THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

HOUSE OF REPRESENTATIVES

SHIPPING LEGISLATION AMENDMENT BILL 2015

EXPLANATORY MEMORANDUM

(Circulated by authority of the Minister for Infrastructure and Regional Development
the Hon Warren Truss MP)
SHIPPING LEGISLATION AMENDMENT BILL 2015

OUTLINE

The purpose of the Shipping Legislation Amendment Bill 2015 is to amend the Coastal Trading (Revitalising Australian Shipping) Act 2012 and the Shipping Registration Act 1981.

The amendments to the Coastal Trading (Revitalising Australian Shipping) Act 2012 (Coastal Trading Act) will replace the existing three tiered licensing system with a single permit system. A Coastal Shipping Permit (CSP) will be granted to the owner of a vessel, or a person who has day to day responsibility for a vessel, and will provide the vessel with access to coastal shipping for 12 months. The Coastal Trading Act will also be renamed to Coastal Shipping Act 2015.

The amendments will establish a framework of entitlements for seafarers on foreign vessels engaging or intending to engage in coastal shipping for more than 183 days. The amendments will apply Part B of the Seagoing Industry Award 2010 (Award) to seafarers on vessels that engage predominantly in coastal shipping when the Fair Work Act 2009 (Fair Work Act) applies to them. Where a vessel traded for more than 183 days contrary to what was indicated in a permit, the amendments will provide an enforcement mechanism for seafarers to recover payments. The Bill also provides that a new coastal shipping permit must not be issued to a foreign vessel in these circumstances if the Minister is satisfied that the applicant has not correctly paid required amounts to seafarers under a previous permit.

Foreign vessels engaging in coastal shipping for more than 183 days will also need to have two senior skilled crew members who are eligible to work in Australia because they are citizens, residents, or hold a relevant visa.

The amendments to the Shipping Registration Act 1981 will replace the requirement to be predominantly engaged in international trading to be registered on the Australian International Shipping Register, with a requirement to undertake 90 days of international trading per year. Entry into a collective agreement with the seafarers’ bargaining unit will no longer be a prerequisite to becoming registered. The ability for seafarers on vessels registered on the AISR to make collective agreements is unchanged.

The amendments will also apply Part B of the Award to seafarers on vessels registered under the Australian International Shipping Register and not engaged in international trading. These vessels will also need to have two senior skilled crew members who are eligible to work in Australia because they are citizens, residents, or hold a relevant visa.

Financial impact statement

There will be no financial impact to the Commonwealth as a result of this Bill.

Regulation impact statement

A Regulatory Impact Statement for the coastal shipping reforms has been prepared. It is attached to the back of this explanatory memorandum.
Statement of Compatibility with Human Rights

Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011

Shipping Legislation Amendment Bill 2015

This Bill is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the Human Rights (Parliamentary Scrutiny) Act 2011.

Overview of the Bill

The Shipping Legislation Amendment Bill 2015 provides a new framework for the regulation of coastal shipping in Australia. The Bill will allow for the existing tiered licencing system under the Coastal Trading (Revitalising Australian Shipping) Act 2012 to be replaced with a single permit, available to both Australian and foreign vessels, which will provide access to the Australian coast for a period of 12 months. These permits will be held by commercial entities. In addition, the Bill will amend the Shipping Registration Act 1981 to allow for vessels to be registered on the Australian International Register if they engage in international shipping for a period of 90 days or more.

The Bill will establish a framework of entitlements for seafarers on foreign vessels engaging or intending to engage in coastal shipping for more than 183 days and provide that those foreign vessels have two senior skilled crew members who are eligible to work in Australia because they are citizens or residents or hold a relevant visa.

The Bill will include minimum entitlements for seafarers on Australian vessels that are registered on the Australian International Shipping Register when those vessels are engaged in coastal shipping work covered by the Fair Work Act 2009 (Fair Work Act). The Bill will make changes to the Shipping Registration Act 1981 to amend the conditions of registration on the Australian International Shipping Register.

Human rights implications

The Bill would engage the following human rights:

- the right to just and favourable conditions of work under Article 7 of the International Covenant on Economic, Social and Cultural Rights (ICESCR);
- the right to freedom of association under Article 8(1) of the ICESCR and Article 22 of the International Covenant on Civil and Political Rights (ICCPR);
- the right to non-discrimination under Article 2(2) of ICESCR and Article 26 of the ICCPR;
- the right to a fair hearing under Article 14 of the ICCPR;
- the right to an effective remedy under Article 2(3) of the ICCPR.
Right to just and favourable conditions of work

Article 7 of the ICESCR requires that State Parties recognise the right of everyone to the enjoyment of just and favourable conditions of work which ensure, in particular, remuneration that provides all workers with fair wages, a decent living and rest, leisure and reasonable limitation of working hours and periodic holidays with pay, as well as remuneration for public holidays.

Australia is not required to set wages and conditions under article 7 of ICESCR for seafarers on foreign vessels.

Entitlements for seafarers

Part B of the Seagoing Industry Award 2010 (the Award) currently applies to vessels engaged in coastal trading under a temporary licence. Temporary licences may be granted in relation to vessels registered on the Australian International Shipping Register or foreign vessels. Employees on foreign vessels that engage in coastal trading under transitional general licences are currently covered by Part A of the Award when such vessels are covered by the Fair Work Act.

The amendments apply the Award to seafarers on foreign vessels operating under a coastal shipping permit when the Fair Work Act has application, and to vessels registered on the Australian International Shipping Register when those vessels are not engaged in international trading.

Providing for Part B of the Seagoing Industry Award to be taken as the minimum entitlements does not limit seafarers’ access to just and favourable conditions of work.

Part B of the Seagoing Industry Award contains provisions dealing with matters including wages, overtime, rest periods and leave. Part B is underpinned by the 10 minimum standards of employment contained in the National Employment Standards. In addition, seafarers to which Part B of the Seagoing Industry Award applies will continue to enjoy the benefit of other rights and protections under the Fair Work Act, including access to enterprise bargaining.

Seafarers on Australian vessels registered on the Australian International Shipping Register would presently be covered by Part B of the Award while those vessels are engaged in coastal trading under a temporary licence. The Bill will continue to apply Part B to these seafarers and accordingly would not affect existing entitlements of those employees.

Right to the Freedom of Association

The amendments engage, but do not limit, the right to freedom of association, by amending requirements mandating collective bargaining as a pre-requisite for registration on the Australian International Shipping Register. The right of seafarers to make a collective agreement is unchanged.
The content of the right to freedom of association provided in the ICESCR and the ICCPR is informed by the International Labour Organisation (ILO) conventions, including relevantly the *Right to Organise and Collective Bargaining Convention, 1949 (No. 98)* (Convention 98). Article 4 of Convention 98 requires States Parties to (among other things) take measures appropriate to national conditions to encourage and promote machinery for voluntary negotiation between employers or employers’ organisations and workers’ organisations, with a view to the regulation of terms and conditions of employment by means of collective agreements.

Currently, the *Shipping Registration Act 1981* provides that a vessel owner may make a collective agreement with the seafarers’ bargaining unit for the vessel about the terms and conditions of employment or engagement for all seafarers working on the vessel when it is used to engage in international trading. That agreement must be made before the vessel can be registered on the Australian International Shipping Register.

The Bill maintains bargaining but repeals the requirement that an agreement must be made before a vessel can be registered on the Australian International Shipping Register.

The Bill does not limit the right of seafarers to bargain for agreements. The Bill promotes voluntary negotiation by not mandating an agreement as a pre-condition of registration on the Australian International Shipping Register.

There are no vessels on the Australian International Shipping Register and therefore, there is no impact to anyone’s current entitlements.

**Right to equality and non-discrimination**

Articles 2 and 26 of the International Covenant on Civil and Political Rights require all people to be treated equally before the law and prohibit discrimination on a range of grounds.

The Bill requires that ships operating predominantly in Australia employ a minimum contingent of crew that are Australian citizens, Australian residents or that hold an appropriate working Visa. This condition does not infringe requirements about distinction between nationalities because it relates to the development and retention of seafaring skills in the Australian maritime industry. Without positions for the development and retention of these skills, it is likely there would be a shortfall in the future.

**Right to a fair hearing**

Article 14 of the ICCPR provides the right to a fair hearing.

The Bill promotes the right to a fair hearing through permitting the review of certain decisions by the Administrative Appeals Tribunal. In particular, decisions about refusing to exempt a vessel from the Act, refusing to grant or transfer a coastal shipping permit, or a decision to cancel a coastal shipping permit are reviewable by the Administrative Appeals Tribunal.

The Bill allows for the triggering of civil penalty and infringement notice provisions of the *Regulatory Powers (Standard Provisions) Act 2014*, for example when engaging in coastal
shipping without a permit. These existing mechanisms are not incompatible with Australia’s human rights obligations.

For the purpose of assessing their compatibility with Australia’s human rights obligations, civil penalty provisions cannot generally be considered to be criminal in nature unless there is a clear possibility of a truly penal consequence, that is, imprisonment. This is not the case with the civil penalty provisions in the Shipping Legislation Amendment Bill 2015. Whilst these provisions are intended to be in part punitive and act as a deterrent to unlawful conduct, they are not so severe so as to impact on Australia’s international human rights obligations.

**Right to an effective remedy**

Article 2(3) of the International Covenant on Civil and Political Rights provides the right to an effective remedy.

The Bill promotes this right through measures supporting seafarers’ rights to recovering payments and through the treatment of vessels that fail to pay seafarers in the manner prescribed in the Bill.

**Recovering payments**

The Bill will provide seafarers with the right to apply to the Federal Court or Federal Circuit Court to recover an amount due to them arising under the Bill. These provisions will advance the right to an effective remedy.

In addition, the Bill will provide that the Minister must not grant a future coastal shipping permit to a foreign vessel if the foreign vessel has not complied with the pay requirements under a former permit.

**Conclusion**

The Bill is compatible with human rights because it does not limit Australia’s human rights obligations.

**Minister for Infrastructure and Regional Development, the Hon Warren Truss MP**
NOTES ON CLAUSES

Clause 1: Short Title

1. Clause 1 provides for the Act to be cited as the Shipping Legislation Amendment Act 2015.

Clause 2: Commencement

2. Sub-clause 2(1) provides that each provision of the Bill specified in column 1 of the table commences, or is taken to have commenced, in accordance with column 2 of the table.

3. Item 1 of the table provides that sections 1 to 3 of the Bill, which provide for the short title, commencement of the provisions of the Bill and outline the effect of the Schedules to the Bill, and anything not covered elsewhere in the table, will commence on the day this Act receives the Royal Assent.

4. Item 2 of the table provides that Part 1 of Schedule 1 “Main amendments” will commence on a day to be fixed by Proclamation or, if the provisions do not commence within the period of six months from when this Act receives the Royal Assent, the day after the end of the six month period.

5. Item 3 of the table provides that Part 2 of Schedule 1 “Amendments relating to civil penalties” will commence on a day to be fixed by Proclamation or, if the provisions do not commence within the period of six months from when this Act receives the Royal Assent, the day after the end of the six month period.

6. Item 4 of the table provides that Part 3 of Schedule 1 “Amendments relating to seafarers” will commence at the same time as the provisions covered by table item 3.

7. Item 5 of the table provides that Part 4 of Schedule 1 “Transitional provisions” will commence at the same time as the provisions covered by table item 2.

8. Item 6 of the table provides that Schedule 2 “Shipping registration” will commence at the same time as the provisions covered by table item 2.

9. Item 7 of the table provides that Schedule 3 “Consequential amendments” will commence at the same time as the provisions covered by table item 3.

Clause 3: Schedules

10. Clause 3 outlines the effect of the Schedules to the Bill. Each Schedule amends or repeals the Act specified in that Schedule as provided by the items of the Schedule. Any other item in a Schedule has effect according to its terms.

SCHEDULE 1 – Coastal Shipping

Part 1 – Main amendments

Coastal Trading (Revitalising Australian Shipping) Act 2012

Item 1 – Title

11. Item 1 omits “trading” and substitutes “shipping” in the long title of the Act. The term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24).
Item 2 – Section 1


Item 3 – Section 3

13. Item 3 repeals existing section 3 and substitutes a new section 3. The new section 3 provides that the object of the Act is to provide a regulatory framework for coastal shipping in Australia that:

- fosters a competitive coastal shipping services industry that supports the Australian economy; and
- maximises the use of available shipping capacity on the Australian coast.

14. This new object provides a clear aim for the Act compared to the existing object of the Act, which contains a number of elements that are inconsistent with each other.

Item 4 – Section 5

15. Item 4 repeals existing section 5 and substitutes a new section 5. The new section 5 provides a new simplified outline of the Act. A new simplified outline of the Act is required due to the replacement of the existing three tiered licensing system with a single permit system (see Item 30).

Item 5 – Subsection 6(1)

16. Item 5 repeals the definitions of acceptable tolerance limits and Australian nationality in subsection 6(1). The new coastal shipping permit (see Item 30) provides a vessel with unrestricted access to coastal shipping, which means the definition of acceptable tolerance limits is no longer required. The definition of Australian nationality is not required as no provisions in the Act refer to Australian nationality.

Item 6 – Subsection 6(1)

17. Item 6 inserts a definition of Australian resident into subsection 6(1). An Australian resident is a person who is a resident of Australia for the purposes of the Income Tax Assessment Act 1936. A definition of Australian resident is required due to the Australian crew requirement for certain foreign vessels (see Item 30).

Item 7 – Subsection 6(1)

18. Item 7 inserts definitions of coastal shipping and coastal shipping permit into subsection 6(1). The definition of coastal shipping is contained in section 7 of the Act. This new definition is required as the term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24). Coastal shipping permit is defined as a coastal shipping permit granted under Part 4 of the Act. This new definition is required as the
coastal shipping permit is replacing the existing three tiered licensing system in the Act (see Item 30).

**Item 8 – Subsection 6(1) (definition of coastal trading)**

19. Item 8 repeals the definition of *coastal trading*. The definition of coastal trading is no longer required as the term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24).

**Item 9 – Subsection 6(1)**

20. Item 9 inserts a definition of *docked for service* into subsection 6(1). A vessel is docked for service on a day if it is:
   - in dry dock; or
   - docked for maintenance, repairs, cleaning or painting and not engaged on a voyage.

21. The definition of docked for service is required as permit holders will be required to report on whether their vessel was docked for service during a permit period (see Item 30). A vessel will be covered by a permit when docked for service, which will mean that the vessel is not imported into Australia for the purposes of the *Customs Act 1901* (see Item 38).

**Item 10 – Subsection 6(1)**

22. Item 10 repeals the definitions of *emergency licence*, *energy security situation*, *general licence*, *licence* and *loading date* in subsection 6(1). The definitions of emergency licence, energy security situation, general licence and licence are no longer required as the existing three tiered licensing system is being replaced with a single permit system (see Item 30). The definition of loading date is no longer required as the single permit system provides unrestricted access to coastal shipping (see Item 30).

**Item 11 – Subsection 6(1)**

23. Item 11 inserts a definition of *normal period* into subsection 6(1). The normal period of a coastal shipping permit is defined as the period of 12 months beginning on the day on which the permit comes into force.

**Item 12 – Subsection 6(1) (definition of notice in response)**

24. Item 12 repeals the definition of *notice in response*. The definition of notice in response is no longer required as the single permit system provides unrestricted access to coastal shipping (see Item 30).

**Item 13 – Subsection 6(1)**

25. Item 13 inserts a definition of *offshore facility* into subsection 6(1). An offshore facility has the same meaning as in the *Maritime Transport and Offshore Facilities Security Act 2003* (see section 17A) and includes a floating product, storage and offtake unit (FPSO)
and a floating storage unit (FSU). The definition of offshore facility is required due to the expansion of the definition of coastal shipping (see Item 25).

Item 14 – Subsection 6(1)
26. Item 14 inserts definitions of parity amount and parity condition into subsection 6(1). The definitions of parity amount and parity condition are contained in subsection 22(3).

Item 15 – Subsection 6(1) (definition of permanent visa)
27. Item 15 repeals the definition of permanent visa. The definition of permanent visa is no longer required as the terminology of permanent visa is not being used in the Act.

Item 16 – Subsection 6(1)
28. Item 16 inserts a definition of rules into subsection 6(1). Rules is defined as rules made under section 112A (see Item 33). The ability for the Minister to make rules under the Act is a new power which will provide flexibility in the administration of the Act.

Item 17 – Subsection 6(1) (paragraph (f) of the definition of seafarer)
29. Item 17 omits “regulations” from paragraph (f) of the definition of seafarer in subsection 6(1) and substitutes “rules”. This amendment is required as the ability for the Minister to make rules is being inserted into the Act (see Item 33).

Item 18 – Subsection 6(1)
30. Item 18 inserts a definition of Seagoing Industry Award 2010 into subsection 6(1). The Seagoing Industry Award 2010 is defined as the award of that name made by the Fair Work Commission as in force from time to time.

Item 19 – Subsection 6(1)
31. Item 19 repeals the definitions of temporary licence and temporary visa. The definition of temporary licence is no longer required as the existing three tiered licensing system is being replaced with a single permit system (see Item 30). The definition of temporary visa is no longer required as the terminology of temporary visas is not being used in the Act.

Item 20 – subsection 6(1)
32. Item 20 inserts a definition of term declaration into subsection 6(1). The definition of term declaration is contained in subsection 13(3).

Item 21 – Subsection 6(1) (definition of voyage)
33. Item 21 omits “or (c)” in the definition of voyage in subsection 6(1) and substitutes “, (c) or (d)”. This amendment is necessary as a new paragraph (d) is being added to subsection 7(1) (see Item 25).
34. Item 22 repeals subsection 6(1)(A). Subsection 6(1)(A) contained a definition of energy security situation, which is a type of authorised matters variation that could be made to a Temporary Licence. This definition is no longer required as the existing three tiered licensing system is being replaced with a single permit system (see Item 30).

35. Item 23 repeals the existing heading of section 7 and substitutes a new heading “Definition of coastal shipping”. This amendment is a result of the term “coastal trading” being replaced with “coastal shipping” through the Act (see Item 24).

36. Item 24 omits “coastal trading” from subsection 7(1) and substitutes “coastal shipping”. The term “coastal trading” is being replaced throughout the Act with “coastal shipping” as it is easier to understand.

37. Item 25 inserts new paragraphs (d) and (e) into subsection 7(1). New paragraph (d) provides that a vessel is used to engage in coastal shipping if it takes on board a liquid fuel product from an offshore facility and carries the liquid fuel product to a port in State or Territory where some or all of the cargo is unloaded. This amendment will expand the coverage of coastal shipping and allow petroleum companies to gain a permit to transport liquid fuel products from offshore facilities directly to the mainland, which is not able to happen under the current licensing system. New paragraph (e) provides that a vessel is used to engage in coastal shipping if the vessel is docked for service in connection with an activity referred to in any of paragraphs (a) to (d). This amendment will expand the coverage of coastal shipping permits to cover vessels docked for service.

38. Item 26 omits “regulations” from paragraph 7(2)(c) and substitutes “rules”. This amendment is required as the ability for the Minister to make rules is being inserted into the Act (see Item 33).

39. Item 27 adds a new section 7A into Part 2. New section 7A provides that for the purposes of calculating the number of days on which a vessel is being used to engage in coastal shipping, each day on which a passenger is embarked or disembarked, or cargo is loaded or unloaded, is to be included, even if on those days the vessel does not move from one port to another port, or from an offshore facility to a port, as mentioned in the definition of voyage. This new section is required as permit holders will be obligated to report on the number of days spent undertaking relevant voyages (see Item 30).
Item 28 – Section 11

40. Item 28 repeals section 11, which allows the Minister to grant exemptions from the Act for a vessel, a person, class of vessels or class of persons. The ability for the Minister to grant exemptions from the Act is no longer required as the single permit system provides access to coastal shipping with minimal administrative requirements.

Item 29 – After subsection 12(1)

41. Item 29 inserts new subsection 12(1A). New subsection 12(1A) provides that an application for a declaration under subsection 12(2) (declaration that the Act applies to a vessel on intrastate voyages) must be in writing and accompanied by the application fee prescribed by the rules. This new subsection will allow a fee to be prescribed for applications for subsection 12(2) declarations, consistent with the Australian Government’s cost recovery guidelines.

Item 30 – Part 4

42. Item 30 repeals existing Part 4 for licences and substitutes a new Part 4 for permits. The new Part 4 for permits is based on the existing Division 1 of Part 4 for general licences.

New section 13 – Application for coastal shipping permit

43. Section 13 provides that a person who has a legal or beneficial interest in a vessel (other than as a mortgagee), or a person who has day to day responsibility for the management of a vessel, may apply to the Minister for a coastal shipping permit (permit) authorising the vessel to be used to engage in coastal shipping (the applicant is required to satisfy the criteria at the time the application is made – the relevant time). The vessel is required to be registered in the Australian General Shipping Register, or in the Australian International Shipping Register, or under the law of a foreign country.

44. The application for a permit must relate to one vessel only, be in writing and include the following:

- The applicant’s business name and business address;
- The day the permit is to come into force if a day later than the day the permit is granted is sought;
- If the application relates to a foreign vessel, it must also include a term declaration stating whether or not it is intended that the vessel be used on more than 183 days of coastal shipping during the normal period of the permit.; and
- any other information prescribed by the rules.

45. The permit application must be accompanied by:

- Evidence of a legal or beneficial interest in the vessel if the applicant has a legal or beneficial interest in the vessel at the relevant time;
- Evidence that the applicant has day-to-day responsibility for the vessel if the applicant has day-to-day responsibility for the vessel and evidence that they have the consent of a person who has a legal or beneficial interest in the vessel to make the permit application;
- A copy of the vessel’s registration certificate and an English translation if the registration certificate is not in English; and
- The application fee prescribed by the rules.
46. A term declaration for a permit is a declaration stating whether or not it is the intention of the applicant that the vessel to which the permit relates will be used to engage in coastal shipping on more than 183 days during the normal period of the permit.

47. As a permit is granted in relation to a vessel, the eligibility to apply for a permit has been limited to people who have a direct relationship with a vessel - a person with a legal or beneficial interest in a vessel (the owner of a vessel) and a person who has day-to-day responsibility for the management of a vessel. To ensure that an applicant does have the relationship to the vessel they claim to have, evidence must be provided with the application to show that relationship (evidence of a legal or beneficial interest or evidence of day-to-day responsibility for management of the vessel). Since only one permit can be granted in relation to a vessel, an applicant with day-to-day responsibility for managing a vessel must also provide evidence that they have the consent of a person with a legal or beneficial interest in that vessel to apply for a permit in relation to that vessel.

48. To ensure that permits are only granted in relation to vessels that are registered, a copy of the vessel’s registration certificate must be provided with a permit application and an English translation if the certificate is not in English. It is a condition of a permit that a vessel remains registered at all times during the validity period of the permit (see section 22).

49. Applicants are able to nominate a start date for the permit if they want a start date other than the date the permit is granted. This will allow applicants to choose a date that fits with the vessel’s schedule, for example if a vessel will not be commencing coastal shipping for 3 months, the permit can commence in 3 months time.

New section 14 – Application for coastal shipping permit may be varied or withdrawn

50. Section 14 provides that the applicant may, at any time before the Minister decides an application, notify the Minister in writing that they wish to vary or withdraw the application. If an application is withdrawn the application fee is not refundable. This allows applicants who make a mistake in their application to fix the mistake or to withdraw an application if their plans for their vessel change.

New section 15 – Deciding applications for coastal shipping permits

51. Section 15 provides that the Minister decides an application by granting it or refusing it. The Minister may have regard to the following when deciding an application:
   - Whether the application previously held a permit, or licence granted under the Act, that was cancelled;
   - Whether the applicant has been issued with an infringement notice under the Act, or relating to a civil penalty provision of this Act;
   - Whether the applicant has been ordered to pay a pecuniary penalty under this Act, or for contravening a civil penalty provision of this Act;
   - Whether the Minister is satisfied that the applicant has previously breached a condition of a coastal shipping permit, or other licence, under this Act;
   - Any other relevant matters.

52. If the applicant had previously held a coastal shipping permit (previous permit) that related to a foreign vessel, the Minister must have regard to the following when deciding an application:
whether the term declaration for the previous permit stated that the intention of the applicant was that the vessel would not be used to engage in coastal shipping on more than 183 days during the normal period of the permit but the vessel was in fact used on more than 183 days during that period; and

- the object of the Act.

53. The Minister must decide an application for a permit within 10 business days after the day the application is made or, if the application is varied under section 14, within 10 business days after the day the Minister receives the variation.

54. The Minister must not grant an application for a coastal shipping permit that relates to a foreign vessel if the Minister is satisfied that the applicant has not complied with the parity condition of a previous permit.

55. Section 15 is similar to existing section 15, with some changes made to reflect the permit conditions and the triggering of the provisions in the Regulatory Powers Act (see Item 39). The time the Minister has to decide an application for a permit is the same time the Minister currently has to determine a general licence application, due to the similar nature of the application processes.

**New section 16 – Period in force of coastal shipping permit**

56. Section 16 provides that if the Minister grants an application for a permit under subsection 15(1), the permit comes into force on whichever of the following is applicable:

- The day the application is granted; or
- If the application specified a day (as per subparagraph 13(2)(b)(ii)), on that specified day.

57. The permit remains in force for 12 months unless it is cancelled earlier. Applicants are able to nominate a start date for the permit if they want a start date other than the date the permit is granted. This will allow applicants to choose a date that fits with the vessel’s schedule, for example if a vessel will not be commencing coastal shipping for 3 months, the permit can commence in 3 months time.

**New section 17 – Information to be published on website**

58. For all granted permits, the Minister must cause the following information to be published on the Department’s website as soon as reasonably practicable after the grant:

- The permit number;
- The holder of the permit;
- The holder’s business name and business address;
- The vessel to which the permit relates, including its name and IMO number;
- The day the permit comes into force and the period for which the permit is in force;
- Any additional conditions imposed on the permit under section 23; and
- Any other information prescribed by the rules.

59. Information on permits will be published on the Department’s website, similar to the information that is currently published for general, temporary and emergency licences.
New section 18 – Only one coastal shipping permit per vessel

60. Section 18 provides that the Minister, in deciding whether or not to grant an application for a permit, must ensure that no more than one permit is in force in relation to a vessel at the same time.

61. Only one permit can be in force in relation to a vessel at any time to ensure it is clear who is responsible for the vessel whilst it is undertaking coastal shipping or docked for service. One permit per vessel will also ensure that there is no doubling up on reporting (see section 35).

New section 19 – Application for coastal shipping permit taken to be granted in certain circumstances

62. Section 19 provides that if the Minister has not decided an application for a permit by the end of the period within which the Minister is required to make a decision (subsection 15(5)), the Minister is taken to have:
   • Granted the application on the day after the end of that period; or
   • Refused the application if the grant would result in more than one permit being in force in relation to the vessel at the same time.

63. A permit taken to have been granted is taken to come into force on whichever of the following days is applicable:
   • The day the application is taken to have been granted; or
   • If the application specified a day (as per subparagraph 13(2)(b)(ii)), on that specified day.

64. The permit remains in force for 12 months unless it is cancelled earlier. The automatic grant of an application if the Minister has not decided the application within the timeframe set out in section 15 provides certainty to applicants that a decision will be made on their applications. An automatic refusal, if a grant would result in more than one permit being in force in relation to a vessel, is required to ensure that there will only be one permit in force in relation to a vessel.

New section 20 – Minister must give coastal shipping permit to applicant

65. Section 20 provides that if the Minister decides to grant an application for a permit, or is taken to have granted an application, the Minister must give the applicant the permit as soon as practicable.

66. The permit must specify the following:
   • The permit number;
   • The holder of the permit;
   • The holder’s business name and address;
   • The vessel to which the permit relates, including its name and IMO number;
   • The conditions to which the permit is subject to under section 22;
   • For a permit that relates to a vessel registered under the law of a foreign country - whether or not it is the intention of the applicant that the vessel be used to engage in coastal shipping on more than 183 days during the normal period of the permit. That is, the term declaration made by the permit holder;
• Any additional conditions imposed on the permit under section 23;
• The day the permit comes into force and the period for which the permit is in force;
• Any other matters prescribed by the rules.

67. As a copy of the permit is required to be displayed on the vessel to which it relates (see section 22), the information required to be included in the permit will assist to identify the holder of the permit, whether the permit is valid and the conditions the permit is subject to.

New section 21 – Refusal of application for coastal shipping permit

68. Section 21 provides that if the Minister decides to refuse an application for a permit they must, as soon as practicable, notify the applicant in writing of the decision and the reasons for the decision. This will inform an applicant of why their application was refused and allow them to determine whether they want to have the decision reviewed by the Administrative Appeals Tribunal (see section 107).

New section 22 – Conditions imposed on all coastal shipping permits

69. Section 22 provides that a permit is subject to the following conditions:
• The vessel to which the permit relates must continue to be registered (as per paragraph 13(1)(a));
• A copy of the permit must be displayed on the vessel in a conspicuous place accessible to all persons on board at all times when the vessel is being used to engage in coastal shipping;
• The holder of the permit must comply with the reporting requirements in sections 35 and 36;
• If section 38 applies to the vessel – the composition of the crew of the vessel must comply with that section (the Australian crew requirement);
• The holder of the permit must comply with any other condition prescribed by the rules.

70. A coastal shipping permit that relates to a foreign vessel is also automatically subject to the parity condition if the term declaration for the permit stated that it was intended that the vessel would not be used to engage in coastal shipping on more than 183 days during the normal period of the permit but the vessel was in fact used on more than 183 days during that period.

71. The automatic parity condition that is inserted under new section 22 ensures that seafarers are provided payment at least at Part B rates in respect of the first 183 days of the permit period.

72. That is, the parity condition requires that seafarer are paid an amount (the parity amount) equal to the difference (if any) between the notional award amount and the amount that the seafarer has already been paid in respect of that employment.

73. The parity amount must be paid before the end of the period prescribed by the rules. A failure to pay the parity amount by the time prescribed will prevent the permit holder from obtaining any future permits – see proposed subsection 15(4).
74. The majority of the permit conditions are the similar to the current conditions for general licences. The condition to display the permit when undertaking coastal shipping, or docked for service, allows people to quickly identified that the vessel is covered by a permit and, for foreign flagged vessels, eligible for the statutory presumption against importation under the *Customs Act 1901* (see section 12B).

*New section 23 – Additional conditions may be imposed by Minister*

75. Section 23 provides that the Minister may impose an additional condition on a permit, or vary or remove such a condition, at any time by notifying the holder of the permit in writing. A condition imposed under section 23 must not be inconsistent with a condition under section 22. If the Minister imposes, varies or removes an additional condition, they must give the permit holder an updated permit as soon as practicable.

76. The ability for the Minister to impose additional conditions currently exists for general and temporary licences and it will allow the Minister to impose an additional condition on an individual permit if required. The requirement for the Minister to give the permit holder an updated permit will ensure that the permit displayed (as per section 22) contains all the current conditions on it.

*New section 24 – Civil penalty – breaching condition of coastal shipping permit*

77. Section 24 provides that a person contravenes section 24 if they hold a permit and do an act, or omit to do an act, and that act or omission breaches, or results in a breach, of a permit condition imposed under either section 22 or 23 of the Act. The civil penalty for contravening section 24 is 50 penalty units for an individual and 250 penalty units for a body corporate.

78. Section 24 creates a civil penalty for a permit holder that breaches a condition of their permit. An infringement notice can be issued for contravening a civil penalty provision or an authorised applicant can apply to a relevant court for an order that the permit holder pay a monetary penalty to the Commonwealth (see sections 87 and 83).

*New section 25 – Application for transfer of coastal shipping permit*

79. Section 25 provides that the holder of a permit may apply to the Minister for the permit to be transferred to another person (the proposed transferee) if, at the time of the application (the relevant time) the proposed transferee has a legal or beneficial interest in the vessel (other than as a mortgagee) or has day-to-day responsibility for the management of the vessel.

80. An application for a transfer must be in writing and include the following:

- The applicant’s business name and business address;
- The proposed transferee’s business name and business address;
- The reporting information required by paragraphs 36(1)(a), (b), (c) and (d) for each voyage undertaken by the vessel during the period the applicant has held the permit;
- Whether the vessel has been docked for service during the period the applicant has held the permit and if so, the days on which the vessel was docked for service;
- Any other information prescribed by the rules.
81. The application must also be accompanied by the following:

- Evidence that at the relevant time the proposed transferee has a legal or beneficial interest in the vessel (other than as a mortgagee) or has day to day responsibility for the vessel;
- If the proposed transferee does not have a legal or beneficial interest in the vessel at the relevant time, evidence that they have the consent of a person who has a legal or beneficial interest in the vessel, for the application to be made;
- The application fee prescribed by the rules.

82. An application for a transfer of a permit must include the reporting information required by paragraphs 36(1)(a), (b), (c) and (d) to ensure that the reporting for the permit is up to date at the point of the transfer.

83. The ability to transfer a permit is required as only one permit can be granted in relation to a vessel. If the ownership, or the day-to-day management, of a vessel changes, the permit needs to be able to be transferred to the new owner or person with day-to-day responsibility for the management of the vessel. The requirements a proposed transferee must meet are the same as the requirements a permit applicant must meet for a grant of a permit.

New section 26 – Application for transfer of coastal shipping permit may be varied or withdrawn

84. Section 26 provides that the applicant may, at any time before the Minister decides an application for a transfer, notify the Minister in writing that they wish to vary or withdraw the application. If an application is withdrawn the application fee is not refundable. This allows applicants who make a mistake in their application to fix the mistake or to withdraw an application if their plans for their vessel change.

New section 27 – Deciding applications for transfer of coastal shipping permits

85. Section 27 provides that the Minister decides an application for the transfer of a permit by granting it or refusing it. The Minister may have regard to the following when deciding an application:

- Whether the proposed transferee previously held a permit, or licence granted under the Act, that was cancelled;
- Whether the proposed transferee has been issued with an infringement notice under the Act, or relating to a civil penalty provision of this Act;
- Whether the proposed transferee has been ordered to pay a pecuniary penalty under this Act, or for contravening a civil penalty provision of this Act;
- Whether the Minister is satisfied that the proposed transferee has previously breached a condition of a permit, or other licence granted under this Act;
- Any other relevant matters.

86. If the proposed transferee had previously held a coastal shipping permit (previous permit) that related to a foreign vessel, the Minister must have regard to the following when deciding an application for the transfer of a coastal shipping permit:

- Whether the term declaration for the previous permit held stated that the intention of the applicant was that the vessel would not be used to engage in coastal
shipping on more than 183 days during the normal period of the permit but the vessel was in fact used on more than 183 days during that period;
- The object of the Act.

87. The Minister must decide an application for a transfer of a permit within 2 business days after the day the application is made or, if the application is varied under section 26, within 2 business days after the day the Minister receives the variation.

88. The Minister must not grant an application for the transfer of a coastal shipping permit that relates to a foreign vessel if the Minister is satisfied that the proposed transferee has not complied with the parity condition of a previous permit.

89. Section 27 contains the same considerations the Minister may have regard to as section 15, with the proposed transferee replacing the applicant. The Minister has two business days to decide an application to ensure that transfers can occur promptly.

New section 28 – Application for transfer of coastal shipping permit taken to be granted in certain circumstances

90. Section 28 provides that if the Minister has not decided an application for a transfer of a permit by the end of the period within which the Minister is required to make a decision (section 27(5)), the Minister is taken to have granted the application immediately after the end of that period.

91. The automatic grant of an application for a transfer if the Minister has not decided the application within the timeframe set out in section 27 provides certainty to applicants that a decision will be made on their applications.

New section 29 – Minister must give updated coastal shipping permit to transferee

92. Section 29 provides that if the Minister decides to grant an application for the transfer of a permit, or is taken to have granted an application, they must give the transferee an updated permit as soon as practicable. This requirement will ensure that the permit displayed (as per section 22) contains up to date information on the permit holder.

New section 30 – Refusal of application for transfer of coastal shipping permit

93. Section 30 provides that if the Minister decides to refuse an application for a transfer of a permit they must, as soon as possible, notify the applicant in writing of the decision and the reasons for the decision. This will inform an applicant of why their application was refused and allow them to determine whether they want to have the decision reviewed by the Administrative Appeals Tribunal (see section 107).

New section 31 – Website to be updated after transfer of coastal shipping permit

94. Section 31 provides that if the Minister grants an application for the transfer of a permit they must cause the information on the permit that is published on the Department’s website to be updated. This will ensure that up to date information on the permit is publicly available.
New section 32 – Cancellation of coastal shipping permit: show cause notice

95. Section 32 provides that the Minister may give a written notice, a show cause notice, to the holder of a permit if the Minister reasonably believes that:
   - a condition of the permit has been breached; or
   - a condition of another permit, or of a licence previously granted under the Act, was breached when the permit holder held that other permit or licence.

96. A show cause notice provided under section 32 must state the grounds on which the notice is given and invite the holder of the current permit to give the Minister a written statement showing cause as to why the permit should not be cancelled. The holder of the permit must provide their written statement to the Minister within 10 business days from the day after the show cause notice was given.

97. The show cause notice process allows permit holders to put a case to the Minister as to why their permit should not be cancelled if it is alleged that they have breached a condition of their permit. Subsection 32(3) is included to assist readers of the Act as a show cause notice is not a legislative instrument within the meaning of section 5 of the Legislative Instruments Act 2003.

New section 33 – Cancellation of coastal shipping permit

98. Section 33 provides that the Minister may cancel a permit if:
   - A show cause notice has been given to the current permit holder under subsection 32(1); and
   - The Minister, after considering any written statement provided in accordance with the show cause notice, is satisfied that a condition of the current permit was breached or a condition of another permit, or licence previously granted under the Act, was breached at a time when the holder of the current permit held the other permit or licence.

99. The Minister must give written notice of the cancellation of the permit to the current permit holder. The notice must set out the day the cancellation takes effect, the reasons for the cancellation and that the holder of the permit will contravene subsection 33(3) if they do not return the permit to the Minister within 10 business days after the day the cancellation takes effect. The civil penalty for contravening subsection 33(3) is 50 penalty units for an individual and 250 penalty units for a body corporate.

100. The Minister is only able to cancel a permit if the show cause notice process has occurred, which provides procedural fairness to permit holders. The notice of cancellation must include the reasons for the cancellation of the permit to inform an applicant of why their permit was cancelled. This also allows the permit holder to determine whether they want to have the decision reviewed by the Administrative Appeals Tribunal (see section 107).

101. If the Minister does cancel a permit, the permit must be returned to the Minister. Failure to return a cancelled permit is a contravention of a civil penalty provision. An infringement notice can be issued for contravening a civil penalty provision or an authorised applicant can apply to a relevant court for an order that the permit holder pay a monetary penalty to the Commonwealth (see sections 87 and 83).
New section 34 – No surrender of coastal shipping permit

102. Section 34 provides that a permit cannot be surrendered. The ability to surrender a permit is not required as permits are only granted for 12 months and can be transferred if the ownership or management of a vessel changes.

New section 35 – Reporting requirements for coastal shipping permits

103. Section 35 provides that a person who holds a permit relating to a vessel during a reporting period must give the Minister a report containing the information specified in section 36 for the reporting period for the permit.

104. A reporting period for a permit is:
   - The period of 6 months beginning on the day the permit comes into force (the first reporting period); and
   - The period of 6 months immediately following the first reporting period (the second reporting period); and
   - Any period specified in a request for an interim report under subsection (3).

105. The Minister may, at any time before the end of the first or second reporting period, request the holder of a permit, or a person who held a permit at that time, to give an interim report covering the period specified in the request. It is intended that interim reports will be requested to check on compliance with permit conditions, including the Australian crew requirement (see section 38). If the Minister requests an interim report during the first or second reporting period, that reporting period is taken not to include the period or periods covered by the interim report. This will ensure that permit holders do not need to report on the same period of time in two separate reports.

106. Permit holders only need to cover the period or periods in a reporting period when they held a permit. For example, if a permit was transferred three months into a reporting permit, the person to whom the permit was transferred would only report on the second three months of the reporting period and the first three months would have been reported on when the transfer application was made (see section 25).

107. Section 22 provides that a condition of a permit is that the permit holder must comply with the reporting requirements in sections 35 and 36. Breach of a condition permit can result in a show cause notice being issued and cancellation of a permit (see sections 32 and 33).

New section 36 – Contents and timing of reports

108. Section 36 provides that reports given under section 35 for a reporting period must include the following information for each voyage undertaken during the reporting period by the vessel to which the permit relates:
   - If passengers were carried:
     - The number of passengers carried; and
     - The port at which the passengers embarked; and
     - The date the embarkation began; and
     - The port at which the passengers disembarked; and
     - The date that disembarkation finished;
• If cargo was carried:
  ➢ The kinds and volumes of cargo carried; and
  ➢ The port at which the cargo was taken on board; and
  ➢ The date that loading began; and
  ➢ The port at which the cargo was unloaded; and
  ➢ The date that unloading finished;

• If liquid fuel products were carried:
  ➢ The types and volumes of each type of the liquid fuel product carried; and
  ➢ The port or offshore facility at which the liquid fuel product was taken on board; and
  ➢ The date that loading began; and
  ➢ The port at which the liquid fuel product was unloaded; and
  ➢ The date that unloading finished;

• Any other information prescribed by the rules.

109. The report must also state the total number of days during the reporting period on which the vessel was used to engage in coastal shipping and whether the vessel was docked for service during the reporting period, and if so, the days the vessel was docked for service. The information required in the reports is similar to the information currently required for Temporary Licence voyage reports, but the administrative burden of providing reports is reduced as reporting is only done twice per year, instead of having to report after every voyage.

110. The report must be given to the Minister no later than 15 business days after the end of the first or second reporting period, or for interim reports, no later than 10 business days after the date the interim report was requested.

111. A permit holder contravenes subsection 36(4) if they hold a permit at any time during a reporting period and fail to give the Minister the report required by subsection 35(1) within the timeframes required by subsection 36(3). The civil penalty for contravening subsection 36(4) is 50 penalty units for an individual and 250 penalty units for a body corporate. An infringement notice can be issued for contravening a civil penalty provision or an authorised applicant can apply to a relevant court for an order that the permit holder pay a monetary penalty to the Commonwealth (see sections 87 and 83).

112. Section 22 provides that a condition of a permit is that the permit holder must comply with the reporting requirements in sections 35 and 36. Breach of a condition permit can result in a show cause notice being issued and cancellation of a permit (see sections 32 and 33).

New section 37 – Summary of reports to be published on website

113. Section 37 provides that the Minister must cause a summary of the information contained in the reports given to the Minister under section 35 during a financial year to be published on the Department’s website after the end of each financial year. This is drafted in the same terms as the current requirement for General Licence reports and provides the public with information on the volumes and types of cargo, or number of passengers, moved by coastal shipping.
New section 38 – Australian crew requirement for certain foreign vessels

114. Section 38 provides that the Australian crew requirement applies to a vessel if:
   • The vessel is registered under the law of a foreign country; and
   • A permit relating to the vessel is in force; and
   • Either the term declaration for the permit stated that the intention of the applicant was that the vessel would be used to engage in coastal shipping on more than 183 days during the normal period of the permit, or, during the period for which the permit is in force, the total number of days on which the vessel engages in coastal shipping is more than 183.

115. The Australian crew requirement specifies that two of the following positions must be held by an Australian citizen, Australian resident, or a person who holds a visa prescribed by the rules that allows the person to work in that position:
   • Either the master or chief mate; and
   • Either the chief engineer or first engineer.

116. The Australian crew requirement will ensure that foreign vessels who predominantly engage in coastal shipping have senior Australian crew on board for the entire permit period. The Australian crew requirement is a minimum requirement and it does not stop foreign vessels from having more Australian crew on board or having Australian crew if the vessel will spend less than 183 days undertaking coastal shipping (including days spent docked for service).

117. A person contravenes subsection 38(3) if section 38 applies to the vessel at a particular time and the person is the holder of the permit relating to the vessel at that time and the Australian crew requirement is not complied with. The civil penalty for contravening subsection 38(4) is 50 penalty units for an individual and 250 penalty units for a body corporate. An infringement notice can be issued for contravening a civil penalty provision or an authorised applicant can apply to a relevant court for an order that the permit holder pay a monetary penalty to the Commonwealth (see sections 87 and 83).

New section 39 – Requests for further information - applications

119. Section 39 provides that the Minister may ask an applicant to provide further information if the Minister needs further information to decide an application made under section 13 or 25. The Minister, as soon as practicable after receiving the information, must notify the applicant in writing whether the information provided satisfies the request. A day is not to be counted as a business day under section 15 or 27 if it is on, or after, the day the Minister asks for further information and on, or before, the day the Minister notifies the applicant that the further information satisfies the request.

120. Section 39 is the same as existing section 76 of the Act and it allows the Minister to seek further information to help in deciding an application for a permit or application to transfer a permit. If the Minister does request further information, the time from the request to the notification that the further information meets the request, is not counted as
business days for the purposes of the decision times in sections 15 and 27 (the clock for the decision is stopped).

New section 40 – Basis on which coastal shipping permits granted

121. Section 40 provides that a permit granted under this Act is granted on the basis that:
   - Conditions may be imposed on the permit, and varied or removed under section 23; and
   - The permit may be cancelled under section 33; and
   - The permit may be cancelled, revoked, terminated or varied by or under later legislation; and
   - No compensation is payable if conditions are imposed on the permit, or varied or removed, or if the permit is cancelled, revoked, terminated or varied.

122. Section 40 is drafted in the same terms as the existing section 78 in the Act and sets out what can happen to a permit and that no compensation is payable if changes are made to a permit, including cancellation, revocation, termination or variation of a permit.

Item 31 – Section 107

123. Item 31 repeals existing section 107 and substitutes a new section 107, which provides that applications may be made to the Administrative Appeals Tribunal for review of the following decisions:
   - A decision under section 12 refusing to make a declaration in relation to a vessel;
   - A decision under section 15 to refuse to grant an application for a permit;
   - A decision under section 27 to refuse to grant an application for the transfer of a permit;
   - A decision under section 33 by the Minister to cancel a coastal shipping permit.

124. Permit applicants and holders are able to seek a review of all decisions the Minister can make that can adversely affect them.

Item 32 – Subsection 111(1)

125. Item 32 omits “section 11” in subsection 111(1) and substitutes “section 112A”. This amendment is required as a result of section 11 of the Act being repealed (see Item 28) and the inclusion of a power for the Minister to make rules under the Act, which is a power that generally should not be able to be delegated (see Item 33).

Item 33 – Before section 113

126. Item 33 inserts new section 112A. Section 112A provides that the Minister may make rules prescribing matters required or permitted by this Act to be prescribed by rules or matters necessary or convenient to be prescribed for carrying out of giving effect to this Act. The rules are made by legislative instrument, which means the rules are subject to parliamentary scrutiny.

127. For the avoidance of doubt, the rules are not allowed to:
   - Create an offence or civil penalty provision;
   - Provide powers of arrest or detention, or entry, search or seizure;
   - Impose a tax;
• Set an amount to be appropriated from the Consolidated Revenue Fund under an appropriation in this Act;
• Amend this Act.

128. Rules that are inconsistent with the regulations have no effect to the extent of the inconsistency. However, rules are taken to be consistent with the regulations to the extent that the rules are capable of operating concurrently with the regulations.

Part 2 – Amendments relating to civil penalties etc.

Coastal Trading (Revitalising Australian Shipping) Act 2012

Item 34 – Subsection 6(1) (definition of civil penalty order)

129. Item 34 repeals the definition of civil penalty order in subsection 6(1). This definition is no longer required due to the triggering of the provisions in the Regulatory Powers (Standard Provisions) Act 2014 (Regulatory Powers Act) (see Item 39).

Item 35 – Subsection 6(1) (definition of civil penalty provision)

130. Item 35 repeals the definition of civil penalty provision in subsection 6(1) and substitutes a new definition. A civil penalty provision is defined as having the same meaning as in the Regulatory Powers Act. This new definition is required as the Act will be triggering the provisions in the Regulatory Powers Act (see Item 39).

Item 36 – Subsection 6(1) (definition of evidential burden)

131. Item 36 repeals the definition of evidential burden in subsection 6(1). This definition is no longer required as evidential burden is no longer referred to in the Act.

Item 37 – Subsection 6(1)

132. Item 37 inserts a definition of Regulatory Powers Act into subsection 6(1). Regulatory Powers Act is defined as meaning the Regulatory Powers (Standard Provisions) Act 2014. This new definition is required as the Act will be triggering provisions in the Regulatory Powers Act (see Item 39).

Item 38 – Before Division 1 of Part 4

133. Item 38 inserts new Division 1A into Part 4. New Division 1A contains two sections – new section 12A and new section 12B.

134. Section 12A provides that a person contravenes that section if they have a legal or beneficial interest in a vessel (other than as a mortgagee), or have day-to-day responsibility for the management of a vessel, and the vessel is used to engage in coastal shipping when a permit is not in force in relation to the vessel. The civil penalty for contravening section 12A is 300 penalty units for an individual and 1500 penalty units for a body corporate.

135. This section is similar to current section 83 in the Act, with changes to reflect the change in terminology and eligibility to apply for a permit. The civil penalty is large to
deter people from using a vessel to engage in coastal shipping without a permit in place. An infringement notice can be issued for contravening a civil penalty provision or an authorised applicant can apply to a relevant court for an order that the permit holder pay a monetary penalty to the Commonwealth (see sections 87 and 83).

136. Section 12B provides that a vessel is not imported into Australia for the purposes of the Customs Act 1901 if a permit is in force in relation to that vessel. This section replaces existing section 112 (see Item 40) and provides a statutory presumption against importation for vessels registered in a foreign country. Importation has a number of consequences, which would impact on a foreign registered vessel’s ability to engage in coastal shipping.

Item 39 – Divisions 2, 3 and 4 of Part 5

137. Item 39 repeals Divisions 2, 3 and 4 of Part 5 and substitutes new Divisions 2 and 3 into Part 5. New Division 2 contains civil penalty provisions and new Division 3 contains infringement notice provisions.

New Section 83 – Enforceable civil penalty provisions

138. Section 83 provides that each civil penalty provision in the Act is enforceable under Part 4 of the Regulatory Powers Act. Part 4 of the Regulatory Powers Act allows for a civil penalty provision to be enforced by obtaining an order for a person to pay a pecuniary penalty for contravention of the provision.

139. The civil penalty provisions in the Regulatory Powers Act are being triggered as they provide standard regulatory powers and these standard powers are being progressively rolled out across Commonwealth legislation. The triggering of the civil penalty provisions in the Regulatory Powers Act will not expand the powers that currently exist in the Act.

New section 84 – Authorised applicant

140. Section 84 provides that the Secretary is an authorised applicant in relation to the civil penalty provisions of the Act for the purposes of Part 4 of the Regulatory Powers Act. This means the Secretary can apply to a relevant court (see section 85) for an order that a person alleged to have contravened a civil penalty provision pay the Commonwealth a monetary penalty (see section 12 of the Regulatory Powers Act).

New section 85 – Relevant court

141. Section 85 provides that the Federal Court and the Federal Circuit Court are relevant courts in relation to the civil penalty provisions of the Act for the purposes of Part 4 of the Regulatory Powers Act. This means that the Federal Court, or Federal Circuit Court, can hear applications for a person to pay to a monetary penalty for an alleged contravention of a civil penalty provision in the Act. If the Federal Court, or the Federal Circuit Court, is satisfied that a contravention has occurred, they can determine the amount the person is to pay (see section 82 of the Regulatory Powers Act).
New section 86 – Extension to external Territories

142. Section 86 provides that the application of Part 4 of the Regulatory Powers Act, in relation to the civil penalty provisions in the Act, extends to every external Territory. The Act extends to every external territory and therefore the application of Part 4 needs to extend to every external Territory.

New section 87 – Provisions subject to an infringement notice

143. Section 87 provides that the civil penalty provisions in the Act are subject to an infringement notice under Part 5 of the Regulatory Powers Act. Part 5 of the Regulatory Powers Act creates a framework for using infringement notices in relation to provisions, including civil penalty provisions.

144. The infringement notice provisions in the Regulatory Powers Act are being triggered as they provide standard regulatory powers and these standard powers are being progressively rolled out across Commonwealth legislation. The triggering of the infringement notice provisions in the Regulatory Powers Act will not expand the powers that currently exist in the Act.

New section 88 – Infringement officer

145. Section 88 provides that an authorised person is an infringement officer in relation to the provisions mentioned in section 87 for the purposes of Part 5 of the Regulatory Powers Act. An authorised person is appointed by the Secretary under section 108 of the Act. An authorised person, as an infringement officer, may give a person an infringement notice if they believe on reasonable grounds that a person has contravened a civil penalty provision (see section 103 of the Regulatory Powers Act).

New section 89 – Relevant chief executive

146. Section 89 provides that the Secretary is the relevant chief executive in relation to the provisions mentioned in section 87 for the purposes of Part 5 of the Regulatory Powers Act. The relevant chief executive can extend the period for payment of an infringement notice and withdraw an infringement notice (see sections 105 and 106 of the Regulatory Powers Act).

New section 90 – Delegation by relevant chief executive

147. Section 90 provides that the relevant chief executive, in this case the Secretary, may delegate the following powers and functions:

- Extending the period referred to in paragraph 104(1)(h) of the Regulatory Powers Act (the period of time in which an infringement notice must be paid); and

148. The powers and functions may be delegated to an SES employee, or acting SES employee, in the Department. A person exercising powers or performing functions under a delegation must comply with any directions of the relevant chief executive (the Secretary).
New section 91 – Extension to external Territories

149. Section 91 provides that Part 5 of the Regulatory Powers Act, as it applies in relation to the provisions mentioned in section 87 (the civil penalty provisions in the Act), extends to every external Territory. The Act extends to every external territory and therefore the application of Part 5 of the Regulatory Powers Act needs to extend to every external Territory.

New section 92 – Amount payable under an infringement notice

150. Section 92 provides that the amount to be stated in an infringement notice for the purposes of paragraph 104(1)(f) of the Regulatory Powers Act for an alleged contravention of a civil penalty provision of this Act must be equal to one-fifth of the maximum penalty that a court could impose for that contravention, despite subsection 104(2) of the Regulatory Powers Act.

151. Subsection 104(2) of the Regulatory Powers Act provides that, unless another Act expressly provides otherwise, the amount to be stated in an infringement notice must be the lesser of one-fifth of the maximum penalty that a court could impose or 12 penalty units for an individual or 60 penalty units for a body corporate. The only civil penalty provision in the Act that has a penalty higher than 12 penalty units for an individual and 60 penalty units for a body corporate is engaging in coastal shipping without a permit (see section 12A). A higher penalty is justified in that case to deter vessels from engaging in coastal shipping without a permit.

New Section 93 – Actions for breach of condition relating to payment to seafarers

152. Section 93 provides that the Federal Court or Federal Circuit Court may order a person to pay a seafarer an amount that the person is required to pay to the seafarer, or is required to ensure that the seafarer is paid, as a parity condition of a coastal shipping permit under paragraph 22(3) if the person has not already paid the amount or ensured that the seafarer has been paid the amount. Such an amount is the difference, if any, between the notional award amount that the seafarer should have been paid and the amount that the seafarer has already been paid.

153. Such orders can be made on application by the seafarer or a person prescribed by the rules, with any such person being required to have gained the seafarer’s consent in writing before the application is made.

154. The order must specify the amount payable and the amount may be recovered as a debt due to the seafarer.

Part 3 – Amendments relating to seafarers

Item 40 – Section 112

155. Item 40 repeals section 112. Section 112 provided a statutory presumption against importation under the Customs Act 1901 for vessels operating under a Temporary or Emergency Licence. New section 12B provides the same statutory presumption (see Item 38), which means that section 112 can be repealed.
Coastal Trading (Revitalising Australian Shipping) Act 2012

Item 41 – After Part 4

156. Item 41 inserts new Part 4A. Part 4A provides that the Seagoing Industry Award 2010 (Award) covers employers and employees in the seagoing industry. Parts A and B of the Award set out minimum terms and conditions of employment. Part B is currently expressed to apply to a licence type that will no longer be available as a result of these amendments.

157. Section 41 provides that Part B of the Award will apply, in relation to seafarers employed on board a foreign vessel at a particular time if, at that time:
- the vessel is registered under the law of a foreign country;
- the Fair Work Act applies to the vessel; and
- a coastal shipping permit is in force in relation to the vessel.

158. The effect of Part B of the Award applying to the relevant vessels is that the provisions of Part A of the Award will not apply to seafarers on those vessels at that time.

159. Section 41 also allows for regulations to be made to remove ambiguity or uncertainty, or correct an error, omission or technical deficiency in the Award, that arises as a result of the operation of this section. A regulation could be made to, for example, remove ambiguity by the continued reference in the Award to a defunct licence category, or if the name of the Award or the title of Part B changes.

160. The compliance and enforcement provisions in the Fair Work Act continue to apply in relation to the Award.

Shipping Registration Act 1981

Item 42 – Subsection 3(1)

161. Item 42 inserts a definition of Seagoing Industry Award 2010 into subsection 3(1). Seagoing Industry Award 2010 is defined to mean the award of that name made by the Fair Work Commission, as in force from time to time.

Item 43 – After Division 2 of Part VA

162. Item 43 inserts new Division 2A. New Division 2A provides that the Seagoing Industry Award 2010 (Award) covers employers and employees in the seagoing industry. Parts A and B of the Award set out minimum terms and conditions of employment.

163. Section 61AKA provides that Part B of the Award will apply, in relation to seafarers employed on board a ship at a particular time if, at that time:
- the ship is registered on the Australian International Shipping Register; and
- the Fair Work Act applies to the ship.

164. The effect of Part B of the Award applying to the relevant vessels is that the provisions of Part A of the Award will not apply to seafarers on those vessels at that time.

165. Section 61AKA allows for regulations to be made to remove ambiguity or uncertainty, or correct an error, omission or technical deficiency in the Award, that arises as a result of the operation of this section. A regulation could be made to, for example remove
ambiguity by the continued reference in the Award to a defunct licence category, or if the name of the Award or the title of Part B changes.

166. The compliance and enforcement provisions in the Fair Work Act continue to apply in relation to the Award.

Part 3 – Transitional provisions

Item 44 – Definitions

167. Item 44 contains definitions of transition period and old law. Transition period is defined as the period beginning at the commencement of Part 1 of Schedule 1 and ending immediately before the commencement of Part 2 of Schedule 1. Old law is defined as the Coastal Trading (Revitalising Australian Shipping) Act 2012 and the Coastal Trading (Revitalising Australian Shipping) (Consequential Amendments and Transitional Provisions) Act 2012 as in force immediately before the commencement of Part 1 of Schedule 1.

Item 45 – Continued operation of old law subject to modifications

168. Item 45 provides that despite the repeals and amendments of the old law made by this Schedule, Part 4 of the Coastal Trading (Revitalising Australian Shipping) Act 2012 (the licensing provisions) and any other provisions of the old law necessary for the effectual operation of the Part (including, but not limited to, section 3) continue in operation during the transition period (as defined in Item 44), subject to the modifications set out below, as if those repeals and amendments had not happened.

169. The modifications are:

- A licence that was in force immediately before the commencement of the transition period continues in force during the transition period – meaning coastal trading continues to take place under existing licences;
- A licence that is continued in force, or is granted during the transition period, is taken to remain in force until the end of the transition period (or until cancellation if it is cancelled) – meaning all licences will continue until the end of the transition period, even if they are due to cease prior to the end of the transition period;
- Part 4 of the Coastal Trading (Revitalising Australian Shipping) Act 2012, as in force immediately before the commencement Part 1 of Schedule 1, has effect as if:
  - All the words after “period” in section 28 were omitted – meaning any person may apply to the Minister for a Temporary Licence during the transition period;
  - Sections 30 to 33, paragraph 34(2)(d) and subsections 34(3) and (5) and 37(3) were repealed – meaning General Licence holders and third parties will not receive notification of Temporary Licence applications and General Licence holders will not be able to submit a notice in response for Temporary Licence applications or comments in response to an authorised matters application;
  - All the words from and including “variation” to and including “undertaken” in subsection 43(1) were omitted and the words “variation of all or any
matters authorised by a temporary licence” were substituted – meaning all or any matters can be changed in an authorised matters application;

- Section 45 were repealed – meaning General Licence holders and third parties will not be notified of authorised matters variation applications and will not be able to provide the Minister with comments on the applications;
- Subsection 46(3) were repealed – this is no longer required due to the repeal of section 45;
- The reference in section 53 to sections 30 to 34 were a reference to section 34 – meaning that General Licence holders and third parties will not receive notification of new matters variation applications and General Licence holders will not be able to submit a notice in response for new matters variations applications;
- Subsection 54(2), paragraph 77(1)(b) and subsection (2) were omitted – these subsections and paragraph are no longer required due to the repeal of sections 30 to 33 and alteration of section 53.

170. Despite the repeals and amendments of the old law being made, sections 27, 62 and 75 continue in force after the end of the transition period for licences granted before the end of the transition period. This means that licence holders must provide reports as per section 27 (General Licences), section 62 (Temporary Licences) or section 75 (Emergency Licences) for voyages even after the transition period ends. This will ensure that licence holders provide all reports that they are obliged to for voyages undertaken under a licence.

171. Sub-item 45(4) makes clear that provisions in the Acts mentioned in Schedule 3, that are repealed or amended at the end of the transition period, operate by reference to the provisions repealed or amended at the start of the transition period, but continued in operation by this item.

**Item 102 – Permits granted during transition period do not come into force until after that period ends**

172. Item 46 states that if the Minister grants a permit under section 15 of the *Coastal Shipping Act 2015*, or is taken to have granted a permit under section 19 of the *Coastal Shipping Act 2015*, during the transition period then the permit is taken to come into force on the day after the end of the transition period. This ensures that permits cannot commence until the transition between the licence and permit systems is completed.

**SCHEDULE 2 – Shipping registration**

*Shipping Registration Act 1981*

**Item 1 – Subsection 3(1) (definition of Australian resident)**

173. Item 1 repeals the definition of *Australian resident* and substitutes a new definition. An Australian resident is a person who is a resident of Australia for the purposes of the *Income Tax Assessment Act 1936*. 
Item 2 – Subsection 3(1) (definition of foreign resident)

174. Item 2 omits “a resident of Australia.” from the definition of a foreign resident and replaces this with the words “an Australian resident.”. This is in order to ensure that the definition remains consistent with the amendment in Item 2.

Item 3 – Subsection 3(1) (definition of resident of Australia or Australian resident)

175. Item 3 repeals the definition of resident of Australia or Australian resident. This is because the definition of Australian resident has already been provided (see Item 1).

Item 4 – Subsection 11A(1)(note)

176. The note has been repealed as it is no longer a requirement of registration on the International Register that a collective agreement is reached between the owner of a ship and the seafarers’ bargaining unit.

Item 5 – Paragraph 15C(b)

177. Item 5 omits “;” and substitutes “.” This amendment is necessary as paragraph 15C(c) is repealed (see Item 6).

Item 6 – Paragraph 15C(c)

178. Item 6 repeals the requirement for an application for registration in the International Register to be accompanied by evidence that a collective bargaining agreement has been made under section 11A of the Shipping Registration Act 1981. This ability to make a collective bargaining agreement under section 11A, while no longer mandatory for registration, will remain.

Item 7 – Subsection 15F(3)

179. Item 7 repeals existing subsection 15F(3) and substitutes new subsections 15F(3), (3A) and (3B).

180. The Registrar must refuse to register a ship in the International Register if the Registrar is satisfied that the ship will not be used to engage in at least 90 days of international trade in the following financial year (if on the day the application is made, there are fewer than 90 days in the financial year in which the day occurred) or if the Registrar is satisfied that the ship will be not be used to engage in international trade on at least the relevant number of days for that financial year (if on the day the application was made, there were 3 months or more remaining in the financial year in which the day occurred).

181. The relevant number of days for a financial year (for the purposes of paragraph 15F(3)(b)) is worked out by multiplying the number of whole months remaining in that financial year by 7.5. This is so that a vessel joining the International Register part way through a financial year is not obligated to undertake the 90 days of trading in a part year. Seven and a half days per month has been selected as 90 divided by twelve is seven and a half. For the purposes of calculating the number of days a ship will be used to engage in
international trade, a day on which a passenger is to be embarked or disembarked, or
cargo is to be loaded or unloaded, is included even if the ship is not underway on that day.

**Item 8 – Paragraph 33A(1)(a)**

182. Item 8 inserts the words ‘‘, or a person who holds a visa that allows the person to work in Australia as a master or chief mate (as the case requires),’’ after the words ‘‘Australian resident’’. This is in order to expand the scope of those who hold senior crew positions on International Register ships to include people who have Australian work rights without necessarily being Australian residents or nationals.

**Item 9 – Paragraph 33A(1)(b)**

183. Item 9 inserts ‘‘, or a person who holds a visa that allows the person to work in Australia as a chief engineer or first engineer (as the case requires),’’ after the words ‘‘Australian resident’’. This amendment expands the scope of those who hold senior crew positions on International Register ships to include people who have Australian work rights without necessarily being Australian residents or nationals, consistent with the Australian crew requirement in the Coastal Shipping Act.

**Item 10 – Subsection 33A(2)**

184. Item 10 inserts ‘‘, or a person who holds a visa that allows the person to work in Australia as a master or chief engineer (as the case requires),’’ after the word ‘‘resident’’. This amendment aligns the subsection 33A(2) with the amended definition in subsection 33A(1) (see Item 9).

**Item 11 – Paragraphs 33B(1)(c) and (d)**

185. Item 11 repeals existing paragraphs 33B(1)(c) and (d) and substitutes new paragraphs 33B(1)(c) and (d). The Registrar may cancel the registration of a ship in the International Register if they are satisfied that the ship will not, in the financial year the cancellation will take effect, be used to engage in international trade for at least 90 days, or if a relevant number of days applies, at least the relevant number of days. The Registrar may also cancel the registration of a ship in the International Register if they are satisfied that the ship was not, in a financial year preceding the financial year in which the cancellation will take effect, used to engage in international trade for at least 90 days, or if a relevant number of days applies, at least the relevant number of days.

186. This is consistent the international trading requirements required for initial registration in the International Register as set out at section 15F (see item 7).

**Item 12 – After 33B(1)**

187. Item 12 inserts a new provision that provides that a relevant number of days requirement, for the purposes of paragraphs 33B(1)(c) and (d) applies to a ship for a financial year if an application for registration of the ship was made in that financial year and when the application was made, there were 3 months or more remaining in the financial year. This amendment ensures that if a ship joins the International Register part way through a financial year and will not reach the relevant number of days of
international trading, or did not reach the relevant number of days of international trading in an previous financial year, then the Registrar may cancel the registration of the ship.

SCHEDULE 3 – Consequential amendments

Australian Maritime Safety Act 1990

Item 1 – Paragraph 11(2)(e)

188. Item 1 omits “trading” and substitutes “shipping” as the term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24 of Schedule 1).

Coastal Trading (Revitalising Australian Shipping) (Consequential Amendments and Transitional Provisions) Act 2012

Item 2 – The whole of the Act

189. Item 2 repeals the whole of the Act as it will be no longer required.

Occupational Health and Safety (Maritime Industry) Act 1993

Item 3 – Section 4

190. Item 3 inserts definitions of coastal shipping and coastal shipping permit into Section 4. This new definition is required as the term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24 of Schedule 1). Coastal shipping permit is defined as a coastal shipping permit granted under Part 4 of the Act. This new definition is required as the coastal shipping permit is replacing the existing three tiered licensing system in the Act (see Item 30 of Schedule 1).

Item 4 – Section 4

191. Item 4 repeals the definitions of coastal trading, emergency licence and general licence in Section 4. The definition of coastal trading is no longer required as the term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24 of Schedule 1). The definition of emergency licence and general licence is no longer required as the existing three tiered licensing system is being replaced with a single permit system (see Item 30 of Schedule 1).

Item 5 – Section 4 (subparagraph (a)(i) of the definition of prescribed ship)

192. Item 5 inserts “assuming paragraph 10(b) of that Act were omitted” after “repealed” in Section 4. This is required as the licence system referred to in the repealed Navigation Act 1912 is being replaced with a single permit system.

Item 6 – Section 4 (definition of temporary licence)

193. Item 6 repeals the definition of temporary licence as a result of the removal of the three tiered licensing system and the introduction of a single permit system for coastal shipping.
Item 7 – Subsection 6(3A)

194. Item 7 repeals subsection 6(3A) and substitutes it with “This Act also applies to a prescribed ship that is used to engage in coastal shipping under a coastal shipping permit” as a result of the removal of the three-tiered licensing system and the introduction of coastal shipping permits.

Seafarers Rehabilitation and Compensation Act 1992

Item 8 – Section 3

195. Item 8 inserts “coastal shipping has the same meaning as in the Coastal Shipping Act 2015” and “coastal shipping permit has the same meaning as in the Coastal Shipping Act 2015” into Section 3. The definition of coastal shipping is required as the term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24 of Schedule 1). The definition of coastal shipping permit is required as the coastal shipping permit is replacing the existing three-tiered licensing system in the Act (see Item 30 of Schedule 1).

Item 9 – Section 3

196. Item 9 repeals the definitions of coastal trading, emergency licence and general licence in Section 4. The definition of coastal trading is no longer required as the term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24 of Schedule 1). The definition of emergency licence and general licence is no longer required as the existing three-tiered licensing system is being replaced with a single permit system (see Item 30 of Schedule 1).

Item 10 – Section 3 (subparagraph (a)(i) of the definition of prescribed ship)

197. Item 10 inserts “assuming paragraph 10(b) of that Act were omitted” after “repealed” in Section 4. This is required as the licence system referred to in the repealed Navigation Act 1912 is being replaced with a single permit system.

Item 11 – Subsection 19(1AA)

198. Item 11 repeals the subsection and substitutes it with “This Act also applies to the employment of employees on a prescribed ship that is used to engage in coastal shipping under a coastal shipping permit”. This amendment is required as a result of the removal of licences and introduction of coastal shipping permits.

Shipping Registration Act 1981

Item 12 – Subsection 3(1)

199. Item 12 inserts coastal shipping has the same meaning as in the Coastal Shipping Act 2015 as the term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24 of Schedule 1).
Item 13 – Subsection 3(1) (definition of coastal trading)

200. Item 13 repeals the definition of coastal trading as the term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24 of Schedule 1).

Item 14 – Subsection 3(1) (definition of predominantly used to engage in international trading)

201. Item 14 repeals the definition of predominantly used to engage in international trading as being predominantly engaged in international trading is no longer a condition of being registered on the International Register.

Item 15 – Paragraph 61AB(2)(a)

202. Item 15 omits “coastal trading” and substitutes with “coastal shipping” as the term “coastal trading” is being replaced with “coastal shipping” in the Act (see Item 24 of Schedule 1).
This Regulation Impact Statement has been prepared in accordance with the Australian Government Guide to Regulation handbook (2014) by the Department of Infrastructure and Regional Development with input from the Department of Employment. It is intended to assist with the assessment of proposed options to reform coastal shipping regulation in Australia through reducing regulatory burden and red tape, with a view to promoting a viable, vibrant domestic maritime sector which contributes to the broader Australian economy.
Coastal shipping is the movement of goods by sea on entirely domestic journeys. It has generally been utilised in Australia for the movement of containers and bulk goods where road and rail transport is unavailable or unviable but also includes the movements of passengers on entirely domestic voyages.

The Australian Government regulated coastal shipping for more than 100 years through various iterations of the Navigation Act 1912 and, more recently, through the Coastal Trading (Revitalising Australian Shipping) Act 2012 (the Coastal Trading Act).

The primary interest of regulating coastal shipping has been to allow the participation in the domestic economy by ships not registered in Australia where there is a shortfall of Australian tonnage available to meet the demand of shippers. Over time, restrictions to foreign ships operating in the domestic economy have generally eased (with the notable exception of the Coastal Trading (Revitalisation of Australian Shipping) Act 2012) as the demand for services has outgrown the supply of Australian ships.

A long term goal of successive Australian Governments has been to foster an efficient and internationally competitive Australian maritime industry to provide domestic and international transport services. The options set out in this Regulation Impact Statement all seek to deliver this outcome.
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<th>Definitions</th>
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<tr>
<td>Australian General Register</td>
<td>Sometimes referred to as the ‘first register’ the Australian General Register is where Australian ships seeking to engage in both domestic and international trade are registered. The General Register is established through the <em>Shipping Registration Act 1981</em>. This Act of Parliament is the responsibility of the Minister for Infrastructure and Regional Development.</td>
</tr>
<tr>
<td>Australian International Shipping Register</td>
<td>Sometimes referred to as the ‘second register’ the Australian International Shipping Register is where Australian ships seeking to primarily operate overseas may elect to register. This register was introduced as a part of the 2012 reform package. The AISR offers reduced regulatory burden and allows the use of foreign labour in some circumstances but requires the ship to spend at least 51% of its time engaging in international voyages. The AISR is established through the <em>Shipping Registration Act 1981</em>. This Act of Parliament is the responsibility of the Minister for Infrastructure and Regional Development.</td>
</tr>
<tr>
<td>Australian ship</td>
<td>An Australian ship is a ship registered either on the Australian General Register or on the Australian International Shipping Register. Ship nationality is established in Australia through the <em>Shipping Registration Act 1981</em>.</td>
</tr>
<tr>
<td>Coastal Shipping</td>
<td>The carriage of domestic passengers or cargoes on purely domestic voyages.</td>
</tr>
<tr>
<td>Deadweight tonnage</td>
<td>A measure of the total carrying capacity of a ship in tonnes. It is calculated as the difference between the ship’s lightship (unloaded) and its loaded displacement. As such, it includes the weight of crew, passengers, fuel, water, and stores as well as cargo. Often abbreviated to “DWT”.</td>
</tr>
<tr>
<td>Demurrage</td>
<td>A cost payable to a chartered ship owner on failure to load or discharge the ship within the time agreed. Based on stakeholder feedback, demurrage is conservatively estimated to cost $12,000 per day on average.</td>
</tr>
<tr>
<td>Domestic Voyage</td>
<td>A voyage carrying goods or passengers between two ports in Australian territory. A domestic voyage does not include a voyage not carrying cargo or passengers.</td>
</tr>
<tr>
<td>Exclusive Economic Zone</td>
<td>Consistent with Article 57 of the United National Convention on the Law of the Sea the exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Foreign ship</td>
<td>A ship registered under the laws of a country other than Australia.</td>
</tr>
<tr>
<td>Landside businesses</td>
<td>Maritime related businesses located on land.</td>
</tr>
<tr>
<td>Major trading fleet</td>
<td>Ships in the Australian trading fleet that have deadweight tonnage greater than or equal to 2,000 tonnes (see deadweight tonnage).</td>
</tr>
<tr>
<td>Maritime Crew Visas</td>
<td>The Maritime Crew visa (subclass 988) is a temporary visa for crew who are employed on non-military ships on international voyages to Australia.</td>
</tr>
<tr>
<td>Roadstead</td>
<td>An area affording less protection than a harbour where ships can load, unload and anchor safety.</td>
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<tr>
<td>Seagoing Industry Award 2010</td>
<td>The modern award covering the seagoing industry which provides for minimum pay rates and employment conditions.</td>
</tr>
</tbody>
</table>
| Temporary Business Long Stay visas (subclass 457) | Temporary Work (Skilled) visas (subclass 457) allow skilled workers to come to Australia and work for an approved business for up to four years. Skilled workers must be sponsored by an approved business.  
A business can sponsor someone for this visa if they cannot find an Australian citizen or permanent resident to do the skilled work. Requirements of sponsor businesses include that they must contribute to the training of Australians. |

**RIS Question 1** - What is the policy problem you are trying to solve?

**RIS Question 2** - Why is government action needed?

**RIS Question 3** - What policy options are you considering?

**RIS Question 4** - What is the likely net benefit of each option?

**RIS Question 5** - Who will you consult and how will you consult them?

**RIS Question 6** - What is the best option from those you have considered?

**RIS Question 7** - How will you implement and evaluate your chosen option?

This document has been arranged into seven sections aligned to the above questions in line with advice from the Office of Best Practice Regulation. Each section addresses a RIS question and the relevant sub questions set out in the Australian Guide to Regulation.

In line with the Australian Government Guide to Regulation, this Regulation Impact Statement explores each of the considered policy options, their benefits and costs, relative merits and alternatives.
EXECUTIVE SUMMARY

The cost of Australian domestic shipping services is uncompetitive on a global scale and the movement of manufacturing inputs and completed products on the Australian coast can be more expensive than importing inputs or finished products from other countries. Despite the recent global oversupply of shipping capacity, the declining number of trading ships on the Australian registry has exacerbated the existing shortage of Australian tonnage on domestic routes. The current legislative framework allowing foreign ships to participate in the domestic economy, the Coastal Trading (Revitalising Australian Shipping) Act 2012 (Coastal Trading Act) is inefficient and burdensome on both shippers and the shipping industry.

The current regulatory framework for coastal shipping has not arrested the decline of the Australian shipping industry. Rather, it has restricted access to the Australian market and has resulted in a situation where Australian businesses frequently cannot access efficient, flexible and cost-effective shipping services suitable to meet their business needs. Given Australia’s export orientated economy, with its focus on minerals and energy, a viable shipping industry, including a sustainable coastal trading sector is critical to the ongoing prosperity of the nation.

Four options were examined during the policy development process. These included a non-regulatory option.

Option 1 – remove all regulation of access to coastal trading
This Option involves the repeal of the Coastal Trading Act without consideration of the residual effects of other legislation and is the non-regulatory option considered. In practice, Option 1 would significantly increase the difficulty for foreign ships to compete in the coastal trading market. Modelling agreed by the Office of Best Practice Regulation contends this option would have a net economic cost of $2.5 Billion. In addition, the annual regulatory burden estimated using the Regulatory Burden Measurement framework and agreed by the Office of Best Practice Regulation is estimated to be $12.53 million.

Option 2 – remove all regulation of access to coastal trading and enact legislation to deal with the effects of other Australian laws
This Option also involves the repeal of the Coastal Trading Act and introduction of a range of other legislative provisions within a number of Acts to ensure open market access to coastal trade by all vessels. Modelling agreed by the Office of Best Practice Regulation contends this option would have a net economic benefit of $786.2 million. In addition, the annual regulatory saving estimated using the Regulatory Burden Measurement framework and agreed by the Office of Best Practice Regulation is estimated to be $27.9 million.

Option 3 – continue to regulate coastal trade, but minimise industry burden and cost
This Option involves the Australian Government continuing to regulate coastal trade under an amended Coastal Trading Act, which would see major burdens and costs to industry removed. This option would retain some protection for the Australian flagged coastal fleet while providing greater flexibility to buyers of shipping services and both Australian and foreign flagged suppliers of coastal shipping services. Modelling agreed by the Office of Best Practice Regulation contends this option would have a net economic benefit of $705.3 million. In
addition, the annual regulatory saving estimated using the Regulatory Burden Measurement framework and agreed by the Office of Best Practice Regulation is estimated to be $27.9 million.

**Option 4 – reduced regulatory burden option with provisions to retain skills and provide minimum protections for seafarers on foreign vessels engaged predominantly in coastal shipping**

This Option involves the Australian Government continuing to regulate coastal trade, with the existing licensing system replaced by a single permit allowing unrestricted trading on the coast for both Australian and foreign ships. Under this option reporting requirements would also be reduced and simplified. To support an Australian skills base, foreign ships trading on the coast for more than 183 days in a one year permit period would be required to have crew that are Australian citizens or residents or that hold appropriate Australian work rights as the master or chief mate and the chief engineer or first engineer of the ship. In addition, these ships would also have minimum standards for crew pay and conditions set out in regulations. To further strengthen skills development opportunities, the requirements for entry to the Australian International Shipping Register will be amended to remove current restrictions and barriers to entry. Modelling agreed by the Office of Best Practice Regulation contends this option would have a net economic benefit of $667.4 million. In addition, the annual regulatory saving estimated using the Regulatory Burden Measurement framework and agreed by the Office of Best Practice Regulation is estimated to be $21.4 million.

During the development and examination of these options, extensive consultation was undertaken with industry stakeholders, industry and employee representative groups and with other interested parties. The consultation process included the publication of an Options Paper and open and private consultative sessions across Australia. Stakeholders were also asked to complete an online survey to assist in the development of the cost benefit analysis and were consulted on the regulatory burden calculations for the current system. In addition, further consultation was undertaken through an industry roundtable held by the Deputy Prime Minister in February 2015.

Of the options considered, Option 4 is the preferred option. It will significantly reduce industry costs and burden and will remove impediments to foreign ships seeking to access the Australian coast. This option will retain measures to support the ongoing supply of maritime skills in the Australian economy and protect wages and conditions for seafarers on foreign ships operating primarily in the Australian coasting trade. It will not deliver the greatest economic benefit of the options that have been identified, but the minimum protections for foreign seafarers and Australian seafarer skills contained within the option are considered to be fundamental parameters of a reformed coastal shipping regulatory framework.

The preferred option will be implemented by making legislative amendments to the Coastal Trading Act. The preferred option will be evaluated through a range of mechanisms including regular reviews under the regulator performance framework, monitoring by the Cabinet Implementation Unit and internal reviews and audits within the Department of Infrastructure and Regional Development.
INTRODUCTION: A BRIEF HISTORY OF COASTAL SHIPPING REGULATION IN AUSTRALIA

Australian Governments have been considering the issues involved in coastal shipping regulation for over a century. The problem of a decline in cost effective and suitable Australian ships has developed over a number of decades due to an undersupply of Australian ships providing services in the domestic economy. This undersupply has led to foreign ships being permitted to participate in the domestic economy to ensure efficient and timely freight movement services are available to other sectors.

Successive governments have sought to facilitate this foreign access through a range of regulatory approaches aimed at granting Australian industry access to competitive shipping services, while also supporting the ongoing viability of an Australian flagged fleet.

Commencing in 1913, the Navigation Act 1912 provided a regulatory framework governing a range of aspects related to maritime navigation, among these regulation of the coastal trade.

The Navigation Act has seen a number of developments with respect to coastal shipping, each seeking to balance the need for services with the availability of British and then Australian ships.

On commencement of the Act, all ships engaging in coastal trading were required to hold a licence. The conditions placed on licence holders required adherence to standardised pay, seafarer conditions, and employment levels. This original Act included provisions permitting the Governor-General to declare the carrying of passengers between specified ports in Australia by British ships to not be deemed coastal trading.

Single and continuing voyage permits, allowing an unlicensed British ship to engage in coastal trading were first introduced in 1921. These permits were only available where the Minister was satisfied that no licensed ship was available or that the services as carried out by a licensed ship or ships would have been inadequate. Permits could be issued unconditionally or subject to any condition the Minister saw fit.

In 1926 amendments to the Navigation Act allowed the Governor-General to grant permission to unlicensed British Ships of such size and speed as specified to carry passengers between set port pairs where the Governor-General was satisfied that the tourist traffic between the ports was injured or retarded. While passengers were included in previous iterations of the regulation, this was the first direct recognition of tourism related maritime transport.

In 1958, the Navigation Act was further amended to permit the Minister to grant a permit to a foreign ship if no British ships were available. This amendment signalled the commencement of the current coastal trading policy allowing foreign participation in the market. A permit could not be granted if a British ship operating under a permit was available.

In 1979, a number of mechanical changes were made to Part VI of the Navigation act in addition to a more significant amendment to tighten the requirement for ships operating under licence or permit to not be in receipt of subsidies. Prior to this amendment, subsidies were permitted from any Commonwealth country, after the amendment, subsidies were only permitted to be paid by Australia.

In 1981, the Act was amended to remove protection for unlicensed British ships, evening the treatment for all non-Australian ships plying the coast.
In 2006, the Act was amended to provide greater powers to cancel continuing voyage permits to the Minister.

This series of amendments had the practical effect of progressively easing access to the coastal trades for foreign ships where supplementation of the Australian fleet was necessary.

The *Coastal Trading (Revitalising Australian Shipping) Act 2012* (the Coastal Trading Act) was legislated by the previous Australian Government as part of a suite of reforms intended to arrest the decline in the Australian shipping industry. The provisions of the Coastal Trading Act provide the benchmark for the consideration of the reforms identified in this RIS.
In line with the Australian Government Guide to Regulation, this section:

- Clearly identifies and defines the problem the Government is trying to solve.
- Demonstrates why it is a problem: and addresses risks or other dangers to be mitigated.
- Offers evidence about the magnitude of the problem and the costs of not doing anything.
- Describes the businesses, community organisations or individuals affected by the problem.
- Explains which, if any, current government measures have sought to address this problem.
- Establishes why those measures are not working.

THE PROBLEM THE GOVERNMENT IS TRYING TO SOLVE

The cost of Australian domestic shipping services is uncompetitive on a global scale and the movement of manufacturing inputs and completed products on the Australian coast can be more expensive than importing inputs or finished products from other countries.

Despite the recent global oversupply of shipping capacity, the declining number of trading ships on the Australian registry has exacerbated an already existing shortage of tonnage on domestic routes. There are sufficient foreign ships available to service the needs of the Australian economy and the opportunities for competitive freight pricing are only likely to be achievable through greater access to the buyers of shipping services as the Australian economy continues to grow.

Successive governments have allowed access to foreign ships where no Australian ships are available to provide a suitable service. In addition to this objective, the existing regulatory framework seeks to balance industry demands for access to lower cost foreign shipping services in the domestic economy with the preservation of an Australian maritime industry.

The current legislative framework allowing foreign ships to participate in the domestic economy (the Coastal Trading (Revitalising Australian Shipping) Act 2012) is inefficient and burdensome on both shippers and the shipping industry. It has neither revitalised the Australian fleet, nor provided the flexibility required by shippers to efficiently and effectively move goods around the Australian coast. In addition, it also does not effectively support industry in making reasonable decisions about freight rates and multi-modal transport pricing.

Recent freight reports suggest the Coastal Trading Act has not increased the market share of coastal shipping as a freight transport mode when compared with land-based modes. In an environment where freight volumes are increasing, bulk commodities, such as aluminium ores, iron ore and petroleum, account for over 70 per cent of domestic coastal shipping movements. Despite this large market share and growth in the overall freight task, projected growth in domestic coastal shipping movements is dramatically lower than for the national road and rail freight task.¹

The policy development process covered by this Regulation Impact Statement seeks to identify and understand stakeholder concerns and to reshape the regulation of coastal shipping to deliver a better balanced and less burdensome framework. The revised framework would

¹ BITRE, 2014, Freightline 1 – Australian freight transport overview, BITRE, Canberra, pp.5, 8.
provide shippers with access to cheaper shipping services and would assist in making shipping more attractive when compared to land transport options.

THE NATURE OF THE PROBLEM

As outlined above, the current situation is such that foreign participation in the Australian domestic maritime industry is essential for the foreseeable future. The key question faced by successive governments is one of the level of participation of foreign ships. In particular, balancing the need for access to cost effective services with a desire to promote jobs in the domestic Australian economy has been an issue carefully considered over numerous iterations of coastal shipping regulation.

There are three central issues to the current situation – the Australian fleet is not large enough to meet the demand of shippers, the Australian fleet is ageing and becoming increasingly expensive to run and maintain compared to younger fleets, and Australian labour is relatively expensive compared with international counterparts in a globally competitive industry. In addition, future policy also needs to be made in consideration of Australia’s long term skills needs.

Stakeholder consultation indicated the current regulatory settings are not effectively balancing these needs and that freight rates had increased unduly since the commencement of the current regulatory framework. Extensive industry consultation indicated the existing framework adds unnecessary regulatory and cost burden to users of shipping services and may have led to a disproportionate increase in freight rates since the commencement of the legislation.

Further, consultation has indicated that without support beyond the measures introduced by the former Government in the 2012 reform package, major reinvestment in the Australian fleet is unlikely. On this basis, Australian reliance on foreign shipping services is likely to grow in the coming years as ships continue to leave the Australian fleet due to retirement or reflagging overseas to pursue more favourable taxation and employment environments.

The key considerations during the policy development process are the size and carrying capacity of the Australian fleet, the costs of an ageing fleet, labour market issues, and issues around the loss of maritime skills.

THE DECLINING SHIP SIZE AND CARRYING CAPACITY OF THE AUSTRALIAN FLEET

The fleet of Australian ships suitable for providing domestic maritime transport services is relatively small. There are currently 49 Australian registered ships (general licence) permitted to provide interstate maritime transport services in an unrestricted manner. A further 8 foreign registered ships (transitional general licence) employing Australian crew are also permitted to provide interstate maritime transport services with the same rights as Australian ships through grandfathering arrangements from the previous regulatory framework. Many of these ships are small and provide specialised services to remote communities in Northern Australia. The increase in the number of smaller ships is indicative of a specialisation in service provision by Australian shipping companies.

The fleet of major Australian registered ships with coastal licences has been declining over decades and in the past decade alone, from 30 in 2006-07 to 15 in 2013-14. The introduction of the Coastal Trading (Revitalising Australian Shipping) Act 2012 (Coastal Trading Act) has not
revitalised Australian shipping – there has been a 63% decrease in the carrying capacity of the major Australian coastal fleet since the Coastal Trading Act was introduced.\(^2\)

A key reason for this decline is the retirement of older ships from the fleet without Australian shipping industry action to replace these vessels.

The declining tonnage of trading ships on the Australian registry has led to a shortage in Australian capacity on domestic routes and has brought about an increased reliance on foreign ships to provide these services.

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### AN AGEING AUSTRALIAN FLEET

The higher operating costs of older vessels in the Australian fleet also contribute to the higher freight rates typically charged by general licence and transitional general licence vessels.

Industry consultation conducted by the Department indicates that the current Australian fleet is relatively old by international standards, where shippers tend to have a preference for ships under 15 years old. The average age of an Australian major trading ship with a general licence is currently around 23 years and none of these vessels are under 15 years.

Consulted parties advised these older ships are generally slower, less fuel efficient, less reliable and more prone to breakdown, and require larger crew contingents than their more modern counterparts. In addition, these ships generally attract higher insurance premiums. Combined, these factors contribute to higher operating costs for older ships and the Australian shipping fleet's participation in international trades is declining. Domestic coastal trade suffers from either high freight charges or loss of business to the road and rail freight sectors.

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### LABOUR MARKET ISSUES

Crew costs are a major contributing factor to higher freight rates typically charged by general licence and transitional general licence vessels. Combined with the higher costs of operating an ageing fleet, higher labour costs impact the international competitiveness of Australian ships. In the absence of a competitive advantage brought about by a higher level of service or more efficient operations, the higher labour costs cannot be offset and Australian shipping remains uncompetitive.

As outlined by a number of stakeholders, Australian labour costs are significantly higher than the international standard. Modelling for the proposed options has estimated that the Seagoing Industry Award 2010 (Seagoing Industry Award) Part A is between $4,169 and $5,202 more expensive per ship per day than the International Transport Federation's Uniform Collective Agreement (ITFUCA) rate.\(^3\) Part B of the Seagoing Industry Award is estimated to be between $2,980 and $3,956 more per ship per day than the ITFUCA rate. There are also administrative costs involved in applying Australian workplace relations laws under the current framework.

Previous regulatory interventions in this area have been based on the idea that when foreign ships are engaged in domestic trading that is incidental to their international trading, they should not be covered by domestic workplace relations laws. These interventions have also recognised that in order to provide a more equitable operating environment for Australian ships, foreign ships engaged predominantly in the Australian domestic economy should be paid domestic wages.

\(^2\) Bureau of Infrastructure, Transport and Regional Economics, 2015, *Unpublished Data*.

\(^3\) Depending on whether the ship is manned by an 18 or 24 person crew.
The Government recognises the competing objectives of reducing detrimental costs within the Australian shipping industry, while also ensuring that foreign ships engaged in significant Australian trade abide by labour conditions more closely aligned with Australian ships. Based on stakeholder experience and the continued decline of the Australian fleet, there is scope to better balance these two objectives.

LOSS OF MARITIME SKILLS

Employee associations and some landside employers have raised concerns about the loss of seagoing maritime industry experience within the Australian workforce. In particular, a global shortage of skilled officers is increasing pressure on landside employers seeking personnel with suitable seagoing experience to fill positions including marine pilots, harbourmasters, insurance specialists and others.

As Australian tonnage continues on a long term declining trend, the availability of positions will decrease. Like other industries, landside operators will likely need to seek skills in an increasingly globalised market and at globally competitive wage rates.

THE SIZE OF THE PROBLEM

In 2012, analysis conducted by Deloitte Access Economics (DAE) found that the licensing arrangements introduced under the current Coastal Trading Act would:

- increase the cost of coastal shipping and, by extension, freight rates of up to 16 per cent;
- likely see costs borne predominantly by users of coastal sea freight, which would diminish competitiveness, encourage substitution of Australian-manufactured products for imports (especially if the Australian dollar remained high), and bear negatively and potentially significantly on future investment decisions;
- have an aggregate impact of between -$242 million and -$466 million on Gross Domestic Product over the 2012–2025 period in 2012 Net Present Value terms (compared to the regulatory system under the Navigation Act); and
- cause net job losses of 200 full time equivalent (FTE) employees over the long term, although immediate displacement was estimated at a peak loss of 570 FTE employees.

Since the introduction of the Coastal Trading Act on 1 July 2012, stakeholders have noted an increased administrative burden, operational uncertainty where Australian ships can contest licence applications, and reluctance by international ships to participate in the current regulatory system. Further, the Coastal Trading Act has not arrested the decline in the number or capacity of the Australian major trading fleet, nor met demand from purchasers of shipping services.

Stakeholder feedback from consultation supports DAE’s first two findings. In particular, Bell Bay Aluminium noted their experience of increased costs and reduced competition in the coastal shipping market since introduction of the Coastal Trading Act. Bell Bay Aluminium faced an increase in freight rates from $18.20/tonne in 2011 to $29.70/tonne in 2012, or, compared with $17.50/tonne charged by international operators, and was effectively restricted

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5 Bell Bay Aluminium, 2014, submission to Department of Infrastructure and Regional Development Options Paper: Approaches to regulating coastal shipping in Australia, p 4.
to use of a single Australian flagged vessel. Similarly, the Cement Industry Federation\(^6\) stated that there is presently no cost advantage in shipping clinker (a cement input) between Australian ports over importing from Asia, which has a negative impact on the Australian cement industry’s international competitiveness.

The current regulatory and policy settings for coastal shipping are expected to cost between $242 and $466 million to 2025 and, to date, has had little appreciable effect upon the Australian shipping industry. Consequently, maintenance of the current settings is not recommended. These settings will likely continue to have a negative effect on growth in the broader Australian economy due to the existing restrictions on access to timely, flexible and cost effective shipping services.

CURRENT REGULATORY FRAMEWORK

Coastal shipping in Australia is currently regulated under the Coastal Trading (Revitalising Australian Shipping) Act 2012 (the Coastal Trading Act), which commenced on 1 July 2012.

The Coastal Trading Act was intended to balance the interests of the Australian shipping industry and users of shipping services by regulating Australian and foreign ships through a licensing system. It provides an advantage to Australian ships by allowing them unrestricted access to coastal trade along with the opportunity to compete for voyages proposed to be conducted by foreign ships.

Four types of licence are available under the existing legislative framework; General Licence, Transitional General Licence, Temporary Licence and Emergency Licence. An overview of each of the licence types is included at APPENDIX A.

The existing framework rebalanced the use of Australian and foreign ships in a way that continues to permit the use of foreign ships where suitable Australian ships are not available. The current approach has been widely criticised by shippers and some sectors of the shipping industry because it removed some of the flexibility previously available under the Navigation Act.

Historically, foreign flagged ships operating domestically under permits issued under the previous Navigation Act 1912 (Navigation Act) were generally not covered by Australian labour laws. In 2010, the application of the Fair Work Act 2009 (Fair Work Act) was expanded to certain foreign-flagged vessels operating in Australian waters and engaged in coastal trading.

Following the introduction of the Coastal Trading Act in 2012, consequential amendments were made to the Fair Work Regulations 2009 (Fair Work Regulations) to maintain the alignment of the Fair Work Act to crew on ships (both Australian and foreign flagged ships) engaged in coastal shipping if the ships are:

- operating under a general, transitional general or emergency licence under the Coastal Trading Act; or
- operating under a temporary licence and have made at least two other voyages under a temporary licence in the last 12 months.

In addition, the Seagoing Industry Award covers employers which are engaged in the seagoing industry, and employees in a range of roles from crew to Master and Chief Engineer. Part A applies to all ships except those which have been granted a temporary licence under the Coastal Trading Act.

During the creation of the Seagoing Industry Award 2010, Part B was established with separate, lower rates of pay and conditions for foreign seafarers on foreign ships. This decision recognised stakeholder concerns that it was inappropriate to apply the same labour conditions to seafarers on foreign ships as those that applied on Australian ships. Part B applies to ships granted a temporary licence under the Coastal Trading Act. Entitlements provided under Part B are less generous than Part A. Part B covers ordinary hours of work, overtime, rest periods, leave and public holidays. It also provides for the accrual of 8 days leave per month of service.

While Part B wages are generally lower than equivalent classifications under Part A, they are generally higher than minimum international seafarer wage rates sought by the International Transport Workers’ Federation. This means foreign seafarers working on temporary licenced ships are entitled to more generous wages and conditions when engaged in coastal shipping in Australia than when they are engaged in international shipping voyages.

**SHORTCOMINGS IN CURRENT MEASURES**

The current measures have failed to arrest the decline in the Australian fleet, the substantial regulatory burden and high costs imposed by the system on shippers. While there has been a small increase in the number of ships in Australia’s major trading fleet engaged in coastal trading, the overall tonnage of the fleet has continued to decline.

While the existing framework has supported the transition of the Australian industry to more specialised niche market services, it has not provided adequate flexibility to the users of shipping services wishing to access cheap, reliable and globally competitive services utilising otherwise unoccupied foreign tonnage already on the coast.

Information provided by industry indicates that by limiting the ability for shippers to access underutilised tonnage already on the coast, or for shippers to more efficiently use tonnage in the global fleet; the existing regulatory framework is placing undue upward pressure on freight rates.

More broadly, access to more efficient and cost effective transport services will enhance the viability of transport reliant industry sectors and will increase choice for transport service consumers.

Without remedial attention, these shortcomings will continue to entrench the existing issues in the coastal shipping industry.
RIS QUESTION 2 – THE NEED FOR GOVERNMENT ACTION

In line with the Australian Government Guide to Regulation, this section:

- Clearly identifies why there is a legitimate reason for government to intervene.
- Demonstrates that government has the capacity to intervene successfully.
- Identifies alternatives to government action.
- Clearly identifies what objectives, outcomes, goals or targets Government is aiming for.
- Identifies the constraints or barriers to achieving the goals of the Government.
- Ensures Government objectives are:
  - specific
  - measurable
  - accountable
  - realistic
  - timely.

THE REASON FOR GOVERNMENT INTERVENTION

The current regulatory framework for coastal shipping has not arrested the decline of the Australian shipping industry. Rather, it has restricted access to the Australian market and has resulted in a situation where Australian businesses reportedly cannot access efficient, flexible and cost-effective shipping services suitable to meet their business needs. Given Australia’s export orientated economy, with its focus on minerals and energy, a viable shipping industry, including a sustainable coastal trading sector is critical to the ongoing prosperity of the nation.

THE CAPACITY OF GOVERNMENT TO INTERVENE

The Australian Government already regulates the participation of foreign ships in the domestic economy. The preferred option would be consistent with the generally progressive opening of the Australian domestic shipping market to foreign participation that has taken place over the past 100 years.

The Australian Government is the most appropriate level of government to intervene in this issue due to the wide ranging national policy areas that are connected including taxation, migration and tourism. In the absence of intervention to change the current approach, the domestic market would remain under the existing regulatory framework and if this framework were simply repealed, the domestic shipping market would effectively be closed to foreign participation like the rest of the domestic economy.

Results from consultation conducted to support the development of the options presented within this RIS indicated shippers, shipping companies, and industry representative groups all agree the Government has the capacity to intervene in this matter and should as a matter of urgency.

ALTERNATIVES TO GOVERNMENT ACTION

The nature of the situation is such that there is no alternative to government action. Because legislation is already in place, the Australian Government will need to act to change the existing regulatory framework if it wishes to change the policy approach to coastal shipping.
OBJECTIVES, OUTCOMES GOALS AND TARGETS

A key objective of coastal shipping policy is to stimulate growth in maritime transport with flow on benefits to other industries by removing the existing administrative burden on shippers and ship operators conducting business in Australia under the Coastal Trading (Revitalising Australian Shipping) Act 2012.

If this objective is met, shippers will have access to more efficient services and will be better able to choose the most appropriate transport mode to meet their business needs. This increased flexibility will allow Australian industries reliant on domestic transport services to optimise their business models free from existing constraints on the use of maritime transport services.

Analysis indicates the preferred option could deliver a net present value benefit of approximately $667.4 million over the forecast period. In addition, deregulatory savings per year are estimated to be in the order of $21.4 million.

CONSTRAINTS AND BARRIERS

Supply side factors such as the availability of ships in the Australian market, particularly where greater benefits for owners could be derived overseas is a key constraint to addressing the problem. The policy set out in industry consultation activities addresses this issue to the best ability of the Government by providing a flexible and cost effective regulatory framework with minimal barriers to entry. Nevertheless, some operators may continue to perceive the operating environment in Australia to challenging compared to some other countries.

Making Australia an attractive destination to provide shipping services is expected to largely overcome supply shortage issues; combined with existing global pricing practices for shipping services, this will ensure shippers are able to access transport services at globally competitive rates.

In the current global environment with an oversupply of ships, shippers are unlikely to face difficulty in sourcing transport services; however, in the future an increased exposure to global market forces could result in a situation where Australian shippers are less able to source cheap and reliable domestic sea freight services. Consultation indicated this is a risk the industry is willing to assume in a globalised economy.

SMART CHECKLIST FOR PROPOSED MEASURES

SPECIFIC TARGETS

As outlined above, the specific target of each of the options explored is to improve access to cost effective, reliable, and efficient maritime transport services for domestic shippers. With the exception of Option 1, each of the options explored would meet this target.

An additional target for coastal shipping policy is to support the development seafaring skills to ensure other industry sectors continue to have access to personnel with appropriate experience and skill sets. Ensuring that foreign ships engaged in significant Australian trade abide by labour conditions more closely aligned with Australian ships is also a target. Option 4 includes measures to directly support the retention and development of seafaring skills for people with
Australian work rights and seeks to better balance the application of Australian workplace relations arrangements.

SUCCESS MEASURES

The success of policies to address the identified problems will be measured in largely qualitative terms through consultation with shippers and the shipping industry during a routine policy review process. Industry feedback about the relative ease of securing cost effective, reliable and efficient transport services in a deregulated market, along with the ongoing availability of skilled personnel for other maritime industry sectors will indicate the level of success of the preferred option.

Some quantitative information, such as changes to the volume of goods transported domestically by sea, may be indicative of growth in the sector but would need to be considered in light of growth in the overall domestic freight task and any modal shift to or away from maritime transport.

ACCOUNTABILITY

The administration of coastal shipping policy will be held to account through the provision of regular industry policy bulletins ensuring consistent and fair advice is provided across the industry, regular reporting on KPIs and through the provisions of the regulator performance framework being implemented from 1 July 2015.

Industry will be held accountable through a range of compliance and enforcement measures available to the Minister responsible for the Act. These include the power to cancel a licence granted to a ship and powers to take action linked to strong civil penalty provisions.

Government and industry will also be held accountable under the preferred option through reporting and publication requirements. These will ensure activities conducted under licence are transparent and publicly visible.

ACHIEVABILITY

The delivery of a successful coastal shipping policy is achievable and will deliver the intended outcomes for shipping companies, shippers and the broader Australian economy. Legislating to clear existing impediments to market participation, while retaining protection for key skill bases will ensure Australian businesses are able to compete in a global marketplace. Further, key skill groups will be supported through minimum crewing requirements to ensure landside and in-port service providers have access to experienced Australian seafarers as part of a broader international workforce.

TIMELINESS

The proposed measures are timely and will be introduced in a reasonable timeframe. At this stage, the Government proposes commencement of the new regulatory framework as soon as practicable. This timeframe provides sufficient lead in for business to optimise their operations in line with the incoming framework and for the issuing of permits as required ahead of the commencement date. An earlier start would not provide sufficient transition time for business and a later start date would bring about undue uncertainty in the industry.
Consultation with industry will determine lead times and transitional arrangements for the new measures.
RIS QUESTION 3 – POLICY OPTIONS

In line with the Australian Government Guide to Regulation, this section:

- Identifies a range of genuine and viable alternative policy options.
- Ensures any of the live options can achieve the Government’s stated policy objectives.
- Gives the decision maker confidence you have identified all of the available options open to the Government.
- Identifies the context for the options considered.

POLICY OPTIONS CONSIDERED

The Department of Infrastructure and Regional Development commissioned independent economic modelling from the Predictive Analytics Group on the three options to regulating coastal shipping in Australia outlined in the Options Paper. For each of the three options, the report modelled the costs/benefits to the Australian economy over a 20 year period commencing from 1 July 2015. The preliminary impact assessment indicated a controlled deregulation of the industry was likely to deliver the greatest benefit to the Australian economy of approximately $786.2 million. The retention of a regulatory framework with reduced industry burden was likely to deliver a significant benefit to the Australian economy of approximately $705.3 million, while a simple repeal of the Coastal Trading (Revitalising Australian Shipping) Act 2012 would result in an estimated economic cost of approximately $2.5 billion.

The preliminary impact assessment did not model the transfer of freight from the road and rail sectors to coastal shipping and assumed the potential for transfer from land to maritime transport would be low, even in a market with reduced shipping costs. This is because many shippers could already access these lower cost services through the existing system. The above benefits are anticipated to increase if cargoes are able to be transferred to a lower cost transport system, for example long distance container movements, container repositioning or other low urgency freight.

Following the consultative process undertaken in connection with the options paper, the Deputy Prime Minister and Minister for Infrastructure and Regional Development, the Hon. Warren Truss MP held an industry roundtable in early February 2015 to canvass views on a further option to those presented in the options paper.

The additional option was developed in light of the outcomes of the consultative process and better reflected industry views about the advantages of an option that captured most of the benefits of full deregulation but with additional protections for wages and conditions for workers onboard ships trading in Australia for most of the year. The additional option also better reflects the desire of the industry to develop maritime skills for future needs in landside roles and associated industries. The additional option (option 4) is similar to the controlled deregulation option but would require the employment of people with Australian work rights in some circumstances, and the application of the Fair Work Act to foreign ships engaged predominantly in coastal trade. This option is anticipated to deliver a benefit of approximately $667.4 million.

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7 Australian Government, Options Paper: Approaches to regulating coastal shipping in Australia, April 2014.
Maintaining the status-quo was not considered as this would entrench the existing issues in the market highlighted previously in this Statement.

SPECIFIC OPTIONS CONSIDERED

In coming to the preferred approach, the Australian Government initially considered three options. These were outlined in the Options Paper on Approaches to regulating coastal shipping in Australia. Following extensive consultation on the three options, a fourth option was developed. The fourth option included changes to the Australian International Shipping Register (AISR) which are outlined below. The Deputy Prime Minister and Minister for Infrastructure and Regional Development led consultation on this option with key industry stakeholders during an industry roundtable event in February 2015.

DEREGULATORY OPTIONS

Option 1: Remove all regulation of access to coastal trading
This Option involves the repeal of the Coastal Trading Act without consideration or treatment of the residual effects of other legislation. As a result, all foreign flagged ships undertaking coastal shipping would subject to all applicable Australian laws currently disapplied by the Coastal Trading Act.

This option was considered due to calls from the shipping industry and business lobby groups for the existing laws to simply be repealed. Upon further investigation, it became quickly apparent that such a move would remove the exemption from importation currently afforded to ships operating under a temporary licence. Without this exemption, ships carrying domestic cargo would be imported, requiring the payment of duties and leading to the loss of work rights for members of the ship's crew unable to obtain an Australian work visa. The removal of the Coastal Trading Act would also result in the application of the Fair Work Act and the Seagoing Industry Award Part A to all seafarers engaged in coastal trading.

This option was not considered in great detail due to the significant negative effect it would have on Australian industry reliant on foreign shipping services. The option was costed in net present value terms as a part of the economic contribution analysis.

Option 2: Remove all regulation of access to coastal trading and enact legislation to deal with the effects of other Australian laws
This Option also involves the repeal of the Coastal Trading Act and introduction of a range of other legislative provisions within a number of other Acts to ensure the policy objective of open market access to coastal trade by all ships is realised.

This option was considered as a workable alternative to option one and would, in effect, open the Australian coast entirely to foreign ships carrying domestic cargo. Such a liberalisation would be world leading and would have significant benefits for users of shipping services. It is likely that under Option 2, shipping freight rates would be significantly lower than present; however these benefits would come at a cost to the Australian shipping industry. Under this option, the existing application of the Fair Work Act and the Seagoing Industry Award to foreign registered ships is removed entirely and on-board arrangements in line with international

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8 Australian Government, Options Paper: Approaches to regulating coastal shipping in Australia, April 2014.
practice would apply. Under Option 2, it is unlikely Australian ships would be able to compete with foreign ships on price. This would likely lead to a significant decline in the Australian industry with associated lost opportunities for skills development and retention for positions in landside or in-port operations requiring seafaring experience.

This option was costed in net present value terms as part of the economic contribution analysis. The deregulatory benefit was also costed as part of this RIS process.

**REDUCED REGULATION OPTIONS**

*Option 3: Continue to regulate coastal trade, but minimise industry burden and cost*

This Option involves the Australian Government continuing to regulate coastal trade under an amended Coastal Trading Act, which would see major burdens and costs to industry removed. This option would remove the aspects of the current legislation causing the greatest inconvenience to industry without fundamentally changing the framework. In particular, this option would remove the requirement for new temporary licences to include five or more voyages and would clarify the number of voyages required in applications to add new voyages to a licence. It would also clarify the aspects of a voyage permitted to be varied through an authorised matters variation. This model would retain the existing provisions around contestability but would more clearly set out the matters required to be considered by the decision maker and their relative importance. Under this option, the existing application of the Fair Work Act and the Seagoing Industry Award to foreign registered ships is removed entirely and on-board arrangements in line with international practice would apply.

This option was costed in net present value terms as part of the economic contribution analysis. The deregulatory benefit was also costed as part of this RIS process.

*Option 4: Reduced regulatory burden option with provisions to preserve skills*

Following extensive industry consultation this option was developed to provide additional flexibility to users of foreign shipping services while supporting the development and retention of an Australian skills base in the maritime industry. This skills base will support landside and in-port operations by providing suitably experienced seafarers for positions in these sectors requiring personnel with seafaring experience.

Under this option, the existing licensing system would be replaced with a single permit allowing unrestricted trading on the coast. A permit would be available to both Australian and foreign ships and the existing contestability provisions would be removed. In addition, reporting would be simplified to six monthly voyage reports.

Those seafarers working onboard ships trading for less than 183 days in a permit period would remain on their existing employment arrangements with the ship, while those working on ships trading in Australia for more than 183 days in a permit period would be entitled to pay and conditions set out in Australian law.

To support an Australian skills base, foreign ships trading on the coast for more than 183 days in a one year permit period would be required to have crew with Australian work rights as the Master or Chief Mate and the chief engineer or first engineer of the ship. International labour arrangements will continue to apply to foreign ships that engage in less than 183 days of coastal
trade. This would mean that ships predominantly engaged in international trade, without a strong connection to Australia’s domestic economy will not be covered by Australian labour law. Foreign ships that do engage predominantly in Australia's coastal trade will be required to conform with the minimum standards for crew pay and conditions currently set out in the Fair Work Act and Part B of the Seagoing Industry Award. These requirements would apply from the first day of the permit period.

To further strengthen skills development opportunities, the requirements for entry to the Australian International Shipping Register will be amended to remove current restrictions and barriers to entry. In particular, the reaching a collective agreement with the seafarers’ bargaining unit will remain an option but will not be a mandatory condition for registration.

The requirement to engage in predominantly international trade will be removed. Instead, AISR ships would be required to engage in at least 90 days of international trade per year. In order for AISR ships to be competitive with other foreign ships, similar workplace relations requirements would apply as for foreign ships.

This option was costed in net present value terms as part of the economic contribution analysis. The deregulatory benefit was also costed as part of this RIS process.

**LINKAGES BETWEEN POLICY OPTIONS AND GOVERNMENT OBJECTIVES**

The key government objectives in a revised policy on coastal shipping are reducing red tape, easing access to shipping services and increasing competition between Australian and foreign ships. In addition, the Government supports the development and retention of Australian maritime skills and jobs, as well as better balancing the application of Australian labour law to foreign ships.

While Option 1 would remove red tape in the licensing system, it would also remove existing protections for ships operating under licence. As a result, a significant net increase in red tape and administrative burden would be incurred by ships required to comply with a range of legislation currently disapplied by the licensing system. This would likely be passed on to shippers and lead to higher freight rates. Option 1 would also reduce the availability of ships providing services in the domestic market, therefore further increasing the cost of obtaining shipping services in Australia. Effectively closing the coast to all but Australian ships could lead to the creation of more Australian jobs with associated skills benefits; however, the possible skills benefits would be outweighed by the other detriments stemming from this option. For these reasons, Option 1 is not consistent with the Government’s objectives.

Option 2 is clearly linked to most of the above outlined objectives. Removing the existing licencing system and allowing foreign ships the freedom to operate in the domestic market while remaining not imported by Customs would reduce red tape in the application and Customs compliance processes. It would also significantly increase access to foreign ships and benefit competition between Australian and foreign ships. This option would likely lead to a significant decline in the Australian registered fleet, and for this reason would likely not align with the Government's objective of promoting skills development and retention in the maritime workforce. The measure also fails to adequately address public expectations regarding the payment of Australian wages to workers who work predominantly in the domestic economy. For these reasons, Option 2 would be broadly consistent with the Government’s stated objectives with the exception of skills development and retention.
Option 3 is clearly linked to most of the above outlined objectives. This option would reduce red tape for licence applicants by clarifying the existing legislative framework. It would also ease access to shipping services, although to a lesser degree than Option 2 or Option 4. Option 3 would retain the existing competition and dispute resolution mechanisms and therefore would not enhance competition beyond the existing framework. Option 3 fails to adequately address public expectations regarding the payment of Australian wages to workers who work predominantly in the domestic economy. This option would also not have any benefit over the status quo in terms of skills development and retention.

Option 4 has the clearest and strongest links to each of the Government’s objectives for this policy development process. It harnesses the benefits of deregulation while balancing the interests of a strong domestic industry and workforce. International labour arrangements will apply to foreign ships engaged predominantly in international trade, whereas Australian labour arrangements will apply to foreign ships engaged predominantly in Australia’s domestic trade. This option would meet the Government’s objectives in the same way as Option 2 and, as a result of the minimum crewing requirements for ships trading for more than 183 days on the coast, would also provide opportunities for skills development and retention. For this reason, Option 4 is most closely aligned with the Government’s objectives for coastal shipping policy.

BREADTH OF OPTIONS CONSIDERED

The options considered cover the full breadth of reasonably available policy directions the Government could take. They include a complete deregulation of coastal shipping (bringing about a closure of the Australian coast), a controlled deregulation also removing aspects of customs, taxation and workplace relations legislation, a reduced regulation option granting greater access than is presently given to foreign ships, and a reduced regulation option granting greater access but addressing the concerns of associated industries around skills development and retention.

THE CONTEXT FOR OPTIONS CONSIDERED

In the options paper, the Government announced it would review the existing arrangements for coasting shipping with a view to revising or reversing measures that hinder the competitiveness of Australia’s shipping services.

Following an extensive consultative process, the Government plans to amend the existing policy and regulatory framework for coastal shipping to:

- foster a competitive coastal shipping services industry that better supports the Australian economy;
- maximise the utility of existing shipping assets on the Australian coast by enabling the efficient allocation of coastal shipping services in line with industry demand;
- facilitate market development in the provision of shipping services to Australia; and
- to support the development and retention of seafaring skills in the Australian maritime industry.

Easing the current regulatory burden on the maritime industry through the removal of barriers to accessing the market for coastal shipping services will provide opportunities for more
efficient and competitive services. These may deliver cost savings to shippers and the broader Australian economy in line with the Australian Government’s deregulation agenda.
RIS QUESTION 4 – THE LIKELY NET BENEFIT OF EACH OPTION

In line with the Australian Government Guide to Regulation, this section:

- Identifies who is likely to be affected by each regulatory option and assess the economic, social and environmental costs and benefits as well as how those costs and benefits are likely to be distributed.
- Quantifies the benefits and costs of the Government’s policy proposal on businesses, community organisations and individuals to a level of detail commensurate with the impact of the policy proposal.
- Identifies and assesses the cost of offsetting deregulatory measures.
- Assesses the costs and benefits of all proposed options.
- Analyses qualitative impacts as well as quantitative impacts.
- Provides information on applicable international standards and whether the policy proposal differs from or adopts those standards.

STAKEHOLDERS

The principal stakeholders that would be affected by the options are shippers of goods and shipping service providers, both Australian and foreign. The majority of stakeholders provided written submissions or met with the Department during the options paper process.

OVERVIEW OF THE COST BENEFIT ANALYSIS PROCESS

A key part of preparing this RIS was contracting an independent economic modelling specialist, Predictive Analytics Group (PAG), to prepare a cost benefit analysis for the Department. The cost benefit analysis was undertaken based on an updated shipping cost model prepared by the Bureau of Infrastructure, Transport and Regional Economics in support of the RIS prepared for the 2012 reform package and assessed as a high quality model by the Office of Best Practice Regulation (OBPR).

For consistency, the freight task (and its growth in the years modelled) was assumed to be the same in the base case and in each of the policy cases.

Some general assumptions, consistent across the modelling were made about ship costs including crew costs and other operating costs. Port and fuel costs were not considered in the model as they do not depend on the flag of the vessel. A general assumption that a rate of return on capital invested of 5% is appropriate and a discount rate of 7% was applied to the economic capital costs. Foreign ships were assumed to be open registry ships paying ITF wages and minimal company tax (except where a different wage structure is applied in a policy option).

Based on the above assumptions, a set of base case and policy case ship operating models with various crewing arrangements and taxation treatments was prepared and daily financial and economic costs were estimated using the ship cost model. These costs were then applied in line with the market share assumptions made for the base case and each of the policy cases. For each ship model, daily costs were prepared for a handy size bulk carrier, a panamax bulk carrier, a capsize bulk carrier, a product tanker, a container ship, a product tanker with a DWT of 20,000 tonnes and a crude tanker with a DWT of 100,000 tonnes.

In developing the market share assumptions, PAG considered the Bauxite trade from Weipa to Gladstone, a triangulated Bauxite route, iron ore, other dry bulk, crude oil, petroleum, other liquid bulk, cruise shipping, inter capital containers, and Bass Strait non bulk freight. Market
share predictions were prepared for each of these sectors under the base case and each policy option.

A copy of the Cost Benefit Analysis prepared by Predictive Analytics Group (the PAG report) is included at Appendix B. This report sets out the full set of assumptions and modelled scenarios prepared to support the consideration of the policy options set out in this RIS. The assumptions underpinning the report were developed by PAG in consultation with the Department and the report provides an overview of the best available estimates of the effect of the reforms considered during the policy development process discussed in this RIS. The actual outcomes of the reform process will be dependent on commercial decisions by ship operators that will likely take account of a broader range of factors; however, the ranking of the reforms in terms of the relative benefit provided would not be expected to change even if the magnitude of the benefits were to increase or decrease.

It is important to note the PAG report considers a number of additional options not discussed in this RIS process. Options 1, 2 and 3 in this RIS correspond to Options 1, 2 and 3 in the PAG report. Option 4 in the RIS corresponds to Option 6 in the PAG report. Options 4 and 5 in the PAG report were examined to provide a more diverse range around the minimum crewing requirements and to test the overall economic impact of having no minimum Australian crewing requirement or having a more stringent minimum Australian crewing requirement. These options were not considered in detail as options in and of themselves during the final policy development process.

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**OPTION 1**
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Option 1 is the removal of all regulation of access to coastal trading by repealing the Coastal Trading Act. This option received very little support in the consultative process conducted by the Department of Infrastructure and Regional Development, with only one consulted party preferring this option. All other respondents that commented on this option were strongly unsupportive of the adoption of a system that would, in practice, greatly restrict foreign access to the Australian coast.

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**BENEFITS**

The benefits for this option are decreased compliance costs for foreign and Australian ships from the removal of licensing system contained in Coastal Trading Act and a potential increase in the number of Australian flagged vessels undertaking coastal trading. However, these benefits would be outweighed by the significant cost from all foreign ships providing services in the domestic economy ships being imported under the *Customs Act 1901* (the Customs Act).

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**COSTS**

The Coastal Trading Act provides for foreign ships used to carry passengers or cargo under temporary or emergency licences to not be considered as ‘imported’ under the Customs Act. Repeal of the Coastal Trading Act under this option would remove this provision, meaning all foreign flagged ships participating in coastal shipping would be considered imported and therefore subject to the Customs Act and a range of other legislative provisions triggered by importation. Such requirements relate to prohibited and restricted goods regulations, immigration, quarantine and revenue laws.
This option confers significant costs on ships treated as imported, predominantly from changes to labour and employment conditions. Importation requires ships to repatriate all foreign crew possessing *Maritime Crew Visas* within five days, and replace them with Australian crew, or with foreign crew possessing appropriate Australian work rights such as *Temporary Business Long Stay (subclass 457)* visas. Holders of a 457 visa would be required to be working in an occupation eligible for the visa class, meet English language competency requirements and would attract sponsorship and nomination costs, which were not included in the modelling. While Masters, engineers and officers are eligible for a 457 visa, lower level crew (ratings/ordinary seamen) are not included in the list of permissible occupations. Maritime industry skill shortages may place further upward pressure on wage costs, or make filling these crew vacancies difficult under this scenario. Some foreign ships may also become liable for GST charges upon importation, which, although a much smaller cost, may act as a further disincentive.

It would be extremely impractical for certain ships to be imported and have their crew replaced, for example container ships undertaking an international liner service. In this situation the coastal containers that would ordinarily be moved on an international liner service would have to be moved by rail instead. The requirement for foreign ships to be imported would be a significant and often insurmountable barrier to entry for these ships.

This option could increase costs to Australian shippers, driven by the higher wage costs for Australian crew. The application of the Fair Work Act and Seagoing Industry Award Part A to all seafarers engaged in coastal trading would increase costs to business. The increase in labour costs for foreign ships would make participation in the Australian coastal trading less attractive.

This option has the potential to increase the market share for Australian flagged ships. However, this option could increase costs to Australian shippers, driven by the higher wage costs for Australian crew.

As a result it is likely many foreign ships would elect to not participate in the domestic market. The result of this would be a decline in the supply of ships for coastal trading which would further increase costs to Australian shippers and would likely result in a shift towards road and rail freight transport.

Option 1 would result in an estimated economic cost of approximately $2.5 billion over a 20 year period commencing on 1 July 2015.⁹

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**DEREGULATORY SAVINGS**

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**LICENSING FRAMEWORK**

There would be no licensing system under this option, which results in savings to businesses as they will not have to incur the significant administration, compliance and delay costs that result from the current regulatory framework. Business will receive savings under this option as a result of not having to use the online licensing system (establishment and maintenance of user account and training costs), not having to apply, and pay the fee, for licences and not notifying and reporting on voyages. There will also be no delay costs associated with application approvals.

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⁹ This net present value has been calculated using a 7 per cent discount rate as per the Office of Best Practice Regulation’s Guidance Note on Cost-Benefit Analysis.
The annual deregulatory savings to businesses from the removal of licensing system has been estimated by the Department of Infrastructure and Regional Development and the Department of Employment to be $2.5 million.

**TERMS AND CONDITIONS OF EMPLOYMENT**

The application of the Fair Work Act and Seagoing Industry Award Part A to all seafarers engaged in coastal trading would result in a direct increase in costs to business of approximately $14.9 million per year.

**COMBINED SAVINGS**

Under this option, the combined deregulatory cost to business is approximately $12.3 million. Suitable potential offsets from within the Infrastructure and Regional Development portfolio have been identified, but as the option is not considered to be practical and the Government has stated it will not be adopted, these savings have not been included in the RIS.

<table>
<thead>
<tr>
<th>Average Annual Regulatory Costs for (from Business as usual)</th>
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<tr>
<td><strong>Change in costs ($ million)</strong></td>
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**Are all new costs offset?**

☑ yes, costs are offset  □ no, costs are not offset  □ deregulatory, no offsets required

**Total ($million) (Change in costs – Costs offset)**  
$12.3
OPTION 2

Option 2 is the removal of all regulation of access to coastal trading by repealing the Coastal Trading Act, and the enactment of legislation to deal with the effects of other Australian laws. This option received moderate support in the consultative process conducted by the Department of Infrastructure and Regional Development. Support for this option generally came from foreign shipping companies and shippers of goods.

BENEFITS

Repealing the Coastal Trading Act and enacting legislation to deal with the effects of other Australian laws would encourage foreign ships to increase their participation in coastal trading. Foreign ships may be able to increase their market share in sectors where there is not 100% market share for foreign ships currently, for example cruise shipping, the dry bulk trade (excluding bauxite and iron ore) and non-bulk freight on Bass Strait. The potential to increase market share will depend on the type of service a foreign ship can offer compared to the service Australian ships are currently providing.

Australian shippers would be able to transport their goods at a potentially lower cost due to the increase in foreign ships and their lower operating costs. In addition, it is expected the reduction in costs to shippers will generate new business opportunities for sea freight that are currently too expensive to optimise or which currently utilise land-based freight.

The realisation of the benefits detailed above is based on two key assumptions. Firstly, it is assumed that new legislation would allow foreign ships to continue to be exempt from being considered as ‘imported’ under the Customs Act 1901. This would allow Maritime Crew Visas to continue to operate (so foreign ships would not be subject to the associated higher crew costs) and GST payment would not be required. Secondly, it is assumed that the new legislation would be successful in eliminating the all undesired effects of repealing the Coastal Trading Act.

The Fair Work Act and Seagoing Industry Award would not apply to foreign ships engaged in coastal trading under option 2. This policy decision would result in savings to foreign ship operators as those temporary licence and transitional licence ships currently subject to the Fair Work Act would no longer be required to pay according to Part A (for transitional general licence ships) and Part B (for temporary licence ships) of the Seagoing Industry Award. Instead, foreign crew on foreign ships would likely return to the lower international standard set by the International Transport Federation Uniform Collective Agreement. The reduction in labour costs for foreign ships may encourage competition in the coastal shipping market, with cost savings likely to be passed on to users of shipping services.

Option 2 would result in an estimated economic benefit of approximately $786.2 million over a 20 year period commencing on 1 July 2015.11

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10 These cargoes are already predominantly carried under temporary licence.
11 This net present value has been calculated using a 7 per cent discount rate as per the Office of Best Practice Regulation’s Guidance Note on Cost-Benefit Analysis.
COSTS

Under this option there is the potential for some Australian seafarer jobs to be lost. Australia’s coastal seagoing workforce is estimated at 1177 jobs\(^\text{12}\).

Should a less regulated coastal shipping regulatory system be implemented, it is likely that some operators of Australian ships will seek to move to the lower cost model and flag their ships overseas. This would allow operators to pay all workers on the now foreign flagged ships internationally competitive wages and conditions.

The issue of any impact on Australian jobs must be considered in the broader context of increased domestic shipping activity - the increase in associated on-shore work and the impact lower shipping costs will have on onshore industries reliant on shipping services. The reforms may allow these industries to be more competitive and this may prevent further job losses in Australian manufacturing, resources and other industries. The modelling undertaken for the cost-benefit analysis did not include the cost of the potential losses of Australian seafarer jobs.

The modelling for the cost-benefit analysis also did not include any costs associated with identifying and enacting new legislation to negate the undesired effects of repealing the Coastal Trading Act.

DEREGULATORY SAVINGS

LICENSING FRAMEWORK

There would be no licensing system under this option, which results in savings to businesses as they will not have to incur the significant administration, compliance and delay costs that result from the current regulatory framework. Business will receive savings under this option as a result of not having to use the online licensing system (establishment and maintenance of user account and training costs), not having to apply, and pay the fee, for licences and not notifying and reporting on voyages. There will also be no delay costs associated with application approvals.

The annual deregulatory savings to businesses from the removal of licensing system has been estimated by the Department of Infrastructure and Regional Development and the Department of Employment to be is $2.5 million.

TERMS AND CONDITIONS OF EMPLOYMENT

Removing the requirement for foreign ships to pay their seafarers according to the Fair Work Act and the Seagoing Industry Award would result in foreign seafarers on foreign ships being more cost effective than Australian labour on Australian ships. This would increase cost pressures on the Australian fleet and make the option for Australian ships to re-flag and re-crew more attractive. Option 2 results in a direct saving of $25.4 million to foreign ship operators per year.

\(^{12}\) This is the number of seafarers working in the blue water – ocean going ships category as identified in the Maritime Workforce Development Forum Australian Maritime Industry Census (p. 16)
Under this option, the combined deregulatory saving is approximately $27.9 million.

### Average Annual Regulatory Costs for (from Business as usual)

<table>
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<tr>
<th>Change in costs ($ million)</th>
<th>Business</th>
<th>Community organisations</th>
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<th>Total change in cost</th>
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<td>Total by Sector</td>
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<td>Total by Sector</td>
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Are all new costs offset?

- [ ] yes, costs are offset
- [ ] no, costs are not offset
- [x] deregulatory, no offsets required

### Total ($million)

(Change in costs – Costs offset)  ($27.9)

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**COMBINED SAVINGS**
OPTION 3

Option 3 is the continued regulation of coastal trading, but with a reduction in industry burden and cost. This option received moderate support in the consultative process conducted by the Department of Infrastructure and Regional Development. Support for this option generally came from Australian shipping companies.

BENEFITS

A more flexible licensing system is likely to be more attractive for foreign ship operators and therefore may increase the number of foreign ships participating in Australian coastal shipping. Foreign ships may be able to increase their market share in sectors where there is not 100% market share for foreign ships currently, for example cruise shipping, the dry bulk trade (excluding bauxite and iron ore) and non-bulk freight on Bass Strait. The potential to increase market share will depend on the type of service a foreign ship can offer compared to the service Australian ships are currently providing. The more flexible system is also likely to reduce the number of coastal shipping voyages that are cancelled or forgone, saving licence holders both time and money.

As with options 2 and 4, Australian shippers would be expected to benefit from lower costs of shipping, as more competitive foreign ships are encouraged to enter the market. This has the potential to generate new business, for example where shipping costs would be prohibitive under current arrangements, and to make sea freight more competitive with land-based freight transport.

Additionally, the geographic reach of the Coastal Trading Act would be expanded to cover the carriage of liquid fuel products from offshore installations, floating production, storage and offtake vessels and floating storage units to the mainland. This will allow petroleum companies to gain a licence enabling a foreign flagged vessel to undertake this type of movement, removing the risk of importation under the Customs Act.

The Fair Work Act and Seagoing Industry Award would not apply to foreign ships engaged in coastal trading under option 3. This policy decision would result in savings to foreign ship operators as those temporary licence and transitional licence ships currently subject to the Fair Work Act would no longer be required to pay according to Part A (for transitional general licence ships) and Part B (for temporary licence ships) of the Seagoing Industry Award. Instead, foreign crew on foreign ships will likely return to the lower international standard set by the International Transport Federation Uniform Collective Agreement. The reduction in labour costs for foreign ships may encourage competition in the coastal shipping market, with cost savings likely to be passed on to users of shipping services.

Option 3 would result in an estimated economic benefit of approximately $705.3 million over a 20 year period commencing on 1 July 2015.\(^\text{13}\)

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\(^{13}\) This net present value has been calculated using a 7 per cent discount rate as per the Office of Best Practice Regulation’s Guidance Note on Cost-Benefit Analysis.
COSTS

Under this option there is the potential for some Australian seafarer jobs to be lost, although the potential for job losses is less compared to options 2 and 4. Australia's coastal seagoing workforce is estimated at 1177 jobs\(^{14}\). Should a less regulated coastal shipping regulatory system be implemented, it is likely that some operators of Australian ships will seek to move to the lower cost model and flag their ships overseas. This would allow operators to offer all workers on the now foreign flagged ships internationally competitive wages and conditions.

The issue of any impact on Australian jobs must be considered in the broader context of increased domestic shipping activity - the increase in associated on-shore work and the impact lower shipping costs will have on onshore industries reliant on shipping services. The reforms may allow these industries to be more competitive and this may prevent further job losses in Australian manufacturing, resources and other industries. The modelling undertaken for the cost-benefit analysis did not include the cost of the potential losses of Australian seafarer jobs.

DEREGULATORY SAVINGS

LICENSING FRAMEWORK

Under this option there will be savings to industry due to the easing of some restrictions in the licensing system. A significant reduction in delay costs has been assumed due to the broadening of the tolerance provisions. The broadening of the tolerance provisions will result in less authorised matters and new matters applications being made, which will result in vessels spending less days waiting for approval of an application.

The administration costs will increase very slightly compared to the status quo. A moderate increase in the number of Temporary Licence applications and new matters applications has been assumed due to the ability to submit applications containing less than 5 voyages. As a result of the assumed increase in applications, the number of voyages undertaken has been assumed to increase slightly, which leads to slight increase in the amount of reporting. Authorised matters variations have been assumed to decrease moderately due to the broadening of the tolerance provisions. Overall, a decrease in the number of transactions occurring has been assumed as the decrease in authorised matters applications is greater than the increase in Temporary Licence and new matters applications.

There will be no change in substantive compliance costs as the training requirements for the online licensing system will not change.

The annual deregulatory savings to businesses from the easing of some restrictions in the licensing system is $1.2 million.

TERMS AND CONDITIONS OF EMPLOYMENT

Removing the requirement for foreign ships to pay their seafarers according to the Fair Work Act and the Seagoing Industry Award would result in foreign seafarers on foreign ships being more cost effective than Australian labour on Australian ships. This would increase cost pressures on the Australian fleet and make the option for Australian ships to re-flag and re-crew more attractive. Option 3 results in a direct saving of $25.4 million to foreign ship operators per year.

\(^{14}\) This is the number of seafarers working in the blue water - ocean going ships category as identified in the Maritime Workforce Development Forum Australian Maritime Industry Census (p. 16)
Under this option, the combined deregulatory saving has been estimated by the Department of Infrastructure and Regional Development and the Department of Employment to be approximately $26.6 million.

### Average Annual Regulatory Costs for (from Business as usual)

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Are all new costs offset?

- [ ] yes, costs are offset
- [ ] no, costs are not offset
- [✓] deregulatory, no offsets required

**Total ($million)**

(Change in costs – Costs offset) = ($26.6)
OPTION 4 (PREFERRED OPTION)

Option 4 is the replacement of the existing tiered system with a single permit system that provides unrestricted access to coastal shipping, with a minimum crewing requirement if a foreign vessel undertakes more than 183 days of coastal shipping in a permit period.

In relation to labour arrangements, option 4 seeks to balance interests through applying Australian workplace relations conditions to those foreign ships predominantly engaged in the domestic economy. The Fair Work Act and Seagoing Industry Award Part B will apply to foreign ships that engage in more than 183 days of coastal trading in a permit period.

This option was developed as a result of strong stakeholder support for an option that was somewhere between options 2 and 3. In particular, the Department of Infrastructure and Regional Development observed a significant degree of support for a 'light touch' licensing system, which provided legislated certainty along with a high degree of openness and flexibility.

BENEFITS

This option would encourage the increased participation of foreign ships in coastal trading, encouraged by a new single permit system with minimal compliance costs. Foreign ships may be able to increase their market share in sectors where there is not 100% market share for foreign ships currently, for example cruise shipping and the dry bulk trade (excluding bauxite and iron ore). The potential to increase market share will depend on the type of service a foreign ship can offer compared to the service Australian ships are currently providing.

As with options 2 and 3, Australian shippers would be expected to benefit from lower costs of shipping, as more competitive foreign ships are encouraged to enter the market. This has the potential to generate new business (where shipping costs would be prohibitive under current arrangements), and to make sea freight more competitive with land-based freight transport.

Additionally, the geographic reach of the Coastal Trading Act would be expanded to cover the carriage of liquid fuel products from offshore installations, floating production, storage and offtake vessels and floating storage units to the mainland. This will allow petroleum companies to gain a licence enabling a foreign flagged vessel to undertake this type of movement, removing the risk of importation under the Customs Act.

The requirement to retain a minimum contingent of crew with Australian work rights on board vessels undertaking more than 183 days of coastal shipping in a one year permit period would ensure the ongoing availability of personnel with seafaring skills and experience in the Australian economy.

Consultation indicated the importance of ongoing access to these skill sets for a range of harbour and landside roles in the maritime industry. Several stakeholders were concerned about the retention of appropriate maritime skills in the Australian workforce. Under a scenario which could see fewer Australian ships, particular concerns included a diminished availability of seafaring skills for specialised landside positions, and possible lag times and limited training berths to train new personnel. Others suggested these skills could be sourced globally in the same way as foreign shipping services, while some cruise operators suggested the passenger industry could play a greater role in training.

Some foreign ships would continue to be subject to the Fair Work Act under option 4, however the threshold for coverage will be lifted to ships that engage in more than 183 days of coastal trading in a permit year. This policy change acknowledges the concerns of stakeholders that
current Fair Work Act coverage is burdensome, while also requiring adherence to Australian wages and conditions for ships engaged in significant Australian coastal trade.

Option 4 would result in an estimated economic benefit of approximately $667.4 million over a 20 year period commencing on 1 July 2015.\(^\text{15}\)

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**COSTS**

Under this option there is the potential for some Australian seafarer jobs to be lost, even with the requirement to maintain a minimum contingent of Australian crew on board vessels spending more than 183 days undertaking coastal shipping in a permit period.

The issue of any impact on Australian jobs must be considered in the broader context of increased domestic shipping activity - the increase in associated on-shore work and the impact lower shipping costs will have on onshore industries reliant on shipping services. The reforms may allow these industries to be more competitive and this may prevent further job losses in Australian manufacturing, resources and other industries. The modelling undertaken for the cost-benefit analysis did not include the cost of the potential loss of Australian seafarer jobs.

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**DEREGULATORY SAVINGS**

**LICENSING FRAMEWORK**

Under this option there will be savings to industry due to the simpler single permit system and the fact that a permit provides unrestricted access to coastal shipping. There will be savings in administration costs as permits provide unrestricted access to coastal shipping, compared to the existing licence system where every voyage needs to be approved for a Temporary Licence. There will also be a saving from the reduction in reporting, from pre and post voyage reporting for Temporary Licence holders to one report every six months. Savings in administration costs will also occur due to the removal of the notice in response process.

There will also be a reduction in substantive compliance costs for businesses. The time required to train staff to use the online licensing system will be reduced as less interactions will be required with the online permit system. Delay costs will be eliminated as the single permit system provides unrestricted access to coastal shipping.

The annual deregulatory savings to businesses from the single permit system is $2.4 million.

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**TERMS AND CONDITIONS OF EMPLOYMENT**

Part B of the Seagoing Industry Modern Award was created by the then Australian Industrial Relations Commission to apply to foreign ships engaged in coastal trading. Option 4 will continue to utilise Part B for foreign ships, replacing the current link to a temporary licence (after the first two voyages) to a ship’s engagement in coastal trading for more than 183 days in a permit year. Modelling for option 4 estimates that a total of ten foreign ships are likely to reach this threshold and therefore be covered by the Fair Work Act and Part B. These wages and conditions will apply from day one of the permit period. For the purposes of modelling, ten ships are anticipated to trade for more than 183 days, based on current trading practices.

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\(^\text{15}\) This net present value has been calculated using a 7 per cent discount rate as per the Office of Best Practice Regulation’s Guidance Note on Cost-Benefit Analysis.
Administrative savings resulting from option 4 are estimated to total approximately $85,000, and labour cost savings are estimated to total approximately $19 million per year.

COMBINED SAVINGS

Under this option, the combined deregulatory saving has been estimated by the Department of Infrastructure and Regional Development and the Department of Employment to be approximately $21.4 million.

| Average Annual Regulatory Costs for (from Business as usual) |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
| Change in costs ($ million)     | Business        | Community       | Individuals     | Total change in cost |
| Total by Sector                 | ($21.4)         | 0               | 0               | ($21.4)           |

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Are all new costs offset?

☐ yes, costs are offset  ☐ no, costs are not offset  ☑ deregulatory, no offsets required

Total ($Million) (Change in costs – Costs offset)  ($21.4)

INTERNATIONAL STANDARDS HARMONISATION

There are no international standards for the regulation of participation in domestic economies. Coastal shipping is regulated in a range of ways ranging from highly prescriptive and restrictive approaches such as the Jones Act in the USA through to more open arrangements such as those in New Zealand. All options considered are consistent with international practice.
RIS QUESTION 5 – CONSULTATION

THE PURPOSE OF CONSULTATION

Consultation was undertaken with industry stakeholders, industry and employee representative groups, government agencies and with other interested parties to assist the Government in developing an understanding of the key issues faced by each stakeholder group. These initial stakeholder consultation activities assisted in further shaping the policy options presented to Government for consideration.

Given the broad spectrum of stakeholders interested in coastal shipping, conducting a thorough consultation process was essential to ensure the best possible advice was prepared about the most effective policy for coastal shipping.

CONSULTATION STRATEGY

The consultation process began with the publication of an options paper "Options Paper: Approaches to regulating coastal shipping in Australia". The options paper highlighted questions for discussion by industry and called for submissions from interested stakeholders.

Submissions were received from 85 interested parties including major Australian and foreign shipping companies, Australian industry reliant on shipping services, and from industry and employee representative groups (see Appendix B

COST BENEFIT ANALYSIS

[Provided as a separate Attachment to the email transmitting the RIS to OBPR].
Supporting the options paper process, the Department of Infrastructure and Regional Development met with 103 stakeholder organisations through a series of open and private consultation sessions. These sessions took place in Brisbane, Canberra, Hobart, Melbourne, Perth and Sydney. Open consultation sessions included a presentation explaining the different options followed by an open discussion; private sessions complemented these open sessions and supported the discussion of more sensitive issues. During the private sessions, the Department sought targeted information about the effects of the current framework and any potential changes. The consultative process was publicised broadly through emails to industry and information on the Department’s webpage. Advertisements were also published in the *Lloyd’s List DCN*, *The Australian Financial Review* and *The Australian* regarding the consultation process.

To establish the likely economic benefits or costs of each option, the Department commissioned independent research and an online data collection exercise. This work provided an independently verified net present value for each proposed option and the results are reflected in this Regulation Impact Statement.

Consultation was also undertaken to determine the regulatory burden imposed by the current system. For this purpose, businesses regulated under the current coastal trading regime were asked to respond to a questionnaire. The information provided during this process assisted in the refinement of policy options and in establishing the regulatory burden of the existing system and of the options considered.

After the Government had time to consider the submissions made to the options paper process and had further refined the options under consideration, the Deputy Prime Minister held an industry roundtable on 2 February 2015. This meeting drew together and sought views from senior representatives from a range of businesses and industry associations affected by the existing regulatory framework. During this meeting, the Deputy Prime Minister put forward how the Government envisaged the proposed reforms proceeding and encouraged feedback from stakeholders. Following the industry roundtable, the Government received an additional 19 submissions from industry members. This feedback assisted in shaping the preferred option set out in this Regulation Impact Statement.

### PARTIES CONSULTED

A wide range of stakeholders were canvassed as part of the consultation process. Various stakeholders engaged in or with an interest in coastal shipping were consulted with, including ship owners and operators, manufacturers, industry bodies, unions and state and territory governments. Both General Licence holders and Temporary Licence holders were present amongst those stakeholders who were consulted with. In total, 85 parties provided a submission to the review and 103 stakeholders were met with through public and private consultation sessions. A list of submissions is included at Appendix B.

### COST BENEFIT ANALYSIS

[Provided as a separate Attachment to the email transmitting the RIS to OBPR].
APPENDIX C.

Following this process the Deputy Prime Minister hosted a roundtable discussion at Parliament House in February 2015 to further refine the proposed model. The attendees at this meeting were the largest companies and stakeholder groups in the industry, the majority of which had made earlier submissions to the process.

CONSULTATION TOPICS AND ISSUES

During the consultative process associated with this regulatory development program, the Government canvassed a wide range of issues. These included what the regulation of coastal shipping should seek to achieve, the efficacy of the existing measures and a range of future policy options including complete deregulation, a more controlled deregulatory process, relatively minor changes to the existing framework, and a controlled deregulation with protections for Australian skills and jobs.

Three options were presented for the consideration of stakeholders in the options paper:

- **Option 1** – *remove all regulation of access to coastal trading* involves repeal of the *Coastal Trading (Revitalising Australian Shipping) Act 2012* (Coastal Trading Act) without consideration of the residual effects of other legislation. All foreign flagged vessels undertaking coastal shipping would subject to all applicable Australian laws, including the *Customs Act 1901*.
- **Option 2** – *remove all regulation of access to coastal trading and enact legislation to deal with the effects of other Australian laws* involves repeal of the Coastal Trading Act and introduction of a range of other legislative provisions to ensure open market access to coastal trade by all vessels.
- **Option 3** – *continue to regulate coastal trade, but minimise industry burden and cost* involves the Australian Government continuing to regulate coastal trade under an amended Coastal Trading Act, which would see major burdens and costs to industry removed. This option would retain some protection for the Australian flagged coastal fleet while providing greater flexibility to buyers of shipping services and both Australian and foreign flagged suppliers of coastal shipping services.

In addition to these options, and in light of industry feedback, a controlled deregulation option with protections for Australian skills and jobs was developed after the options paper process. This fourth option is the recommended option and was presented to an industry roundtable meeting by the Deputy Prime Minister in February 2015.

Consultation during the industry roundtable focused on a proposed regulatory framework developed from the earlier canvassed options but building on industry feedback to date. This discussion focussed on the theme of workability in the proposed model, industry impacts and timing practicalities.

OUTCOMES OF CONSULTATION

Stakeholder support was divided between Options 2 and 3. Australian shipping companies generally preferred Option 3, while foreign shipping companies and shippers of goods preferred the less restrictive Option 2.

One party supported Option 1 but indicated support for the removal of other regulatory barriers for foreign vessels, aligning with Option 2. In practice, Option 1 would significantly increase the difficulty for foreign vessels to compete in the coastal trading market.
A number of stakeholders supported a position somewhere between options 2 and 3. In particular, the Department observed a significant degree of support for a 'light touch' licensing system, which provided legislated certainty along with a high degree of openness and flexibility.

Overall, stakeholders felt that the Coastal Trading Act has acted as an unreasonable barrier to competition and market entry by foreign vessels, having the effect of increasing the price of coastal shipping services and thus the viability of Australian business.

Several stakeholders perceived conflict within the different aims or 'object' of the Coastal Trading Act; some aims clearly support, develop and protect use of the Australian shipping industry while others aim to provide Australian export industries with the most efficient and competitive shipping services available (which may not always be Australian).

Stakeholders were most concerned by the cost of Australian shipping, which was stated to be almost double that of using foreign flagged vessels. The primary driver of higher costs was seen to be high Australian wage costs relative to foreign vessel wage costs. As such, many stakeholders criticised the 2010 extension of the Fair Work Act to (some) foreign ships. Other cost drivers related to the high average age of Australian vessels, such as higher fuel consumption and insurance premiums.

Stakeholders called for policy certainty to create greater certainty in business planning and perceived a propensity in Australia to change shipping regulations on a semi-regular basis, which they felt posed a high sovereign risk for coastal shipping operations in Australia.

The current Temporary Licence system was seen as a further disincentive to the participation of foreign vessels, due to high compliance costs and operational uncertainty. Temporary Licences were seen as overly inflexible because foreign vessels are currently required to apply for a minimum of five voyages (seen as impractical for last-minute shipping), and abide by tolerance provisions for volume and loading date (±20 per cent; ± five days). Of particularly concern was the ability of Australian vessels to contest the granting and amendment of Temporary Licences to foreign vessels; in light of foreign vessels' 'inflexible' requirements, this ability to contest was seen as overly advantageous for Australian vessels. Purchasers of shipping services, who prefer cheaper foreign services, felt that required negotiations with more expensive Australian shipping companies rarely resulted in mutually acceptable outcomes being reached.

During consultations, many participants expressed concern about the application of the Fair Work and Part B of the Seagoing Industry Award. They had concerns with both labour costs and the administrative complexity in interpreting and applying the legislated requirements. Some stakeholders also suggested that the switching on and off of the Fair Work Act and complexities associated with Part B are a particular disincentive for foreign ships looking to engage in domestic coastal trading, reducing the availability of certain coastal routes.

Not all stakeholders consider Part B is a significant cost driver in setting freight rates. During consultations, a limited number of ship operators suggested the additional labour costs were minimal when compared to other factors affecting freight rates, such as the cost of fuel. The Maritime Union of Australia also argued for the retention of the Fair Work Act and Part B on the basis that foreign flagged ships engaged in coastal trading are participating in the domestic freight market and are in competition with Australian ships and other modes of transport.

Service reliability was noted as of critical concern to some shippers, such as fresh produce shippers with lower volumes. Under the current regulatory system, these stakeholders felt that the compliance burden deterred and even prevented use of existing capacity on foreign vessels on the Australian coast to move coastal cargo. Some users who supported Option 3 were concerned about long-term commitment from foreign vessels; Tasmanian fresh produce exporters also expressed concerns about whether services could be maintained at an appropriate price. However, bulk shippers were confident of sourcing sufficient services from the global market under an open coast scenario.
Specific representations were made of business opportunities for lower cost shipping services to Tasmania. These opportunities have not been pursued due to the need to reveal the proposed voyage and cargo patterns to General Licence holders (Australian shipping companies) through the Temporary Licence application process, with the fear they will be either challenged by General Licence holders or cannibalised by other Temporary Licence holders.

Feedback during the industry roundtable and provided afterwards indicated general support for option 4.
RIS QUESTION 6 – THE PREFERRED OPTION

In line with the Australian Government Guide to Regulation, this section:

- Describes what Government learned from consultation.
- Indicates which of the identified options has been recommended to Government.
- Explains the decision making process and clearly outlines any:
  - caveats or qualifications
  - assumptions
  - unresolved issues
  - weightings applied to evidence or arguments.

KEY FINDINGS FROM CONSULTATION

Stakeholder feedback has signalled the Coastal Trading Act has resulted in:

(a) an increased administrative burden and cost for foreign employers, resulting in higher shipping costs for purchasers of shipping services;
(b) operational uncertainty, due to the ability of Australian flagged ships to contest licence applications and variations by foreign flagged ships; and
(c) a reluctance by international ship operators to participate in coastal shipping under the current regulatory system, resulting in underuse of international ships’ capacity between stops along the Australian coast.

Stakeholder opinions were divided between a complete deregulation of the sector (through Option 2) and the maintenance of a minimalist regulatory framework (Option 3). Australian shipping companies generally preferred the retention of a minimalist regulatory framework, while foreign shipping companies and shippers of goods preferred a more extensive deregulation of the sector. The Department observed a significant degree of support for a ‘light touch’ licensing system which provided legislated certainty along with a high degree of openness and flexibility.

Some key observations from the consultation process include:

- the ongoing availability of people with seafaring experience, local knowledge and an understanding of the specifics of how the Australian industry operates is considered to be essential by many landside businesses. In particular, the need for people with these skills and knowledge to fill key roles in Australia’s ports was highlighted as a concern in the absence of measures to ensure such people continue to be available.
- perceived conflict within the different aims or ‘object’ of the Act; some aims clearly support, develop and protect use of the Australian shipping industry while others aim to provide Australian export industries with the most efficient and competitive shipping services available (which may not always be Australian).
- the majority of general licence holders for coastal shipping prefer to see regulation maintained in some form;
users of foreign shipping services feel little is achieved by the Coastal Trading Act requirement to negotiate with general licence companies. The more expensive nature of Australian shipping services is such that a mutually acceptable outcome can almost never be reached with the shipper preferring the cheaper foreign service;

opportunities for lower cost services to Tasmania had been identified by foreign competitors but have not been pursued due to the current requirement to reveal the proposed voyage and cargo patterns to general licence holders through the application process, with the fear they will be either challenged by general licence holders or cannibalised by other temporary licence holders;

there are opportunities to remove the inflexibility in the temporary licencing process by removing the five voyage minimum, the 20 per cent tolerances and the 5 day time window for loading. This would recognise the often ‘last minute’ nature of shipping consignments and ease the compliance burden as an immediate concession to the business needs of shippers; and

while its level of significance across consultation participants varied, many stakeholders cited the application of the Fair Work Act to foreign ships as a priority issue, voicing concerns both with increased labour costs and administrative complexity. Some stakeholders indicated the complexities associated with the application of the Fair Work Act are a particular disincentive for foreign ships looking to engage in domestic coastal shipping, reducing the availability of certain coastal routes and impacting on a shipper’s ability to move their cargo to meet business requirements.

Maintenance of the current regulatory settings will likely have a negative effect on growth in the broader Australian economy due to the existing restrictions on access to timely, flexible and cost effective shipping services. Government is considering options to reset the regulatory framework to better support an efficient shipping industry to in turn benefit the broader Australian economy.

In addition, the existing framework continues to protect an Australian fleet that is old and expensive by global standards.

THE RECOMMENDED OPTION

The preferred approach is to pursue reform to the existing legislative framework to significantly reduce industry costs and burden and to remove impediments to foreign ships seeking to access the Australian coast while retaining measures to support the ongoing supply of maritime skills in the Australian economy through option 4.

This approach would replace the existing four tiered licensing framework with a single coastal trading permit for both Australian and foreign ships. Under this framework:

- ships covered by a permit would not be imported by Customs;
- Australian and foreign ships would be afforded equal access rights to carry coastal goods or passengers;
- a foreign ship operating in Australia under a permit for more than 183 days would be required to meet minimum Australian crewing requirements and be covered by the Fair Work Act and Part B of the Seagoing Industry Award; and
• voyages loading or unloading at roadsteads outside state waters, and voyages loading at offshore oil and gas installations for transport to the mainland would be eligible for coverage under the permit system.

While consultation revealed strong support for both a controlled deregulation of coastal shipping and amendments to simplify the existing regulatory and policy framework, it appears the most satisfactory and beneficial approach for business and government lies between the two options.

Although the costings for a reduced regulatory framework appear to provide the greatest economic benefit, adopting this option (as presented in the options paper) would not resolve a number of significant concerns raised during the consultative process and would only provide an additional $5.94 million per year in benefits across the Australian economy. While Option 2 may have been assessed as having the highest net economic benefits, it is not feasible to introduce reforms to coastal shipping without balancing the benefits of increased use of foreign vessels with measures to ensure that the services delivered by foreign ships are provided in a manner that meets the expectations of the Australian community as to crewing and employment standards. These measures are foundation elements of the new regulatory and policy framework, and the comparison of net economic benefits needs to be considered in this context.

Option 4 is preferable to Option 2 because it more closely aligns with Government priorities in the area of skills development and protections for seafarers on foreign ships and would ensure a reasonable ongoing availability of skilled and qualified mariners with local knowledge and experience to fill positions in on-land transport and logistics industry sectors. Although it is possible these skills could be brought in at global market rates, consultation indicated the industry highly values local knowledge.

Key aspects of Option 4 are:

• removing licensing impediments, particularly the requirement to apply for specific voyages and to vary voyages already approved;
• removing the ability for Australian ships to challenge the granting of a licence to foreign ships;
• allowing the carriage of petroleum products from offshore installations in Australian territory to the mainland;
• retaining the application of the *Fair Work Act 2009* to foreign ships predominantly engaged in Australia's domestic trade; and
• maintaining career paths for the skilled professions of Masters and Officers and Engineers, by requiring ships wishing to trade on the coast for more than 183 days in the licensing period to meet minimum Australian crewing requirements.

The combination of measures in Option 4 would address the specific concerns of stakeholders about the loss of skills in the market, and would provide a preference to employing Australians over foreign nationals in the domestic economy in line with Government policy.

**THE DECISION MAKING PROCESS**

The following process was followed in order to ensure the best possible policy would be chosen and implemented by the Government with regards to the regulation of coastal shipping in Australia.
The first step in the decision making process was the publication of an options paper titled "Options Paper: Approaches to regulating coastal shipping in Australia". This paper put forward three broad options for the consideration of stakeholders:

(a) **Option 1 – remove all regulation of access to coastal trading**

(b) **Option 2 – remove all regulation of access to coastal trading and enact legislation to deal with the effects of other Australian laws**

(c) **Option 3 – continue to regulate coastal trade, but minimise industry burden and cost**

The options paper also posed questions for industry to consider in relation to the current coastal trading framework as well as in relation to potential changes to the regulation of the sector. The options paper also called for submissions from industry and other stakeholders with an interest in the coastal shipping sector. The Department received submissions from 85 parties, including major Australian and foreign shipping companies, Australian industry reliant on shipping services, and from industry and employee representative groups.

Supporting this process, the Department also met with 103 stakeholder organisations in a series of open and private consultation sessions. These sessions were held in cities around the country as outlined in the response to question 5.

Following the discussion paper and submissions process, a range of options were presented to the Government. These options reflected the outcomes of consultation with industry and relevant stakeholder groups.

Reflecting industry feedback an additional policy option for the regulation of coastal shipping similar to option 2 but with additional measures to preserve skills, preference employing Australians over foreign nationals in the domestic economy, and to provide assurances about wages and conditions was developed. This preferred option was tested with various coastal shipping stakeholders at an industry roundtable meeting hosted by the Deputy Prime Minister at Parliament House in Canberra on 2 February 2015. Following this meeting, additional submissions were received and the preferred policy option was further refined and developed based on this input.
RIS QUESTION 7 – IMPLEMENTATION AND EVALUATION

In line with the Australian Government Guide to Regulation, this section:

- Discuss any implementation challenges you may face in this policy proposal.
- Assess the implementation risks: their likelihood, consequences and management.
- Outline transitional arrangements in moving from one policy to another.
- Describe how the performance of your policy will be evaluated against its objectives, during and after implementation.

IMPLEMENTATION CHALLENGES

While some legislative complexities in establishing the new framework are anticipated, implementation of the preferred option is anticipated to be relatively straightforward. The legislation drafted to give effect to the changes includes transitional measures providing for a clean switchover between the current and future regulatory frameworks. Further, the long lead time from introduction of a bill to commencement provides sufficient time for industry to secure appropriate permits ahead of the commencement of the new system.

A comprehensive communications plan will be delivered to ensure all affected parties are aware of their obligations as the existing system comes to a conclusion and the new system commences.
**IMPLEMENTATION RISKS**

For the preferred option, the key implementation risks and their likelihood, consequence, treatment measures and residual risk level are:

<table>
<thead>
<tr>
<th>Risk</th>
<th>Likelihood</th>
<th>Consequence</th>
<th>Treatment</th>
<th>Residual Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Ships unable to move cargo</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permits not issued on time</td>
<td>Low</td>
<td>Severe</td>
<td>Administrative processes developed to ensure permits are issued within legislated timeframes.</td>
<td>Low</td>
</tr>
<tr>
<td>Application for Permit not lodged</td>
<td>Medium</td>
<td>Severe</td>
<td>Communications campaign with existing and future licence holders to ensure applications are lodged with sufficient processing time allowed.</td>
<td>Medium</td>
</tr>
<tr>
<td>2 – Administrative Risks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative framework not in place ahead of commencement, or is inadequate to deal with circumstances arising during the early stages of implementation.</td>
<td>Low</td>
<td>Medium</td>
<td>Administrative processes will be developed ahead of commencement and a supporting IT system will be deployed.</td>
<td>Low</td>
</tr>
<tr>
<td>Volume of applications causes a failure of supporting IT systems</td>
<td>Low</td>
<td>Medium</td>
<td>IT system will be tested to ensure it is capable of handling applications in expected volumes.</td>
<td>Low</td>
</tr>
<tr>
<td>Permits not issued on time due to volume of</td>
<td>Low</td>
<td>Severe</td>
<td>Transitional arrangements and a long lead</td>
<td>Low</td>
</tr>
<tr>
<td>applications</td>
<td>time have been built in to the new system to avoid this likelihood</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insufficient resources to process applications ahead of commencement</td>
<td>The Shipping Business Unit is currently staffed appropriately and extra staff are available if needed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Severe</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3 – Communications risks

<table>
<thead>
<tr>
<th>Industry unaware of changes</th>
<th>Low</th>
<th>Medium</th>
<th>There has already been an extensive consultation process, coupled with a broad publicity program there is little risk of industry being unaware of the changes</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Industry unable to meet requirements</th>
<th>Low</th>
<th>Medium</th>
<th>Extensive consultation on the proposed model, and the design linking permits to ships rather than voyages will minimise the likelihood of this risk</th>
</tr>
</thead>
</table>

**TRANSITIONAL ARRANGEMENTS**

The recommended option will be implemented through amendments to the *Coastal Trading (Revitalising Australian Shipping) Act 2012* and the *Shipping Registration Act 1981*.

Legislative changes to bring about a new permit framework would commence on as soon as practicable after the requisite legislation is passed.

A post implementation evaluation of the efficacy of the new measures introduced under the Coastal Shipping Act will be conducted in five years. This evaluation would consider whether access to shipping services had increased, whether costs had noticeably decreased, and the extent of any broader economic stimulus brought about by the revised market access framework.
Timing for any changes to the Fair Work Regulations will be determined by the Minister for Employment, in consultation with the Prime Minister and the Deputy Prime Minister, having regard to the progress of the Bill to amend the Coastal Trading Act.

**EVALUATION PROCESS**

If agreed by the Parliament, the preferred option will be evaluated through a range of mechanisms including regular reviews under the regulator performance framework, monitoring by the Cabinet Implementation Unit and internal reviews and audits within the Department of Infrastructure and Regional Development. In addition to these Government monitoring programs, the significant profile of the proposed amendments is such that the maritime industry and users of shipping services will also provide public and private evaluative feedback on the efficacy of the new system.
APPENDIX A

LICENCE TYPES UNDER THE COASTAL TRADING (REVITALISING AUSTRALIAN SHIPPING) ACT 2012 AND ASSOCIATED LEGISLATION

GENERAL LICENCE

A General Licence is available to vessels on the Australian General Shipping Register and provides unrestricted access to engage in coastal trading in Australian waters for five years.

The licence affords holders the opportunity to compete for trade on the Australian coast and is intended to maximise the use of vessels registered in the Australian General Shipping Register in coastal trading.

Each seafarer working on the vessel must be an Australian citizen or permanent resident or hold a visa with appropriate work rights. A copy of the licence must be displayed on the vessel and the holder of the licence must comply with the relevant reporting requirements. The vessel must continue to be registered on the Australian General Shipping Register to meet the conditions of holding a General licence.

TRANSITIONAL GENERAL LICENCE

A Transitional General Licence is available to eligible vessels that held a licence under the previous arrangements in place under part VI of the Navigation Act 1912. A Transitional General Licence is intended to assist ships operating under the former arrangements to transition to Australian registration, is issued for a period of five years and may be renewed once. A Transitional General Licence affords the ship it is issued to the same rights as a General Licence.

TEMPORARY LICENCE

A Temporary Licence may be granted to a shipper, or the owner, charterer, master or agent of a vessel registered on the Australian International Shipping Register or under a law of a foreign country and provides restricted access to engage in specific coastal trading voyages over a 12 month period.

Applications for new temporary licences must include a minimum of five voyages – for cruise shipping this means five end to end journeys, not five stops on a single ticket. The same requirement applies to cargo with a licence being required for each end to end cargo movement conducted by the ship.

Temporary licences can be varied after they are issued, to either add additional voyages (in minimum groups of five) or to amend the details of already authorised voyages (for example to vary departure or arrival dates or the number of passengers to be carried).

Information about applications is provided by the Department to all General Licence holders and allows them to provide notice that a General Licensed vessel is available to conduct any of the notified voyages. This triggers a mandatory consultation process between the shipper and the General Licence holder that may be arbitrated by the Department.

This is a competitive process and does not automatically grant voyages to Australian operators. A decision is made by the Minister or their delegate and a challenge does not guarantee that the
Temporary Licence application will be rejected. Few applications are contested but this process reduces productivity and increases uncertainty.

Once issued, a copy of the licence must be displayed on the vessel and the holder of the licence must comply with the relevant conditions and reporting requirements.

EMERGENCY LICENCE

An Emergency Licence may be granted to a shipper, or the owner, charterer, master or agent of a vessel registered in the Australian General Shipping Register, the Australian International Shipping Register or under a law of a foreign country to respond to significant national emergencies, as outlined in the regulations, for a period of no more than 30 days.

The licence allows an applicant to respond to a specific emergency of a kind identified in the regulations and must give details of each aspect of the intended voyages including the reasons why the voyages cannot be undertaken by a vessel authorised to be used to engage in coastal trading under a general licence.

A copy of the licence must be displayed on the vessel and the holder of the licence must comply with the relevant conditions and reporting requirements.
APPENDIX B

COST BENEFIT ANALYSIS

[Provided as a separate Attachment to the email transmitting the RIS to OBPR].
APPENDIX C

LIST OF PUBLIC SUBMISSIONS

1. Mr Peter Wilson
2. Maersk Line Australia
3. Australian Peak Shippers Association Inc.
4. North Queensland Bulk Ports Corporation
5. North Star Cruises
6. K&L Gates
7. Australian Maritime College
8. Seacare Authority
9. South Australian Tourism Commission
10. Coral Princess Cruises
11. Australian Expedition Cruise Shipping Association
12. Teekay Shipping
13. Launceston Chamber of Commerce
14. Australian Shipping Consultants Pty Ltd
15. Fremantle Ports
16. Cristal Mining Australia Limited
17. National Public Lobby
18. Institute of Public Affairs
19. Freight Logistics Council of Western Australia
20. Koppers Carbon Materials and Chemicals
21. Bell Bay Aluminium
22. CSL Australia
23. Australian Competition and Consumer Commission
24. South Australian Freight Council
25. Cruise Down Under
26. Asciano
27. Oceania Economic Development Corporation
28. Gearbulk Australasia
29. CSR
30. BlueScope
31. MMG Limited
32. University of Queensland
33. Caltex
34. National Farmers Federation
35. Australian Institute of Marine and Power Engineers
Inco Ships Pty Ltd
Rio Tinto Alcan
Bunbury Wellington Economic Alliance
Gypsum Resources Australia
Australian Industry Group
Chamber of Minerals and Energy of WA
Ashurst
International Marine Contractors Association
Maritime Engineers Pty Ltd
APT
Braemar Seascope
Port of Townsville
Australian Maritime Officers Union
Australian Coastal Shipping
Minerals Council of Australia
Sea Swift
Tasmanian Farmers & Graziers Association
Alcoa of Australia
Australia Aluminium Council
Arrium
Port of Brisbane
Incitec Pivot
Australian Shipowners Association
Business Council of Australia
Ports Australia
Woodside
Tourism and Transport Forum
Shipping Australia Limited
Cement Industry Federation
Compagnie Du Ponant
Australian Institute of Petroleum Ltd
Cruise Lines International Association Australasia
Silversea
SeaRoad
Australian Railway Association
Australian Mines & Metals Association (AMMA)
Maritime Union of Australia
ANL
Carnival Australia
Shell Australia
BP Australia
Hartmann Project Lines
Origin
Tasmanian Government
Northern Territory Government
Manufacturing Australia
Wilmar Sugar
Australian Food and Grocery Council
Grain Trade Australia
Australian International Marine Export Group and Superyacht Australia
Department of Infrastructure and Regional Development –

Cost Benefit Analysis of Regulatory Coastal Shipping Options

Final Report
April 2015
**Inherent Limitations**

*This report has been prepared as outlined in Section 1 of this report.*

No warranty of completeness, accuracy or reliability is given in relation to the statements and representations made by, and the information and documentation provided by, the Department of Infrastructure and Regional Development (the Department) consulted as part of the process.

Predictive Analytics Group (PAG) has indicated within this report the sources of the information provided. We have not sought to independently verify those sources unless otherwise noted within the report.

PAG is under no obligation in any circumstance to update this report, in either oral or written form, for events occurring after the report has been issued in final form.

The findings in this report have been formed on the above basis.

**Third Party Reliance**

*This report is solely for the purpose set out in Section 1 of this report and for the Department’s information, and is not to be used for any other purpose or distributed to any other party without PAG’s prior written consent.*

This report has been prepared at the request of the Department in accordance with the terms set out in Schedule 1 – Order for Services dated 20 October 2014. Other than our responsibility to the Department, neither PAG nor any member or employee of PAG undertakes responsibility arising in any way from reliance placed by a third party on this report. Any reliance placed is that party’s sole responsibility.

**Forecasts and simulations**

In the course of our work, forecasts and/or simulations have been prepared on the basis of assumptions and methodology which have been described in our report. It is possible that some of the assumptions underlying our forecasts and/or simulations may not materialise. Nevertheless, we have applied our professional judgement in making these assumptions, such that they constitute an understandable basis for estimates and projections. Accordingly, readers of this Report must appreciate that, to the extent that certain assumptions do not materialise, our estimates and projections may vary.
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Executive Summary

Background and Scope

The Department of Infrastructure and Regional Development (the Department) engaged Predictive Analytics Group (PAG) in May 2014 to conduct a cost-benefit analysis (CBA) of three coastal trading regulatory options to inform a Regulation Impact Statement (Phase 1). These regulatory options were outlined in the Department's Options Paper: Approaches to regulating coastal shipping in Australia, April 2014 (the Options Paper).

Phase 1 also included certain intermediate deliverables, namely:

- the refinement and update of the existing Bureau of Infrastructure, Transport and Regional Economics (BITRE) Ship Cost model having regard to the PwC review of the previous BITRE CBA of the proposed (at the time) 2012 shipping reform package; and

- the capture and analysis of industry data.

At the conclusion of Phase 1, PAG delivered a comprehensive report to the Department outlining the results of its CBA. PAG was re-engaged in October 2014 to model the costs and benefits associated with three additional options and the inclusion of Cruise Shipping as a new sector (Phase 2). PAG was again re-engaged in March 2015 to remodel the costs associated with the six options based on updated license data provided by the Department (Phase 3). This report outlines the CBA results in relation to all six regulatory options under consideration by the Department, namely:

1. Option 1: Removal of all regulation of access to coastal trading via a repeal of the Coastal Trading (Revitalising Australian Shipping) Act 2012 (the Coastal Trading Act).

2. Option 2: Removal of all regulation of access to coastal trading and enactment of legislation to account for potential undesired effects of other Australian laws, such as the Customs Act 1901 (the Customs Act).

3. Option 3: Maintain current coastal trading licensing scheme with amendments to regulatory settings to minimise industry burden and costs.

4. Option 4: Continued regulation of coastal trading but with amendments to regulatory settings to create equal opportunity between Australian and foreign ship operators.
   a. This approach would replace the existing four tiered licensing framework with a single coastal trading permit for both Australian and foreign ships.

5. Option 5: Australian Master and Chief Engineer required if the vessel operates more than 120 days (Variant 1 of Option 4).
a. This requires foreign vessels to operate with an Australian Master and Chief Engineer on the Seagoing Industry Award 2010 (SIA) Part B wages for Australian and foreign crew, if performing coastal voyages for more than 120 days per year.

6. Option 6: Australian Master and Chief Engineer required if the vessel operates more than 183 days per year (Variant 2 of Option 4).

a. This requires foreign vessels to operate with an Australian Master and Chief Engineer on SIA Part B wages for Australian and foreign crew, if performing coastal voyages for more than 183 days.

Approach

In Phase 1 of the engagement, PAG undertook the following steps to identify the costs and benefits associated with the proposed regulatory options:

1. A project initiation meeting was held with the Department in the week following commencement of the engagement to confirm the scope of the engagement and key deliverables.

2. A shipping industry survey was developed to serve as a data collection tool for the CBA.
   - This included development of a web-based survey.

3. The BITRE Ship Cost model (2011) was reviewed and the refinements and updates required to be made were identified and implemented.

4. Data collected from the shipping industry survey were analysed and assessed for usefulness for incorporation into updates of the BITRE Ship Cost model (where appropriate).

5. Remaining data required were collected from the Department and other sources.

6. Projected net benefits were developed under each regulatory scenario and sensitivity analysis conducted using (and after updating) the Department’s previous CBA workbook.

7. Finally, a report was produced outlining the expected net benefits associated with each regulatory option.

Following completion of Phase 1, PAG undertook the following steps for Phase 2:

1. A project initiation meeting was conducted via teleconference on the 30th of October 2014.

2. Dialogue with the Department and BITRE to clarify and update assumptions was conducted - the current model was examined to determine whether additional variables were required for inclusion in the execution of the current cost-benefit analysis.

3. Data collection and analysis of three additional scenarios.

4. The model was updated with the latest observations and source information relating to any additional variables required to model the three new options.

5. Following data collection, PAG examined the underlying properties of the data and applied statistical techniques to identify anomalies.
6. Development of base case and the 3 additional policy scenario projections, using quantitative and qualitative techniques to isolate and quantify each relevant item.

7. A workshop was conducted to present key findings and seek feedback from the Department, BITRE and key participants.

8. This report was then updated to reflect the modelling results of the new policy scenario variants and expected net benefits associated with each regulatory option.

Key Findings

The CBA is conducted from 1 December 2014 with any change in regulatory settings assumed to commence from 1 July 2015 and the net economic benefits of a regulatory change measured over a 20 year horizon. We define net economic benefit in Net Present Value (NPV) terms. The chart below summarises the key results of the NPV analysis.

**NPV results ($m) over the 20 year horizon**

<table>
<thead>
<tr>
<th>Option</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>5 years</th>
<th>10 years</th>
<th>20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-184.9</td>
<td>-194.4</td>
<td>-204.1</td>
<td>-886.5</td>
<td>-1624.9</td>
<td>-2510.7</td>
</tr>
<tr>
<td>2</td>
<td>41.3</td>
<td>57.8</td>
<td>68.9</td>
<td>280.7</td>
<td>531.5</td>
<td>786.2</td>
</tr>
<tr>
<td>3</td>
<td>38.6</td>
<td>51.0</td>
<td>61.3</td>
<td>252.0</td>
<td>476.9</td>
<td>705.3</td>
</tr>
<tr>
<td>4</td>
<td>41.3</td>
<td>57.8</td>
<td>68.9</td>
<td>280.7</td>
<td>531.5</td>
<td>786.2</td>
</tr>
<tr>
<td>5</td>
<td>32.7</td>
<td>45.8</td>
<td>57.0</td>
<td>231.9</td>
<td>442.8</td>
<td>653.6</td>
</tr>
<tr>
<td>6</td>
<td>33.2</td>
<td>46.5</td>
<td>57.9</td>
<td>235.8</td>
<td>450.7</td>
<td>667.4</td>
</tr>
</tbody>
</table>

**NPV results (main scenario)**

---

where $t$ denotes the time of the cash flow, $i$ is the discount rate, and $R_t$ is the cash flow. Note, when the NPV > 0 the policy has net positive benefits (compared to the base case), when NPV < 0 the policy under examination would subtract value from the industry and the economy, and when NPV = 0 the industry and the economy as a whole would neither gain nor lose from the implementation of the particular policy option.
Note: In accordance with the Office of Best Practice Regulation – Department of Prime Minister and Cabinet (OBPR) guidance a discount value of 7 per cent is assumed to facilitate the CBA. Tables and charts presenting results at discount rates of 3 per cent and 10 per cent can be found in section 6.3.4 and 6.3.5 respectively. Note: For Inter-capital containers, we observe large economic costs for Option 1 whilst there are no economic costs/benefits for all other Options.

The results show that Options 4 and 2, are the most favourable options in the medium to long-term from an economic benefit standpoint. According to the CBA, Option 4 generates net benefits of approximately $786.2m. Option 2 also generates net benefits of approximately $786.2m. Options 4 and 2 are closely followed by Options 3 and 6 which produce net benefits of approximately $705.3m and $667.4m respectively. The table below summarises the results for all cargo types and options.

**NPV results – all cargo types and options (main scenario)**

<table>
<thead>
<tr>
<th>Policy Options</th>
<th>Bauxite Triangular</th>
<th>Bauxite Weipa-Gladstone</th>
<th>Iron Ore</th>
<th>Other Dry Bulk</th>
<th>Sub-total</th>
<th>Oil</th>
<th>Petroleum Products</th>
<th>Other Liquid Bulk</th>
<th>Sub-total</th>
<th>Inter-capital containers</th>
<th>Bass Strait Non-Bulk</th>
<th>Cruise Shipping</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>-100.9</td>
<td>-105.0</td>
<td>-91.0</td>
<td>-296.9</td>
<td>-593.8</td>
<td>-24.9</td>
<td>-71.7</td>
<td>9.4</td>
<td>-172.6</td>
<td>-234.5</td>
<td>0.0</td>
<td>-20.2</td>
<td>-2510.7</td>
</tr>
<tr>
<td>Option 2</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>262.9</td>
<td>542.4</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>103.5</td>
<td>45.2</td>
<td>786.2</td>
</tr>
<tr>
<td>Option 3</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>182.0</td>
<td>461.5</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>103.5</td>
<td>45.2</td>
<td>705.3</td>
</tr>
<tr>
<td>Option 4</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>262.9</td>
<td>542.4</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>103.5</td>
<td>45.2</td>
<td>786.2</td>
</tr>
<tr>
<td>Option 5</td>
<td>0.0</td>
<td>168.0</td>
<td>29.9</td>
<td>247.0</td>
<td>444.9</td>
<td>9.4</td>
<td>66.1</td>
<td>13.4</td>
<td>88.9</td>
<td>0.0</td>
<td>74.6</td>
<td>45.2</td>
<td>653.6</td>
</tr>
<tr>
<td>Option 6</td>
<td>0.0</td>
<td>181.3</td>
<td>29.9</td>
<td>247.0</td>
<td>458.2</td>
<td>9.4</td>
<td>66.1</td>
<td>14.0</td>
<td>89.5</td>
<td>0.0</td>
<td>74.6</td>
<td>45.2</td>
<td>667.4</td>
</tr>
</tbody>
</table>
The results in the above table are presented in terms of the relative impact of each policy option to the base case. For example, Options 4 and 2 generate a positive economic cost savings of $786.2 compared to the base case. The difference in total NPV economic cost savings across policy options 2-4 can largely be attributed to Other Dry Bulk where large volumes of trade is undertaken by domestic vessels. Domestic vessels are more sensitive to variation across the policy options since they have the most to gain from changing their crew composition. Accordingly, we observe greater variation in NPV economic cost savings for this trade. All other cargo trades are undertaken by predominantly foreign vessels and thus the economic cost savings are relatively similar across policy options 2-4.

Option 1 results in a significant NPV economic cost of $2,510.7m. The primary reason is that the cost of replacing foreign crew on Maritime Crew Visas (MCV) with either Australian crew or crew who hold 457 visas greatly increases the crew cost for a foreign vessel previously paying SIA Part B or ITF wage rates. Furthermore, the cost associated with moving inter-capital containers onto rail under Option 1 is approximately $1,662.1m.

Option 2, generates a NPV economic cost saving of $786.2m. The removal of temporary licences under this option means that foreign vessels gain an increased share of the market. Furthermore, ship owners may have little incentive to register vessels in the Australian General Register (Australian flagged) and may opt to register their vessels under a foreign register (foreign flagged) and employ an entirely foreign crew. It is assumed that foreign vessels manned entirely by foreign crew incur lower economic costs compared with Australian flagged vessels. As such, foreign vessels may capture tonnage away from Australian flagged vessels.

Option 3 yields NPV economic cost savings of $705.3m. The cost reductions under Option 3 result purely from an increase in the share of the freight task attributed to foreign vessels. Relative to Option 2, Option 3 generates less economic cost savings. The reason for this is that it is assumed (under Option 3) that ship owners continue to register vessels in the Australian General Register and maintain Australian crew rather than register in a foreign register and employ foreign crew. Isolating and quantifying the exact number of jobs Australian seafarer jobs displaced under Option 3, relative to Option 2, is a complicated task. Notwithstanding, it is assumed that since, under Option 3 foreign vessels ship an increased share of the freight task, there may be some displacement of Australian operated vessels and Australian seafarer jobs relative to the base case scenario.

NPV results – all cargo types and options (main scenario)

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17 It is important to note that this result does not change if GST is factored. GST charged on importation may only serve to further reduce the market share of foreign vessels; as Australian vessels take up an increased freight task, higher net costs are still incurred as Australian vessels (under the modelling assumptions) have higher economic daily time charter costs than foreign vessels.

18 It is important to note that not all possible costs and benefits that may be associated with Option 2 are not captured entirely by the CBA and the ensuing NPV results. These include a potential loss of Australian seafarer jobs which may have flow-on implications for shore-based maritime skills and the shore-based maritime sector in general. Legislative costs associated with the identification, and enactment, of new legislation to negate the undesired effects of a repeal of the Coastal Trading Act are also not captured.

19 Inter-capital containers has been purposefully excluded from the chart as it only relates to Option 1 and the magnitude of the impact (-$1,662.1) skews the chart making the remaining results unintelligible.
Similar to Option 2, Option 4 yields NPV economic cost savings of $786.2m. Options 2 and 4 represent the highest economic cost savings of all policy options. The basis for this result is three-fold. First, the assumed increase in the market share of foreign vessels. Second, the proposed extension of the legislation to cover offshore operations where licence holders opt in. Third, through relaxed licensing arrangements. In essence, it is assumed that many of the operators currently operating under the Australian General Register, incurring Australian Enterprise Agreement (EA) wage rates, would re-flag their vessels in order to compete with the foreign operators who enjoy the benefit of comparatively lower ITF wage rates. Notably, although ship operators are likely to replace Australian seafarers with foreign seafarers, a portion of the crew may still be represented by Australian seafarers due to the world-wide shortage of high ranking positions.

Options 5 and 6 result in economic cost reductions of $653.6m and $667.4m respectively. The economic cost reductions are somewhat similar to Options 4 and 2 due to minimal changes in the proposed amendments. The economic cost reduction for Option 5 is less than that of Option 6 due to more stringent crew conditions proposed under Option 5, where foreign vessels must operate with two senior Australian crew if the vessel conducts coastal voyages for more than 120 days. Options 6 is less stringent in this regard as this requirement is extended to 183 days leading to more favourable crew composition impacts.

We note that the cost-benefit framework used in our analysis is not without limitations. To the extent that a different view may be taken with any of the assumptions (including market share assumptions, cargo trade forecasts and discount rate), the NPV analysis may lead to different results and thus rankings. As outlined above, the ranking of the NPV results for the policy options are predominantly driven by the market share assumptions for the ‘other dry bulk’ trade. The ‘other dry bulk’ trade is influenced by many variables which adds to the speculative nature of the market share assumptions. In turn, our results should be considered as forming ‘part’ of an evidence base of information rather than absolute findings.
1. Introduction

1.1 Background

Coastal trading plays an important role in the Australian economy. This importance was recognised by the implementation of a shipping reform package in 2012 aimed at fostering a vibrant domestic shipping industry. As part of the reforms, the Coastal Trading (Revitalising Australian Shipping) Act 2012 (the Coastal Trading Act) was introduced which establishes the licensing system that regulates access to coastal trading. This effectively replaced, from 1 July 2012 onwards, the previous permit system that was established under Part VI of the Navigation Act 1912.

A vessel engages in ‘Coastal trading’ within the meaning of the Coastal Trading Act if, for or in connection with a commercial activity, the vessel transports cargo or carries passengers between ports:

- in different Australian States or Territories; or

- within the same Australian State or Territory where some passengers disembark or some cargo is unloaded, and the remaining passengers or cargo are then carried to a port in another Australian State or Territory where some or all of the passengers disembark or some or all of the cargo is unloaded; or

- within the same Australian State or Territory and pursuant to an application made by the vessel’s owner, and where a declaration has been made by the Minister that the Coastal Trading Act applies in relation to the vessel. 20

The Coastal Trading Act offers some protection to the domestic shipping industry by restricting the participation of foreign flagged (registered) vessels in coastal trading, and enables Australian vessels to compete for voyages proposed to be undertaken by foreign flagged vessels. However, the objects of the Coastal Trading Act has caused confusion as to whom the Coastal Trading Act is intended to support. Section 3 of the Coastal Trading Act provides that:

1) The object of this Act is to provide a regulatory framework for coastal trading in Australia that:

   a. promotes a viable shipping industry that contributes to the broader Australian economy; and

   b. facilitates the long term growth of the Australian shipping industry; and

   c. enhances the efficiency and reliability of Australian shipping as part of the national transport system; and

   d. maximises the use of vessels registered in the Australian General Shipping Register in coastal trading; and

   e. promotes competition in coastal trading; and

   f. ensures efficient movement of passengers and cargo between Australian ports.

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20 Sections 7 and 12 of the Coastal Trading Act.
The Department’s Options Paper: Approaches to regulating coastal shipping in Australia, April 2014 (the Options Paper) notes that users of shipping services may have interpreted the object of the Coastal Trading Act as supporting their claims to competitive freight rates and shipping services, including those offered by foreign flagged vessels. Further, no clear weighting has been given to the elements that comprise the object of the Coastal Trading Act (or any other part) regarding the relative importance of each of these objects. The Department noted that this has made effective administration of the Coastal Trading Act particularly challenging. The Options Paper also suggests that the Coastal Trading Act has created uncertainty for market participants and as such, created an environment of higher shipping costs and restricted access to timely and efficient shipping services impacting the broader Australian economy.

In light of the above regulatory ambiguity, the Department requires a Cost Benefit Analysis (CBA) of different coastal shipping regulatory options to inform the Regulation Impact Statement and potential amendments to current regulatory settings.

This report outlines the results of the CBA in relation to the six regulatory options currently under consideration, namely:

1. Removal of all regulation of access to coastal trading via a repeal of the Coastal Trading Act.

2. Removal of all regulation of access to coastal trading and enactment of legislation to account for potential undesired effects of other Australian laws, such as the Customs Act 1901 (the Customs Act).

3. Maintain current coastal trading licensing scheme with amendments to regulatory settings to minimise industry burden and costs.

4. Continued regulation of coastal trading but with amendments to regulatory settings to create equal opportunity between Australian and foreign ship operators.
   a. This approach would replace the existing four tiered licensing framework with a single coastal trading permit for both Australian and foreign ships.

5. Australian Master and Chief Engineer required if the vessel operates more than 120 days (Variant 1 of Option 4). Furthermore, the Fair Work Act and SIA Part B wage rates would apply to the whole crew for the entire permit period.

6. Australian Master and Chief Engineer required if the vessel operates more than 183 days (Variant 2 of Option 4). Furthermore, the Fair Work Act and SIA Part B wage rates would apply to the whole crew for the entire permit period.

Further details of these options can be found in Section 3.

1.2 Terms of Reference and Scope

The Department engaged PAG to conduct a CBA of the aforementioned coastal trading regulatory options. While the engagement ultimately entailed a CBA, it included intermediate deliverables, namely:
the refinement and update of the existing BITRE Ship Cost model having regard to the PwC review of the previous BITRE CBA of the proposed (at the time) 2012 shipping reform package;

- the inclusion of Cruise Shipping as a new sector; and

- the capture and analysis of industry data.

1.3 Approach

The following steps outline the approach taken by PAG to complete the CBA of the proposed regulatory options in Phase 1 of the engagement:

1. A project initiation meeting was held with the Department in the week following commencement of the engagement to confirm the scope of the engagement and key deliverables.

2. A shipping industry survey was developed by PAG on behalf of the Department to serve as a data collection tool for the CBA.

   a. This included the development of a web-based survey tool to distribute the survey.

      i. The survey was intended to enhance understanding of industry cost structures, and comprised five questions for capturing information on cargo volumes delivered, crew size, crew cost, other ship operating expenses and compliance costs.

3. The BITRE Ship Cost model (2011) was reviewed and the refinements and updates required to be made were identified and implemented. These are summarised in Appendix A.

4. The Cruise shipping sector was added to the CBA model. Ship cost and occupancy levels were estimated for the purpose of the CBA.

5. Data collected from the shipping industry survey were analysed and assessed for usefulness for incorporation into the BITRE Ship Cost model.

   a. The analysis produced summary statistics for each question which are detailed in Appendix B.

6. Remaining data were collected from the Department and other sources. A list of data sources is available in Appendix C.

7. Projected net benefits were developed under each regulatory scenario and sensitivity analysis conducted using (and after updating) the Department's previous CBA workbook.
8. Finally, this report was produced outlining the expected net benefits associated with each regulatory option.

Following completion of Phase 1, PAG was engaged to model the costs and benefits associated with the three additional options referred to above, and undertook the following steps for Phase 2:

1. A project initiation meeting was conducted via teleconference on the 30th of October 2014.

2. Dialogue with the Department and BITRE to clarify and update assumptions was conducted - the current model was examined to determine whether additional variables were required for inclusion in the execution of the current CBA. Updates included:
   a. revision of freight growth forecasts for all sectors to reflect recent trends;
   b. clarification of assumptions for the bauxite trade;
   c. justification for market share assumptions for the base case and policy scenarios and undertake additional sensitivity tests for the market share assumptions; and
   d. clarification of assumptions for coastal containers with possible revision to calculations.

3. Data collection and analysis of three additional scenarios

4. The model was updated with the latest observations and source information relating to any additional variables required to model the three new options.

5. Following data collection, PAG examined the underlying properties of the data and applied statistical techniques to identify anomalies.

6. Development of base case and the 3 additional policy scenario projections, using quantitative and qualitative techniques to isolate and quantify each relevant item. Specifically, PAG undertook the following steps:
   a. modelling of the three additional policy scenario variants, with modelling of anticipated economic benefits for 2015, 2016 and 2017 as well as over 5, 10 and 20 years for all scenarios with the results to include expression in Net Present Value (NPV) terms;
   b. utilised the current/refined BITRE shipping costs model where applicable to forecast (or make assumption) about costs over the forecast horizon; and
   c. where the BITRE costs model and/or other economic models could not be applied, PAG made reasonable assumptions about projected costs on the basis of past and current trends, and discussions with the Department, BITRE and industry experts. This included assumptions regarding:
i. freight volume growth;
ii. market share of Australian flagged and foreign flagged vessels; and
iii. supply of skilled seafarers.

7. A workshop was conducted to present key findings and seek feedback from the Department, BITRE and key participants.

8. This report was then updated to reflect the modelling results of the new policy scenario variants and expected net benefits associated with each regulatory option.

1.4 Structure of the Report

This report is structured as follows:

- Section 2 outlines the current regulatory context;
- Section 3 discusses the proposed regulatory options and potential implications for the CBA modelling;
- Section 4 discusses the CBA framework;
- Section 5 discusses the assumptions; and
- Section 6 discusses the CBA results and concludes.

The report concludes with a series of appendices which detail the shipping industry survey questions, the data collection and the survey findings and refinements made to the BITRE model.
2. Overview of current regulatory context

2.1 Current legislative regime

Coastal trading is currently regulated by the following legislation:

1. Coastal Trading Act; and

2. Shipping Registration Act 1981 (the Shipping Registration Act).

This section outlines the provisions of the aforementioned legislation which informs the base case scenario which we assume remains constant for the forecast horizon.\textsuperscript{21}

2.1.1 The Coastal Trading Act

The Coastal Trading Act establishes the licensing system enabling coastal trading activities. There are four main types of licences available under the Coastal Trading Act. Each is summarised below.

**General Licence**

A General Licence is available to vessels registered in the Australian General Register and grants unrestricted access to coastal trading activities for five years. This licence offers the licensee the opportunity to compete for coastal voyages that are proposed to be undertaken by foreign flagged vessels.

**Transitional General Licence**

A Transitional General Licence is available to eligible vessels that held a licence under the previous permit system that was in effect under part VI of the Navigation Act 1912. This licence provides the holder with the same rights as a General Licence holder for a period of five years. However these vessels are registered under the law of a foreign country. A condition of this licence is that crew employed on board such vessels must be Australian citizens or permanent residents, or hold permanent or temporary visas with appropriate work rights.

**Temporary Licence**

A Temporary Licence is available to a shipper, or the owner, charterer, master or agent of a vessel for the purposes of enabling a vessel to be used in coastal trading activities for a period of up to 12 months. As a condition, the Temporary Licence requires the vessel to be registered either in the Australian International Shipping Register (AISR) or in a foreign register, i.e. under a law of a foreign country.

\textsuperscript{21} A detailed overview is available in the Department Options Paper, *Approaches to regulating coastal shipping in Australia* (2014).
Applications must be for the proposed undertaking of at least five voyages and are subject to the availability of a General Licence holder to undertake one or more of the proposed voyages. General Licence holders are provided with notice of voyages proposed to be undertaken by a foreign flagged vessel and are permitted to submit a notice in response indicating that they are able to undertake one or more of the proposed voyages. Subject to Ministerial direction, in consideration of the availability of General Licence holders to undertake the proposed voyages, and other factors (e.g. shippers’ requirements), an application for a Temporary Licence may then be either approved or refused.22

In general, by restricting foreign flagged vessels from engaging in coastal trading and providing unrestricted access to Australian flagged vessels, the Coastal Trading Act aims to “maximise the use of vessels registered in the Australian General Register in coastal trading”.23

**Emergency Licence**

An Emergency Licence can be granted for coastal trading to vessels registered in any register (whether it is the Australian General Register, the AISR or a foreign register). The purpose of this Licence is to manage situations relating to significant national emergencies and is valid for a period of up to 30 days. According to the Department’s website reports, no Emergency Licences have been issued to date.

**2.1.2 Shipping Registration Act**

The Shipping Registration Act operates in conjunction with the Coastal Trading Act and was amended as part of the 2012 shipping reforms to rename the shipping register as the Australian General Register, as well as to create a new AISR and the rules governing eligibility for registration in the AISR. Registration according to the Shipping Registration Act ultimately governs the eligibility for applying for General Licences or otherwise. An important provision in the Shipping Registration Act requires that every Australian owned ship “be registered through the Shipping Registration Act unless the ship is operated by a foreign resident under a demise charter and the Australian Maritime Safety Authority has exempted the ship from registration”.24

**2.2 Summary of regulatory settings by ship type**

For the purposes of establishing the base case scenario, it is important to consider the current regulatory settings. Below we outline the relevant provisions affecting each vessel type in relation to licensing and labour laws available to ship owners and/or operators.

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23 Section 3 of the Coastal Trading Act 2012.

24 Coastal Trading Options Paper: *Approaches to regulating coastal shipping in Australia*, p. 5
Australian flagged vessels

Australian flagged vessels are registered either in the Australian General Register or the AISR. Vessels in the Australian General Register must employ Australian crew subject to the *Fair Work Act 2009* (*the Fair Work Act*) and Part A of the SIA. 25 The SIA sets out additional provisions supplementary to the Fair Work Act specifically for the maritime industry including minimum wage rates; allowances for meals, study, accommodation; ordinary hours of work; and leave entitlements.26 Although ships operating under a Transitional General Licence are covered by the same legislation, they are nevertheless foreign flagged.

Vessels in the AISR must employ an Australian national (or resident) master or chief mate, and an Australian national (or resident) chief engineer or first engineer. Seafarers employed on these ships are covered by the Fair Work Act only while the ship is engaged for domestic voyages. AISR ships are subject to Part B of the SIA if they have conducted at least two other voyages under a Temporary Licence in the last 12 months. The SIA applies from the third (coastal) voyage onwards (on a rolling 12 month period) but not to AISR ships while engaged on international voyages. Ships registered in the AISR must be predominantly engaged in international trading. No ships are currently registered in the AISR.

Foreign flagged vessels

For foreign flagged vessels, the *Fair Work Act* and Part B of the SIA also apply under the same conditions as those outlined for Australian vessels registered in the AISR. That is, the Coastal Trading Act and SIA apply from the third (coastal) voyage onwards (in a rolling 12 month period) assuming the vessel is also licenced under a Temporary Licence. The first two coastal voyages are not subject to the *Fair Work Act* or the SIA. As such, wages may be set below SIA rates, such as at International Transport Federation (*ITF*) rates, for the first two coastal voyages.

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25 Provisions encompass the National Employment Standards, the national minimum wage and workplace protections (e.g. from unfair dismissal). Refer to the *Fair Work Act 2009* for full details.

26 Refer to the *Seagoing Industry Award 2010* for further details.
3. Policy options

This section discusses each policy option and their potential implications in further detail.

3.1 Option 1: Removal of all regulation of access to coastal trading

Under Option 1, the Coastal Trading Act would be repealed in its entirety, along with all other associated legislative provisions currently in operation due to the existence of the Coastal Trading Act (without any amendments to other Commonwealth legislation that may interact with the Coastal Trading Act). There are several possible implications which are discussed below.

Importation status may be triggered

Repealing the Coastal Trading Act will remove the provision that allows the Australian Customs and Border Protection Service (ACBPS) to consider a vessel otherwise imported, as not being imported for the purposes of the Customs Act 1901 (the Customs Act). Consequently, all foreign vessels engaging in coastal trading would be considered “imported” under the Customs Act and therefore required to be entered into home consumption in accordance with the Customs Act. The act of importation triggers the application of a range of other laws, including but not limited to quarantine, prohibited and restricted goods, immigration and revenue laws.

The main consequences associated with importation status are discussed as follows:

a) Customs duty, regulatory compliance and GST

Some of the adverse impacts associated with “importation” status include potential customs duty and GST. In general, a 5 per cent customs duty applies to imported vessels if they are less than 150 gross construction tons. In the case of cargo ships and tankers with greater than 150 gross construction tons, this will not apply. Customs duty may apply on the ship's parts and equipment alternatively. However, given the complexity of legal provisions, this will not apply in all cases and not with certainty.

GST may apply to imported vessels. In general, where ship owners ‘carry on an enterprise’ and are entitled to an Australian Business Number and GST registration, the imposition of GST upon importation attracts a small interest cost associated with the time value of foregone interest earnings. As the GST paid can be claimed back through input tax credits, the net cost of the GST payment is reduced. A GST deferral scheme also exists that allows GST payments on imported goods to be deferred until the next Business Activity Statement (BAS) subject to satisfying specific requirements such as monthly submission of BAS. This effectively offsets the GST payment as it can be claimed back in the form of an input tax credit at the time of payment. In some cases, the ship owner may not ‘carry on an enterprise’ and so be ineligible for GST registration and input tax credits. This would impose a significant 10% increase in the ship yard cost.


28 For example, a fully imported vessel is required to pay duty on the bunker fuel; however, this treatment of ‘importation’ and customs duty on bunker fuel according to the ATO is not directly related to importation as defined under the Customs Act or related to the Coastal Trading Act exemption of ships from importation. Moreover, there is ambiguity around GST that may apply to ship’s equipment and stores including bunker fuel. Currently, foreign vessels engaged on a voyage that has a destination outside of Australia are not required to pay GST on bunker fuel as it is considered part of ships’ stores under item 5, subsection 38-185(1) of the GST Act.
Note that an import declaration processing charge may apply under section 71 of the Customs Act 1901 but this is of a negligible amount.29

b) Maritime crew visas

An important regulatory consequence of repealing the Coastal Trading Act is the impact on crewing of foreign vessels once importation is triggered. Currently, foreign crew require either a Maritime Crew Visa (MCV) or a 457 temporary skilled visa when engaged in coastal trading along the Australian coast. The MCV only applies to foreign workers employed on a non-military ship. The definition of a non-military ship in the Migration Regulations 1994 applies only to ships that have not been imported or entered into home consumption, with the exception of AISR vessels. AISR vessels are exempt in that MCV-holders on AISR vessels will still satisfy visa requirements even if they are deemed imported.30 For non-AISR ships, MCV privileges cease once the ship is imported and foreign crew with MCVs must depart Australia within five days. This may result in several possible scenarios having various implications for the shipping industry and the coastal freight task. In particular:

1. Foreign flagged vessels may replace MCV-holders with crew possessing appropriate work rights, i.e. crew with 457 visas.
2. Foreign flagged vessels may replace MCV-holders with a combination of 457 visa holders and Australian residents.
3. Foreign flagged vessels cease to operate in Australia due to a lack of supply of Australian seafarers and foreign seafarers possessing appropriate work rights (457 visas).

The likely scenario that would result depends on the supply of seafarers with 457 visas and the number of foreign crew holding MCV visas. It is possible that foreign flagged vessels may need to replace only a small number of crew per vessel if most foreign crew are already in possession of 457 visas. However, this appears to be unlikely since a 457 visa is not currently required for coastal voyages for foreign vessels with the simpler MCV as a substitute option. Moreover, according to the House of Representatives Standing Committee on Infrastructure, Transport, Regional Development and Local Government’s report ‘Rebuilding Australia’s Coastal Shipping Industry’ – Inquiry into coastal shipping policy and regulation paper31, 457 visa approvals for maritime crew are the exception rather than the norm.

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29 The charge does not exceed $98.60 for a documentary import declaration; further details are at http://www.comlaw.gov.au/Details/C2013C00150.
30 Refer to the Migration Regulations 1994 for further details.
In general, ship operators/owners must hire from the Australian maritime pool first. This also suggests that the number of 457 visa holders on foreign flagged vessels may be limited at the current time. The 457 visas are intended to allow foreign maritime crew to be employed where employers are “unable to meet their skill needs from the Australian labour market.”

In another scenario, foreign ships may not be able to source their labour from the Australian maritime labour pool given potential shortages in local maritime skills despite evidence suggesting that there are a large number of applicants each year for maritime training.

Under the third aforementioned scenario, foreign vessels may cease to undertake coastal trading in Australia if there is an inadequate supply of relevant skilled seafarers. If foreign vessels are unable to fill crew positions with either 457 visa holders or Australian resident seafarers, it is possible that the freight task carried by foreign vessels will fall if the Coastal Trading Act is repealed.

In general, it may be expected that upon importation, given the provisions of the Migration Act 1958 and Migration Regulations 1994, crew costs may increase. If foreign vessels replace MCV holders with 457 visa holders, the 457 visa holders must be paid market wages which may be higher than SIA Part B wages as a condition of 457 visas. Specifically, sponsors of 457 holders must show that they are “providing no less favourable terms and conditions of employment to the nominee than they are providing or would provide to an Australian performing equivalent work in the sponsor’s workplace at the same location”. A market wage may prevail that is equivalent to Australian Enterprise Agreement (EA) wage rates assuming that Australian workers may choose not to work on a foreign vessel if paid below market standards. The replacement of foreign crew with resident Australians will likely also attract EA wage rates; this may apply particularly in occupations not covered by the 457 visa eligibility requirements.

According to 457 visa occupation listings, the occupations that are acceptable include:

- Ship Officer.
- Ship Master.
- Ship Engineer.

An additional cost associated with replacing MCV crew may be visa sponsorship and nomination fees (of $420 and $330 respectively) for 457 visas.

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32 House of Representatives Standing Committee on Infrastructure, Transport, Regional Development and Local Government’s report ‘Rebuilding Australia’s Coastal Shipping Industry’ – Inquiry into coastal shipping policy and regulation, p. 44.

33 Ibid. p. 56.


35 According to the APH Rebuilding Australia’s Coastal Shipping Industry paper, foreign maintenance crew are not listed as a skilled occupation; hence, foreign vessels may need to hire Australian workers (paid Australian EA rates) for maintenance, or recruit under labour agreements, which may substantially increase costs.
SIA Part B wage rates and conditions

SIA Part B wages and conditions will no longer apply if the Coastal Trading Act is repealed since the SIA Part B applies to Temporary Licence holders. Also, in the absence of a Temporary Licence system, there would be no such Temporary Licensed vessels to attract the SIA Part B provisions. Moreover, the Fair Work Act applies to vessels operating under a Temporary Licence only if they have conducted at least 2 coastal voyages under the licence in the last 12 months (over a rolling 12-month period). As the SIA is operative via the Fair Work Act, this means that foreign flagged vessels would no longer be subject to Australian minimum wages and conditions, and there may be a return to ITF or similar rates.

3.2 Option 2: Option 1 plus enactment of legislation to account for potential undesired effects of other Australian laws

It is not apparent what types of legislative provisions may be enacted to account for the potential undesired effects of other Australian laws if the Coastal Trading Act is repealed. For the purposes of this CBA, we assume that foreign ships remain exempt from treatment as ‘imported’. Therefore, there will be no customs duty or GST provisions applying to foreign vessels and MCVs will continue to be operative. Without the Coastal Trading Act the coverage provisions of the Fair Work Act would not be triggered and SIA Part B wages would no longer apply to foreign vessels.

Another consequence of Option 2 is that the relative advantage previously afforded to General (and Transitional General) Licence vessels via unrestricted access to coastal trading over Temporary Licence vessels would cease. There would be reduced incentive to register in the Australian General Register given the more attractive tax incentives and minimum wage obligations in other registries. As such, existing ships already registered in the Australian General Register may be re-flagged to a foreign register.

Ship owners may also choose to register new vessels (not yet registered) in a foreign register rather than in the Australian General Register, i.e. ship owners may have originally registered vessels in the Australian General Register if the Act remained operative in the base case scenario, but in the event of a repeal of the Coastal Trading Act, may find it more attractive to register new vessels in a foreign register. The re-flagging of vessels to a foreign register or the registering of new vessels in a foreign register over the Australian General Register may lead to re-crewing, or increased crewing, of vessels with foreign crew.

Under Option 2, compliance costs for vessels operating in the coastal trade will be reduced as a result of the elimination of the licensing system governing coastal trading.

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37 Transitional General Licence vessels which are already registered in a foreign register may also discontinue a transition to registration in the Australian General Register if the Coastal Trading Act is repealed.
3.3 Option 3: Maintain current coastal trading licensing scheme with amendments to regulatory settings to minimise industry burden and costs

There are five amendments associated with this option as outlined in the aforementioned Options Paper. We briefly discuss each amendment below:

   a) Extending the geographical reach of the Coastal Trading Act

The Coastal Trading Act does not currently cover voyages from the mainland to and between places outside the coastal waters of Australian states or territories including offshore installations and floating production, storage and offtake vessels. Extending the geographical reach of the Coastal Trading Act to cover these voyages would allow operators to apply for temporary licences that permit such voyages. Foreign vessels undertaking these voyages would otherwise be treated as imported under the Customs Act.

   b) Changing the five voyage minimum rule

Currently, Temporary Licence applicants can only apply to undertake voyages in groups of five or more per application. If the five voyage minimum rule is removed, a greater number of Temporary Licence applications may be expected; the current requirements restrict foreign vessels from applying to undertake only one to four voyages within a 12 month period.

   c) Temporary Licence variations

Temporary Licence applications can be varied to add new voyages (in groups of five or more) or to amend existing voyage details. Amendments of existing voyages or additions of voyages are both subject to consultative processes. Current considerations outlined in the Options Paper are to remove or reduce the consultative process in order to expedite Temporary Licence variations. Aside from reducing compliance costs, this may reduce the likelihood of cancelled voyages where existing voyage details cannot be amended on time.

   d) Amending tolerance provisions

Tolerance provisions currently allow Temporary Licence voyages undertaken to deviate from the voyage details specified upon initial licence application or upon licence variation within acceptable tolerance limits. These are 20 per cent of the nominated cargo volume and 5 days for the specified loading date. The provisions do not consider force majeure or other unexpected occurrences that may affect shipping volumes and schedules. Under consideration is the broadening of existing tolerance limits to provide greater flexibility to operators particularly for container cargoes and to accommodate disruptive weather events. This includes allowing the Minister or their delegate to provide exceptions to licence holders unable to accord with voyage details within existing tolerance allowances where this is beyond the reasonable control of the licensee. Alternatively, changes to legislation may permit Temporary Licence applications to be granted on the basis of the type of cargo to be carried rather than the specific volume. Overall, this may lead to fewer cancelled voyages.

   e) SIA Part B wage rates and conditions

SIA Part B wages will be removed through legislative amendments to remove the link between the Fair Work Act and foreign vessels.
3.4 Option 4: Introduce single permit system for coastal trading to replace current licensing scheme, with amendments to regulatory settings to create equal opportunity between Australian and foreign ship operators

There are five amendments outlined under this option. Each amendment is briefly discussed below.

**Extending the geographical reach of the Coastal Trading Act**

This amendment is identical to amendment a) under Option 3. Increasing the geographic reach of the Coastal Trading Act to offshore facilities may increase the presence of foreign operators undertaking coastal shipping.

**Removing the five voyage minimum rule**

This amendment is identical to amendment b) under Option 3. Removing the voyage minimum would allow foreign operators greater flexibility when applying for a new temporary licence or when applying to add voyages to an existing temporary licence. Foreign operators who plan to conduct less than five voyages within the 12 month licence period would be eligible to apply for a temporary licence.

**Removing tolerance provisions**

This amendment is similar to amendment c) under Option 3. Removing the tolerance provisions would further increase the number of foreign operators as the restrictions imposed on nominated cargo volume and loading date would no longer exist. This would lead to a reduction in voyage cancellations.

**Single Licence system**

Under this amendment, the current four-licence system would be combined into a single licence. The trading advantage previously held by the General and Transitional licence holders over Temporary licence holders would no longer exist. Operators currently in the Australian General Register or AISR may re-flag their vessels to a foreign register to benefit from the lower foreign wage rates (compared to EA wage rates).

**SIA Part B wage rates and conditions**

SIA Part B wages will be removed through legislative amendments to remove the link between the Fair Work Act and foreign vessels.

3.5 Option 5: Australian Master and Chief Engineer required if the vessel operates more than 120 days

This option is a variant of Option 4. It imposes a restriction on the crew composition of foreign flagged vessels. The amendment would require a foreign flagged vessel to operate with an Australian Master and Australian Chief Engineer if it conducts coastal trading for more than 120 days. It is assumed that the Fair Work Act and SIA Part B wage rate would apply to both the Australian and foreign crew for the whole permit period.
3.6 Option 6: Australian Master and Chief Engineer required if the vessel operates more than 183 days

This option is a variant of Option 4. According to Option 6, crew composition criteria described in Option 5 (120 days) is adjusted to 183 days.
4. Framework

4.1 Overview of CBA framework

The analysis set out in this report follows the framework promulgated by the OBPR and is summarised in Table 4.1 below.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Specify the set of options.</td>
</tr>
<tr>
<td>2</td>
<td>Decide whose costs and benefits count.</td>
</tr>
<tr>
<td>3</td>
<td>Identify the impacts and select measurement indicators.</td>
</tr>
<tr>
<td>4</td>
<td>Predict the impacts over the life of the proposed regulation.</td>
</tr>
<tr>
<td>5</td>
<td>Monetise (attach dollar values to) impacts.</td>
</tr>
<tr>
<td>6</td>
<td>Discount future costs and benefits to obtain present values.</td>
</tr>
<tr>
<td>7</td>
<td>Compute the net present value of each option.</td>
</tr>
<tr>
<td>8</td>
<td>Perform sensitivity analysis.</td>
</tr>
<tr>
<td>9</td>
<td>Reach a conclusion.</td>
</tr>
</tbody>
</table>

Source: Department of Prime Minister and Cabinet, Office of Best Practice Regulation, Guidance Note, Cost-Benefit Analysis, p.2.

The CBA is conducted from 1 December 2014 with any change in regulatory settings assumed to commence from 1 July 2015 and the net economic benefits of a regulatory change measured over a 20 year horizon. The CBA is modelled in terms of the economic cost savings associated with coastal shipping. In the base case scenario, regulatory settings are assumed to be unchanged and the Coastal Trading Act continues to operate unamended. Accordingly, the base case forms the benchmark by which the costs and benefits of each policy option are determined.

The net economic cost savings for each regulatory option is compared to the base case (for which there is no regulatory change) and discounted at a (real) rate of seven per cent in line with guidance issued by the Office of Best Practice Regulation.

The base case is the cost of cargo trade under the current coastal trading regulatory setting, as demonstrated by Figure 4.1 below. The cost for cargo trade is calculated by multiplying the yearly cargo freight (Mt) by the cost of transporting cargo ($/T). Cost of transporting cargo is defined by the market share assumptions detailed in Section 5.7. These calculations are performed over a 20 year forecast horizon - between the 2014 and 2035 financial years.
The high cost of the inter-capital container trade compared to the other cargo trades is due to different cost components being included in the analysis. For the inter-capital container trade, costs relate to stevedoring, wharfage, and surpluses earned by foreign overseas-going container vessels, while for other trades, costs comprise time charter costs only for the assumed average voyage length. Note that costs per tonne vary with voyage length. The costs for the inter-capital container trade were adopted from the 2010 BITRE shipping reform model. Costs for other cargo trades were taken from the updated (BITRE) cost model.

Internal BITRE modelling undertaken in 2010 shows a cost of $67.11 per tonne for container vessels. This cost has been updated to $86.57 per tonne using CPI index. The 2010 BITRE shipping model also estimates a cost of $109.44 per tonne for rail to undertake the task. After inflation, this cost becomes $145.56 per tonne.

The economic cost savings of each regulatory option are expressed in real terms in 2013 prices. A long-term average exchange rate of 0.9 for the analysis period is adopted which is relevant for converting costs expressed in USD to AUD.

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38 Australian Government, Budget 2014-15, Budget Overview, Appendix F, Detailed Economic Forecasts found at: http://www.budget.gov.au/2014-15/content/overview/html/overview_35.htm. According to this document “the exchange rate is assumed to remain around its recent average level — a trade-weighted index of around 71 and a $US exchange rate of around 93 US cents.”. For the purposes of this CBA we have taken a slightly more conservative long-term view of 90 US cents given the recent downward trend in the exchange rate.
There are two broad ship types modelled in the base case scenario. It is assumed that the only ships that are operative are General Licence, Transitional General Licence and Temporary Licence vessels (registered in a foreign register). However, as Transitional General Licence vessels are required to man vessels with Australian residents or crew with appropriate work rights (and hence, may have similar cost structure) and may be transitioning to registration in the Australian General Register, they are treated as foreign flagged vessels for the purposes of this analysis. According to the Options Paper, there are no AISR ships at the current time. Accordingly, operating costs of these vessels have not been modelled.

The Australian and foreign ship types are further subdivided into types of vessels, namely:

- handy size;
- panamax;
- capesize;
- product tanker;
- container ship;
- crude tanker; and
- cruise ship.

The CBA is conducted across sectors (cargo type). The sectors are dry bulk, liquid bulk, containerised cargo and cruise shipping where dry bulk encompasses commodities including iron ore, bauxite and other dry bulk (e.g. cement, fertiliser); and liquid bulk comprises of oil, petroleum and other liquid bulk (e.g. chemicals, LNG).

Although the financial costs of Australian flagged vessels will be affected by differing tax incentives, because these incentives are a redistribution between the government and the domestic shipping industry (with a net economic impact of zero) they will not be considered in this analysis.

For the CBA, we exclude voyages (and their associated costs) undertaken under Emergency Licences as they will likely be exceptions rather than the norm. Given the inherently unpredictable nature of events qualifying for the issuance of an Emergency Licence, it would also be difficult to make accurate or realistic assumptions about the freight carried by Australian or foreign vessels operating under such a licence. Since the commencement of the Coastal Trading Act on July 1 2012, there have also been no Emergency Licences that have been issued.

4.2 Evaluation of policy options

To evaluate the aforementioned policy options, the following steps are taken:

- market shares are assumed for each ship type by sector for the base case scenario and each regulatory option (policy scenario);
- daily ship costs associated with each ship type under the base case and policy scenarios are estimated;
  - these daily ship costs are calculated on a per tonne basis;
forecast freight volumes are obtained for each cargo type/sector over the analysis period;

- the market shares of each ship type in the base case and for each regulatory scenario are multiplied by the respective ship’s daily cost per tonne to obtain the weighted average cost per tonne;

- the difference in weighted average cost per tonne is calculated between the base case and each regulatory scenario;

- the difference in weighted average cost per tonne for each regulatory scenario is multiplied by the freight volume for each sector; the costs are discounted at a rate of 7 per cent to obtain the Net Present Value (NPV) of a regulatory option for each sector; and\footnote{http://www.dpmc.gov.au/deregulation/obpr/reporting-publications/publications.cfm#Guidance} \footnote{In accordance with the OBPR guidance a discount value of 7 per cent is assumed to facilitate the cost-benefit analysis. Tables presenting results at discount rates of 3 per cent and 10 per cent can be found in section 6.3.4 and 6.3.5 respectively.}

- the NPVs are summed across the sectors to obtain the total NPV associated with each regulatory option (relative to the base case).
5. Assumptions

This section outlines the key assumptions underpinning the CBA and relate to the following:

1. Ship costs including crew costs, operating and capital costs.
2. Foreign ship costs.
3. Ship daily time charter costs (by ship type).
4. Market shares.
5. Forecasts of cargo freight volumes.

5.1 Ship cost assumptions

The ship costs modelled in the CBA are daily time charter costs and can be segmented into crew costs, other operating costs and capital costs. The assumptions and method of calculating each cost type are discussed in turn below.

5.1.1 Crew costs

Crew costs are estimated for both Australian flagged and foreign vessels. Crew costs for Australian vessels are calculated on the basis of EA wage rates and conditions. The EA wages are estimated from a sample of EAs. Foreign vessels in the base case are assumed to pay their crew SIA Part B minimum salaries from the third voyage in a 12 month period.41 Leave for Australian seafarers is offered at a rate of 0.926 days for each day at sea. According to ITF rates, foreign crew are assumed to receive leave of 7 days for every 30 days worked for ratings from low-wage countries; and for senior officers, one day’s leave per day worked.

Salaries are multiplied by a factor for leave and on-costs of 2.982 for Australian seafarers. Foreign crew leave factors range from 2.0 to 2.4 for the ship master, deck officers and engineers and for ratings, 1.48 is assumed. Market wages for Australian seafarers are believed to be greater than the opportunity cost of labour and hence, the financial costs for Australian vessels of employing seafarers are multiplied by a shadow price factor of 0.9 to derive economic costs.42

In competitive markets, employers hire additional labour until the incremental cost of an extra unit of labour is equal to the value of the marginal product of that unit of labour. The opportunity cost of labour represents the true cost, i.e. the value of the output a seafarer would produce if employed in their next best alternative use in the economy (that is foregone when their labour is utilised in seafaring).

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41 SIA Part B rates were calculated assuming 10 hours of overtime per week.

It is assumed in the main scenario that there is no further reduced manning. Bulk carriers and product tankers for Australian vessels are assumed to be manned by 17 seafarers on average which is generally in line with one seafarer per berth. Sensitivity analysis is later conducted assuming reduced manning and the use of riding gangs which reduces time spent in dry docking. In the case of no reduced manning, Australian registered ships operate for 353 days per year on average compared with 360 days for foreign ships because less maintenance work is undertaken compared with foreign crews, causing the ships to spend longer in dry-dock.

In the absence of SIA Part B regulation, foreign vessels incur crew costs in line with (lower) ITF wage rates, or costs close to ITF wages. Most foreign vessels are registered in open registry countries. Worldwide, 73 per cent of ships were registered under open registry settings in January 2013, i.e. under a foreign flag that differs from the nationality of the ship owner.43

An analysis of the ships that operated under a Temporary Licence between July 2012 and June 2014 using Lloyds data indicates that foreign vessels operating in Australian coastal shipping are registered mostly in open registry countries including Panama, Liberia, the Marshall Islands or the Bahamas, or otherwise registered in low-wage countries or countries offering favourable conditions to foreign ship owners (Figure 1).44 These include international shipping registers such as the Norwegian International Shipping Register (NIS). At least 48 per cent and upwards of approximately 60 per cent of foreign vessels that operated in Australian coastal trade at some point between July 2012 and June 2014 are covered by ITF arrangements.45 Singapore and Hong Kong are other popular countries of registration.

![Figure 5.1- Percentage of foreign vessels registered in each flag state](image)

44 E.g. Seafarers on vessels registered in Hong Kong and Singapore may be entitled to personal income tax exemptions.
45 Some vessels are covered by national agreements but may still be covered by ITF-related policies.
5.1.2 Other operating costs

Other ship operating costs accounted for in the overall vessel operating costs include victualling, ship stores, insurance costs, administration costs and repair and maintenance costs. These are estimated using the BITRE ship cost model. Port and fuel costs are not included as they do not depend on the flag of the vessel and because the freight task is assumed to be the same in the base and policy cases.

5.1.3 Capital costs

Financial capital costs

Financial ship capital costs are calculated using the BITRE ship cost model as the real required annual freight rate (RRAFR) on the initial ship yard cost. The RRAFR represents the equivalent real annual cash flow required by a ship owner to obtain a particular rate of return on capital invested, assumed to be 5 per cent. In relation to Australian vessels, after-tax cash flows are estimated for each year of the ship’s life (20 years) and these are discounted to the present at the assumed after-tax real rate of return of 5 per cent. Given the present value, the equivalent annual cash flows (in the form of an annuity) required (RRAFR), is calculated using the same discount rate. This is then converted to a before-tax required annual freight rate. It is assumed that the ship owner has sufficient profits from alternative sources to receive the depreciation and interest tax deductions in the year the expenses are incurred.

The capital cost calculation assumes that the ship is purchased on favourable terms of the type offered by governments of major shipbuilding nations. 65 per cent of the ship cost is repaid over 10 years at a 4 per cent interest rate (that is lower in real terms given assumed 3 per cent annual inflation), with the principal repaid in equal amounts semi-annually along with interest on the outstanding balance. (The remainder of the ship cost is financed by equity).

Economic capital costs

A discount rate of 7 per cent is applied to represent the social opportunity cost of capital. An annual economic cost is calculated in a similar manner as for financial capital costs, using the social opportunity cost of capital as the discount rate. The cash outflows made to foreigners are discounted to obtain a net present value which is then annuitized to obtain annual economic costs of capital. Second-hand ship prices will bear some relation to the purchase price of a new ship particularly when freight rates are high and ship owners are willing to incur similar costs as new ships to capitalise on higher freight rates immediately. Annual economic capital costs for Australian ships are estimated to be $0.0828 for each dollar of ship yard (purchase) cost.

As part of the 2012 shipping reform package, a royalty withholding tax exemption now applies to bareboat charter arrangements. For bareboat chartered ships, the capital cost is taken to be the annualised rate of return required by a foreign ship owner from capital invested.
In calculating the financial capital costs of Australian vessels, tax incentives such as accelerated depreciation and shipping income tax exemption (ITE) may reduce the required freight rate on capital invested. Typically, these tax incentives and their effect on capital costs are not relevant to economic capital costs as the taxation are transfers between the government and the ship owner. However, in the case of claiming an income tax exemption, vessel operators must maintain minimum training arrangements which may increase economic crew costs despite reducing financial capital costs (but not economic capital costs). The crew costs of trainees were calculated as follows:

- Trainee integrated ratings attract Certificate III National Training Wage costs of $366.80 per week in line with school leavers with Year 12 as their highest qualification.
- Deck and Engineer trainees are assumed to be paid the national minimum wage of $640.90 per week since diplomas are not covered by the national training wage.

### 5.1.4 Foreign ship costs

As CBAs consider relative costs and benefits of regulatory reform from a national perspective, the costs incurred by foreigners are not of direct importance. However, freight rates paid to foreigners are considered to be relevant costs. The freight rates paid for foreign shipping services are estimated on the basis of financial costs incurred by foreign vessels as a long term average.

As noted earlier, most foreign vessels operating in the Australian coastal trade are open-registry ships that pay ITF wages (in the absence of Seagoing Industry Award 2010 minimum wages and conditions) and minimal company tax. As most foreign ships are either open registry ships or ships registered in low-cost countries, ITF wage rates are used as benchmarks for the crew cost of operating a foreign ship in the absence of SIA Part B wage conditions. SIA Part B wage rates are used to measure foreign crew costs when required by the permit framework.

For foreign vessels, the capital costs are estimated assuming no Australian company tax and no tonnage tax in line with the low taxation arrangements in open registry countries and other non-open registry countries in which foreign vessels operating in Australian coastal trade are typically registered. Given the low taxation arrangements, these are disregarded in capital cost calculations. Annualised foreign capital costs are estimated as $0.0725 per dollar of ship yard cost computed using a real rate of return of 4.9315 per cent. This compares with financial capital costs of $0.0751 and $0.0688 for Australian ships attracting accelerated depreciation and an ITE respectively per dollar of ship purchase cost.

The purchase cost of ships is assumed to be the same between foreign and Australian ship owners.

### 5.2 Daily time charter costs by ship type

The ship types modelled in the CBA are summarised in the tables below (Table 5.1 – Table 5.4), followed by a summary of the daily time charter costs by ship type (financial and economic).

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46 For vessels claiming an ITE, three additional berths for trainees are assumed to apply.
47 E.g. Registration in Singapore and Hong Kong attracts low or no shipping income tax.
48 Further detail on these taxation arrangements are available in the Reforming Australia’s Shipping – Regulation Impact Statement 2011, p. 61.
In regards to ship type B1a, shipping companies continue to be taxed at 30 per cent for profits earned and claim depreciation tax deductions over an assumed ship life of 20 years. Under B1b, companies claim an ITE for ‘qualifying shipping activities’ but also comply with training requirements. Under B1c, companies claim accelerated depreciation tax deductions under a reducing balance under a statutory cap of 10 years and continue to pay company tax at the 30 per cent rate.\textsuperscript{49} The benefits of the ITE are reduced by the cost of maintaining training berths.

\textsuperscript{49} A reducing balance depreciation method is assumed over a prime cost method as it tends to yield a lower annual capital cost for shipowners.
### Table 5.1: Vessel characteristics (base case scenario)

<table>
<thead>
<tr>
<th>Ship code</th>
<th>Register</th>
<th>Tax treatment</th>
<th>Officers</th>
<th>Ratings</th>
<th>Min. wages</th>
<th>Company tax</th>
<th>Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1a</td>
<td>Australian General Register</td>
<td>No special treatment</td>
<td>Australian</td>
<td>EA</td>
<td>Australian</td>
<td>EA</td>
<td>SIA Part A 30%</td>
</tr>
<tr>
<td>B1b</td>
<td>Australian General Register</td>
<td>ITE</td>
<td>Australian</td>
<td>EA</td>
<td>Australian</td>
<td>EA</td>
<td>SIA Part A 0%</td>
</tr>
<tr>
<td>B1c</td>
<td>Australian General Register</td>
<td>Accelerated depreciation</td>
<td>Australian</td>
<td>EA</td>
<td>Australian</td>
<td>EA</td>
<td>SIA Part A 30%</td>
</tr>
<tr>
<td>B3a</td>
<td>Foreign</td>
<td>Temporary Licence</td>
<td>Foreign</td>
<td>ITF</td>
<td>Foreign</td>
<td>ITF</td>
<td>ITF 0%</td>
</tr>
<tr>
<td>B3b</td>
<td>Foreign</td>
<td>Temporary Licence</td>
<td>Foreign</td>
<td>SIA Part B</td>
<td>Foreign</td>
<td>SIA Part B</td>
<td>SIA Part B 0%</td>
</tr>
<tr>
<td>B3c</td>
<td>Foreign</td>
<td>Transitional General Licence</td>
<td>Australian</td>
<td>EA</td>
<td>Australian</td>
<td>EA</td>
<td>SIA Part A 0%</td>
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</tbody>
</table>
### Table 5.2 - Vessel characteristics (policy scenarios)

<table>
<thead>
<tr>
<th>Ship code</th>
<th>Register</th>
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<th>Nationality</th>
<th>Wage rates</th>
<th>Nationality</th>
<th>Wage rates</th>
<th>Min. wages</th>
<th>Company tax rate</th>
<th>Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
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<td>No special treatment</td>
<td>Australian</td>
<td>EA</td>
<td>Australian</td>
<td>EA</td>
<td>SIA Part A</td>
<td>30%</td>
<td>20 years prime cost</td>
</tr>
<tr>
<td>P1b</td>
<td>Australian General Register</td>
<td>ITE</td>
<td>Australian</td>
<td>EA</td>
<td>Australian</td>
<td>EA</td>
<td>SIA Part A</td>
<td>0%</td>
<td>N/A</td>
</tr>
<tr>
<td>P1c</td>
<td>Australian General Register</td>
<td>Accelerated depreciation</td>
<td>Australian</td>
<td>EA</td>
<td>Australian</td>
<td>EA</td>
<td>SIA Part A</td>
<td>30%</td>
<td>20% reducing balance</td>
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<td>Temporary Licence</td>
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<td>ITF</td>
<td>ITF</td>
<td>0%</td>
<td>N/A</td>
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<td>Foreign/Aust.</td>
<td>SIA Part A</td>
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<td>SIA Part A</td>
<td>ITF</td>
<td>0%</td>
<td>N/A</td>
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<td>P3f</td>
<td>Foreign</td>
<td>Temporary Licence</td>
<td>2 Australian; foreign</td>
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<td>Foreign</td>
<td>SIA Part B</td>
<td>ITF</td>
<td>0%</td>
<td>N/A</td>
</tr>
<tr>
<td>P3g</td>
<td>Foreign</td>
<td>Transitional General Licence</td>
<td>AUS</td>
<td>EA</td>
<td>AUS</td>
<td>EA</td>
<td>SIA Part A</td>
<td>0%</td>
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</tbody>
</table>
### Table 5.3 - Daily time charter financial costs ($ per day)

<table>
<thead>
<tr>
<th>Code</th>
<th>Register</th>
<th>Ship type</th>
<th>Handy Size Bulk Carrier</th>
<th>Panamax Bulk Carrier</th>
<th>Capesize Bulk Carrier</th>
<th>Product Tanker</th>
<th>Container Ship</th>
<th>PT 20</th>
<th>CT 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1a</td>
<td>General Register</td>
<td>Reduced crew – no special tax treatment</td>
<td>31665</td>
<td>35817</td>
<td>47219</td>
<td>42883</td>
<td>28377</td>
<td>36129</td>
<td>45579</td>
</tr>
<tr>
<td>B1b</td>
<td>General Register</td>
<td>Reduced crew – ITE</td>
<td>31156</td>
<td>34868</td>
<td>44728</td>
<td>41406</td>
<td>28199</td>
<td>35532</td>
<td>43661</td>
</tr>
<tr>
<td>B1c</td>
<td>General Register</td>
<td>Reduced crew – accelerated depreciation</td>
<td>30986</td>
<td>34896</td>
<td>45450</td>
<td>41672</td>
<td>27880</td>
<td>35402</td>
<td>44125</td>
</tr>
<tr>
<td>B3a</td>
<td>Foreign</td>
<td>Temporary licence – ITF</td>
<td>15486</td>
<td>18752</td>
<td>28259</td>
<td>22201</td>
<td>13974</td>
<td>16233</td>
<td>24075</td>
</tr>
<tr>
<td>B3b</td>
<td>Foreign</td>
<td>Temporary Licence – SIA B</td>
<td>19285</td>
<td>22551</td>
<td>32059</td>
<td>26134</td>
<td>17773</td>
<td>20166</td>
<td>28007</td>
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<tr>
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<td>Temporary General Licence</td>
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<td>13974</td>
<td>16233</td>
<td>24075</td>
</tr>
<tr>
<td>P3b</td>
<td>Foreign</td>
<td>Temporary licence – SIA A</td>
<td>19484</td>
<td>22914</td>
<td>32565</td>
<td>27585</td>
<td>17972</td>
<td>21617</td>
<td>29187</td>
</tr>
<tr>
<td>P3f</td>
<td>Foreign</td>
<td>Mix crew (Australian Master &amp; Chief Engineer)</td>
<td>16228</td>
<td>19531</td>
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<td>23231</td>
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<td>41543</td>
<td>38482</td>
<td>25655</td>
<td>18654</td>
<td>26496</td>
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</table>
Table 5.4: Daily time charter economic costs ($ per day)

<table>
<thead>
<tr>
<th>Code</th>
<th>Register</th>
<th>Ship type</th>
<th>Handy Size Bulk Carrier</th>
<th>Panamax Bulk Carrier</th>
<th>Capesize Bulk Carrier</th>
<th>Product Tanker</th>
<th>Container Ship</th>
<th>PT 20</th>
<th>CT 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1a</td>
<td>General Register</td>
<td>Reduced crew – no special tax treatment</td>
<td>30026</td>
<td>34179</td>
<td>45580</td>
<td>40937</td>
<td>26899</td>
<td>34183</td>
<td>43632</td>
</tr>
<tr>
<td>B1b</td>
<td>General Register</td>
<td>Reduced crew – ITE</td>
<td>30678</td>
<td>34830</td>
<td>46232</td>
<td>41589</td>
<td>27551</td>
<td>34834</td>
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<td>B1c</td>
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<td>34183</td>
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<td>30567</td>
<td>38408</td>
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</tbody>
</table>

<table>
<thead>
<tr>
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<th>Register</th>
<th>Ship type</th>
<th>Handy Size Bulk Carrier</th>
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<th>Container Ship</th>
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<th>CT 100</th>
</tr>
</thead>
<tbody>
<tr>
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<td>30026</td>
<td>34179</td>
<td>45580</td>
<td>40937</td>
<td>26899</td>
<td>34183</td>
<td>43632</td>
</tr>
<tr>
<td>P1b</td>
<td>General Register</td>
<td>Reduced crew – ITE</td>
<td>30678</td>
<td>34830</td>
<td>46232</td>
<td>41589</td>
<td>27551</td>
<td>34834</td>
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<tr>
<td>P1c</td>
<td>General Register</td>
<td>Reduced crew – accelerated depreciation</td>
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<td>39905</td>
<td>36535</td>
<td>24177</td>
<td>30567</td>
<td>38408</td>
</tr>
</tbody>
</table>
AISR ships are not directly modelled because there are currently no AISR vessels conducting coastal trading. Hypothetically, an AISR ship may occur if the ship is manned by one Australian Master and one Australian Chief Engineer, both attracting the seafarer tax offset. The costs of AISR ships would remain higher than for foreign vessels. This remains the case for the individual cost of an Australian Master or Chief Engineer even with a seafarer tax offset and therefore reduces the likelihood of AISR ships coming into existence.

5.3 Market share assumptions

Market share assumptions are established for the base case and each of the regulatory options. Various factors influence shipping service user’s decision to ship cargo with an Australian or foreign carrier. These include:

1. Cost.
2. Availability.
3. Maximising the efficiency of the shipping schedule.

To a lesser extent, factors such as reliability of vessel also play a role. Cost and availability are related. An agent may prefer to ship with a particular vessel for several reasons. In particular if:

- The shipping service user is engaged in a long-term contract with a shipper.
- The vessel is carrying cargo that is already owned by the same agent and it makes operational sense to load the same vessel (which in many instances may be foreign flagged) with cargo for delivery to an Australian coastal port;
  - the agent will decide on the optimal visiting routes/sequences for ships. In doing so, price/cost will be just one of many variables in the decision making process.

Given the planning period, the ships and ports involved, constructing a set of ship schedules and cargo routings that allow for efficient service and minimisation of operating cost means that various, equally important factors, in addition to price/cost, are taken into account. This is an important point as the ensuing analysis, in lieu of detailed information and data relating to agents’ shipping decisions, implies that cost is an overriding factor in the determination of market shares. Whilst this may be regarded as a simplifying assumption it is a necessary assumption in the context of this analysis. The model framework takes few variables into consideration and is designed almost exclusively to model ship costs.

---

50 To calculate the offset, it is necessary to know the number of days spent on overseas voyages. It is assumed for the purposes of estimating financial crew costs and the appropriate offset that seafarers are engaged for 91 days on overseas voyages. This minimises the cost saving and is line with typical leave arrangements of one day on, one day off for Australian seafarers, and with an AISR vessel engaging slightly over 50 per cent of the time in international voyages.
The task at hand is further compounded by the fact that close examination of the Coastal Trading Licensing System (CTLS) database shows a consistent story in the vessels chosen to undertake coastal trading. For example, crude oil is shipped exclusively by vessels with a Temporary Licence as shown in Figure 5.2 below.
Figure 5.2 - Crude Oil freight per vessel (in aggregate) per financial year

[Diagram showing total tonnage per vessel for different vessels across three financial years: 2012/2013, 2013/2014, 2014/2015.]
The information presented in this section reflects the current state of coastal trading within Australia. The information is based on data from the CTLS database provided by the Department. The data spans July 2012 – November 2014 and relates to Temporary, General and Transitional General Licence Registers. The data includes information relating to voyage number, category of trade, cargo description, load port, discharge port, aggregated volume, volume type, and vessel name.

According to Figure 5.2 over the period Jun-2013 to Nov-2014 crude oil was carried exclusively by foreign flagged vessels (as indicated by the ship name) with Temporary Licences. Similarly, according to Figure 5.3, Iron Ore was freighted predominantly by foreign flagged vessels. Over the period Aug-2012 to Sep-2014, Iron Ore was sea freighted around Australia by vessels with a Transitional General Licence. On all other occasions, this cargo type was shipped by foreign vessels holding a Temporary Licence.

Figure 5.3 –Iron Ore freight per vessel (in aggregate) by financial year\(^{51}\)

![Graph showing Iron Ore freight per vessel by financial year]

For completeness, similar charts are presented for the following cargo types:

- Other liquid.
- Bass Strait.
- Other dry bulk.

In all cases we see that either foreign or Australian vessels dominate the freight task of particular cargo types.

\(^{51}\) Note, CSL Whyalla holds a GL and transhipped iron ore in 2012/13 and 2013/14.
According to the licence data summarised in Figure 5.4 above, the Other Liquid cargo type is shipped predominantly by foreign vessels with a Temporary Licence.

**Figure 5.5—Bass Strait freight by vessel for 2014 financial year**

According to Figure 5.5, freight across Bass Strait (non-bulk) involves only Australian flagged vessels with a General Licence. Regarding Other Dry Bulk outlined in Figure 5.6, we find that this category is shipped by both Australian and foreign flagged vessels.
Figure 5.6 – Other Dry Bulk freight by vessel 27/7/2012 – 2/11/2014
This information presented in the above charts was utilised to develop market share assumptions for each policy option. Of particular interest was the assumed change in the number of Australian and foreign vessels under each option and the change in crew composition for a particular vessel. Each cargo type is discussed below.

5.3.1 Bauxite - Weipa to Gladstone

At present, there are 5 Rio Tinto vessels shipping Bauxite on the Weipa-Gladstone route which accounts for 90 per cent of the total Bauxite trade. The vessels are of the same vessel class, i.e. bulk carriers with the same capacity. As such, the market share attributed to each vessel is set at 20 per cent. All 5 vessels are foreign flagged. The crew composition for all 5 vessels is 100 per cent Australian, paid EA waged rates. Given that these vessels are foreign flagged, the base case market share for the Weipa-Gladstone route is assumed to be 100 per cent foreign with Australian crew.

Under Option 1, we assume that all 5 Rio Tinto vessels will register as Australian flagged vessels since the crew composition on these vessels is already 100 per cent Australian and the cost of registration is minimal.

In relation to Options 2, 3 and 4, we assume that Rio Tinto will keep all vessels foreign flagged but may alter the crew composition of its vessels from 100 per cent Australian to 100 per cent foreign, in order reduce operating costs. It is assumed that Rio Tinto will alter the crew composition at a rate of one vessel per year.

Under Option 5, it is assumed that Rio Tinto’s 5 vessels will require Australian crew. Accordingly, it is assumed that the crew composition under this option will be 100 per cent foreign. In contrast, under Option 6 it is assumed that only one of Rio Tinto’s vessels will not reach the 183 day limit and therefore can have a fully foreign crew. The market share assumption pertaining to the Weipa-Gladstone route are summarised in Table 5.5 below.

Table 5.5 - Market share assumptions for Bauxite - Weipa to Gladstone Trade

<table>
<thead>
<tr>
<th>Option</th>
<th>Base case</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
<th>Option 5</th>
<th>Option 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Australian flag</td>
<td>Foreign flag</td>
<td>Australian</td>
<td>Foreign</td>
<td>Mixed</td>
<td>Australian</td>
<td>Foreign</td>
</tr>
<tr>
<td>Base case</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Option 1</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Option 2</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Option 3</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Option 4</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Option 5</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Option 6</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
</tbody>
</table>

Note that data pertaining to the exact number of voyages carried out by each vessel is not available.
5.3.2 Bauxite - Triangular route

According to the CTLS data, the Triangular route accounts for 10 per cent of Bauxite trade. The CTLS data show that in 2014 only 2 voyages were completed using 1 foreign vessel within the Triangular Route. As such, the base case market share of the Triangular Route is 100 per cent foreign. We note that for the Triangular route, only the Gladstone – Newcastle section of the voyage is captured by the Coastal Trading Act.

Under Option 1, foreign flagged vessels (and Australian flagged vessels) engaged in the trading of domestic cargo on the Australian coast will be subject to all applicable Australian laws. In particular, Australian workplace relation laws will, in the absence of the Coastal Trading Act, require foreign workers who want to work in Australia to hold relevant visas. Accordingly, foreign flagged vessels may only carry crew who are either Australian residents or foreign residents who hold the appropriate visas (collectively referred to as ‘Australian crew’).

The outcomes of Options 2, 3, 4, 5 and 6 would not change from the base case, as the vessel would continue to operate under a foreign register using foreign crew. As such, the market share would be 100 per cent foreign and the vessel would enjoy the benefit of ITF rates. The market share assumption pertaining to the Triangular route are summarised in Table 5.6 below.

<table>
<thead>
<tr>
<th>Option</th>
<th>Market share (%)</th>
<th>Crew composition (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Australian flag</td>
<td>Foreign flag</td>
</tr>
<tr>
<td>Base case</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 1</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 2</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 4</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 5</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 6</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

5.3.3 Iron Ore

In 2014, Iron Ore trade was undertaken by a total of 9 vessels, comprised of 6 Temporary Licence holders and 3 Transitional General Licences owned by Teekay (all foreign flagged).\(^{53}\) Given that 9 vessels are in operation, the market share allocated to each vessel has been rounded to 10 per cent.

\(^{53}\) CSL Whyalla is not included in the analysis as it is only conducting trans-shipping.
The market share under the base case is 100 per cent foreign, as all vessels are foreign flagged. It is further assumed that 70 per cent of vessels (i.e. 6 vessels/9 total vessels) employ all foreign crew and the remaining 30 per cent of vessels (i.e. the 3 Transitional General Licence vessels owned by Teekay) employ all Australian crew.

Under Option 1, it is assumed that the Transitional General Licence vessels will register as Australian flagged vessels since the crew composition on these vessels is already 100 per cent Australian and the cost of registration is minimal. It is assumed that the 6 Temporary Licence vessels will continue to operate as foreign flagged vessels whilst there is still demand in the market. Accordingly, the market shares under this option will be 30 per cent Australian and 70 per cent foreign. The foreign flagged vessels will be imported and the foreign crew would lose their work rights enjoyed under the Coastal Trading Act. To continue trading domestic cargo along the Australian coast, foreign flagged vessels will be required to carry only Australian crew.

Under Options 2, 3, 4, 5 and 6, all vessels currently shipping iron ore will remain in a foreign register (100 per cent foreign market share) with all crew being paid ITF wage rates. The market share assumptions pertaining to iron ore are summarised in Table 5.7 below.

Table 5.7- Market share assumptions for Iron Ore Trade

<table>
<thead>
<tr>
<th>Option</th>
<th>Market share (%)</th>
<th>Crew composition (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Australian flag</td>
<td>Foreign flag</td>
</tr>
<tr>
<td>Base case</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 1</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>Option 2</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 4</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 5</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 6</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

5.3.4 Other Dry Bulk

According to CTLS data, in 2014 Other Dry Bulk trade was performed by 104 Temporary Licence vessels, 4 Transitional General Licence vessels and 4 General Licence vessels. Using the volume of cargo transported in 2014 (consider Table 5.8 below), the base case assumes that market share is 20 per cent Australian and 80 per cent foreign. It is also assumed that the Transitional General Licence and General Licence vessels employ 100 per cent Australian crew and Temporary Licence vessels employ 100 per cent foreign crew.

Out of the 112 vessels operating the Other Dry Bulk trade, 8 vessels (7 per cent) operate with 100 per cent Australian crew, and 93 per cent of vessels operate with foreign crew. The same applies for Option 1, as there are still 8 vessels operating with 100 per cent Australian crew.
Table 5.8 – Other dry bulk market shares based on volumes traded in 2014

<table>
<thead>
<tr>
<th>Licence</th>
<th>Cargo (k/tonnes)</th>
<th>Market Share</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Licence</td>
<td>1,814</td>
<td>1,814/9,204 = 19.7%</td>
<td>Assume Australian vessels hold 20% market share under the base case.</td>
</tr>
<tr>
<td>Transitional General Licence</td>
<td>2,727</td>
<td>2,727/9,204 = 29.6%</td>
<td>Assume foreign vessels hold 80% market share under the base case. Note under Option 1 the ~30% market share held by Transitional General Licence shift to Australian. As such, under Option 1 (described below), the market share is 50/50 foreign/Australian.</td>
</tr>
<tr>
<td>Temporary Licence</td>
<td>4,663</td>
<td>4,663/9,204 = 50.6%</td>
<td></td>
</tr>
</tbody>
</table>

9,204

Of the Australian vessels (4 General Licence), we assume that those which are not subject to a specific tax treatment have a market share of 25 per cent and the remaining 75 market share pertains to vessels receiving accelerated depreciation tax. Consider Table 5.9 below:

Table 5.9 – Tax treatment of General Licence vessels

<table>
<thead>
<tr>
<th>Tax Treatment</th>
<th>Number of vessels (applies only to General Licence)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerated Depreciation</td>
<td>3</td>
<td>Dry bulk is shipped by all 3 vessels including Goliath, Iron Chieftain and CSL Thevenard accounting for 75% (i.e. 3 / 4) of Australian vessels transporting dry bulk and receiving accelerated depreciation. The remaining vessel carrying dry bulk, i.e. Accolade II is in the ‘no special treatment’ category.</td>
</tr>
<tr>
<td>ITE</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>No special treatment</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>47</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from information provided by the Department of Infrastructure and Regional Development.
Under Option 1, it is assumed that all 4 Transitional General Licence vessels will register as Australian flagged vessels since the crew composition on these vessels is already 100 per cent Australian and the cost of registration is minimal. It is assumed that the Temporary Licence vessels will continue to operate as foreign flagged vessels assuming there is still demand in the market. Foreign vessels will be imported and foreign crew will lose their work rights. To continue trading domestic cargo along the Australian coast, foreign flagged vessels will be required to carry only Australian crew. Accordingly, it is assumed that the market share for Other Dry Bulk will shift in favour of Australian vessels. The market share will be split evenly between foreign and Australian. According to information provided by the Department, 40 per cent of the Australian vessels enjoy the benefit of accelerated depreciation treatment.

Under Option 2, foreign market share would increase to 100 per cent, with all crew paid under ITF wage rates. The regulations under Option 3 are less favourable for foreign operators compared to Option 2 (though more favourable than the base case). Accordingly, the market share under Option 3 is assumed to be 15 per cent Australian and 85 per cent foreign (i.e. between the base case and Option 2).

Option 4 provides the most favourable conditions for foreign operators. Australian market share is assumed to reduce to zero and foreign market share increases to 100 per cent.

Since Options 5 and 6 are variations of Option 4, the same Australian and foreign market share values are adopted. Under Options 5 and 6, CTLS data shows the majority of vessels would not be required to hire Australian crew. Market share for foreign crew vessels is assumed to be 90 per cent and mixed crew vessels to be 10 per cent. A summary of these assumptions in provided in Table 5.10 below.

<table>
<thead>
<tr>
<th>Option</th>
<th>Market share (%)</th>
<th>Crew composition (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Australian flag</td>
<td>Foreign flag</td>
</tr>
<tr>
<td>Base case</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Option 1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Option 2</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 3</td>
<td>15</td>
<td>85</td>
</tr>
<tr>
<td>Option 4</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 5</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 6</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

**5.3.5 Crude Oil**

For the crude oil trade, CTLS data shows a total of 14 vessels, all trading under Temporary Licences. Accordingly, the case base market share is 100 per cent foreign.
Under Option 1, it is assumed foreign flagged vessels will be imported and the foreign crew would lose their work rights enjoyed under the Coastal Trading Act. To continue trading domestic cargo along the Australian coast, foreign flagged vessels will be required to carry only Australian crew.

For Options 2, 3, 4, 5 and 6 the market share assumptions remain identical to the base case, as all coastal trading for oil is already performed by foreign vessels. A summary of the market share assumption relating to crude oil is provided in Table 5.11 below.

**Table 5.11- Market share assumptions for Oil**

<table>
<thead>
<tr>
<th>Option</th>
<th>Market share (%)</th>
<th>Crew composition (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Australian flag</td>
<td>Foreign flag</td>
</tr>
<tr>
<td>Base case</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 1</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 2</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 4</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 5</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 6</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

5.3.6 Petroleum

For the Petroleum trade, CTLS data indicates 5 vessels operating under Transitional General Licences and 69 vessels operating under Temporary Licences. Accordingly, the base case market share is 100 per cent foreign flagged. All Transitional General Licence vessels carry 100 per cent Australian crew whilst Temporary Licence vessels carry 100 per cent foreign crew.

Under Options 1, we assume that the 5 Transitional General Licence vessels will register as Australian flagged vessels since the crew composition on these vessels is already 100 per cent Australian and the cost of doing so is therefore minimal. It is assumed foreign flagged vessels will be imported and the foreign crew would lose their work rights enjoyed under the Coastal Trading Act. To continue trading domestic cargo along the Australian coast, foreign flagged vessels will be required to carry only Australian crew.

In relation to Options 2, 3 and 4, Transitional General Licence vessels may alter the crew composition from 100 per cent Australian to 100 per cent foreign, to reduce operating costs. It is assumed that Transitional General Licence vessels will alter the crew composition of their respective fleets at a rate of one vessel per year.
Since Options 5 and 6 are variations of Option 4, the same Australian and foreign market share values are adopted. Under Option 5, CTLS data shows the majority of vessels would not be required to hire Australian crew as they do not meet the 120 or 183 day limit respectively. Market share for mixed crew vessels is assumed to be 10 per cent and foreign crew vessels to be 90 per cent. A summary of the market share assumption relating to petroleum is provided in Table 5.12 below.

### Table 5.12 - Market share assumptions for Petroleum

<table>
<thead>
<tr>
<th>Option</th>
<th>Market share (%)</th>
<th>Crew composition (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Australian flag</td>
<td>Foreign flag</td>
</tr>
<tr>
<td>Base case</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 1</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>Option 2</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 3</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 4</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 5</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Option 6</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

#### 5.3.7 Other Liquid Bulk

For 2014, CTLS data shows that 25 Temporary Licence vessels serviced the Other Liquid Bulk trade. Accordingly, the base case market share is 100 per cent foreign. For the purposes of our model we elected SIA Part B wages to apply as the proportion of voyages covered under SIA Part B wages exceed the proportion of voyages covered under ITF wages for the 2014 year.\(^{54}\)

Under Option 1, it is assumed that the Temporary Licence vessels will continue to operate as foreign flagged vessels as it is assumed that coastal trading in Australia comprises a small portion of a Temporary Licence holder’s core activities. It is assumed foreign flagged vessels will be imported and the foreign crew would lose their work rights enjoyed under the Coastal Trading Act. To continue trading domestic cargo along the Australian coast, foreign flagged vessels will be required to carry only Australian crew.

Contrary to the base case where SIA Part B wages are applied, under Options 2, 3, 4 and 6, the 25 vessels would all remain foreign flagged, using ITF wage rates.

---

\(^{54}\) We note that ITF wages ought to apply to vessels conducting less than three voyages, however the model only allows for the election of one wage structure.
For Option 5, while all vessels remain foreign flagged, the licensing data indicates that 1 of the 25 vessels would exceed the 120 day limit and would therefore be required to hire Australian crew. Accordingly, 4 per cent of the foreign flagged vessels are assumed to employ mixed crew and 96 per cent are assumed to employ foreign crew. Table 5.13 below summarises the market share assumptions underpinning other liquid bulk.

**Table 5.13 - Market share assumptions for Other Liquid Bulk**

<table>
<thead>
<tr>
<th>Option</th>
<th>Market share (%)</th>
<th>Crew composition (%)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Australian flag</td>
<td>Foreign flag</td>
<td>Australian</td>
<td>Foreign</td>
<td>Mixed</td>
</tr>
<tr>
<td>Base case</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Option 1</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Option 2</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Option 3</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Option 4</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Option 5</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>96</td>
<td>4</td>
</tr>
<tr>
<td>Option 6</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
</tr>
</tbody>
</table>

### 5.3.8 Cruise shipping

To model the cruise ship sector we relied on information and data pertaining to the Australian expedition cruise vessels published in The Australian Expedition Cruise Shipping Association’s (AECSA) public submission (Submission 11). Currently, 3 Australian vessels (all Australian crew) and 4 foreign vessels (all foreign crew) are in operation with a combined passenger capacity of 554. The public submission by AECSA states that a cruise operator’s business is viable at 95% occupancy level, but becomes unviable when the occupancy level drops to 85%. For the purpose of conducting the CBA, a mean of 90% occupancy is assumed. Using this assumption, the number of passengers carried by cruise vessels would be 500 (554*0.9).

---


56 A list of International vessels can be found on [http://kimberleycruises.com/](http://kimberleycruises.com/); such as the Caledonian Sky.
According to the Cruise Industry Report 2013\(^5\), 8-14 day cruise trips represents 57% of the market. The Kimberley cruise data show a majority of cruise trips have a duration of 10 days.\(^6\) Therefore, we assume that the average number of days per trip is 10. The Department provided an estimate of the crew cost for cruise ships, based on a mid-sized cruise vessel for all ranks and including rotation crew (inclusive of tax and superannuation). The Australian crew cost is estimated at USD3,500,000 and mixed crew is estimated at USD1,350,000 (including USD250,000 paid for two senior Australian crew). The daily operating cost is derived by dividing the total cost by 180 days, which is assumed to be the length of the cruise ship season.

There are currently 7 vessels operating in the expedition cruise ship market, with 3 General Licences 1 Temporary Licence and a further 3 ships exempted from the operation of the Coastal Trading Act. Passenger capacities of the vessel types have been taken into account in determining the base case market shares are as follows:

- 3 Australian registered vessels have a combined capacity of 172 passengers per voyage; and
- 4 Foreign registered vessels have a combined capacity of 382 passengers per voyage.\(^7\)

Taking the passenger capacities into account, the market share for the base case is determined as 30 per cent for Australian (172 passengers/554 total passengers) and 70 per cent for foreign (382 passengers/554 total passengers). Forty per cent of the market share is comprised of Australia crew (3 of the total 7 vessels).

For Option 1 we do not include the three foreign cruise vessels which are exempt from the operation of the Coastal Shipping Act. The market share based on passenger capacity is 60 per cent domestic and 40 per cent foreign. It is assumed foreign flagged vessels will be imported and the foreign crew would lose their work rights enjoyed under the Coastal Trading Act. To continue trading domestic cargo along the Australian coast, foreign flagged vessels will be required to carry only Australian crew.

Options 2, 3 and 4 are assumed to result in the three Australian cruise vessels registering under a foreign register, using all foreign crew to reduce operating costs. Accordingly, the market share is assumed to be 100 per cent foreign flagged vessels.

Under Options 5 and 6, the Australian crewing requirements would not be triggered. For the purposes of this CBA, it is assumed that cruise ships do not operate for more than 120 days.

**Table 5.14 - Market share assumptions for cruise shipping**

<table>
<thead>
<tr>
<th>Option</th>
<th>Market share (%)</th>
<th>Crew composition (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Australian flag</td>
<td>Foreign flag</td>
</tr>
<tr>
<td>Base case</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>Option 1</td>
<td>60</td>
<td>40</td>
</tr>
</tbody>
</table>


\(^7\) Found at [http://kimberleycruises.com/tours/list-of-boats/](http://kimberleycruises.com/tours/list-of-boats/)
### 5.3.9 Inter-Capital containers

The inter-capital containers are transported by foreign vessels using spare capacity on international voyages between Australian ports. We assume that for the base case and Options 2, 3, 4, 5 and 6 that the costs associated with transporting inter-capital containers are limited to: stevedoring (loading/unloading) costs, wharfage charges and the surpluses earned by foreign containerships from charging what the market will bear above costs.

Under Option 1, no foreign vessels would be available for the transportation of inter-capital containers. Rather, the transportation of the inter-capital containers would be conducted via rail. The transportation costs are taken from the 2010 BITRE shipping reform report. These costs are inflated using the rail freight transport and water transport support producer price indices to 2014 terms. The overall cost or benefit of this sector under Option 1 is determined by the difference in cost between rail and shipping.

### 5.3.10 Bass Strait Non-Bulk Freight

The Bass Strait non-bulk trade is modelled separately to the inter-capital containers trade. Non-bulk freight is considered to be containers and other freight such as transport equipment, break bulk freight, pallets and timber. This avoids data issues arising from potentially inconsistent classification, and takes into account the same commodities may switch between the two according to ship availability. Approximately 70 per cent of the Bass Strait non-bulk trade is containerised.

The key differences between the two sectors are:
- Bass Strait non-bulk freight is only transported via vessels; and
- Transportation of Bass Strait freight is only performed by Australian vessels for the base case.

For the Bass Strait non-bulk sector, the CTLS data shows 6 vessels operating under General Licences and are therefore Australian flagged. The base case market share is 100 per cent Australian. According to information provided by the Department, 65 per cent of those vessels are receiving ITE tax treatment.

For Option 1, there are no changes to the market share as all vessels remain Australian flagged.
Under Options 2, 3 and 4, we assume 4 vessels will register under a foreign register to reduce operating costs. However the two Spirit of Tasmania vessels are very unlikely to reflag given that they are owned by the Tasmanian Government. For the purposes of our analysis we assume that they will remain Australian flagged (Options 2 to 6 inclusive). Accordingly, the market share under these options will be 65 per cent foreign (under ITF wages) and 35 per cent domestic (under EA wages). The two Spirit of Tasmania vessels (which comprise the domestic market share) will be composed of 100% Australian crew. In the crew composition columns in Table 5.15 below, the figures represent the total percentage of crew composition across all vessels for this trade.

For Option 5 and 6, all vessels would exceed the 120 and 183 day limits and so all foreign flagged vessels will be required to employ mixed crew. Table summarises the market share assumptions relating to Bass Strait.

**Table 5.15 - Market share assumptions for Bass Strait non-bulk freight**

<table>
<thead>
<tr>
<th>Option</th>
<th>Market share (%)</th>
<th>Crew composition (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Australian flag</td>
<td>Foreign flag</td>
</tr>
<tr>
<td>Base case</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Option 1</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Option 2</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>Option 3</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>Option 4</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>Option 5</td>
<td>35</td>
<td>65</td>
</tr>
<tr>
<td>Option 6</td>
<td>35</td>
<td>65</td>
</tr>
</tbody>
</table>

**5.4 Cargo forecasts**

**5.4.1 Introduction**

Assumptions relating to the total freight task (for each cargo type) are an important element of the CBA model. The assumptions have implications for the volume of trade which influences the behaviour of both Australian and foreign vessels. Forecasts of freight data for each cargo type were provided by BITRE. PAG developed forecasts of total freight volumes for each cargo type using econometric models. PAG adopts and makes forecast comparisons with BITRE's forecasts for each cargo type below.
5.4.2 PAG Forecasting methodology

PAG developed econometric models of the freight volumes associated with each cargo type. Figure 5.7 below summarises the methodology employed by PAG.

Figure 5.7: Statistical Modelling Framework

Data collection → Estimation of econometric model → Hypothesis testing → Forecasting or prediction → Application of model

Graphical analysis → Correlation analysis → Causality test → Dynamic regression → Diagnostic test

The model specifications for each of the cargo types are presented in
Appendix E – Freight forecasting models. Note, the forecast horizon in all cases is t=2014, 2015, ..., 2035.
6. Results

6.1 NPV Results

Table 6.2 and Table 6.2 below summarises the results of the CBA using NPV analysis.

_Table 6.1 - NPV results ($m) (main scenario)_

<table>
<thead>
<tr>
<th>Option</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>5 years</th>
<th>10 years</th>
<th>20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-183.9</td>
<td>-194.4</td>
<td>-204.1</td>
<td>-886.5</td>
<td>-1624.9</td>
<td>-2510.7</td>
</tr>
<tr>
<td>2</td>
<td>41.3</td>
<td>57.8</td>
<td>68.9</td>
<td>280.7</td>
<td>531.5</td>
<td>786.2</td>
</tr>
<tr>
<td>3</td>
<td>38.6</td>
<td>51.0</td>
<td>61.3</td>
<td>252.0</td>
<td>476.9</td>
<td>705.3</td>
</tr>
<tr>
<td>4</td>
<td>41.3</td>
<td>57.8</td>
<td>68.9</td>
<td>280.7</td>
<td>531.5</td>
<td>786.2</td>
</tr>
<tr>
<td>5</td>
<td>32.7</td>
<td>45.8</td>
<td>57.0</td>
<td>231.9</td>
<td>442.8</td>
<td>653.6</td>
</tr>
<tr>
<td>6</td>
<td>33.2</td>
<td>46.5</td>
<td>57.9</td>
<td>235.8</td>
<td>450.7</td>
<td>667.4</td>
</tr>
</tbody>
</table>

Table 6.1 above shows the NPV results of all policy options across various time horizons. Option 1 results in a significant NPV economic cost of $2,510.7m. The reason for this is twofold. Firstly, the cost associated with replacing foreign crew on MCVs with either Australian crew or crew who hold 457 visas - it is assumed that the replacement crew are paid Australian EA rates which greatly increases the crew cost for a foreign vessel previously paying SIA Part B or ITF wage rates. Secondly, the cost of moving inter-capital container from ship to rail is relative high, i.e. approximately $1,662.1m under Option 1 (20 year horizon). This result does not change if GST is considered. GST charged on importation may only serve to further reduce the market share of foreign vessels.

Under Options 2 and 4, the analysis shows NPV positive economic cost savings of approximately $786.2m. This result is driven by existing foreign vessels increasing coastal shipping operations pursuant to the removal of the requirement to apply for temporary licences. Since ship owners may have minimal incentive under Option 2 to register vessels in the Australian General Register, they may opt to register ships in a foreign register and hire only foreign crew. These vessels may capture tonnage away from Australian vessels. Foreign vessels with 100 percent foreign crew incur lower economic costs than Australian flagged vessels.

There are other relevant costs associated with Options 2-6 that are not reflected in the NPV results. These include a loss of Australian seafarer jobs which may have ramifications for the shore-based maritime sector in general. Legislative costs associated with the identification and enactment of new legislation (to negate the undesired effects of a repeal of the Coastal Trading Act) are also not modelled.
Option 3 yields NPV economic cost savings of $705.3m. The cost reductions under Option 3 result purely from an increase in the share of the freight task attributed to foreign vessels. Relative to Option 2, there may be a smaller loss of Australian seafarer jobs as ship owners may continue to register vessels in the Australian General Register and maintain Australian crew rather than register in a foreign register and employ foreign crew. However, since foreign vessels ship an increased share of the freight task, there may nevertheless be some displacement of Australian operated vessels and Australian seafarer jobs relative to the base case scenario.

Options 2 and 4 reflect the highest economic benefit of all the policy options. This result is driven by the assumed increase in the market share of foreign vessels, the extension of the Coastal Trading Act to cover offshore installations where applicants opt in and the relaxed licensing and crewing conditions. Many of the operators currently operating under the Australian General Register would likely re-flag their vessels in order to compete with the foreign operators who enjoy the benefit of comparatively lower wage rates. Australian seafarer jobs would be adversely affected as Australian operators re-flag from the Australian General Register.

Ship operators are likely to replace Australian seafarers (paid under EA rates) with foreign seafarers (paid under ITF rates). Nevertheless, a portion of the crew may remain Australian due to the worldwide shortage of high ranking positions.

Options 5 and 6 result in NPV economic cost savings of $653.6m and $667.4m respectively. The economic cost reductions are similar to Option 4 due to minimal changes in the proposed amendments. The economic cost reduction for Option 5 is less than that of Option 6 due to more stringent crew conditions, where foreign vessels must operate with two senior Australian crew if the vessel conducts coastal voyages of more than 120 days. It is also important to note that Fair Work Act and SIA Part B wage rates would apply to the whole crew for the entire permit period. Under Options 6, the temporal requirement is extended to 183 days leading to less onerous requirements.

The results for the base case and each policy option above will be collectively referred to as the ‘Main Scenario’ for the purposes of the sensitivity analysis below.
### Table 6.2 - NPV results ($m) (main scenario)

<table>
<thead>
<tr>
<th>Policy Options</th>
<th>Bauxite Triangular</th>
<th>Bauxite Weipa-Gladstone</th>
<th>Iron Ore</th>
<th>Other Dry Bulk</th>
<th>Sub-total</th>
<th>Oil</th>
<th>Petroleum Products</th>
<th>Other Liquid Bulk</th>
<th>Sub-total</th>
<th>Inter-capital containers</th>
<th>Bass Strait Non-Bulk</th>
<th>Cruise Shipping</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>-100.9</td>
<td>-105.0</td>
<td>-91.0</td>
<td>-296.9</td>
<td>-593.8</td>
<td>-24.9</td>
<td>-172.6</td>
<td>-37.0</td>
<td>-234.5</td>
<td>-1662.1</td>
<td>0.0</td>
<td>-20.2</td>
<td>-2510.7</td>
</tr>
<tr>
<td>Option 2</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>262.9</td>
<td>542.4</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>103.5</td>
<td>45.2</td>
<td>786.2</td>
</tr>
<tr>
<td>Option 3</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>182.0</td>
<td>461.5</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>103.5</td>
<td>45.2</td>
<td>705.3</td>
</tr>
<tr>
<td>Option 4</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>262.9</td>
<td>542.4</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>103.5</td>
<td>45.2</td>
<td>786.2</td>
</tr>
<tr>
<td>Option 5</td>
<td>0.0</td>
<td>168.0</td>
<td>29.9</td>
<td>247.0</td>
<td>444.9</td>
<td>9.4</td>
<td>66.1</td>
<td>13.4</td>
<td>88.9</td>
<td>0.0</td>
<td>74.6</td>
<td>45.2</td>
<td>653.6</td>
</tr>
<tr>
<td>Option 6</td>
<td>0.0</td>
<td>181.3</td>
<td>29.9</td>
<td>247.0</td>
<td>458.2</td>
<td>9.4</td>
<td>66.1</td>
<td>14.0</td>
<td>89.5</td>
<td>0.0</td>
<td>74.6</td>
<td>45.2</td>
<td>667.4</td>
</tr>
</tbody>
</table>
The table below highlights the reduction in daily crew costs (averaged across all ship types) between the base case and each policy option. Crew costs are the sum of the annual salaries for each employee crew class i.e. Master, Chief Engineer etc. These crew costs differ across ship type according to tonnage (vessel size).

**Table 6.3 - Crew cost/benefit across cargo sectors**

<table>
<thead>
<tr>
<th>Wage cost/benefit per day</th>
<th>Bauxite Weipa-Gladstone</th>
<th>Bauxite Triangular</th>
<th>Iron Ore</th>
<th>Other Dry Bulk</th>
<th>Oil</th>
<th>Petroleum</th>
<th>Other Liquid Bulk</th>
<th>Bass Strait Non Bulk</th>
<th>Cruise Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>0</td>
<td>$12,592</td>
<td>$9,814</td>
<td>$6,569</td>
<td>$8,735</td>
<td>$7,861</td>
<td>$8,735</td>
<td>0</td>
<td>$10,550</td>
</tr>
<tr>
<td>Option 2</td>
<td>$12,592</td>
<td>0</td>
<td>$3,778</td>
<td>$4,589</td>
<td>$3,857</td>
<td>$3,857</td>
<td>$3,857</td>
<td>$12,592</td>
<td>$4,522</td>
</tr>
<tr>
<td>Option 3</td>
<td>$12,592</td>
<td>0</td>
<td>$3,778</td>
<td>$3,873</td>
<td>$3,857</td>
<td>$3,857</td>
<td>$3,857</td>
<td>$12,592</td>
<td>$4,522</td>
</tr>
<tr>
<td>Option 4</td>
<td>$12,592</td>
<td>0</td>
<td>$3,778</td>
<td>$6,023</td>
<td>$3,857</td>
<td>$3,857</td>
<td>$3,857</td>
<td>$12,592</td>
<td>$4,522</td>
</tr>
<tr>
<td>Option 5</td>
<td>$12,592</td>
<td>$746</td>
<td>$3,361</td>
<td>$5,501</td>
<td>$3,260</td>
<td>$4,321</td>
<td>$3,521</td>
<td>$11,846</td>
<td>$4,522</td>
</tr>
<tr>
<td>Option 6</td>
<td>$12,592</td>
<td>$746</td>
<td>$3,361</td>
<td>$5,501</td>
<td>$3,335</td>
<td>$4,470</td>
<td>$3,633</td>
<td>$12,219</td>
<td>$4,522</td>
</tr>
</tbody>
</table>

The values in Table 6.3 above reflect the differences in crew composition between the base case and the options. For example, in Table 5.5 relating to Bauxite Weipa to Gladstone trade, the crew composition for the base case and Option 1 are the same (100 per cent Australian crew). As such, the net impact on crew costs in Table 6.3 above for the Bauxite Weipa to Gladstone trade is 0. However, for the same cargo trade, Table 5.5 reflects differences in the crew composition between the base case and options 2-6. In fact, the difference relates to a movement away from Australian crew to 100 per cent foreign crew (consider crew composition in Table 5.5 for Options 2-6). This benefit in cost is reflected in Table 6.3, in the order of $12,592 per day, relating to Options 2-6.

### 6.2 Sensitivity analysis

Sensitivity analysis is utilised to show the changes in economic cost impact (and the overall option rankings) through marginal adjustments to key variables, namely:

- Reduced manning.
- Shadow price factor.
- SIA Part A wages.
- Discount factor.

By adjusting the above variables we were able to isolate and quantify the impact on the final option rankings. The results of the sensitivity testing together with associated assumptions are outlined below.

#### 6.2.1 Reduced manning

Reduced manning is considered where crew numbers are assumed to fall below the current crew numbers for Australian vessels in the base case scenario. Figure 6.2 and Figure 6.3 below compare the NPV results of the base case and each policy option under reduced manning as against the Main Scenario for each cargo trade.
Reduced manning only impacts Australian vessels in accordance with our assumptions. Due to reductions in crew numbers and associated crew costs, economic cost savings for policy options 2-6 are smaller as compared to the Main Scenario. Simultaneously, economic costs are reduced for option 1.

Bass Strait non-bulk is the most sensitive to changes in crew numbers (manning) as trade of this cargo type is only undertaken by domestic vessels. The reduction in economic cost under Option 1 for the petroleum trade is due to the 5 Transitional General Licence vessels assumed to register under the Australian General Register. Following registration, these vessels will operate with reduced crew numbers. Accordingly, associated crew costs decrease.

**Figure 6.2- NPV results ($m) (Reduced Manning vs Main Scenario – Part A)**

![Graph showing NPV results ($m) for different shipping options under reduced manning and main scenario.](image-url)
Figure 6.3 - NPV results ($m) (Reduced Manning vs Main Scenario – Part B)
### Table 6.4 - NPV results ($m) (Reduced Manning Scenario)

<table>
<thead>
<tr>
<th>Policy Options</th>
<th>Bauxite Triangular</th>
<th>Bauxite Weipa-Gladstone</th>
<th>Iron Ore</th>
<th>Other Dry Bulk</th>
<th><strong>Sub-total</strong></th>
<th>Oil</th>
<th>Petroleum Products</th>
<th>Other Liquid Bulk</th>
<th><strong>Sub-total</strong></th>
<th>Inter-capital containers</th>
<th>Bass Strait Non-Bulk</th>
<th>Cruise Shipping</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>-100.9</td>
<td>12.5</td>
<td>-77.9</td>
<td>-253.4</td>
<td>-419.8</td>
<td>-24.9</td>
<td>-126.6</td>
<td>-37.0</td>
<td>-188.5</td>
<td>-1662.1</td>
<td>0.0</td>
<td>-20.2</td>
<td>-2290.6</td>
</tr>
<tr>
<td>Option 2</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>231.1</td>
<td>510.6</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>77.8</td>
<td>45.2</td>
<td>728.7</td>
</tr>
<tr>
<td>Option 3</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>172.9</td>
<td>452.4</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>77.8</td>
<td>45.2</td>
<td>670.6</td>
</tr>
<tr>
<td>Option 4</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>231.1</td>
<td>510.6</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>77.8</td>
<td>45.2</td>
<td>728.7</td>
</tr>
<tr>
<td>Option 5</td>
<td>0.0</td>
<td>168.0</td>
<td>29.9</td>
<td>215.2</td>
<td>413.1</td>
<td>9.4</td>
<td>66.1</td>
<td>13.4</td>
<td>88.9</td>
<td>0.0</td>
<td>48.9</td>
<td>45.2</td>
<td>596.1</td>
</tr>
<tr>
<td>Option 6</td>
<td>0.0</td>
<td>181.3</td>
<td>29.9</td>
<td>215.2</td>
<td>426.4</td>
<td>9.4</td>
<td>66.1</td>
<td>14.0</td>
<td>89.5</td>
<td>0.0</td>
<td>48.9</td>
<td>45.2</td>
<td>610.0</td>
</tr>
</tbody>
</table>
6.2.2 Shadow price factor

According to the BITRE model, a shadow price factor of 0.9 is applied to the crew costs for Australian vessels. By assuming a shadow price factor of 0.7 (rather than 0.9), we observe changes in the NPV differential between the regulatory options. Policy option NPV rankings remain constant. Consider Figure 6.4, and Table 6.5 below.

Similar to reduced manning, changes to the shadow price factor only impacts Australian vessels. A reduction in the shadow price factor results in decreases to crew costs. Accordingly, economic cost savings for policy options 2-6 are less than they would be under the Main Scenario. Simultaneously, economic costs are reduced for option 1.

Figure 6.4 - NPV results ($m) (Lower Shadow Price Factor vs Main Scenario – Part A)

Figure 6.5- NPV results ($m) (Lower Shadow Price Factor vs Main Scenario – Part B)
### Table 6.5 - NPV results ($m) (lower shadow price factor scenario)

<table>
<thead>
<tr>
<th>Policy Options</th>
<th>Bauxite Triangular</th>
<th>Bauxite Weipa-Gladstone</th>
<th>Iron Ore</th>
<th>Other Dry Bulk</th>
<th>Sub-total</th>
<th>Oil</th>
<th>Petroleum Products</th>
<th>Other Liquid Bulk</th>
<th>Sub-total</th>
<th>Inter-capital containers</th>
<th>Bass Strait Non-Bulk</th>
<th>Cruise Shipping</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>-100.9</td>
<td>-21.0</td>
<td>-82.5</td>
<td>-261.9</td>
<td>-466.4</td>
<td>-24.9</td>
<td>-139.4</td>
<td>-37.0</td>
<td>-201.3</td>
<td>-1662.1</td>
<td>0.0</td>
<td>-20.2</td>
<td>-2350.0</td>
</tr>
<tr>
<td>Option 2</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>237.3</td>
<td>516.8</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>79.9</td>
<td>45.2</td>
<td>737.0</td>
</tr>
<tr>
<td>Option 3</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>174.7</td>
<td>454.2</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>79.9</td>
<td>45.2</td>
<td>674.4</td>
</tr>
<tr>
<td>Option 4</td>
<td>0.0</td>
<td>249.6</td>
<td>29.9</td>
<td>237.3</td>
<td>516.8</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>79.9</td>
<td>45.2</td>
<td>737.0</td>
</tr>
<tr>
<td>Option 5</td>
<td>0.0</td>
<td>168.0</td>
<td>29.9</td>
<td>221.5</td>
<td>419.3</td>
<td>9.4</td>
<td>66.1</td>
<td>13.4</td>
<td>88.9</td>
<td>0.0</td>
<td>51.0</td>
<td>45.2</td>
<td>604.4</td>
</tr>
<tr>
<td>Option 6</td>
<td>0.0</td>
<td>181.3</td>
<td>29.9</td>
<td>221.5</td>
<td>432.6</td>
<td>9.4</td>
<td>66.1</td>
<td>14.0</td>
<td>89.5</td>
<td>0.0</td>
<td>51.0</td>
<td>45.2</td>
<td>618.3</td>
</tr>
</tbody>
</table>
6.2.3 SIA Part A wages

To facilitate the sensitivity analysis regarding SIA Part A wages, it is assumed that foreign crew are replaced with 457 visa holders and Australian seafarers who are paid under EA rates. There is a possibility that the market wages required under 457 visas do not equate to EA rates but may be closer to SIA Part A wages. The results are outlined in Table 6.6 below. By altering SIA Part A wages, Options 4 and 2 generate the highest economic benefit and the rankings remain unchanged. A comparison across the cargo types is provided below in Figure 6.6 and Figure 6.7.

**Figure 6.6- NPV results ($m) (SIA Part A Wages vs Main Scenario – Part A)**

![NPV results ($m) (SIA Part A Wages vs Main Scenario – Part A)](image)

**Figure 6.7-NPV results ($m) (Reduced Manning vs SIA Part A Wages – Part B)**

![NPV results ($m) (Reduced Manning vs SIA Part A Wages – Part B)](image)
The other dry bulk trade is undertaken by 104 foreign vessels, 4 General Licences and 4 Transitional General Licences. Under option 1, foreign vessels will re-crew to only Australian seafarers whom are paid SIA Part A wages instead of EA wages. This lower wage rate means lower crew costs and a reduction in economic cost. For policy options 2 - 4, General Licence and Transitional General Licence vessels will register under foreign registers and re-crew to have only foreign seafarers who are paid under ITF wages. Consequently, SIA Part A wages will not apply to these policy options. Notably, policy options 5 and 6 already assume SIA Part A wages and so will remain unchanged from the Main Scenario.

The Bauxite Weipa-Gladstone cargo trade is only undertaken by Transitional General Licence vessels. Under option 1, these vessels already have Australian crew and therefore will not be impacted by a change to SIA Part A wages. For options 2 - 6, the vessels will re-crew from all Australian to all foreign crew. This is identical to the Main Scenario. Accordingly there is no change to the NPV values.
### Table 6.6 - NPV results ($m) (SIA Part A wages scenario)

<table>
<thead>
<tr>
<th>Policy Options</th>
<th>Bauxite Triangular</th>
<th>Bauxite Weipa-Gladstone</th>
<th>Iron Ore</th>
<th>Other Dry Bulk</th>
<th>Sub-total</th>
<th>Oil</th>
<th>Petroleum Products</th>
<th>Other Liquid Bulk</th>
<th>Sub-total</th>
<th>Inter-capital containers</th>
<th>Bass Strait Non-Bulk</th>
<th>Cruise Shipping</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>-36.3</td>
<td>-105.0</td>
<td>-41.0</td>
<td>-105.6</td>
<td>-288.1</td>
<td>-2.8</td>
<td>-119.9</td>
<td>-5.2</td>
<td>-127.9</td>
<td>-1662.1</td>
<td>0.0</td>
<td>-20.2</td>
<td>-2098.3</td>
</tr>
<tr>
<td>Option 2</td>
<td>0.0</td>
<td>249.6</td>
<td>31.7</td>
<td>262.9</td>
<td>544.1</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>103.5</td>
<td>45.2</td>
<td>788.0</td>
</tr>
<tr>
<td>Option 3</td>
<td>0.0</td>
<td>249.6</td>
<td>31.7</td>
<td>182.0</td>
<td>463.3</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>103.5</td>
<td>45.2</td>
<td>707.1</td>
</tr>
<tr>
<td>Option 4</td>
<td>0.0</td>
<td>249.6</td>
<td>31.7</td>
<td>262.9</td>
<td>544.1</td>
<td>9.4</td>
<td>71.7</td>
<td>14.0</td>
<td>95.1</td>
<td>0.0</td>
<td>103.5</td>
<td>45.2</td>
<td>788.0</td>
</tr>
<tr>
<td>Option 5</td>
<td>0.0</td>
<td>235.4</td>
<td>31.7</td>
<td>260.3</td>
<td>527.4</td>
<td>9.4</td>
<td>70.5</td>
<td>13.6</td>
<td>93.5</td>
<td>0.0</td>
<td>98.8</td>
<td>45.2</td>
<td>764.8</td>
</tr>
<tr>
<td>Option 6</td>
<td>0.0</td>
<td>242.0</td>
<td>32.7</td>
<td>260.3</td>
<td>535.0</td>
<td>9.4</td>
<td>70.5</td>
<td>14.0</td>
<td>93.9</td>
<td>0.0</td>
<td>98.8</td>
<td>45.2</td>
<td>772.9</td>
</tr>
</tbody>
</table>
6.2.4  3% NPV

The base NPV rate of 7 per cent is adjusted to 3 per cent (see Table 6.7 below). While the magnitude of the CBA results (absolute values) increases significantly, the option rankings remain constant as the changes are proportionate across each cargo trade and each policy option. As a result, policy options 4 and 2 remain the preferred options.

Figure 6.8- NPV results ($m) (Main Scenario vs Discount Factor = 3% - Part A)

Figure 6.9- NPV results ($m) (Main Scenario vs Discount Factor = 3% - Part B)
Table 6.7 - NPV results ($m) (3% NPV scenario)

<table>
<thead>
<tr>
<th>Policy Options</th>
<th>Bauxite Triangular</th>
<th>Bauxite Weipa-Gladstone</th>
<th>Iron Ore</th>
<th>Other Dry Bulk</th>
<th>Sub-total</th>
<th>Oil</th>
<th>Petroleum Products</th>
<th>Other Liquid Bulk</th>
<th>Sub-total</th>
<th>Inter-capital containers</th>
<th>Bass Strait Non-Bulk</th>
<th>Cruise Shipping</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>-147.2</td>
<td>-153.2</td>
<td>-133.2</td>
<td>-435.7</td>
<td>-869.3</td>
<td>-34.3</td>
<td>-254.2</td>
<td>-54.0</td>
<td>-342.5</td>
<td>-2533.4</td>
<td>0.0</td>
<td>-29.4</td>
<td>-3774.6</td>
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<tr>
<td>Option 2</td>
<td>0.0</td>
<td>380.8</td>
<td>44.7</td>
<td>389.3</td>
<td>814.8</td>
<td>13.0</td>
<td>104.6</td>
<td>20.4</td>
<td>138.0</td>
<td>0.0</td>
<td>159.2</td>
<td>66.7</td>
<td>1178.8</td>
</tr>
<tr>
<td>Option 3</td>
<td>0.0</td>
<td>380.8</td>
<td>44.7</td>
<td>265.5</td>
<td>691.1</td>
<td>13.0</td>
<td>104.6</td>
<td>20.4</td>
<td>138.0</td>
<td>0.0</td>
<td>159.2</td>
<td>66.7</td>
<td>1055.0</td>
</tr>
<tr>
<td>Option 4</td>
<td>0.0</td>
<td>380.8</td>
<td>44.7</td>
<td>389.3</td>
<td>814.8</td>
<td>13.0</td>
<td>104.6</td>
<td>20.4</td>
<td>138.0</td>
<td>0.0</td>
<td>159.2</td>
<td>66.7</td>
<td>1178.8</td>
</tr>
<tr>
<td>Option 5</td>
<td>0.0</td>
<td>256.3</td>
<td>44.7</td>
<td>365.7</td>
<td>666.7</td>
<td>13.0</td>
<td>96.4</td>
<td>19.6</td>
<td>128.9</td>
<td>0.0</td>
<td>114.7</td>
<td>66.7</td>
<td>977.1</td>
</tr>
<tr>
<td>Option 6</td>
<td>0.0</td>
<td>277.7</td>
<td>44.7</td>
<td>365.7</td>
<td>688.1</td>
<td>13.0</td>
<td>96.4</td>
<td>20.4</td>
<td>129.8</td>
<td>0.0</td>
<td>114.7</td>
<td>66.7</td>
<td>999.3</td>
</tr>
</tbody>
</table>
6.2.5 10% NPV

The NPV discount rate is adjusted from 7 per cent to 10 per cent (see Table 6.8 below). While the magnitude of the CBA results (absolute values) decreases, the option rankings remain constant as the changes are proportionate across each cargo trade and each policy option. As a result, policy options 4 and 2 remain the preferred option. Consider Figure 6.10 and Figure 6.11 below.

Figure 6.10- NPV results ($m) (Discount Factor = 10% vs Main Scenario - Part A)

Figure 6.11-NPV results ($m) (Discount Factor = 10% vs Main Scenario - Part B)
### Table 6.8 - NPV results ($m) (10% NPV scenario)

<table>
<thead>
<tr>
<th>Policy Options</th>
<th>Bauxite Triangular</th>
<th>Bauxite Weipa-Gladstone</th>
<th>Iron Ore</th>
<th>Other Dry Bulk</th>
<th>Sub-total</th>
<th>Oil</th>
<th>Petroleum Products</th>
<th>Other Liquid Bulk</th>
<th>Sub-total</th>
<th>Inter-capital containers</th>
<th>Bass Strait Non-Bulk</th>
<th>Cruise Shipping</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>-78.9</td>
<td>-82.1</td>
<td>-70.9</td>
<td>-231.1</td>
<td>-463.0</td>
<td>-20.3</td>
<td>-133.9</td>
<td>-28.9</td>
<td>-183.1</td>
<td>-1260.6</td>
<td>0.0</td>
<td>-75.8</td>
<td>-1922.4</td>
</tr>
<tr>
<td>Option 2</td>
<td>0.0</td>
<td>188.2</td>
<td>22.9</td>
<td>203.1</td>
<td>414.2</td>
<td>7.7</td>
<td>56.1</td>
<td>10.9</td>
<td>74.7</td>
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<td>77.6</td>
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<td>601.4</td>
</tr>
<tr>
<td>Option 3</td>
<td>0.0</td>
<td>188.2</td>
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<td>353.4</td>
<td>7.7</td>
<td>56.1</td>
<td>10.9</td>
<td>74.7</td>
<td>0.0</td>
<td>77.6</td>
<td>35.0</td>
<td>540.7</td>
</tr>
<tr>
<td>Option 4</td>
<td>0.0</td>
<td>188.2</td>
<td>22.9</td>
<td>203.1</td>
<td>414.2</td>
<td>7.7</td>
<td>56.1</td>
<td>10.9</td>
<td>74.7</td>
<td>0.0</td>
<td>77.6</td>
<td>35.0</td>
<td>601.4</td>
</tr>
<tr>
<td>Option 5</td>
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<td>126.6</td>
<td>22.9</td>
<td>190.8</td>
<td>340.4</td>
<td>7.7</td>
<td>51.6</td>
<td>10.5</td>
<td>69.8</td>
<td>0.0</td>
<td>56.0</td>
<td>35.0</td>
<td>501.1</td>
</tr>
<tr>
<td>Option 6</td>
<td>0.0</td>
<td>136.2</td>
<td>22.9</td>
<td>190.8</td>
<td>350.0</td>
<td>7.7</td>
<td>51.6</td>
<td>10.9</td>
<td>70.2</td>
<td>0.0</td>
<td>56.0</td>
<td>35.0</td>
<td>511.1</td>
</tr>
</tbody>
</table>
6.4 Limitations

It must be noted that the CBA was conducted on the basis of a large number of assumptions including:

- ship size;
- ship type;
- market share; and
- ship crew, operating and capital costs.

For example, some cargo volume data from 2012-13 was measured in Twenty-Foot Equivalent Units (TEU). This made it difficult to determine current cargo volumes (in metric tonnes) and market share for market segments. However, to the extent possible, this information was used to inform assumptions made about market share in the base case scenario.

In light of the limitations of the CBA, the net economic cost savings for each regulatory option are merely indicative. Notwithstanding these limitations, it is noted that the overall ranking of the regulatory options (according to the NPV figures) may not necessarily change if alternative assumptions are adopted.

To the extent that a different view may be taken in relation to any of the assumptions (including market share assumptions, cargo trade forecasts and discount rate), it should be noted that the NPV analysis may lead to different results and thus rankings. As outlined above, the ranking of the NPV results for the policy options are predominantly driven by the market share assumptions for the ‘other dry bulk’ trade. The ‘other dry bulk’ trade is influenced by many variables which adds to the speculative nature of the market share assumptions. In turn, our results should be considered as forming ‘part’ of an evidence base of information rather than absolute findings.
Appendix A – Refinements to the BITRE shipping cost model

Introduction

The CBA approach that PAG has adopted builds on the pre-existing BITRE shipping costs model (2011) that was used to inform the Regulatory Impact Statement in 2011 regarding the shipping reform package implemented in 2012. Refinements and updates are made to the BITRE model to perform the CBA of the current proposed reforms. These refinements are conducted in two steps, namely:

1. Updating the model to establish a new ‘base case’ scenario to model the current regulatory settings, and policy scenarios; and
2. Refining the model to incorporate findings from the PwC review of the BITRE CBA of the shipping reform package (2010)

Updating the model to establish a new base case scenario to model the current regulatory settings, and policy scenarios

The main updates required for establishing a new base case scenario and the policy scenarios were:

- accounting for the ITE and removing the tonnage tax from calculations of capital costs
  - tonnage tax was previously considered in the 2012 shipping reform package but was not implemented;
  - to claim the ITE, companies must support training of ship crew by maintaining a minimum of one person per ship undertaking training in each of engineer officer, deck officer, and integrated ratings and steward training; and
  - this comes at a wage cost and offsets some of the benefits associated with obtaining exemptions from income tax on income earned.

- incorporating accelerated depreciation over a statutory cap on vessel life of 10 years

- accounting for the seafarer tax offset

- incorporating SIA Part B foreign ship costs

- a specification of ship types and cost estimates for each regulatory option, including:
  - estimating foreign vessel costs assuming EA rates are paid to 457 visa holders and Australian residents/nationals under regulatory Option 1
  - estimating ‘mixed crew’ ship costs where Australian ratings are assumed to be replaced with foreign ratings
Data updated in the BITRE ship cost model included:

- Seagoing Industry Award 2010 minimum salaries
- ITF TCC agreement salaries
- Australian EA rates

Capital yard costs were not updated. This is since updated data could not be sourced from a credible source. However, it is noted that capital yard costs may not have increased greatly and may have fallen slightly given the oversupply of ship capacity worldwide according to United Nations Review of Maritime Transport 2012 and 2013 reports. Low freight rates worldwide may have reduced the demand for new ships.

Other operating costs (victualling, stores, lubricating oils, etc.) were inflated by 2 per cent for three years as data for updating these costs were unable to be obtained.

**Refining the model to incorporate findings from the PwC review (2010)**

The PwC review identified a set of key assumptions underpinning the previous BITRE CBA that could be improved upon. Some of these assumptions were considered for the current CBA; however, not all of these assumptions bear the same relevance as for the previous CBA for the 2012 shipping reform package.

1. **The PwC review identified issues pertaining to crew costs and capital costs.**

Specifically, the PwC review suggested that using open registry vessel crew costs as a benchmark for all foreign vessels’ crew costs may not be reasonable. This assumption was checked by determining the number of foreign vessels registered in open registry countries or in low-wage and other countries offering favourable terms to ship owners. As outlined earlier in the report, in the absence of SIA Part B wage conditions, it appears reasonable to benchmark foreign vessel crew costs using ITF wage rates given the large number of vessels registered in open registry countries or countries offering favourable terms to ship owners. This is further supported by findings reported in the Reforming Australia’s Shipping: Regulation Impact Statement (2011). Notwithstanding the above, in the base case scenario, foreign ships are assumed to pay crew SIA Part B wage rates which tend to be higher than ITF rates.

The PwC review also suggested that capital costs for foreign vessels may have been understated given that tonnage and company taxes were assumed to be zero in the previous CBA. It is noted that given the open registry countries and countries offering favourable tax arrangements that temporary licensed vessels tend to be registered in, the assumption of low tonnage and company taxes for foreign ship owners appears to be reasonable.

2. **The crew leave factors and on-factors were identified as areas potentially requiring further justification**

It is noted that the previous crew leave factors appear to be reasonable. Australian vessels tend to employ a two crew manning system whereby two seafarers are employed per berth. It also appears reasonable that higher leave factors are assumed for foreign officers as opposed to foreign ratings as this appears consistent with international practice.
3. Regulatory compliance costs were not estimated for the previous CBA
For the current CBA, estimation of regulatory compliance costs was considered. However, as there is inadequate information to draw reliable estimates and to make an informed assessment, this was not incorporated into the final modelling. Although a general question was raised in the shipping industry survey, the minimal responses do not allow for reliable estimates to be obtained. Overall, compliance costs may be small relative to other ship operating costs.

4. A shadow price factor of 0.9 was assumed for the previous CBA
For the current CBA, sensitivity analysis is conducted around the shadow price factor, namely a rate of 0.7 is applied in line with the 46 per cent differential between union and non-union wages in the transport sector suggested by the PwC review as estimated in recent studies of the Australian transport sector.

5. Other assumptions were identified by the PwC review as potentially important
Other assumptions identified by the PwC review included the assumption that demand for shipping freight is perfectly inelastic (i.e. unresponsive) to changes in daily time charter costs. This is not modelled in the current CBA given the complexity associated with estimating the costs. Reduced freight transported by ship may have impacts on shipper's businesses and their profits which is inherently difficult to estimate. The implicit elasticity assumption is likely to be more relevant for Option 1 where the total freight task may fall in response to the need to replace foreign crew with Australian seafarers or those with 457 visas. However, this is not expected to affect the overall ranking of the regulatory options in terms of which yields higher net benefits as accounting for the reduced total freight task may only serve to inflate the costs associated with Option 1 relative to the other regulatory options.
Appendix B – Shipping industry survey

Purpose of survey

A shipping industry survey was developed in May 2014 “to assist government in further developing its understanding of the Australian coastal shipping market by obtaining accurate information about current pricing regimes.” It is intended to enhance understanding of industry cost structures.

The survey comprised five questions intended to capture information on cargo volumes delivered, crew size, crew cost, other ship operating expenses and compliance costs. PAG developed a web-based tool on behalf of the Department to distribute the survey. Each question is discussed in turn below.

Analysis of Question 1

Question 1 was intended to obtain general information about the ships operating in the industry partly for the purposes of relating such information to subsequent questions. It was structured as follows:

“Please list each vessel owned/operated and record:

1. whether it is listed on the Australian General Register or on a Foreign Register;
2. the vessel’s size in terms of deadweight tonnage (dwt);
3. the number of coastal voyages; and
4. the annual Australian coastal freight volume (in tonnes) carried by each vessel for each cargo type.”

The sample size for Question 1 was 47, i.e. there were 47 vessels for which details were recorded. Respondents predominantly listed vessels as registered in a foreign register (37) as opposed to the Australian General Register (10).

The freight task for respondents’ vessels for financial year 2012-13 is shown in Figure A1 below. Iron Ore and ‘Other Dry Bulk’ categories attracted a higher fraction of total freight. Note that the freight volumes recorded do not capture industry total volumes as not all ship operators/owners participated in the survey.

Vessel cargo carrying capacity measured in terms of deadweight tonnage was, on average, greater for foreign registered vessels than Australian vessels, approx. 68,000 and 58,000 respectively, for this small sample of respondents (Table A1). The average deadweight tonnage across sectors are outlined in the below table:

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60 Department of Infrastructure and Regional Development front matter to online survey.
61 Note: all figures reported are in Australian dollars unless otherwise stated.
62 The figures should not be used consequently to draw inferences about relative freight volumes delivered by Australian and foreign vessels across sectors.
63 Deadweight tonnage is measured in tonnes and is specifically the “difference between the vessel’s lightship (unloaded) and its loaded displacement”; hence, it represents the weight of cargo, crew, passengers, fuel,
Figure A1: Freight volume by sector (metric tonnes), 2012-13

<table>
<thead>
<tr>
<th>Sector</th>
<th>Average deadweight tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container Shipping</td>
<td>42,755</td>
</tr>
<tr>
<td>Iron Ore</td>
<td>161,538</td>
</tr>
<tr>
<td>Other Dry Bulk</td>
<td>14,982</td>
</tr>
<tr>
<td>Other Liquid Bulk</td>
<td>4,396</td>
</tr>
</tbody>
</table>

The large deadweight tonnage of ships (in this sample) carrying Iron Ore is consistent with Capesize bulk carriers while ‘Other Dry Bulk’ may be carried by smaller Handy Size bulk carriers.

Analysis of Question 2

Question 2 was targeted at obtaining information on crew numbers and costs. It was structured as follows:

“What is the typical crew size, and what are the gross annual crew costs, inclusive of on-costs (superannuation, leave and payroll tax), of each vessel?”

Average crew size for the small sample of Australian General Register respondents was 17. This was for ships engaging in Dry Bulk trade. Average annual crew cost across the six Australian vessels was approx. $5.8 m (which is in fact close to the BITRE ship crew cost estimate for Dry Bulk carriers). Average crew size in the sample of foreign registered vessels was 18 across Container ships, Liquid Bulk and Dry Bulk categories. For Dry Bulk, this was approx. 17 on average; for Container ships, 19; and for Liquid Bulk, 15 on average. However, it is noted that the sample size was small in all instances. For foreign Dry Bulk carriers, the annual average crew cost was slightly less than $1.3 m. No figures are available for Liquid Bulk. Some respondents noted the incremental cost of operating on the Australian coast associated with complying with the Seagoing Industry Award. Estimates of the incremental annual cost are approx. $0.2 m (assuming an exchange rate of 1AUD:1USD for 2012-13).

Analysis of Question 3

Question 3 was aimed at obtaining information on other ship operating costs besides crew costs and was structured as below:

“What are the total, other operating expenses of each vessel? Other operating expenses include: victualling, administration, insurance, repairs and maintenance, dry docking, lubes and riding gang expenses.”

Australian General Register vessels for which other operating costs were reported tended to incur, on average, annual operating costs for 2012-13 of approx. $2.6 m to $2.7 m for Dry Bulk carriers, and ranged from approx. $1.1 m to $3.0 m. This calculation is only over 4 to 5 bulk carrier vessels. Amongst foreign flagged Dry Bulk carriers, the average operating cost was lower at approx. $2.4 m for 2012-13, and ranged from approx. $1.7 m to $3.0 m.

Analysis of Question 4

Question 4 was intended to gauge the approximate range of compliance costs faced by vessel owners/operators under the Coastal Trading Act and was structured as below:

“What are your average annual costs associated with regulatory/legal compliance and reporting obligations under the Coastal Trading Act and associated shipping regulations? Estimate the costs based on staff required to manage compliance obligations.”

There were only 6 responses to this question. As some ship companies operate both Australian and foreign-registered vessels, an aggregate compliance cost is measured, rather than a compliance cost specific to General Licence and Temporary Licence operators. Annual costs were on average $60,000 for 2012-13 but ranged from $600 to $225,000. It is possible that some respondents entered in a 1 to represent 100 per cent instead of entering 100 as the measure of the percentage of year a regulatory compliance staff member may spend on compliance matters pertaining to the Coastal Trading Act. Excluding the highest and lowest annual compliance cost figures reported gives an average of approximately $32,700.

Analysis of Question 5

64 However, note that there were only seven responses for this.
Question 5 of the survey aims to examine the costs associated with complying with wage rates and conditions of Part B of the SIA. Specifically, the question is structured as below:

“What is the additional crew cost associated with paying crew at least Seagoing Industry Award Part B wage rates (inclusive of on-costs and leave entitlements) relative to the cost that may have been incurred if crew could be paid less than Part B wage rates? [Report at the voyage average or annual level for FY2013, whichever is easier].”

Summary statistics related to the figures are set out in the tables below.

Table A2 displays summary measures where zero figures are excluded, i.e. some respondents have as their response a value of zero (which is in place by default). In cases where this occurred, the currency recorded was “AED” (default currency in list) rather than “AUD”. It appears that respondents may have intended to leave the response blank and hence, inclusion of these figures may distort the result.

Costs are, on average, just slightly over $0.5 m with a median of $0.5 m. A maximum additional cost was recorded of slightly below $1 m. The BITRE ship cost model indicate that costs of complying with SIA Part B wages are, on average, $1.37 m with the cost varying somewhat with ship type (e.g. Handysize bulk carriers vs. product tankers). The BITRE ship cost estimate compares the difference between a ship paying SIA B wage rates and a ship paying ITF Total Crew Cost Agreement rates. The estimates from the current version of the BITRE ship cost model may be higher due to the fact that leave factors and salary on-costs are considered and these may have been excluded in the cost estimates of survey respondents. With ITF market rates, the incremental cost narrows to approx. $1.1 m. According to an ASA submission to PC in relation to Tasmanian shipping, the cost of compliance is approx. $0.73 m.

Given that the cost estimates in the survey may be inflated, we may expect the compliance costs to be less than $0.5 m for some fraction of ships in the industry, but not for the entire industry – the sample size is too small for an industry-wide conclusion.

In Table A3, zero figures are included in the calculation of the compliance costs. This should be treated with caution as it appears the zero figures may not be accurate reflections of the intended response of survey participants. The average crew cost is slightly lower than when zero figures are included at approx. $0.371 m.

Table A2: Additional crew cost incurred to comply with SIA Part B

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### Table A3: Additional crew cost incurred to comply with SIA Part B (zeros included)

<table>
<thead>
<tr>
<th>Summary measure</th>
<th>AUD ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average (mean)</td>
<td>$525,350.25</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>$153,222.30</td>
</tr>
<tr>
<td>Median</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>Mode</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>Range (max. - min.)</td>
<td>$662,857.00</td>
</tr>
<tr>
<td>Minimum</td>
<td>$320,673.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>$983,530.00</td>
</tr>
<tr>
<td>BITRE ship cost model*</td>
<td>$1,370,000.00</td>
</tr>
</tbody>
</table>

Note: Excludes figures where the cost was listed as zero.

* BITRE ship cost model estimate is an estimate of the difference between Award B crew costs and ITF TCC Agreement crew costs.

### Table A3: Additional crew cost incurred to comply with SIA Part B (zeros included)

<table>
<thead>
<tr>
<th>Summary measure</th>
<th>AUD ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average (mean)</td>
<td>$370,835.47</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>$277,527.06</td>
</tr>
<tr>
<td>Median</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>Mode</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>Range (max. - min.)</td>
<td>$983,530.00</td>
</tr>
<tr>
<td>Minimum</td>
<td>-</td>
</tr>
<tr>
<td>Maximum</td>
<td>$983,530.00</td>
</tr>
<tr>
<td>BITRE ship cost model*</td>
<td>$1,370,000.00</td>
</tr>
</tbody>
</table>

Note: Includes figures where the cost was listed as zero.

* BITRE ship cost model estimate is an estimate of the difference between Award B crew costs and ITF TCC Agreement crew costs.

Limitations of survey
As there are several limitations associated with the survey, the survey findings should be treated with caution. In developing the survey, there was a trade-off between reducing the likelihood of non-response by potential survey participants and obtaining detailed information on industry costs. As a lengthy survey may have deterred responses, a short survey was developed. However, this limited the quality and depth of information that could be obtained. It is recognized that the questions were of a general nature and did not address specific details that may distinguish between ship companies and ship types operated.

The figures reported in the survey are useful only as an indication of the potential range of ship costs in the industry that pertain to some but not necessarily all ships. A summary of the limitations of the survey include:

- a small sample size
  - minimal responses to the survey do not enable industry-wide conclusions to be drawn
- some respondents may have interpreted questions differently or misinterpreted questions
  - this will create variability in responses even if, for instance, vessel costs overall may be the same across certain types of vessels
  - for Question 2, some elements of crew costs such as on-costs may have been included by some respondents but excluded by others
  - for Question 3, some elements of other operating costs such as fuel, port and management fees may have been included in the figure reported by some respondents but excluded by others
  - for Question 4, it is possible that some respondents entered in a 1 to represent 100% instead of 100% as the measure of the fraction of year a regulatory compliance staff member may spend on compliance matters pertaining to the Coastal Trading Act.
  - for Question 5, leave factors and on-costs may have been included in estimates of cost by some respondents but excluded by others; moreover, costs will vary across ship types
- figures reported can only be approximate as the questions do not allow for a detailed breakdown of costs by e.g. crew position, ship type and crew size
- response bias may be present in some figures with costs inflated, for example, the cost of compliance with the Coastal Trading Act
measurement error in responses are possible given that respondents may not have information on costs readily available and may have responded with a general estimate of the cost without obtaining more detailed, accurate information.

Sample response bias is possible given that some shipping industry participants chose not to respond which can lead to a biased sample, i.e. skewed representation of the industry given the types of respondents and non-respondents.

In light of the inherent limitations of the survey questions and responses, the summary figures reported in this section should not be relied upon in ship cost modelling and any other such analysis where more accurate estimates should be obtained. However, they may be useful for informing a general understanding of the possible range of ship costs that may be expected for some ships operating in the industry, but not necessarily for all ships.

To obtain detailed, on-going information on the shipping industry, it may be necessary to develop a more comprehensive survey series not necessarily for the sole purposes of informing a Regulation Impact Statement, and that also minimize non-response.
Appendix C – Data collection

Data sources

Data were obtained from multiple sources:

- International Transport Federation (ITF) Uniform Total Crew Cost (TCC) Agreement rates were obtained from the ITF seafarers website, and were publicly available.

- Seagoing Industry Modern Award 2010 minimum wage rates and conditions were obtained from the Fair Work Commission.

- General Licence reports were obtained from the Department.

- Temporary Licence voyage reports were obtained from the Department's website as they are publicly available.

- Web-based shipping industry survey.

- The following Australian shipping Enterprise Agreements (EAs) were obtained from the Fair Work Commission website (for shipping companies including, but not limited to Teekay Shipping):
  1. ASP Ship Management Aimpe Engineers’ (Alcoa) Enterprise Agreement 2013
  2. ASP Ship Management / Aimpe Zemira Bunkering Service Union Collective Agreement 2013
  3. ASP Ship Management Pty Ltd Integrated Ratings, Cooks, Caterers And Seafarers (Offshore Oil And Gas) Greenfields Agreement 2012
  4. ASP Ship Management/Aimpe Engineers Enterprise Agreement 2013
  5. Varley Ship Services Collective Agreement 2012
  6. Aimpe / Searoad Shipping Engineers Officers Enterprise Agreement 2011
  7. Teekay Shipping (Australia) Pty Limited Seagoing Ratings Enterprise Agreement 2011
  8. Teekay Shipping Australia Pty Ltd/Amou Seagoing Deck Officers Dry Cargo Enterprise Agreement 2011
  10. V Ships Australia Pty Ltd Officers Collective Agreement 2012 MV CSL Brisbane
Appendix D – Compliance requirements

The compliance requirements under the Coastal Trading Act include:

- Submitting an application for General, Temporary or an Emergency Licence and providing the required evidence that conditions are met or information necessary for assessment against required conditions, namely:
  - registration on the Australian General Register for General Licence applications, and statement of declaration that each seafarer on coastal voyage is an Australian.
  - for Temporary Licence applications, the number of voyages; the types and volume of cargo to be carried, type and size of vessel; name of vessel; ports for loading/unloading cargo.
  - for Emergency Licence applications, similar information to that required for Temporary Licence applications.

- For Temporary Licence applicants, consultation with General Licence holders in response to a ‘notice in response’.

- For Temporary Licence holders, Temporary Licence variation applications if voyage details are required to be amended

- Reporting requirements.
  - For General Licenced vessels, this includes submitting an annual report detailing type and volume of cargo carried; ports at which cargo was loaded and unloaded.
  - For Temporary Licenced vessels, this includes pre-voyage notice of each voyage’s details (vessel used, date of voyage, evidence of vessel registration, type and volume of cargo carried; ports for loading/unloading).
  - For Temporary Licenced vessels, this includes reporting on actual voyage details post-voyage.
**Appendix E – Freight forecasting models**

Table E1 below provides details in relation to the freight forecasting models developed by PAG to facilitate this analysis.

**Table E1 – PAG Freight Volume Forecasting Models**

<table>
<thead>
<tr>
<th>Cargo Type (freight volumes)</th>
<th>Model Specification</th>
<th>Model Parameters/Initial Predictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bauxite</td>
<td></td>
<td>=0.51, =0.28; 13.67, 16.32, 2.57</td>
</tr>
<tr>
<td>Iron Ore</td>
<td></td>
<td>=-0.37, -0.54, -0.05; 6.5, 3.95, 3.52, -1.55</td>
</tr>
<tr>
<td>Other Dry Bulk</td>
<td></td>
<td>=-0.92, -0.84, -0.30; 13.59, 15.56, 12.85, -1.09</td>
</tr>
<tr>
<td>Oil</td>
<td></td>
<td>=-0.42, -0.03, 0.41, 0.51; 4.61, 2.45, 2.88, 2.46, -1.09</td>
</tr>
<tr>
<td>Petroleum</td>
<td></td>
<td>=0.34, -0.45, -0.52; 6.29, 5.7, 6.36,</td>
</tr>
<tr>
<td>Other liquid Bulk</td>
<td></td>
<td>=-0.01, -0.67, -0.78; 0.61, 0.98, 0.68,</td>
</tr>
<tr>
<td>Inter-capital containers</td>
<td></td>
<td>=0.22, -0.15, 0.45, 0.34, 0.14, -0.96; 1.56, 1.31,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>=1.74, 1.85, 1.58,</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Bass Strait Non-bulk</th>
<th>4.24, 4.53, 4.75</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.4, 4.39, 4.45, 4.41, 4.39.</td>
</tr>
<tr>
<td></td>
<td>0.06, 0.04, 0.04, 0.01</td>
</tr>
</tbody>
</table>
Forecast results

In the following figures, the PAG forecast are represented by the black perforated line and the BITRE forecast are represented by the green lines.

Figure E.1 below presents forecasts of Bauxite trade. There is little difference in the forecasts provided by the BITRE and those generated by PAG. A significant increase in Bauxite trading in 2014-2015 will occur due to the ramp-up of production at the Yarwun alumina refinery in Gladstone after a large capacity expansion (the initial phase of the ramp-up was also responsible for the increases seen in the coastal bauxite trade between 2011-12 and 2013-14). However, beyond this point, it is reasonable to assume no refinery closures and no further increase in exports. Taking these factors into account, PAG agrees with and adopts (for modelling purposes) the forecasts represented by the green line.

Figure E.1 - Comparison of Bauxite forecast (financial years)

Table E.2 below summarises the size and assumed growth rates for Bauxite (Weipa-Gladstone) forecasts.

Table E.2 – Size and assumed growth rate of Bauxite (Weipa-Gladstone) forecasts

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Bauxite (Weipa-Gladstone) Historic Coastal (Mt)</th>
<th>PAG Forecast</th>
<th>BITRE Forecast</th>
<th>PAG Forecast Growth Rate</th>
<th>BITRE Forecast Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td></td>
<td>9.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td>9.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td>9.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Year</td>
<td>Bauxite (Weipa-Gladstone) Historic Coastal (Mt)</td>
<td>PAG Forecast</td>
<td>BITRE Forecast</td>
<td>PAG Forecast Growth Rate</td>
<td>BITRE Forecast Growth Rate</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td>-------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>2003</td>
<td>9.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2004</td>
<td>9.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>11.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>12.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>13.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>13.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>13.11</td>
<td></td>
<td></td>
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<td>2010</td>
<td>13.20</td>
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<tr>
<td>2011</td>
<td>13.49</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>13.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2013</td>
<td>16.32</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>16.61</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>19.46</td>
<td>18.61</td>
<td>5.77%</td>
<td>12.02%</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>20.00</td>
<td>18.55</td>
<td>2.78%</td>
<td>-0.33%</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>20.28</td>
<td>18.50</td>
<td>1.38%</td>
<td>-0.23%</td>
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</tr>
<tr>
<td>2018</td>
<td>20.42</td>
<td>18.48</td>
<td>0.70%</td>
<td>-0.11%</td>
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</tr>
<tr>
<td>2019</td>
<td>20.49</td>
<td>18.42</td>
<td>0.35%</td>
<td>-0.32%</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>20.53</td>
<td>18.42</td>
<td>0.18%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>20.55</td>
<td>18.42</td>
<td>0.09%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>20.55</td>
<td>18.42</td>
<td>0.05%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td>20.56</td>
<td>18.42</td>
<td>0.02%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td>20.56</td>
<td>18.42</td>
<td>0.01%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>20.56</td>
<td>18.42</td>
<td>0.01%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2026</td>
<td>20.56</td>
<td>18.42</td>
<td>0.00%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2027</td>
<td>20.56</td>
<td>18.42</td>
<td>0.00%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2028</td>
<td>20.56</td>
<td>18.42</td>
<td>0.00%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2029</td>
<td>20.56</td>
<td>18.42</td>
<td>0.00%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>20.56</td>
<td>18.42</td>
<td>0.00%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>2031</td>
<td>20.56</td>
<td>18.42</td>
<td>0.00%</td>
<td>0.00%</td>
<td></td>
</tr>
</tbody>
</table>
Figure E.2 below provides a comparison of the PAG and BITRE Iron Ore forecasts. Both forecasts assume a stationary trend over the forecast horizon.

Figure E.2 - Iron Ore (to Port Kembla) forecasts (financial years)

Table E.3 below summarises the size and assumed growth rates of Iron Ore forecasts.

Table E.3 – Size and assumed growth rate of Iron Ore forecasts
<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Iron Ore Historic Freight Loaded (Mt)</th>
<th>PAG Forecast</th>
<th>BITRE Forecast</th>
<th>PAG Forecast Growth Rate</th>
<th>BITRE Forecast Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>6.87</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2006</td>
<td>6.57</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2007</td>
<td>6.48</td>
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<tr>
<td>2008</td>
<td>6.73</td>
<td></td>
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<tr>
<td>2009</td>
<td>4.65</td>
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<td>2010</td>
<td>6.67</td>
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<tr>
<td>2011</td>
<td>6.50</td>
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</tr>
<tr>
<td>2013</td>
<td>3.52</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2014</td>
<td>5.14</td>
<td>3.52</td>
<td></td>
<td>45.98%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2015</td>
<td>4.77</td>
<td>3.52</td>
<td></td>
<td>-7.13%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2016</td>
<td>4.03</td>
<td>3.52</td>
<td></td>
<td>-15.49%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2017</td>
<td>4.50</td>
<td>3.52</td>
<td></td>
<td>11.68%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2018</td>
<td>4.73</td>
<td>3.52</td>
<td></td>
<td>5.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2019</td>
<td>4.39</td>
<td>3.52</td>
<td></td>
<td>-7.14%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2020</td>
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<td>3.52</td>
<td></td>
<td>0.08%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2021</td>
<td>4.58</td>
<td>3.52</td>
<td></td>
<td>4.13%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2022</td>
<td>4.51</td>
<td>3.52</td>
<td></td>
<td>-1.50%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2023</td>
<td>4.43</td>
<td>3.52</td>
<td></td>
<td>-1.61%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2024</td>
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<td>3.52</td>
<td></td>
<td>1.44%</td>
<td>0.00%</td>
</tr>
<tr>
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<td>4.51</td>
<td>3.52</td>
<td></td>
<td>0.34%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2026</td>
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<td>3.52</td>
<td></td>
<td>-0.89%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2027</td>
<td>4.48</td>
<td>3.52</td>
<td></td>
<td>0.15%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2028</td>
<td>4.50</td>
<td>3.52</td>
<td></td>
<td>0.43%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2029</td>
<td>4.49</td>
<td>3.52</td>
<td></td>
<td>-0.24%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2030</td>
<td>4.48</td>
<td>3.52</td>
<td></td>
<td>-0.15%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2031</td>
<td>4.49</td>
<td>3.52</td>
<td></td>
<td>0.18%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2032</td>
<td>4.49</td>
<td>3.52</td>
<td></td>
<td>0.01%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2033</td>
<td>4.49</td>
<td>3.52</td>
<td></td>
<td>-0.10%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2034</td>
<td>4.49</td>
<td>3.52</td>
<td></td>
<td>0.03%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
As nearly all of the iron ore shipped around the coast goes to Port Kembla for use in BlueScope Steel’s Port Kembla steelworks, this analysis concentrates only on this trade. In October 2011, BlueScope Steel closed one of its two remaining smelters, in response to its lack of export competitiveness, halving the steelwork’s capacity and leading to a near halving of iron ore being shipped to Port Kembla from around 6.5 Mt per annum to 3.5 Mt per annum. All of BlueScope Steel’s remaining steel production is used to supply the domestic steel market. According to information provided by BITRE it is reasonable to assume the remaining Port Hedland to Port Kembla Iron Ore trade continues at current volumes while the Whyalla to Port Kembla and the Port Latta to Port Kembla trade is negligible.

Figure E.3 below shows that the PAG and BITRE forecasts relating to Other Dry Bulk are very close.

**Figure E.3 - Comparison of Other Dry Bulk (financial years)**

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Iron Ore Historic Freight Loaded (Mt)</th>
<th>PAG Forecast</th>
<th>BITRE Forecast</th>
<th>PAG Forecast Growth Rate</th>
<th>BITRE Forecast Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2035</td>
<td></td>
<td>4.49</td>
<td>3.52</td>
<td>0.04%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Table E.4 below summarises the size and assumed growth rates of Other Dry Bulk forecasts.

**Table E.4 – Size and assumed growth rate of Other Dry Bulk forecasts**

<table>
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<th>Financial Year</th>
<th>Other Dry Bulk Historic Freight Loaded (Mt)</th>
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<th>BITRE Forecast</th>
<th>PAG Forecast Growth Rate</th>
<th>BITRE Forecast Growth Rate</th>
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According to Figure E.3 a slight downward trend persistent in the historical data is modelled over the forecast horizon. For the CBA, PAG adopts the BITRE assumptions.

Figure E.4 below compares the BITRE and PAG forecasts for crude oil trade. The recent downward trend in the volume of freight loaded (measured in metric tonnes) is assumed to persist over the forecast horizon in both cases, although the PAG case levels out over 2026 – 2034.

Table E.5 below summarises the size and assumed growth rates of Oil forecasts.

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<th>Financial Year</th>
<th>Oil Historic Freight Loaded (Mt)</th>
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<th>BITRE Forecast</th>
<th>PAG Forecast Growth Rate</th>
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<td>BITRE Forecast</td>
<td>PAG Forecast Growth Rate</td>
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</table>
Between 2006-07 and 2012-13 coastal shipments of crude oil declined substantially from 9 Mt per annum to about 3 Mt per annum. This fall was larger than the fall in production as most new domestic crude oil production occurred off the coast of north-west Australia and is export focused. The forecasts assume that over the next 20 years coastal shipments of crude oil fall at the same rate as production, or about 5 per cent per annum, based on BREE’s long-term forecasts of production.67

Figure E.5 below compares the PAG and BITRE forecasts of petroleum freight volumes. Although the trend shows an increase in freight in recent years, several reports express negative sentiment about the future of coastal petroleum flows. For example, an article in Llyods List DCN, “Australia’s coastal confusion has a long, inglorious history” suggests that demand for coastal shipping will decrease as product tankers deliver closer to consumption.

**Figure E.5 - Comparison of Petroleum forecasts (financial years)**

Table E.6 below summarises the size and assumed growth rates of Petroleum forecasts.

---

Table E.6 – Size and assumed growth rate of Petroleum

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Furthermore, according to the Australian Institute of Petroleum in its “Submission to the Department of Infrastructure and Regional Development on the Approaches to Regulating Coastal Shipping in Australia” coastal shipping of refined petroleum will decrease with the closure of Australian refineries. Due to the uncertainty on whether Petroleum freight will actually decline and the rate which it will decline, both PAG and the BITRE forecasts assume a growth rate close to zero.

Figure E.6 below outlines the forecasts of other liquid freight volumes. Again, both sets of forecasts assume a relatively flat growth rate over the forecast horizon. Historic trends suggest that the sector is somewhat volatile. As such a conservative approach, i.e. assuming a flat growth rate is reasonable.

**Figure E.6 - Comparison of Other Liquid forecasts (financial years)**
Table E.7 below summarises the size and assumed growth rates of Other Liquid forecasts.

**Table E.7 – Size and assumed growth rate of Other Liquid**

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<th>Financial Year</th>
<th>Other Liquid Historic Freight Loaded (Mt)</th>
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<th>BITRE Forecast</th>
<th>PAG Forecast Growth Rate</th>
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<td>0.00%</td>
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<td>0.00%</td>
</tr>
<tr>
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<tr>
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<tr>
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<td>0.76</td>
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<td>-2.07%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Financial Year</td>
<td>Other Liquid Historic Freight Loaded (Mt)</td>
<td>PAG Forecast</td>
<td>BITRE Forecast</td>
<td>PAG Forecast Growth Rate</td>
<td>BITRE Forecast Growth Rate</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------</td>
<td>--------------</td>
<td>---------------</td>
<td>-------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
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<td></td>
<td>0.70</td>
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<td>2.86%</td>
<td>0.00%</td>
</tr>
<tr>
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<td>1.35%</td>
<td>0.00%</td>
</tr>
<tr>
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<td>0.00%</td>
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<td>0.00%</td>
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</tr>
<tr>
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<td>0.76</td>
<td>0.58%</td>
<td>0.00%</td>
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<tr>
<td>2033</td>
<td></td>
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<td>-0.85%</td>
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<td>0.76</td>
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<td>0.00%</td>
</tr>
</tbody>
</table>

Forecasts of inter-capital containers as displayed in Figure E.7 show a steady increase over the forecast horizon in both the PAG and BITRE cases. The forecasts are influenced by projections of economic activity as proxied by Gross Domestic Product (GDP) which is used as a regressor (i.e. explanatory variable) in both models.

**Figure E.7 - Comparison of Inter-capital container forecasts (financial years)**
Table E.8 below summarises the size and assumed growth rates of Inter-capital Container forecasts.

**Table E.8 – Size and assumed growth rate of Inter-capital Containers**

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Inter-capital Containers Loaded (Mt) Historic</th>
<th>PAG Forecast</th>
<th>BITRE Forecast</th>
<th>PAG Forecast Growth Rate</th>
<th>BITRE Forecast Growth Rate</th>
</tr>
</thead>
<tbody>
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<td>2000</td>
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<tr>
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<td>2014</td>
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<td>16.05%</td>
<td>21.30%</td>
<td></td>
</tr>
<tr>
<td>2015</td>
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<td>2.01</td>
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</tr>
<tr>
<td>2016</td>
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<td>-0.35%</td>
<td>4.89%</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>2.08</td>
<td>2.20</td>
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<td>4.45%</td>
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</tr>
<tr>
<td>2018</td>
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</tr>
<tr>
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<tr>
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<td>2.44</td>
<td>2.49</td>
<td>1.79%</td>
<td>4.11%</td>
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</tr>
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<tr>
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<tr>
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<tr>
<td>2024</td>
<td>2.81</td>
<td>2.90</td>
<td>2.49%</td>
<td>3.71%</td>
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</table>
### Table: Bass Strait Non-Bulk Forecasts

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Inter-capital Containers Loaded (Mt)</th>
<th>PAG Forecast</th>
<th>BITRE Forecast</th>
<th>PAG Forecast Growth Rate</th>
<th>BITRE Forecast Growth Rate</th>
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<tbody>
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<td>2025</td>
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<td>2.97%</td>
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<td>3.54%</td>
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</table>

In regards to the inter-capital containers sector, the output of the structural time series model closely aligns with the assumptions developed by the BITRE.

Figure E.8 below compares the PAG and BITRE forecasts relating to Bass Strait non-bulk freight. Projections of Gross State Product (GSP) in Tasmania of between 1.5 – 2.0 per cent per annum influence the forecasts in both cases.

**Figure E.8- Comparison of Bass Strait non-bulk forecasts (financial years)**
Table E.9 below summarises the size and assumed growth rates of Bass Strait Non-Bulk forecasts.

**Table E.9 – Size and assumed growth rate of Bass Strait Non-Bulk**

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Bass Strait Non-Bulk Freight (sum of Tasmania as Destination and Origin) Historic (Mt)</th>
<th>PAG Forecast</th>
<th>BITRE Forecast</th>
<th>PAG Forecast Growth Rate</th>
<th>BITRE Forecast Growth Rate</th>
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</thead>
<tbody>
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<td>2.41%</td>
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</tr>
<tr>
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<td>1.80%</td>
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<tr>
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</tr>
<tr>
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<td>5.57</td>
<td>-0.48%</td>
<td></td>
<td>1.38%</td>
</tr>
</tbody>
</table>
### Cost Benefit Analysis of Regulatory Coastal Shipping Options

#### 2025
- **PAG Forecast**: 5.86
- **BITRE Forecast**: 5.65
- **Growth Rate**: -0.26%
- **BITRE Growth Rate**: 1.37%

#### 2026
- **PAG Forecast**: 5.85
- **BITRE Forecast**: 5.72
- **Growth Rate**: -0.22%
- **BITRE Growth Rate**: 1.35%

#### 2027
- **PAG Forecast**: 6.10
- **BITRE Forecast**: 5.80
- **Growth Rate**: 4.24%
- **BITRE Growth Rate**: 1.34%

#### 2028
- **PAG Forecast**: 6.46
- **BITRE Forecast**: 5.88
- **Growth Rate**: 5.88%
- **BITRE Growth Rate**: 1.32%

#### 2029
- **PAG Forecast**: 6.62
- **BITRE Forecast**: 5.95
- **Growth Rate**: 2.45%
- **BITRE Growth Rate**: 1.31%

#### 2030
- **PAG Forecast**: 6.90
- **BITRE Forecast**: 6.03
- **Growth Rate**: 4.34%
- **BITRE Growth Rate**: 1.29%

#### 2031
- **PAG Forecast**: 7.26
- **BITRE Forecast**: 6.11
- **Growth Rate**: 5.12%
- **BITRE Growth Rate**: 1.28%

#### 2032
- **PAG Forecast**: 7.42
- **BITRE Forecast**: 6.18
- **Growth Rate**: 2.30%
- **BITRE Growth Rate**: 1.26%

#### 2033
- **PAG Forecast**: 7.49
- **BITRE Forecast**: 6.26
- **Growth Rate**: 0.84%
- **BITRE Growth Rate**: 1.25%

#### 2034
- **PAG Forecast**: 7.46
- **BITRE Forecast**: 6.34
- **Growth Rate**: -0.36%
- **BITRE Growth Rate**: 1.24%

#### 2035
- **PAG Forecast**: 7.41
- **BITRE Forecast**: 6.42
- **Growth Rate**: -0.68%
- **BITRE Growth Rate**: 1.23%

The table below provides reports the results of the diagnostic tests for normality (N), heteroscedasticity (H) and the $R^2$ measure of goodness of fit relating to each of the PAG forecasts. The standard error (SE) associated with each of the models is also presented. In all cases the forecasting models pass the diagnostic tests. In each case, the models passed the relevant diagnostic tests, indicating that the forecasts are statistically robust.

**Table E.11 – Diagnostic tests associated with PAG forecasting models**

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<th>Test statistic</th>
<th>Bauxite</th>
<th>Iron Ore</th>
<th>Other Dry Bulk</th>
<th>Oil</th>
<th>Petroleum</th>
<th>Other Liquid</th>
<th>Inter-capital</th>
<th>Bass strait</th>
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</table>
General limitations associated with forecasting

It is important to note that the forecasts contained in this report have been prepared on the basis of assumptions and methodology which have been described in this report. It is possible that some of the assumptions underlying the forecasts may not materialise. Nevertheless, we have applied our professional judgement in making these assumptions, such that they constitute an understandable basis for estimates and projections. Accordingly, readers of this report must appreciate that, to the extent that certain assumptions do not materialise, the estimates and projections may vary.