctica.

Just under 79 per cent of non-bulk tonnage was coastal freight with the rest international trade. Tasmanian non-bulk international trade was dominated by exports (80 per cent) in 2011–12, with imports only 20 per cent by tonnage.

## Figure 5 Bass Strait non-bulk trade, 2011–12




Source BITRE has estimated freight flows using the Coastal Shipping database (BITRE unpublished), ABS International Cargo Statistics (unpublished) and Ports Australia published data.

## Table 18 Non-bulk Tasmanian coastal and international trade, 2011–12, tonnes.

| | TFES claims[a] | TFES ineligible | Total non-bulk coastal[b] | Non-bulk international trade | Total non-bulk freight[b,c] | TFES average payment |
|---|---|---|---|---|---|---|
| | Estimated '000 tonnes | '000 tonnes | '000 tonnes | '000 tonnes | '000 tonnes | $/tonne |
| from Tasmania | 1 031 | 926 | 1 957 | 840 | 2 797 | 63.12 |
| to Tasmania | 626 | 1 264 | 1 890 | 213 | 2 103 | 40.87 |
| non-bulk to/from Tasmania | 1 657 | 2 190 | 3 847 | 1 053 | 4 900 | 54.72 |

a Preliminary data as at 30 November 2012. Claims can be made up to two years after freight is shipped.

b Tasmanian coastal excludes exports and imports, and intra-state and Australian Antarctic Territory freight, and 752,411 tonnes of empty containers and packaging.

c Excludes 94,229 empty containers moved through Burnie, Launceston and Bell Bay in 2011–12 (Ports Australia data).

Sources BITRE coastal data (unpublished), ABS International Cargo Statistics (unpublished), Ports Australia data.

Not all non-bulk Tasmanian sea freight is eligible for TFES subsidy payments. Some coastal freight is eligible while international trade is not eligible.

BITRE has used TFES average tonnages per TEU to estimate the TEUs for non-bulk coastal and international trade (Table 19).

Preliminary claims data indicates freight shippers made TFES claims for more than 128 000 TEUs of eligible non-bulk freight shipped in 2011–12, with $90.64 million in subsidies paid. BITRE expects future claims for freight shipped between 1 July 2011 and 30 June 2012 will increase in total by at least $10 million to approximately $100 million.

Based on this preliminary claims data, TFES subsidised 31 per cent of non-bulk Tasmanian freight in 2011–12. If all non-bulk Tasmanian freight had been eligible, this may have resulted in TFES claims for an equivalent of:

- Up to an extra 162,000 TEUs of coastal non-bulk freight; and
- An estimated additional 88,000 TEUs of non-bulk international trade.

**Table 19 Non-bulk Tasmanian coastal and international trade, 2011–12, twenty-foot equivalent units**

| | TFES claims[a] | TFES ineligible | Total non-bulk coastal[b] | Non-bulk international trade | Total non-bulk freight[b,c] | TFES average payment |
|---|---|---|---|---|---|---|
| | TEUs | Est. TEUs | Est TEUs | Est TEUs | Est TEUs | $/TEU |
| from Tasmania | 93 154 | 71 887 | 165 041 | 75 888 | 240 929 | $ 698.50 |
| to Tasmania | 35 402 | 89 920 | 125 321 | 12 079 | 137 400 | $ 722.25 |
| non-bulk to/from Tasmania | 128 556 | 161 807 | 290 363 | 87 967 | 378 330 | $ 705.04 |

a Preliminary claims as at 30 November 2012. Claims can be made up to 2 years after freight is shipped. BITRE expects future claims for freight shipped between 1 July 2011 and 30 June 2012 will increase in total by at least $10 million to approximately $100 million.

b Tasmanian coastal excludes exports and imports, intra-state and Australian Antarctic Territory freight.

Sources BITRE coastal database (unpublished), ABS International Cargo Statistics (unpublished).

# 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 |

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