

Review of fares for private ferry services

Maximum fares for private ferry services from January 2018 to December 2021

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Contents

1	Exec	cutive summary	1
	1.1	Maximum fares increase under our final decisions	1
	1.2	Our approach is based on the extent of competition in each market	2
	1.3	Maximum fares would be adjusted if fuel costs change substantially	4
	1.4	Competitive tendering provides innovative services and value for money	4
	1.5	Discounted fares for broken and reduced trips could improve patronage	5
	1.6	List of final decisions and recommendations	6
	1.7	How this report is structured	7
2	Con	text and process for the review	8
	2.1	Currently private ferry operators have contracts with TfNSW	8
	2.2	Most operators are currently charging the maximum fare	8
	2.3	We have considered a number of matters in undertaking this review	9
	2.4	Our review process included detailed analysis and public consultation	10
3	Our	approach for the review	11
4	Curr	ent levels of competition	12
	4.1	Ferries operate in different markets with different levels of competition	12
	4.2	Matilda Cruises charge less than the maximum fares	13
	4.3	Maximum fares to reflect efficient costs of providing ferry services	14
5	Ferr	y operators' pricing proposals	16
6	Fina	I decisions on maximum fares	17
	6.1	Overview of our final decisions	17
	6.2	How we assessed pricing proposals and decided on maximum fares	18
	6.3	Central Coast and Matilda Cruises' proposed fares are reasonable	20
	6.4	Brooklyn, Church Point and Cronulla Ferries' proposals are reasonable	20
	6.5	Palm Beach Ferries' maximum fares increase by less than it proposed	21
	6.6	Clarence River Ferries' fares increase by 30 cents each year	22
7	Fuel	adjustment mechanism	23
	7.1	Overview of our final decision	23
	7.2	Maximum fares would change to reflect substantial changes in fuel costs	23
8	Our	response to stakeholder submissions	26
	8.1	We consider all stakeholder submissions in making our decisions	26
	8.2	Submissions on our assessment of competition	26
	8.3	Submissions regarding external benefits and government subsidies	27
	8.4	Submissions in relation to our building block analysis	30
	8.5	Submissions on fare levels and the availability of Opal	33
9	Othe	er factors we considered	35
	9.1	Implications for private ferry operators	35
	9.2	Implications for passengers	35

9.3	Implications for the environment	36	
9.4	Implications for the Government	36	
9.5	Relativities with Sydney Ferries' services	37	
9.6	Service standards	37	
Appendices 4			
Α	Referral for the review	43	
В	B Requirements of the IPART Act for the review of private ferries maximum fares		
С	Fares under the building block model	45	
D	Weighted Average Cost of Capital (WACC)	54	
Е	Final Determination	59	

1 Executive summary

The Independent Pricing and Regulatory Tribunal of New South Wales (IPART) has conducted a review on maximum fares for seven private ferry operators that provide regular passenger ferry services under contract to Transport for NSW (TfNSW) in the Sydney, Central Coast and North Coast areas of NSW.

The Minister for Transport asked IPART to determine maximum fares for four years from 1 January 2018 to 31 December 2021. Operators may charge less than the maximum fare, if they wish.

This report explains our final decisions, the approach we took to make these decisions, and our response to stakeholders' comments.

1.1 Maximum fares increase under our final decisions

Our final decisions on maximum fares are set out in Table 1.1. These decisions would see maximum fares for private ferry operators increase by between 10 and 50 cents each year for the four years from 1 January 2018 to 31 December 2021.

Table 1.1 Final decisions on maximum fares for private ferry services (including GST, including inflation)

Operator	Current max fare (2017)	2018	2019	2020	2021
Brooklyn Ferry Service	\$7.30	\$7.70	\$8.10	\$8.50	\$9.00
Central Coast Ferries	\$7.80	\$8.00	ΔCPI_t	ΔCPI_t	ΔCPI_t
Church Point Ferry Service	\$8.30	\$8.70	\$9.00	\$9.40	\$9.70
Clarence River Ferries	\$8.30	\$8.60	\$8.90	\$9.20	\$9.50
Cronulla and National Park Ferry Service	\$6.40	\$6.60	\$6.80	\$7.10	\$7.40
Matilda Cruises – Circular Quay to Darling Harbour	\$7.40	\$7.60	ΔCPI_t	ΔCPI_t	ΔCPI_t
Matilda Cruises – Circular Quay to Lane Cove	\$7.40	\$7.60	ΔCPI_t	ΔCPI_t	ΔCPI_t
Palm Beach Ferries – Mackerel Beach and the Basin	\$8.10	\$8.20	\$8.40	\$8.60	\$8.70
Palm Beach Ferries – Ettalong and Wagstaffe	\$11.60	\$11.80	\$12.00	\$12.20	\$12.50

Note: ΔCPI_t denotes the change in the Consumer Price Index (CPI) over the year to September.

For three ferry operators, our final decisions on maximum fares have changed since we made our draft decisions in September. For Cronulla and National Park Ferry Service (Cronulla Ferries) and Palm Beach Ferries our draft decisions were to keep maximum fares unchanged from their current (2017) level. Our draft decision for Brooklyn Ferry Service

was to increase maximum fares by between 30 to 40 cents each year. Our final decisions are to increase maximum fares for Cronulla Ferries and Palm Beach Ferries, and to provide a further increase for Brooklyn Ferry Service. Based on further consultation and analysis since our draft decisions, we found that maximum fares need to increase for these operators to recover the efficient costs of providing ferry services. Maximum fares based on efficient costs ensure that passengers would pay no more than necessary. More information about our analysis, including changes since our draft decisions, is provided in Chapter 6 and Appendix C.

1.2 Our approach is based on the extent of competition in each market

The private ferry services included in this review operate in separate markets. This means each operator is providing a different ferry timetable in a different location with a different customer base (including regular commuters and tourists), and facing different levels of competition from other transport providers.

In making decisions on maximum fares, our aim was to estimate the fare that would arise if there was a competitive market for each ferry service. In a competitive market, customers are protected from fares that are unreasonably high, and fares would likely reflect the efficient costs of providing the product or service. Given this, the first step in our process for making decisions on maximum fares was to assess the level of competition in each market.

1.2.1 Competition is already protecting ferry passengers in some markets

We found that Central Coast Ferries and Matilda Cruises face a high level of competition from other ferry services and/or other modes of transport compared to the other private ferry operators. Therefore, we adopted a light-handed approach for these operators by inviting them to propose maximum fares without providing information on their costs. We did not review cost information because fares in competitive markets are likely to reflect efficient costs over time.

These two operators sought to increase their current maximum fares by the change in the CPI in each of the four years from 2018 to 2021 (ie, no change in real terms). 1 For several years, Matilda Cruises has been charging below the maximum fare due to competition from other ferry operators or other modes of transport. On 8 December 2017, it increased its fare for the Lane Cove to Circular Quay service to the maximum. Central Coast Ferries charged below the maximum fare for two years. From July 2017, it increased its fare to the maximum. We consider that these proposals to keep fares constant in real terms are reasonable and likely to reflect fares in a competitive market.

1.2.2 Competition is less effective in other markets

We found that the remaining five ferry operators face less competition in their respective markets. For these operators, our aim was to estimate fares that would arise in a more competitive market. To do this, we used a building block approach, which determines fares that recover the 'efficient costs' of providing each ferry service. Efficient costs include:

See Chapter 5 for more information.

- operating costs (eg, fuel, labour etc) for a well-run ferry service
- a fair return on capital invested in the business, and depreciation on this capital, and
- necessary capital expenditure (eg, to replace engines, refurbish vessels etc).

Fares from the building block model are based on the efficient costs of a 'benchmark ferry operator' in each market; not on the actual costs, revenues, and business decisions of existing ferry operators. This approach ensures that passengers pay no more than necessary to provide a well-run ferry service, and ferry operators have an incentive to provide their service at the least cost. As an example of this, in previous reviews we agreed with advice from our consultant that efficient costs should reflect the cost of replacing an older ferry with a new one, rather than the costs of repairing and maintaining an older ferry. Therefore, in the building block model we allowed for the cost of replacing and maintaining a new ferry. Importantly, under this approach:

- existing ferry operators decide whether to replace their ferries or not; they do not receive
 an actual grant or cash allowance for a ferry replacement in the building block model,
 and
- if a ferry operator is able to maintain an older ferry at a lower lifecycle cost than replacing it, it would receive a benefit under our approach – but on the other hand, if it is more expensive to maintain an older ferry, then our approach ensures that passengers would not pay more for this.

We invited the remaining five ferry operators to propose their maximum fares, and also requested information about their costs. We engaged an external consultant, The Centre for International Economics (The CIE), to provide advice on the efficient costs of providing private ferry services. The CIE had regard to the operators' reported costs in providing this advice.

1.2.3 Most operators submitted reasonable fare proposals

When we compared the fares from our building block model with the operator's proposed fares, we found that most proposals were reasonable.

In general, we considered that fare proposals were reasonable as long as they did not exceed our fares based on efficient costs. Where an operator's proposed maximum fares were lower than but not materially different to fares based on efficient costs, we have determined maximum fares based on efficient costs (rather than the level of proposed fares as was the approach for our draft decisions). This means for Brooklyn Ferries and Cronulla Ferries, the maximum fares that we determined are slightly higher than what the operators proposed. We consider that maximum fares should reflect the efficient costs of providing the service and note that in the case of Brooklyn Ferries maximum fares were below the efficient fares for a number of years. However, ferry operators can choose to set their fare below the maximum fare, and may do so to encourage increased patronage or to compete with other forms of transport. In our view, ferry operators are in the best position to decide whether to set their fares below the maximum.

For example, see IPART, Review of maximum fares for private ferry services and the Stockton ferry service for 2015 – Final Report, December 2014, pp 29-30.

In making our decisions, we had regard to the matters specified in the Act and the Minister's referral as outlined in Chapter 2. More information about how we made our final decisions is provided in Chapter 3.

Clarence River Ferries did not submit a fare proposal to IPART and therefore we have estimated its efficient costs based on advice from The CIE. We found that Clarence River Ferries' current maximum fare is well below our estimated fares based on efficient costs. Given this substantial difference, to manage the impact on passengers our final decision is to increase its maximum fare by 30 cents each year and transition towards fares based on efficient costs over time. We encourage Clarence River Ferries to engage in our reviews to ensure it provides some input into this transition, and its maximum fares reflect the market it operates in.

1.2.4 Palm Beach's maximum fares increase by less than it proposed

For Palm Beach Ferries our final decision is **not to** increase its maximum fares by 50 to 80 cents each year as it proposed, and instead increase its maximum fares by 10 to 30 cents each year based on our estimate of efficient costs.

Our draft decision was to leave the 2017 maximum fares unchanged for Palm Beach Ferries. Since our draft decision we have received further information from Palm Beach Ferries in relation to a proposed fleet restructure, including the addition of a fourth vessel to its fleet. Based on this information and further advice from our consultants we have determined that Palm Beach's maximum fares would increase by 10 to 30 cents each year. As indicated above, these increases remain below Palm Beach's proposed maximum fares.

1.3 Maximum fares would be adjusted if fuel costs change substantially

Private ferry operators are typically small businesses with limited capacity to hedge against volatility in fuel costs. As our review determines fares for the next four years, we considered it appropriate to include a mechanism to manage the risk of a material deviation between our forecast and actual fuel costs over this period. This mechanism allows maximum fares for all ferry operators to be adjusted up or down if fuel costs increase or decrease by more than 20%. Chapter 7 provides further details.

1.4 Competitive tendering provides innovative services and value for money

The NSW Government is currently consulting on a new transport strategy for NSW.3 In developing this strategy, the government has recognised that transport services are undergoing significant change. Technology is central to transport services being delivered by a broader range of providers, giving customers more choice, service quality and The government's role is changing from default transport provider, to ensuring the right policy and regulatory frameworks are in place to support new service operators. More innovative procurement practices are being investigated to better respond to customer needs and deliver better value for money, including:

NSW Government, Draft Future Transport Strategy 2056, October 2017.

- focussing on market and service outcomes rather than prescribing fixed service levels
- open market tenders to introduce competition in markets with low contestability
- arrangements to reward innovation and patronage growth in service contracts, and
- creating a culture where TfNSW is equipped to achieve best value for money from private sector providers.

As part of the transport network in NSW, private ferry services need to be considered in developing this strategy. We recommend that TfNSW competitively tender/procure ferry services in each region, tailored to provide an appropriate service outcome given the population of the region (and likely change in population). This could be undertaken at the completion of existing contracts. TfNSW might need to negotiate with ferry operators where their contracts provide them exclusive rights of renewal.

A competitive tender process would help to ensure operators remain financially viable and local communities and NSW taxpayers get good value for money. A market-based approach would also create competition for the availability of any government subsidy, rather than just increasing the existing subsidy as some stakeholders have called for during our review.

Market-driven solutions can deliver innovative operating models that provide a better quality of service for passengers in a cost-effective manner. For instance, ferry operators could propose to remove or reduce some services that have low utilisation, and replace these with a number of on-demand services which improves the overall efficiency of transport services. As part of a competitive tender process, we also recommend elements of existing private ferry contracts be reviewed. This is discussed further in Chapter 8.

1.5 Discounted fares for broken and reduced trips could improve patronage

We received an anonymous submission raising the issue of 'broken trips' on a ferry service not being entitled to a discounted fare. A broken trip is where a passenger on a service from A to B gets off somewhere in between and later re-joins the service and continues their journey. It was noted that for other forms of transport, a passenger would receive a discount for a broken trip, rather than paying the full single fare each time. A similar issue could arise for a 'reduced trip', where a passenger on a service from A to B gets off somewhere in between and does not re-join the service and does not receive a reduced fare.

We note that other forms of transport, and some ferry operators including Palm Beach and Central Coast Ferries, already provide these discounts. All existing private ferry operators also provide discounted fares for regular commuters.

To encourage greater patronage on private ferry services, we recommend that ferry operators consider a discounted fare for a broken trip (within defined time limits) or a reduced trip. We consider that ferry operators are in the best position to determine the amount of the discount.

List of final decisions and recommendations 1.6

1	Maximum fares for Brooklyn Ferry Service be \$7.70 from January 2018, \$8.10 from January 2019, \$8.50 from January 2020 and \$9.00 from January 2021.	22
2	Maximum fares for Central Coast Ferries services increase annually by the change in the Consumer Price Index (CPI) for the four years from January 2018 to December 2021.	22
	- The maximum fare for Central Coast Ferries in 2018 be \$8.00.	22
3	Maximum fares for Church Point Ferry Service be \$8.70 from January 2018, \$9.00 from January 2019, \$9.40 from January 2020 and \$9.70 from January 2021.	22
4	Maximum fares for Clarence River Ferries be \$8.60 from January 2018, \$8.90 from January 2019, \$9.20 from January 2020 and \$9.50 from January 2021.	22
5	Maximum fares for Cronulla and National Park Ferry Service be \$6.60 from January 2018, \$6.80 from January 2019, \$7.10 from January 2020 and \$7.40 from January 2021.	22
6	Maximum fares for Palm Beach Ferry Service's Ettalong route be \$11.80 from January 2018, \$12.00 from January 2019, \$12.20 from January 2020 and \$12.50 from January 2021.	22
7	Maximum fares for Palm Beach Ferry Service's Mackerel route be \$8.20 from January 2018, \$8.40 from January 2019, \$8.60 from January 2020 and \$8.70 from January 2021.	22
8	Maximum fares for the Matilda Cruises' services increase annually by the change in the Consumer Price Index (CPI) for the four years from January 2018 to December 2021.	22
	- The maximum fare for both Matilda Cruises services in 2018 be \$7.60.	22
9	That if fuel costs change (increase or decrease) by more than 20% in a year, then maximum fares for the following year increase or decrease by the amount calculated as follows:	24
	$\Delta \text{MaxFare}_{t+1,i} = \% \text{ of fuel } \text{cost}_{t,i} * \Delta \text{Fuel } \text{cost}_t \text{ in excess of } \pm 20\%, \text{ where}$	24
	– $\Delta \text{MaxFare}_{t+1,i}$ is the percentage change to be applied to the maximum fare for a ferry operator i in year t	24
	– $\%$ of fuel $\mbox{cost}_{t,i}$ is the proportion of fuel in the total operating cost for a ferry operator i in year t	25
	– $\Delta Fuel cost_t$ is the percentage change between the average fuel price in year t and the average fuel price in year t-1. To calculate " $\Delta Fuel cost_t$ in excess of $\pm 20\%$ ", if $\Delta Fuel cost_t$ is a positive number, 0.2 will be subtracted from that number, and if it is a negative number, 0.2 will be added to that number.	25
10	We recommend that, on completion of existing contracts or through negotiation with operators who have exclusive rights of renewal, Transport for NSW procure private ferry contracts through a competitive tender process.	30

30

1.7 How this report is structured

This report provides more detail on this review and our final decisions:

- Chapter 2 explains our role in making a determination for private ferry fares and our process for conducting this review.
- Chapter 3 provides an overview of the approach for this review.
- Chapter 4 discusses our assessment of competition on the routes serviced by ferry operators.
- Chapter 5 summarises pricing proposals submitted by ferry operators.
- Chapter 6 explains how we reached our final decisions including our approach for assessing ferry operators' pricing proposals.
- Chapter 7 explains the fuel cost adjustment mechanism.
- Chapter 8 provides our response to stakeholder submissions.
- Chapter 9 discusses other factors we considered in making our final decisions, including their impact on stakeholders.
- Appendices A to E contain our terms of reference, final determination and supporting information including how we estimated fares using the building block model.

Context and process for the review 2

This year IPART is required to determine the maximum fares for the seven private ferry operators for the four years from 1 January 2018 to 31 December 2021. Our Final Report and Determination on the maximum fares will be provided to the Minister for Transport and Infrastructure. After IPART determines the maximum fares, TfNSW makes a fare order setting out the maximum fares that the seven ferry operators can charge. When TfNSW makes such an order, the fares set out in that order cannot exceed the maximum IPART determined fares and must follow the IPART maximum fares methodology.

Our review does not cover fares for Sydney and Stockton Ferry services. IPART determines fares for both these services as part of our Opal fares review. Also, we did not review the discount applied to concession tickets or the cost or availability of the Pensioner Excursion Ticket (PET) and the Gold Opal card as these are matters for the NSW Government.

This chapter provides information on private ferry contracts and outlines the matters we considered in conducting the review. It also sets out the current maximum fares and provides our response to the issues raised in submissions to our Issues Paper released in June and Draft Report released in September 2017.

2.1 Currently private ferry operators have contracts with TfNSW

Currently private ferry operators have contracts with TfNSW. While not all contracts are the same, in general they set out the service standards that the operator is required to meet, including providing a ferry timetable for a designated route. Other requirements include the operator remaining solvent, holding appropriate insurances, providing and maintaining its vessels in appropriate condition, providing information to the public and reporting to TfNSW.

In return, most ferry operators are granted an exclusive right to provide their designated route and are entitled to receive farebox revenue and government subsidies for concession and school student travel. Most provide an exclusive right of renewal after the contract term is completed, so long as the objectives and service standards under the agreement have been met. Some operators also receive financial viability payments from the NSW Government.

The contracts provide that the operator's fare cannot exceed the maximum fare determined by IPART.

2.2 Most operators are currently charging the maximum fare

The current maximum fares for each of the private ferry services covered by this review are set out in Table 2.1. Ferry operators may charge less than the determined maximum fare, and Matilda Cruises currently do.

Table 2.1 Private ferry services covered by IPART's review

Operator	Routes	Current maximum fare (2017)
Brooklyn Ferry Service	Brooklyn to Dangar Island	\$7.30
Central Coast Ferries	Woy Woy to Empire Bay	\$7.80
Church Point Ferry Service	Scotland Island and western foreshore of Pittwater	\$8.30
Clarence River Ferries	Iluka to Yamba	\$8.30
Cronulla and National Park Ferry Service	Cronulla to Bundeena	\$6.40
Matilda Cruises ^a	Circular Quay to Darling Harbour Circular Quay to Lane Cove	\$7.40 \$7.40
Palm Beach Ferries	Palm Beach to Mackerel Beach and the Basin	\$8.10
	Palm Beach to Ettalong and Wagstaffe	\$11.60

a Part of the Captain Cook Cruises & SeaLink Travel Group

Source: IPART, Review of maximum fares for private ferry services in 2017, November 2016, p 2.

2.3 We have considered a number of matters in undertaking this review

Our review has been undertaken in response to a referral from the Minister of Transport and Infrastructure under the *Passenger Transport Act 2014* which requires IPART to review and determine the maximum fares for the private ferry services for four years from 1 January 2018 to 31 December 2021 (Appendix A). In addition to any other matters we consider relevant, the referral specifies the factors that we must consider in undertaking this review. These include:

- the cost of providing the services
- the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers
- the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service
- the social impact of the determination or recommendation
- the impact of the determination or recommendation on the use of the public passenger transport network and the need to increase the proportion of travel undertaken by sustainable modes such as public transport
- standards of quality, reliability and safety of the services (whether those standards are specified by legislation, agreement or otherwise), and
- the effect of the determination or recommendation on the level of Government funding.

We also had regard to the list of factors we are required to consider under section 15 of the IPART Act in making our final determination for private ferry fares (see Appendix B).

2.4 Our review process included detailed analysis and public consultation

The process we followed in making our final decisions included public consultation and assessment of ferry operators' pricing proposals based on detailed analysis and expert advice on the efficient costs of providing private ferry services. We began this process by inviting ferry operators to propose fares in May 2017. We received pricing proposals from all operators except for Clarence River Ferries.

We released an Issues Paper in June 2017. The Issues Paper explained our proposed approach for determining maximum fares, summarised ferry operators' pricing proposals and called for stakeholder submissions on the proposed approach and the pricing proposals. We received seven submissions on the Issues Paper which are available on our website.

We engaged a consultant, The CIE, to investigate and provide advice on the efficient costs of providing private ferry services in NSW, and conducted our research and analysis based on The CIE's advice in assessing ferry operators' pricing proposals. The CIE reports are available on our website.

We considered matters raised in submissions to the Issues Paper and the factors discussed in Section 2.3 in preparing a Draft Report released in September. We also held a public hearing on 23 October where stakeholders had the opportunity to seek clarification and provide comment on our draft decisions. The CIE undertook further engagement with ferry operators and further analysis on a number of issues following comments made at the public hearing.

We have taken into account the issues raised at the public hearing and in submissions to our Draft Report in making our final decisions. This Final Report and Determination is due to be provided to the Minster for Transport and Infrastructure in mid-December 2017. The Determination on maximum fares would apply from 1 January 2018.

Our approach for the review 3

As discussed in Chapter 2, the Minister has asked us to determine the maximum fares for seven private ferry operators for the period from 2018 to 2021. Our approach ensures we consider all the matters specified in the Act and the Minister's referral outlined in Chapter 2. This Chapter provides an overview of our approach and each of its key steps, and the process we followed in undertaking the review.

We developed an approach to guide our analysis and decision-making for this review, which consisted of the following four steps:

- For each ferry operator, we assessed the level of competition for customers on the routes it services, and decided on the appropriate form of regulation. The private ferry businesses affected by the review service different routes, and the level of competition differs by route. Based on our assessment of the level of competition, we considered
 - a light-handed approach is appropriate for Central Coast Ferries and Matilda Cruises, and
 - a more robust approach involving the assessment of the efficient costs of providing private ferry services is appropriate for the remaining ferry operators.
- 2. We invited each ferry operator to submit a pricing proposal. Based on our assessment of competition and the decision on the appropriate form of regulation in Step 1, we invited:
 - Central Coast Ferries and Matilda Cruises to submit pricing proposals with a a) brief statement of reasons, and
 - the remaining operators to submit pricing proposals and provide forecast operating and capital costs and forecast patronage to support them.
- 3. We assessed whether each pricing proposal is reasonable against the matters contained in section 124 of the Passenger Transport Act 2014 and the Minister's referral in deciding whether to agree to it. However, the extent of our assessment varied based on the extent of competition faced by each operator.
 - For Central Coast Ferries and Matilda Cruises, we considered the amount of the a) proposed increases is reasonable given the market in which they operate.
 - b) For the remaining operators, we analysed the efficient costs of providing private ferry services and estimated fares to recover these efficient costs. We applied an approach that compares fares based on efficient costs and the proposed fares, to decide whether or not to agree to pricing proposals.
- For all operators, we established a mechanism to manage the risk of a material 4. deviation between forecast and actual fuel costs each year.

Chapters 4 to 7 discuss in detail how we implemented these steps to reach our final decision and findings.

Current levels of competition 4

As discussed in Chapter 3, the first step in our approach is assessing the level of competition on the routes covered by private ferry services. Private ferry businesses operate distinct routes, and hence face a different level of competition. Our assessment of competition is important because the level of competition in a market strongly influences the form of price regulation needed to protect customers.

In general, price regulation is only required in a monopoly market, where lack of competition can lead to higher prices and poorer service outcomes. On the contrary, in a competitive market, competition is likely to deliver benefits beyond those that can be achieved through fare regulation and fares determined by the market are likely to reflect efficient costs.

We undertook desktop research of competition in markets in which private ferry businesses operate. The sections below discuss our approach for assessing the level of competition, which includes identifying:

- whether there are alternative modes of transport competing with private ferry services (Section 4.1), and
- whether there is any difference between actual fares and the current maximum fares recommended by IPART (Section 4.2).

4.1 Ferries operate in different markets with different levels of competition

To examine whether private ferry services covered by this review face competition from other ferry operators and/or other modes of transport, we researched alternative travel options for each ferry route (Table 4.1). Based on this, we formed our view that ferry operators are facing different levels of competition. In particular, we found that:

- Matilda Cruises, operating in Sydney Harbour, faces the highest level of competition for passengers from other ferry services and other modes of transport compared to the other private ferry operators.
- Central Coast Ferries also faces a relatively high level of competition from other modes of transport, but less than Matilda Cruises.
- The remaining five operators face little or no competition, as there are limited alternative public transport options available on routes operated by these five operators.

Table 4.1 Alternative travel options for the ferry routes covered by this review

Operator	Route	Ferry travel time on route	Alternative travel option?
Brooklyn Ferry Service	Brooklyn to Dangar Island	30 mins ^a	▼ Travel option: boat ride sharing; water taxi
Central Coast Ferries	Woy Woy to Empire Bay	30 mins ^b	 Travel option: bus; car Travel time: around 35 mins by bus; 14 minutes by car (8.7 km) Bus fare: \$3.50 per adult Frequency: every hour before 12 pm and after 4:30 pm, every 30 mins from 1 pm to around 4:30 pm
Church Point Ferry Service	Scotland Island and western foreshore of Pittwater	~ 25 mins ^c	 Travel option: car; water taxi Travel time: 24 mins (14.5 km)^c
Clarence River Ferries	Iluka to Yamba	30 mins ^d	 Travel option: bus; car Travel time: 40 mins (direct) to 1 hour and 37 mins (transfer required) by bus; 34 mins (39 km) by car Bus fare: \$4.84 to around \$16° Frequency: direct service once at around 7:30 am and indirect service once at around 5 pm
Cronulla and National Park Ferry Service	Cronulla to Bundeena	30 mins	Travel option: car; water taxiTravel time: 46 mins (35 km) by car
Matilda Cruises	Circular Quay to Darling Harbour Circular Quay to Lane Cove		Numerous travel options
Palm Beach Ferries	Palm Beach to Mackerel Beach	30 mins	 Travel option: car Travel time: 48 mins (35 km)^f
	Palm Beach to Ettalong and Wagstaffe	~20 mins	 Travel option: car Travel time: 1 hour 50 mins (107 km)^g

a Travelling between Brooklyn Ferry Wharf and Dangar Island.

Source: Ferry travel times are sourced from operators' websites or Google Map – Brooklyn Ferry Service timetable, http://brooklynferryservice.com.au/; Central Cost Ferries timetable, http://www.centralcoastferries.com.au/timetable.html, Church Point Ferry Service timetable, http://churchpointferryservice.com/ferry-timeable/; Google map for Clarence River Ferries, Cronulla and National Park Ferry Service, Palm Beach Ferries timetable, https://www.fantasea.com.au/palmbeachferries-timetable/; Travel time by car is sourced from Google Map; Travel time by bus

https://www.fantasea.com.au/palmbeachferries-timetable/; Travel time by car is sourced from Google Map; Travel time by but for the route operated by Clarence River Ferries is sourced from Google Map. Bus fare is sourced from Busways.

4.2 Matilda Cruises charge less than the maximum fares

While we determine a maximum fare, ferry operators can choose to set their fare below the maximum, and may do so to compete with other forms of transport. In a competitive

b Travelling between Woy Woy Wharf and Empire Bay.

c Travelling between Church Point Wharf, Pittwater and Lovett Wharf, Lovett Bay.

d Travelling between Iluka Wharf and Yamba Wharf.

e Estimated based on the number of kilometres between Iluka to Maclean.

f Travelling between Palm Beach Wharf, Palm Beach and Mackerel Beach Wharf, Great Mackerel Beach.

⁹ Travelling between Palm Beach Wharf, Palm Beach and Wagstaffe Wharf, Wagstaffe.

market, a ferry operator has a price ceiling in that the fare it charges cannot exceed the limit set by the market. This is because if the fare increased beyond the market-determined level, passengers would switch to the competitors offering the same service. In this context, a ferry operator charging below the maximum fare is likely to signal that it is operating in a competitive market.

Table 4.2 shows the maximum fares determined by IPART for 2017, and the actual fares currently being charged by ferry operators. Except Matilda Cruises, all ferry operators are charging the maximum fares. For several years, Matilda Cruises have been charging below the maximum fare due to competition from other ferry operators or other modes of transport. From 8 December 2017, Matilda Cruises increased the fare for the Circular Quay to Lane Cove service from \$7.00 to the maximum fare of \$7.40. Central Coast Ferries charged below the maximum fare for two years. From July 2017, it increased its fare to the maximum.

Table 4.2 Actual fares and maximum fares from 1 January 2017

Operator	Routes	IPART maximum fare from 1 January 2017	Actual fare
Brooklyn Ferry Service	Brooklyn to Dangar Island	\$7.30	\$7.30
Central Coast Ferries	Woy Woy to Empire Bay	\$7.80	\$7.80
Church Point Ferry Service	Scotland Island and western foreshore of Pittwater	\$8.30	\$8.30
Clarence River Ferries	Iluka to Yamba	\$8.30	\$8.30
Cronulla and National Park Ferry Service	Cronulla to Bundeena	\$6.40	\$6.40
Matilda Cruises	Circular Quay to Darling Harbour	\$7.40	\$7.00
	Circular Quay to Lane Cove	\$7.40	\$7.40
Palm Beach Ferries	Palm Beach to Mackerel Beach and the Basin	\$8.10	\$8.10
	Palm Beach to Ettalong and Wagstaffe	\$11.60	\$11.60

Note: Fares are current as of 8 December 2017.

Source: IPART, Review of maximum fares for private ferry services in 2017, November 2016, p 2; Ferry operators' websites; Ferry operators' pricing proposals.

4.3 Maximum fares to reflect efficient costs of providing ferry services

For Central Coast Ferries and Matilda Cruises, we consider it is not necessary to review the costs of providing these services as fares set by the competitive market are likely to be a better estimate of efficient costs. We did not receive any stakeholder comments on this issue from our Draft Report.

For the remaining operators, who provide ferry services in markets with no or limited competition, we consider it necessary to analyse the efficient costs of providing the ferry services and estimate fares using a building block approach. Fares from the building block model based on efficient costs are an estimate of the fares that would arise if there were competitive markets for private ferry services.

5 Ferry operators' pricing proposals

The second step in our approach was to invite ferry operators to propose fares for the period from 1 January 2018 to 31 December 2021. In May 2017, we invited ferry operators to propose fares for their regulated ferry services, and received pricing proposals from all operators except for Clarence River Ferries. Table 5.1 sets out the ferry operators' pricing proposals.

Table 5.1 Ferry operators' proposed maximum fares from January 2018 to December 2021 (including inflation and GST)

Operator	Current maximum fare	2018	2019	2020	2021
Brooklyn Ferry Service	\$7.30	\$7.60	\$8.00	\$8.40	_a
Central Coast Ferries	\$7.80	ΔCPI_t	ΔCPI_t	ΔCPI_t	ΔCPI_t
Church Point Ferry Service	\$8.30	\$8.65	\$9.00	\$9.40	\$9.70
Clarence River Ferries	\$8.30		Did not propos	e fares	
Cronulla and National Park Service	\$6.40	ΔCPI_t	ΔCPI_t	ΔCPI_t	ΔCPI_t
Matilda Cruises – Circular Quay to Darling Harbour	\$7.40	ΔCPI_t	ΔCPI_t	ΔCPI_t	ΔCPI_t
Matilda Cruises – Circular Quay to Lane Cove	\$7.40	ΔCPI_t	ΔCPI_t	ΔCPI_t	ΔCPI_t
Palm Beach Ferries – Mackerel Beach and the Basin ^b	\$8.10	\$8.80	\$9.30	\$9.90	\$10.50
Palm Beach Ferries – Palm Beach to Ettalong and Wagstaffe ^b	\$11.60	\$12.40	\$13.00	\$13.60	\$14.20

a Brooklyn Ferry Service did not provide a fare proposal for 2021.

Central Coast Ferries and Matilda Cruises proposed that for the next four years their respective maximum fares increase by the change in the CPI. Cronulla Ferries initially proposed to increase its current maximum fare by 10 cents each year, but subsequently revised its proposal to increase fares by the change in the CPI. If the CPI increased by 2.5% each year, the current fare of \$6.40 under Cronulla Ferries' revised proposal would increase by 20 cents each year to \$7.10 between 2018 and 2021.

Brooklyn Ferries proposed to increase its current maximum fare by 30 to 40 cents each year until 2020. Its pricing proposal did not include a proposed fare change for 2021. Church Point Ferries proposed to increase its current maximum fare by 30 to 40 cents each year. Palm Beach Ferries proposed to increase its current maximum fares by 50 to 80 cents each year.

b Palm Beach Ferries' proposed fares were in real terms. We assumed an inflation rate of 1.9% for 2018 and 2.5% thereafter. Source: Ferry operators' pricing proposal; IPART, Review of maximum fares for private ferry services in 2017 - Final Report, November 2016, p 2.

6 Final decisions on maximum fares

The third step in our approach was to assess each pricing proposal against the matters contained in section 124 of the *Passenger Transport Act 2014* and the Minister's referral and decide whether it is reasonable. We received pricing proposals from all operators except for Clarence River Ferries.

The sections below discuss our approach for assessing ferry operators' pricing proposals and how we reached our final decisions.

6.1 Overview of our final decisions

Table 6.1 sets out our final decisions on maximum fares for private ferry services for the four year period from 1 January 2018 to 31 December 2021. These maximum fares include GST and inflation.

Table 6.1 Final decisions on maximum fares for private ferry services (including GST and inflation)

Operator	Current maximum fare	2018	2019	2020	2021
Brooklyn Ferry Service	\$7.30	\$7.70	\$8.10	\$8.50	\$9.00
Central Coast Ferries	\$7.80	\$8.00	ΔCPI_t	ΔCPI_t	ΔCPI_t
Church Point Ferry Service	\$8.30	\$8.70	\$9.00	\$9.40	\$9.70
Clarence River Ferries	\$8.30	\$8.60	\$8.90	\$9.20	\$9.50
Cronulla and National Park Ferry Service	\$6.40	\$6.60	\$6.80	\$7.10	\$7.40
Matilda Cruises – Circular Quay to Darling Harbour	\$7.40	\$7.60	ΔCPI_t	ΔCPI_t	ΔCPI_t
Matilda Cruises – Circular Quay to Lane Cove	\$7.40	\$7.60	ΔCPI_t	ΔCPI_t	ΔCPI_t
Palm Beach Ferries – Palm Beach to Mackerel Beach and the Basin	\$8.10	\$8.20	\$8.40	\$8.60	\$8.70
Palm Beach Ferries – Palm Beach to Ettalong and Wagstaffe	\$11.60	\$11.80	\$12.00	\$12.20	\$12.50

For three ferry operators, our final decisions on maximum fares have changed since we made our draft decisions in September. For Cronulla and National Park Ferry Service (Cronulla Ferries) and Palm Beach Ferries our draft decisions were to keep maximum fares unchanged from their current (2017) level. Our draft decision for Brooklyn Ferry Service was to increase maximum fares by between 30 to 40 cents each year. Our final decisions are to increase maximum fares for Cronulla Ferries and Palm Beach Ferries, and to provide a further increase for Brooklyn Ferry Service. Based on further consultation and analysis since our draft decisions, we found that maximum fares need to increase for these operators to

recover the efficient costs of providing ferry services. More information about our analysis, including changes since our draft decisions, is provided below and in Appendix C.

6.2 How we assessed pricing proposals and decided on maximum fares

As discussed in Chapter 4, for Central Coast Ferries and Matilda Cruises, we consider it is not necessary to review the costs of providing these services as fares set in a competitive market are likely to be a better estimate of efficient costs.

For the remaining five ferry operators who face less competition in their respective markets, our aim was to estimate fares that would arise in a more competitive market. To do this, we used a building block approach, which determines fares that recover the 'efficient costs' of providing each ferry service. Efficient costs include:

- operating costs (eg, fuel, labour etc) for a well-run ferry service
- a fair return on capital invested in the business, and depreciation on this capital, and
- necessary capital expenditure (eg, to replace engines, refurbish vessels etc).

Fares from the building block model are based on the efficient costs of a 'benchmark ferry operator' in each market; not on the actual costs, revenues, and business decisions of existing ferry operators. This approach ensures that passengers pay no more than necessary for a well-run ferry service, and ferry operators have an incentive to provide their service at the least cost. As an example of this, in previous reviews we agreed with advice from our consultant that efficient costs should reflect the cost of replacing an older ferry with a new one, rather than the costs of repairing and maintaining an older ferry.⁴ Therefore, in the building block model we allowed for the cost of replacing and maintaining a new ferry. Importantly, under this approach:

- existing ferry operators decide whether to replace their ferries or not; they do not receive
 an actual grant or cash allowance for a ferry replacement in the building block model,
 and
- if a ferry operator is able to maintain an older ferry at a lower lifecycle cost than replacing it, it would benefit under our approach but on the other hand, if it is more expensive to maintain an older ferry, then our approach ensures that passengers would not pay more for this.

We invited the remaining five ferry operators to propose their maximum fares, and also requested information about their costs. We engaged an external consultant, The CIE, to provide advice on the efficient costs of providing private ferry services. The CIE had regard to the operators' reported costs in providing this advice.

More information about our approach for estimating fares based on efficient costs and deciding on maximum fares is summarised in Box 6.1. This approach ensures we consider all the matters specified in the Act and the Minister's referral as outlined in Chapter 2.

For example, see IPART, Review of maximum fares for private ferry services and the Stockton ferry service for 2015 – Final Report, December 2014, pp 29-30.

Box 6.1 Our approach for deciding on maximum fares

For the five operators who face little or no competition, we analysed the efficient costs of providing their ferry services and estimated fares in our building block model.

For each operator, calculating fares in the building block model involved three broad steps:

- 1. Estimating its total efficient costs for each year of the determination period using a building We engaged an external consultant, The Centre for International block approach. Economics (The CIE), to advise on the efficient costs of providing private ferry services.
- 2. Deciding what share of the total efficient costs passengers should pay through fares. To do this, we subtract from the total efficient costs:
 - An amount equal to the government payments the operator receives for providing school travel and concessions tickets, plus any financial viability payments it receives.
 - b) An amount equal to our estimate of the external benefits generated by the use of private ferry services, where this amount is not accounted for by any financial viability payment.
- 3. Calculating the fare for each ferry service that recovers the passengers' share of total efficient costs, based on forecast annual patronage.

Once we estimated fares based on efficient costs using the building block model, we decided on maximum fares using the following approach:

- If proposed fares are less than or equal to fares based on efficient costs, our decision is to set maximum fares in line with efficient costs.
- If proposed fares are materially higher than fares based on efficient costs, our decision is:
 - If the current maximum fare is below fares based on efficient costs, we increase the current maximum fare to be in line with fares based on efficient costs.
 - If the current maximum fare is higher than fares based on efficient costs, we freeze the current maximum fare in nominal terms.

Our approach compares operators' proposed fares with fares based on efficient costs from 2018 to 2021. We consider that this is reasonable as it ensures passengers pay prices that reflect the efficient costs of providing private ferry services, and enables ferry operators to sustain their business over the long term by allowing them to recover the efficient costs.

We are not able to provide details of our calculations of efficient costs as our analysis relies on confidential information provided by the ferry operators. Nevertheless, we have conducted thorough analysis of this information in making our decisions. Further detail on our approach for estimating fares based on efficient costs is provided in Appendix C.

Since our draft decisions we made a change to our approach for determining maximum fares in Box 6.1. Where an operator's proposed maximum fares were lower than the fares based on efficient costs, we set maximum fares at the level of efficient costs (rather than the level of proposed fares). This means the maximum fares that we determine may be slightly higher than what an operator proposed, as is the case with our final decisions for Brooklyn Ferries and Cronulla Ferries. We consider that this is reasonable as it ensures passengers pay prices that reflect the efficient costs of providing private ferry services.

We consider that maximum fares should reflect the efficient costs of providing the service. However, ferry operators can set their fares below the maximum.

6.3 Central Coast and Matilda Cruises' proposed fares are reasonable

Our final decisions are to accept Central Coast Ferries and Matilda Cruises' pricing proposals to increase current fares by the change in the CPI. Matilda Cruises faces a high level of competition from other ferry services and other modes of transport and has been charging below the maximum fare for several years. On 8 December 2017, it increased its fare for the Lane Cove to Circular Quay service to the maximum fare. Central Coast Ferries also faces a relatively high level of competition from other modes of transport, and charged below the maximum fare for two years. From July 2017, it increased its fare to the maximum. We consider their proposals to be market-driven and efficient.

We will calculate the change in the CPI using the All Groups index number for Sydney as published by the Australian Bureau of Statistics (ABS) for the September quarter each year. The change in the CPI in year *t* will be calculated as follows.

$$\Delta CPI_t = \left(\frac{CPI_{Sep,t}}{CPI_{Sep,t-1}}\right) - 1$$

Maximum fares for both Central Coast Ferries and Matilda Cruises would increase by 20 cents in 2018. For each year of the three years from 2019 to 2021, we will publish maximum fares in December of the preceding year using actual inflation numbers.

6.4 Brooklyn, Church Point and Cronulla Ferries' proposals are reasonable

Our final decisions are to accept Brooklyn, Church Point, and Cronulla's proposed fares. To inform our decision we have analysed the efficient costs of providing ferry services for each of these operators.

In 2015 when we first estimated efficient costs, Brooklyn Ferries' maximum fare was below the fare based on efficient costs. From 2015 to 2017, we increased Brooklyn Ferries' maximum fares by 30 cents each year to bring fares closer to efficient costs. For this determination period, Brooklyn Ferries proposed to increase the maximum fares by 30 to 40 cents each year for three years, but did not propose a fare for 2021. For our draft decision these proposed increases were in line with our estimate of fares based on efficient costs.

Since the draft decision we have updated our analysis for each operator, including using the latest inflation, updating the weighted average cost of capital and adjusting the asset lives for capital expenditure on engines and refurbishments (which increased the allowance for depreciation in our building block model, putting upward pressure on fares).

For Brooklyn Ferries, the net result of these updates was that its proposed fare increases are now slightly below fares based on efficient costs. Our final decision is to set maximum fares

⁵ IPART, Review of maximum fares for private ferry services and the Stockton ferry service for 2015 – Final Report, December 2014, p 2; IPART, Review of maximum fares for private ferry services in 2016 – Final Report and Recommendations, December 2015, p 2; IPART, Review of maximum fares for private ferry services in 2017 – Final Report, November 2016, p 2.

in line with fares based on efficient costs, which is around 10 cents per annum higher than proposed. We consider that this is reasonable as it ensures passengers pay prices that reflect the efficient costs of providing private ferry services.

Church Point Ferries' proposed annual increases range from 30 cents to 40 cents each year. For the period from 2018 to 2021, Church Point Ferries' proposed fares are generally in line with fares based on efficient costs. The proposed fare marginally exceeds the fare based on efficient costs in 2018 and 2020. Our final decision is on balance to accept Church Point Ferries' proposed fares. The difference is very small and the maximum fare would be at the efficient level in 2021 (the end of the determination period).

For Cronulla Ferries, our draft decision was not to accept its pricing proposal for maximum fares to increase in line with the change in CPI. Following consultation on the draft decision, we agree with advice from The CIE that it would be reasonable to increase efficient operating costs for the Cronulla service to reflect:

- higher repairs and maintenance and refurbishment costs for its larger (slow) ferry
- incremental costs associated with service cancellations, and
- additional labour costs required for the morning and afternoon school service (see Appendix C).

Because the school ferry runs concurrently with the main service we have also decided to include 100% of the dedicated school ferry in the Regulated Asset Base (as opposed to 50% under our draft decisions - see Chapter 8 for further discussion). These changes were the main factors increasing our estimate of efficient fares. Our final decision is to set the maximum fares in line with fares based on efficient costs. While the efficient fares are higher than Cronulla Ferries proposed, it can set its fares lower than the maximum to encourage patronage.

6.5 Palm Beach Ferries' maximum fares increase by less than it proposed

For Palm Beach Ferries our final decision is not to increase its maximum fares by 50 to 80 cents each year as it proposed, and instead increase its maximum fares by 10 to 30 cents each year based on our estimate of efficient costs.

Our draft decision was to leave the 2017 maximum fares unchanged for Palm Beach Ferries. Since our draft decision we have received further information from Palm Beach Ferries in relation to its fleet restructure, including the addition of a fourth vessel to its fleet. Based on this information we have decided to set fares based on the fleet structure from our 2017 price review⁶ as we consider the proposed fleet restructure and associated ongoing costs would likely have a higher lifecycle cost. As discussed above, decisions relating to fares are based on efficient costs and not the actual business decisions of ferry operators.

Our final decision is for maximum fares to recover increased operating costs for:

- repairs and maintenance and refurbishment costs for its larger (slow) ferry
- incremental costs for service cancellations/diversions, and

IPART, Review of maximum fares for private ferry services in 2017, November 2016.

▼ 'other operating costs' (ie, terminal and office rent, office administration and IT, marketing, financial/professional services costs, cash collection costs, etc) - based on information provided by Palm Beach, we consider that higher other operating costs are reasonable for the market it is operating in.

More information on changes in our building block analysis since the draft decision is provided in Appendix C.

6.6 Clarence River Ferries' fares increase by 30 cents each year

As Clarence River Ferries did not submit a pricing proposal, we used the same approach to estimate efficient costs and fares as we used for the other operators that face little competition (see Box 6.1).

We found that Clarence River Ferries' current maximum fare is well below fares based on efficient costs. Clarence River Ferries' total efficient operating cost is lower than most ferry operators. However, the cost per service hour and the cost per passenger are not lower than most other operators because Clarence River Ferries has fewer service hours and lower patronage. Our final decision is to increase Clarence River Ferries' maximum fare by 30 cents each year to bring it closer to the level reflecting efficient costs. While there will still be a large difference between the efficient fares and the maximum fares, we consider a 30 cent increase is an appropriate transition considering the potential impact on customers.

Final decisions

- Maximum fares for Brooklyn Ferry Service be \$7.70 from January 2018, \$8.10 from January 2019, \$8.50 from January 2020 and \$9.00 from January 2021.
- 2 Maximum fares for Central Coast Ferries services increase annually by the change in the Consumer Price Index (CPI) for the four years from January 2018 to December 2021.
 - The maximum fare for Central Coast Ferries in 2018 be \$8.00.
- 3 Maximum fares for Church Point Ferry Service be \$8.70 from January 2018, \$9.00 from January 2019, \$9.40 from January 2020 and \$9.70 from January 2021.
- 4 Maximum fares for Clarence River Ferries be \$8.60 from January 2018, \$8.90 from January 2019, \$9.20 from January 2020 and \$9.50 from January 2021.
- 5 Maximum fares for Cronulla and National Park Ferry Service be \$6.60 from January 2018, \$6.80 from January 2019, \$7.10 from January 2020 and \$7.40 from January 2021.
- 6 Maximum fares for Palm Beach Ferry Service's Ettalong route be \$11.80 from January 2018, \$12.00 from January 2019, \$12.20 from January 2020 and \$12.50 from January
- 7 Maximum fares for Palm Beach Ferry Service's Mackerel route be \$8.20 from January 2018, \$8.40 from January 2019, \$8.60 from January 2020 and \$8.70 from January 2021.
- Maximum fares for the Matilda Cruises' services increase annually by the change in the 8 Consumer Price Index (CPI) for the four years from January 2018 to December 2021.
 - The maximum fare for both Matilda Cruises services in 2018 be \$7.60.

7 Fuel adjustment mechanism

Private ferry services tend to be small businesses with limited capacity to hedge against volatility in fuel costs. As our review will determine fares for the next four years, we considered it appropriate to include a mechanism to manage the risk of a material deviation between our forecast and actual fuel costs over this period. This chapter explains our final decision on the fuel adjustment mechanism.

7.1 Overview of our final decision

Our final decision is that if fuel costs change (increase or decrease) by more than 20% in a year, then maximum fares for the following year would increase or decrease by the amount calculated as follows:

$$\Delta$$
MaxFare_{t+1,i} = % of fuel cost_{t,i} * Δ Fuel cost_t in excess of \pm 20%

where

- Δ MaxFare $_{t+1,i}$ is the percentage change to be applied to the maximum fare for a ferry operator i in year t
- % of fuel $cost_{t,i}$ is the proportion of fuel in the total operating cost for a ferry operator i in
- \checkmark \triangle Fuel cost_t is the percentage change between the average fuel price in year t and the average fuel price in year t-1. To calculate " Δ Fuel cost_t in excess of \pm 20%", if Δ Fuel cost_t is a positive number, 0.2 will be subtracted from that number, and if it is a negative number, 0.2 will be added to that number.

We did not receive any stakeholder comments on our draft decision on the fuel adjustment mechanism, and so there are no changes to our final decision.

7.2 Maximum fares would change to reflect substantial changes in fuel

Based on our assessment of efficient costs, fuel accounts for between 5% and 17% of the total operating costs of running ferry service depending on the operator and the speed of the ferry.

Each year, we will measure the annual change in fuel costs from the previous year, based on the average diesel price for the 12 months to September. The average diesel price will be based on daily average Sydney retail prices supplied by FUELtrac, excluding GST and excise duty. We will then multiply the annual change in fuel costs that exceeds a threshold of ±20% by the proportion of fuel cost in the total operating cost. This will give us the percentage change to apply to the maximum fare for the following year (Δ MaxFare_{t+1,i}).

For example, if fuel costs increased by 30%, and fuel accounts for 20% of a ferry operator's total operating costs, we would increase the operator's maximum fare by 2% (ie, the increase in fuel costs that exceeds the threshold of 20% (ie, 10%) multiplied by 20%). Conversely, if fuel costs decreased by 30%, and fuel accounts for 20% of a ferry operator's total operating costs, we would **decrease** the operator's maximum fare by 2% (ie, the reduction in fuel costs that exceeds the threshold of 20% (ie, 10%) multiplied by 20%).

Our final decision is to adopt a ±20% threshold for the Fuel Adjustment Mechanism. This is higher than the threshold proposed in the Issues Paper (ie, ±10%). We considered that to trigger a change to our determination on the maximum fares, the change in fuel costs should be material. With a threshold of $\pm 10\%$, the likely fare change would be only a few cents. Fares are rounded to the nearest 10 cents so fares would not likely be adjusted. Our Issues Paper sought stakeholder comment on whether our proposed threshold was appropriate and whether there were any costs other than fuel cost that we should account for in designing our risk management mechanism. Stakeholders did not comment on these.

Table 7.1 sets out the proportions of fuel costs for all private ferry operators. proportions are based on our assessment of the efficient fuel costs over the determination period. We did not assess efficient costs for Central Coast Ferries and Matilda Cruises. For Central Coast Ferries, we estimated the proportion of fuel costs based on the average proportion of fuel costs of slow ferry service operators. For Matilda Cruises, we estimated it based on the proportion of fuel cost of Palm Beach Ferries' Ettalong service, which is a fast ferry service.

Table 7.1 **Fuel Cost Proportions for Private Operators (%)**

Operator	2018 Period	2019 Period	2020 Period
Brooklyn Ferry Service	8	9	9
Central Coast Ferries	7	7	7
Church Point Ferry Service	10	10	10
Clarence River Ferries	6	6	7
Cronulla and National Park Ferry Service	5	5	5
Matilda Cruises Circular Quay to Darling Harbour Circular Quay to Lane Cove	16	16	17
Palm Beach Ferries – Palm Beach to Mackerel Beach and the Basin	5	5	5
Palm Beach Ferries – Palm Beach to Ettalong and Wagstaffe	16	16	17

Source: IPART calculation.

Final Decision

That if fuel costs change (increase or decrease) by more than 20% in a year, then maximum fares for the following year increase or decrease by the amount calculated as follows:

 Δ MaxFare_{t+1,i} = % of fuel cost_{t,i} * Δ Fuel cost_t in excess of \pm 20%, where

 Δ MaxFare $_{t+1,i}$ is the percentage change to be applied to the maximum fare for a ferry operator i in year t

- % of fuel $\mathsf{cost}_{t,i}$ is the proportion of fuel in the total operating cost for a ferry operator i in year t
- Δ Fuel cost_t is the percentage change between the average fuel price in year t and the average fuel price in year t-1. To calculate " $\Delta Fuel cost_t$ in excess of $\pm\,20\%$ ", if Δ Fuel cost_t is a positive number, 0.2 will be subtracted from that number, and if it is a negative number, 0.2 will be added to that number.

8 Our response to stakeholder submissions

We received seven submissions to our Issues Paper and a further six submissions to our Draft Report. A number of issues were also raised at the public hearing we held in October. In this chapter we outline our response to the matters raised.

8.1 We consider all stakeholder submissions in making our decisions

In response to our draft decisions, Brooklyn Ferries submitted that IPART and its consultants do not properly consider and respond to ferry operator submissions. recommended IPART review all prior comments made by operators to ensure these are being considered in decision-making.⁷

IPART considers all submissions in making our decisions and in doing so, we are required to balance a number of matters including those set out in the Passenger Transport Act 2014. Our published reports include details of issues raised by stakeholders and our response to these issues. Some issues raised in submissions are outside the scope of our reviews and in some instances are matters for government.

Consultation with stakeholders is an important component of IPART's review process. During this review, consultation with ferry operators and other stakeholders resulted in changes between our draft and final decisions. We may decide to take a different approach on a particular issue if we are provided with new information or if there is a change to our terms of reference that requires that we take a different approach.

8.2 Submissions on our assessment of competition

Our assessment of competition in each private ferry market is outlined in Chapter 4. In response to our Issues Paper, Brooklyn Ferries submitted that there are other modes of transport such as free ride sharing in private boats, pirate operators,8 and water taxis, which were not identified as competing transport options for the Brooklyn ferry.9

We agree with Brooklyn Ferries that these alternative travel options are relevant to our assessment of competition. While we consider these options provide some competition for the ferry service, this is less effective than another public transport option that provides a similar service for a similar price. Therefore, we consider that given the extent of competition in the market for Brooklyn Ferries it is appropriate to estimate efficient fares using the building block approach.

Brooklyn Ferries submission, November 2017, pp 1-2.

Brooklyn Ferries described pirate operators as those who operate for cash and hang around wharves and marinas and discretely charge for lifts from acquaintances and friends, which is effectively a ride sharing system for a closed group of people.

Brooklyn Ferry Service submission to Issues Paper, August 2017, p 2.

8.3 Submissions regarding external benefits and government subsidies

8.3.1 External benefits should include a broader range of benefits

In response to our Issues Paper, Brooklyn Ferries submitted that our external benefit assessment focuses narrowly on road congestion with no recognition of the pollution created by private vessel transport. It also commented that our assessment also excludes social and community benefits provided by private ferry services such as providing safe transport over water for offshore residents and access to day trippers and holiday makers, keeping net wealth of the 'community' through high property values compared to other areas where ferry services are not provided. ¹⁰ Brooklyn Ferries further commented that we should consider external benefits that private ferry services provide to the community that they service, not just the macro-level definition of 'community' adopted in IPART's external benefits analysis. ¹¹

The submission from Dangar Island League also noted the benefit that ferries provide to local communities. It submitted that our external benefits assessment does not take into account:

- avoided impacts of inefficient commuter boats as Brooklyn Ferries replaces what would be a very large number of passenger trips by private boats carrying one to two passengers
- the significant financial and environmental costs associated with upgrading the capacity of the port given very limited mooring opportunities in the Brooklyn Port
- social benefits by ameliorating the potential for social isolation of the island's residents by providing services to those less mobile or unable to utilise small boats, and
- avoided productivity losses had ferry services not been available to commuters during inclement weather as the ferry is the only mode of transport available to most residents during such time.¹²

We agree that there are likely to be some external benefits associated with private ferries, particularly for services located in populated areas around Sydney. External benefits may include boat-specific benefits like avoided water congestion, avoided wharf congestion and avoided water accidents. Quantifying boat-specific external benefits is challenging, however we have assessed whether these are likely to exceed the estimated external benefit for Sydney Ferries which we consider to be the closest proxy for private ferries. As discussed further below, we found that external benefits of private ferries are likely to be relatively small, and would not exceed the estimated external benefit for Sydney Ferries (\$0.94 per passenger journey).¹³

The per passenger journey external benefit estimate for Sydney Ferries accounts for avoided road congestion and avoided road accidents when people use public transport instead of driving, avoided air pollution and greenhouse gas pollution when people use public transport instead of driving, and external health benefits that arise because public transport

27

Brooklyn Ferry Service submission to the Issues Paper, August 2017, p4; pp 8-9.

¹¹ Ibid, p 8.

Dangar Island League submission to the Issues Paper, August 2017, p 1.

¹³ This estimate is based on our externality model used for our 2016 public transport review.

encourages greater levels of physical activity (ie, walking or cycling to and from public transport. By far the largest component of the external benefit estimate for Sydney Ferries is avoided road congestion; for public transport in busy metropolitan areas, avoided congestion not only saves time for those who choose to drive but also creates productivity benefits for the whole community. Avoided road congestion is likely to be much smaller for private ferry services, particularly those located outside the Sydney region.

Estimating any avoided wharf congestion costs (if a ferry service were not to operate) would require an estimate of how many people currently using the ferry service would choose to use their private boats in peak times, and whether there is sufficient wharf capacity to accommodate any increased peak usage. If there is insufficient capacity at the wharf, options to address wharf congestion include time of use wharf access charges or capital expenditure to expand wharf capacity. In the short to medium term, we consider that increasing wharf access charges in peak times would be more efficient than expanding capacity.

Where ferry journeys substitute for journeys in private boats, there may be a safety externality for ferry use, given that the most recent edition of Boating Incidents in NSW suggests that the risk of accidents is greater in private boats than in ferries. 14 The effect of the boating accident externalities on ferry pricing depends on: the marginal external accident costs for both ferry journeys and private boats and the strength of substitution between private boat and ferry journeys. We consider that strong substitution is only likely for private ferry routes serving islands. While boating accidents are fairly common and accident costs can be high, only a small proportion of those costs are externalities that are relevant for efficient prices, for example any taxpayer funded rescues. We note that some costs associated with boating accidents are covered by insurance and so would not be included in estimating safety related external benefits.

Social and community benefits highlighted in Dangar Island and Brooklyn Ferries' submissions are **private** (not external benefits). The ability of people to access resources such as education, employment, health and other services improves a person's well-being. Further, while we agree that private ferries are important for local economies, for example, through tourism, these benefits are private and are enjoyed by local businesses (through increased sales/profits) and by private ferry operators (through increased patronage).

Increased property values may be an example of external benefits that are only available to a narrow section of the community such as those who own property in the local area. As a result, we consider a more targeted mechanism such as a tax or levy on those properties where their value has increased due to the availability of a ferry service would be more appropriate than lowering fares for everyone through a general government subsidy, paid for by taxpayers. While such a mechanism may mean that the local community chooses to support their local ferry, whether and how this is done is a matter for the community and Governments (both state and local).

There may be some external benefits associated with improved mobility and social inclusion, but the benefits largely arise from physical access to public transport and frequency of services rather than fare levels. Noting that the risk factors for social exclusion include household income, we support the view that well-targeted concession fares are an

¹⁴ Centre for Maritime Safety, Transport for NSW, Boating incidents in NSW—Statistical report for the 10-year period ended 30 June 2016, January 2017, p 60.

appropriate way of incorporating these benefits into fare setting, rather than reducing fares for everyone, and not just those who need financial assistance.

Notwithstanding our view that the external benefits from private ferries are likely to be small, we used the estimated external benefit from Sydney Ferries as an upper estimate and compared this to the financial viability payments that several ferry operators receive from the NSW Government. We found that, using the upper estimate, external benefits did not exceed the financial viability payment operators currently receive from the NSW Government. Clarence River Ferries does not receive a financial viability payment, however we consider that given its regional location, relatively low annual patronage, external benefits arising from this service are likely to be negligible. Therefore, we do not consider there are any external benefits that need to be accounted for and there are no economic grounds for IPART to recommend an additional subsidy for private ferry operators. See Appendix C for more details.

8.3.2 Providing additional subsidies would increase patronage

In its submission to the Draft Report, Brooklyn Ferries put the view that providing a larger subsidy for private ferry fares would lead to more patronage, which is consistent with the mission statement for TfNSW. It noted that Opal transport services benefit from greater fare subsidies, discounts across service modes and weekly travel cost caps.¹⁵

Based on our analysis of likely external benefits of private ferry services, we have not found economic justification for additional subsidies. However, governments may choose to subsidise public transport to achieve other objectives, as we have noted in our review of rural and regional bus fares.

As noted in Chapter 1, the NSW Government is currently consulting on a new transport strategy for NSW.¹⁶ As part of the strategy, more innovative procurement practices are being investigated to better respond to customer needs and deliver better value for money. These include:

- focussing on market and service outcomes rather than prescribing fixed service levels
- open market tenders to introduce competition in markets with low contestability
- arrangements to reward innovation and patronage growth in service contracts, and
- creating a culture where TfNSW is equipped to achieve best value for money from private sector providers.

A recent example of a new procurement approach was the awarding of a contract to a private business to operate bus, ferry and light rail services in the Newcastle region. The procurement approach introduced competition in the market that had not existed before as the government went to competitive tender. The contract is outcomes-based and contains provisions for incentive payments for patronage growth above the base contract rate. The new network is expected to increase the quantity and quality of services in Newcastle within a more efficient cost structure for government.¹⁷

¹⁵ Brooklyn Ferry Service submission, November 2017, p 4.

NSW Government, *Draft Future Transport Strategy 2056*, October 2017.

¹⁷ Ibid. p 65.

We recommend that TfNSW procure private ferry contracts through a competitive tender process in each region, tailored to provide an appropriate service outcome given the population of the region (and likely change in population). This could be undertaken at the completion of existing contracts. TfNSW might need to negotiate with ferry operators where their contracts provide them with an exclusive right of renewal.

A competitive tender process would help to ensure operators remain financially viable and local communities and NSW taxpayers get good value for money. A market-based approach would also create competition for the availability of any government subsidy, rather than just increasing the existing subsidy as some stakeholders have called for.

Market-driven solutions can deliver innovative operating models that provide a better quality of service for passengers in a cost-effective manner. For instance, ferry operators could propose to remove or reduce some services that have low utilisation, and replace these with a number of on-demand services. An operator providing an on-demand service could employ a smaller vessel to improve the overall efficiency of transport services.

To support a competitive tender process we also recommend other elements of existing private ferry contracts be reviewed so that contracts focus on service outcomes and provide incentives for patronage growth. Changes to private ferry contracts could help to address other issues raised by ferry operators; for example Brooklyn Ferries raised that it cannot access finance to replace a ferry due to the length of its contract.

Recommendation

We recommend that, on completion of existing contracts or through negotiation with operators who have exclusive rights of renewal, Transport for NSW procure private ferry contracts through a competitive tender process.

8.4 Submissions in relation to our building block analysis

8.4.1 Fares should reflect actual financial and risk exposure

Brooklyn Ferries submitted that the building block approach of determining maximum fares for private ferries does not specifically address financial and risk exposure of operators, based on their contract period, terms and conditions, and therefore cannot properly assess efficiencies between operators.¹⁸

The building block approach takes into account how much revenue would be required by an efficient 'benchmark' ferry operator, rather than the actual ferry operator. The benchmark operator is defined as 'a firm operating in a competitive market and facing similar risks to the regulated business'. 19 The risks faced by the benchmark entity are captured through the weighted average cost of capital (WACC) which measures the expected costs of debt and equity. The risks are reflected in the two industry specific parameters (equity beta and

¹⁸ Brooklyn Ferry Service submission to the Issues Paper, p 5.

¹⁹ IPART's review of WACC methodology is currently considering whether our current definition of the benchmark firm remains appropriate or can be improved. IPART, *Review of our WACC method – Issues Paper*, July 2017, p 12.

gearing) used in the calculation of the WACC. However, the industry specific parameters only capture risks faced by a benchmark firm operating in a competitive market.

Risks faced by ferry operators such as those associated with its contract period, terms and conditions are not accounted for in estimating the WACC. As noted above, we are recommending that private ferry contracts be reviewed and market tested.

8.4.2 The RAB should include 100% of the replacement cost of spare ferries

In response to our Issues Paper, Brooklyn Ferries disagreed that only 50% of the replacement cost of a spare ferry be accounted for in the regulatory asset base (RAB) where a spare ferry is required for backup and is not fitted out or designed for use as charter vessel.²⁰ In response to the Draft Report, Brooklyn Ferries added that both its ferries are included in the scope of work compliance table provided to TfNSW as proof of ability to provide the regulated services. It suggested that IPART instruct TfNSW to remove any reference to the second ferry from the awarded contract (or amend the contract so that the spare ferry be available only 50% of the time) should we continue to include 50% in the RAB.²¹

Brooklyn Ferries and Church Point ferries also raised that, while a spare ferry must be on hand, in reality the opportunity for earning unregulated revenue from this is very limited. This is because the spare ferry is relatively small, has no bathroom facilities and is therefore not overly attractive for tourists. Based on these circumstances, allowing 50% of the value of the back-up ferry was considered unreasonable. In addition, Cronulla Ferries raised that the spare ferry is used for school runs and therefore is in use a substantial proportion of the time.²²

Since we commenced estimating efficient costs and fares for private ferry services, the principle we applied for treatment of vessels in the RAB is that 100% of a dedicated school or regular passenger service vessel would be included, in addition to 50% for a back-up ferry.

We have considered whether contracts with TfNSW **require** a spare ferry to be available at all times, or at least some of the time. However, our review of private ferry contracts found no requirement that operators maintain a specific number of vessels, or that a spare ferry must be available for any length of time, or at any particular time. We do, however, consider it reasonable that an operator has access to a spare ferry to ensure it meets required service levels, for example in the event of unscheduled maintenance to its main ferry. Most of the time a spare ferry will not be used for the regulated service and could be used to generate other revenue. The issue is what proportion of the back up ferry should be paid for by regulated ferry passengers.

We have decided to maintain our approach of including 50% of the spare ferry in the RAB. Including 50% of the spare ferry in the RAB is designed to reflect that on the one hand, passengers benefit from having a spare ferry available (through a more reliable service) but

²⁰ Brooklyn Ferry Service submission to the Issues Paper, p 7.

²¹ Brooklyn Ferry Service submission, November 2017, p 4.

²² IPART, Draft Report – 2017 Private Ferries Review Transcript of Public Hearing, October 2017, pp 28, 30-33, available at: https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/pricing-reviews-transport-services-publications-private-ferries-fares-for-2018/transcript-public-hearing-private-ferries-fares-for-2018-23-october-2017.pdf.

on the other hand, the spare ferry is redundant most of the time and could be used to generate other revenue.

It is important to note that our decisions relating to fares are based on the efficient costs of a benchmark ferry operator; not on the actual costs, revenues, and business decisions of existing ferry operators. Some operators maintain older ferries without modern facilities, as the heritage value of these vessels may be popular with passengers. However, if the same characteristics of these heritage vessels make them less popular for non-regulated use such as charter tours, in our view this largely relates to business decisions of the operator.

8.4.3 An industry index should be used in the WACC

Brooklyn Ferries questioned the use of the Reserve Bank of Australia (RBA)'s inflation forecast in converting the nominal post-tax WACC to a real post-tax WACC. It considered that an industry specific index such as the 'transport and tourism' - a sub group from the CPI, may be more appropriate because private ferry services are subject to similar pricing pressures as the transport and tourism industry.²³

Industry specific indices such as the 'transport and tourism' index measures how much the cost of providing services in particular industries has changed over time. In some situations, this may be an appropriate inflation measure for private ferries. However, because the WACC comprises the efficient return required for making investments in the equity and debt markets, we consider a more appropriate inflation rate is economy-wide inflation. Since the change in the CPI measures the average price increase in a market basket of goods and services, we consider it a reasonable proxy for economy-wide inflation.

8.4.4 The graphical depiction of the building block model is misleading

Brooklyn Ferries submitted that the graphical depiction and labelling of the building block framework is misleading. It considers that a casual reader may interpret that ~33% of revenue earned by the operator comes from a government subsidy. It recommended that the graph reflect actual data and make a clear distinction between fares and government subsidy paid on behalf of passengers (not a direct ferry operator subsidy).²⁴

In Appendix C, we have revised the building block figure (Figure C.1) to include 'Revenue from fares' and 'Government subsidy for concession fares and school student travel'. As noted by Brooklyn Ferries, the subsidy is a passenger subsidy that is paid to the ferry operator. 25 For each operator, the proportion of revenue from passenger fares and concession payments is different. Rather than present the same figure multiple times, we have presented one figure that is indicative of a number of operators. The notes to the figure also indicate that some operators receive a financial viability payment from the government.

²³ Brooklyn Ferry Service submission to the Issues Paper, p 9.

²⁴ Brooklyn Ferry Service submission, November 2017, p 3.

8.4.5 Query whether lower fuel costs were incorporated into the draft decision

An anonymous submission queried whether recent lower fuel prices have been incorporated into our fare decisions.

Our decisions on fuel costs relate to the four years 2018 to 2021. Based on the CIE's advice, we have assessed operator's reported fuel costs for this period as reasonably efficient. Our determination also includes a mechanism to manage the risk of a material change in fuel costs over the determination period. Because of this mechanism, maximum fares could increase/decrease based on a +/-20% change in fuel prices (based on the fuel price index).

8.5 Submissions on fare levels and the availability of Opal

Submissions recommended no increase in fares, increasing fares in line with wage increases or no further fare increase until private ferry services are included in the Opal system.²⁶ These submissions also suggested cheaper multi-journey fares be introduced, and ferry services be extended until 8 pm on weekends.

An individual submitted that we need to consider the possibility of Opal coverage during the determination period, particularly including access to the transfer discount.²⁷ Dangar Island League submitted that the Island is an attractive destination for day-trippers, and Brooklyn Ferries' current fare and its proposed fare increases act as a deterrent to such visitors and would reduce patronage.²⁸ It suggested that IPART should consider the equity issues and cost impact associated with the Opal scheme not being available to private ferry users.²⁹ In response to the Issues Paper, an anonymous individual submitted that residents in Iluka, an area designated as remote by the Australian Taxation Office, have no other choice but to catch the ferry during inclement weather. A further fare increase was considered to make remote area living even harder, and recommended freezing the current maximum fare.³⁰

An anonymous submission to our Draft Report raised an issue that broken trips on the Brooklyn Ferry service did not receive a discount as provided by other transport operators, and that the maximum fare for the Brooklyn Ferry has been rising by more than the change in CPI.³¹

Our view is that passengers should pay for their share of the efficient costs of providing the ferry service. Our approach to determining maximum fares in this review is based on an estimate of the efficient costs of providing each service. In some cases, maximum fares have been changing by more than the change in CPI where they were below the level of fares based on efficient costs. We expect that in future, private ferries will face more competition with other forms of transport, for example ride sharing. New technology is supporting transport services being delivered by a broader range of providers, giving customers more choice, service quality and convenience.

²⁶ Submissions from D. Borrow Jones and two anonymous individuals.

²⁷ Submission to IPART Issues paper from S Lovell.

Dangar Island League submission to the Issues Paper, August 2017, p 2.

²⁹ Ibid, p 2.

³⁰ Submission from an anonymous individual.

³¹ Submission from an anonymous individual.

The decision to include private ferry services under the Opal system is a matter for the NSW Government. Including private ferry services under the Opal system would require changes to the current contracting arrangements between TfNSW and private ferry operators. In addition, the inclusion of private ferry services under the Opal system would not necessarily mean that maximum fares would be set at Opal fares. Private ferry operators are heterogeneous in nature with different service routes and patronage characteristics, and hence the efficient costs of providing private ferry services are different across operators.

We note that other forms of transport, and some ferry operators including Palm Beach and Central Coast Ferries, already provide discounts for reduced trips. All existing private ferry operators also provide discounted fares for regular commuters.

To encourage greater patronage on private ferry services, we recommend that ferry operators consider a discounted fare for a broken trip (within defined time limits) or a reduced trip. We consider that ferry operators are in the best position to determine the amount of the discount.

9 Other factors we considered

We are required by the Minister's referral and by section 124 of the *Passenger Transport Act* 2014 to consider a range of matters related to the effect of our decisions on stakeholders. Our views on the likely implications of our decisions for four key stakeholder groups – private ferry operators, passengers, the environment and Government – are outlined in this chapter.

We are also required to consider the relativities between private ferry fares and those of Sydney Ferries, and standards of service and patronage. Our analysis of these issues is also provided in this chapter.

9.1 Implications for private ferry operators

In making our final decisions on maximum fares for 2018 to 2021, we considered the implications for fare levels on ferry operators' revenues.

In our 2014 review we revised our approach to determining maximum fares so that fares would transition to reflect the efficient costs. For Brooklyn Ferries, Church Point Ferries, Cronulla Ferries and Palm Beach Ferries, maximum fares would reflect the efficient costs of providing the ferry service over the determination period under our final decisions.

Clarence River Ferries' maximum fare in 2021 would still be well below fares based on efficient costs. Clarence River Ferries' total efficient operating cost is lower than most ferry operators. However, the cost per service hour and cost per passenger are not lower than most other operators because Clarence River Ferries has fewer service hours and lower patronage. Our final decision increases Clarence River Ferries' maximum fare by 30 cents each year, moving fares closer to the efficient level. While there would be still a large difference between the fares based on efficient costs and the maximum fares, we consider a 30 cents a year increase is an appropriate transition considering the potential impact on customers.

Our approach to setting fares over this period would prevent price shocks for passengers as well as revenue shocks for operators. Unlike the operators of rail, metropolitan and outer metropolitan bus services, and Sydney Ferries who receive contract payments to provide public transport services, private ferry operators are dependent on fare box revenues.

9.2 Implications for passengers

We determine maximum fares for private ferry services. Operators can choose to set their fare below the maximum fare – for several years Matilda Cruises have been charging below the maximum fare due to competition from other ferry operators or modes of transport. On 8 December 2017, it increased its fare for the Lane Cove to Circular Quay service to the

maximum. Central Coast Ferries charged below the maximum fare for two years. From July 2017, it increased its fare to the maximum.³²

Under our final decisions, passengers of the Brooklyn, Central Coast, Clarence River, Church Point and Matilda Cruises services would experience a moderate increase in fares from 2018 to 2021. The increases in the maximum fares for these private ferry services would range from 10 cents and 50 cents per trip, which represents a percentage increase of between 1.2% to 5.9% in each year of the four years between 2018 and 2021, including These percentage increases are not materially different from those we inflation. recommended last year, where fares increased by between 2.7% and 4.3%.33 We have considered the impact on passengers by gradually transitioning the current maximum fares towards the fare based on efficient costs.

We consider passengers of Palm Beach Ferries' services would receive a small positive impact, while continuing to receive the same quality of service. This is because our final decision is to increase the maximum fare by less than the change in the CPI.

9.3 Implications for the environment

The impact of our final fare decision on the environment in terms of pollution and congestion is likely to be negligible, given that ferry travel accounts for a small proportion of passenger trips.34

9.4 Implications for the Government

Our decision would result in an increase in the maximum fares for four operators for the four years between 2018 and 2021. This will affect the government through increased payments for fully subsidised student travel under the School Student Travel Scheme (SSTS), and half-fare and Pensioner Excursion Tickets (PET) concessions.

Generally, the Government provides operators with:

- a payment based on the maximum child fare for an eligible school student presumed by TfNSW to have travelled under the SSTS. Operators do not record patronage figures for SSTS passengers.
- a top-up to the full adult fare charged by the operator for concession passengers reported to have travelled by the ferry operator.
- a payment for passengers who travel with a Gold Opal card, for those operators who previously sold PETs.

As these payments are related to the level of fares charged by ferry operators and/or the maximum fare that they can charge, our final decision would increase the amount of

IPART Review of maximum fares for private ferry services in 2017 - Final Report, November 2016, p 2; IPART, Review of maximum fares for private ferry services in 2016 - Final Report, December 2015, p 8I IPART, Review of maximum fares for private ferry services and the Stockton ferry service for 2015 – Final Report, December 2014, p 10.

³³ IPART Review of maximum fares for private ferry services in 2017 – Final Report, November 2016, pp 10,

For example, on an average weekday, only around 0.3% of all trips undertaken in the Sydney region are by public ferry. IPART, Review of external benefits of public transport - Draft Report, December 2014, p 14.

funding required per student or concession passenger trip for four operators. There should be no impact on funding for the other operators.

9.5 Relativities with Sydney Ferries' services

Matilda Cruises is the only private ferry operator that provides comparable services to those provided by Sydney Ferries on the Circular Quay to Darling Harbour route. There are slight differences in the service route and travel time between the two services, namely:

- ▼ The Sydney Ferries trip uses slow ferries and takes a slightly longer route; from Circular Quay to Darling Harbour via Milsons Point, McMahons Point and Balmain East and is scheduled to take 23 minutes.
- The Matilda service uses fast ferries and travels from Circular Quay to Darling Harbour via Luna Park and the estimated travel time is 15 minutes.

Currently, the Sydney Ferries single adult fare is \$5.88 (Opal card fare less than 9km).35

Our final decision is to accept Matilda Cruises' proposal to increase fares by CPI in each year of the four-year determination period. As discussed, Matilda Cruises is charging less than the maximum fare; the current single adult fare is \$7.00.36 We consider this relativity with Sydney Ferries' fares is appropriate given the differences between the services.

9.6 Service standards

We collect and publish summary data on patronage and service standards from TfNSW. For this review, we have received data for the 12 months to June 2017.

Patronage data is manually collected by operators. Figure 9.1 below shows the breakdown of patronage on private ferries according to passenger type. It illustrates the relativities between numbers of adult full fare-paying passenger trips, and subsidised trips (ie, passengers paying concession/half-fares or using PET/gold opal and patronage counted under the SSTS).

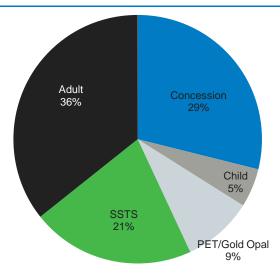
In total, there were just over one million private ferry trips reported across 2016-17. The proportion of patronage by passenger type is very similar to last year:

- adult full fare ferry trips increased by 2 percentage points to 36%
- SSTS passengers decreased by two percentage points, and
- concession (including PET) and child passengers remained unchanged.

NSW Government, Opal ferry fares: https://www.opal.com.au/en/opal-fares/ Accessed 8 September 2017.

³⁶ Captain Cook Cruises, Darling Harbour Ferry: https://www.captaincook.com.au/sydney-harbour-cruises/ferries/darling-harbour-ferry/; Lane Cove Ferry: https://www.captaincook.com.au/sydney-harbour-cruises/ferries/lane-cove-ferry/lane-cove-city-ferry/ accessed 13 September 2017.

Figure 9.1 Patronage on private ferries - 2016-17 (%)



Note: The SSTS patronage is based on the number of issued passes and assumed school trips. Data source: TfNSW, August 2017.

Ferry operators also provide TfNSW with information on late and cancelled services and the number of safety incidents experienced. For the 12 months to June 2017, the private ferry industry reported 7 incidences of late services and 5 cancelled services, for example due to bad weather. We note that these incidences represent a very low proportion of total services No safety incidents were recorded. provided (less than 1%). This information is summarised in Table 9.1, along with information collected from our previous reviews.

Table 9.1 Summary of KPI data for year ending 30 June

Operator		Late	;			Cance	lled			Safe	ty	
Year ending 30 June	2017	2016	2015	2014	2017	2016	2015	2014	2017	2016	2015	2014
Brooklyn Ferry Service	0	0	0	1	0	0	0	3	0	0	0	0
Central Coast Ferries	1	0	3	0	1	1	0	0	0	0	0	0
Church Point Ferry Service	2	2	2	4	0	0	0	0	0	0	0	0
Clarence River Ferries	0	0	0	0	0	0	0	0	0	0	0	0
Cronulla and National Park Ferry Service	0	0	0	1	0	0	0	2	0	0	0	0
Matilda Cruises – Circular Quay to Darling Harbour	0	0	0	10	0	0	0	5	0	0	0	0
Matilda Cruises – Circular Quay to Lane Cove	0	12	3	0	2	4	4	4	0	0	0	0
Palm Beach Ferries – Palm Beach to Mackerel Beach and the Basin	1	1	1	0	1	0	0	0	0	0	0	0
Palm Beach Ferries – Palm Beach to Ettalong and Wagstaffe	3	2	4	5	1	0	1	3	0	0	0	0

Source: TfNSW.

Appendices

Referral for the review



Passenger Transport Act 2014 Section 123(1) (a)

Referral

I, the Hon Andrew Constance MP, Minister for Transport and Infrastructure, with the approval of the Hon Gladys Berejiklian MP, Premier of New South Wales and the Minister administering the Independent Pricing and Regulatory Tribunal Act 1992, under section 123(1) (a) of the Passenger Transport Act 2014, refer to the Independent Pricing and Regulatory Tribunal (IPART) the following matter for determination:

Appropriate maximum fares for private ferry services for the four-year period starting 1 January 2018.

In addition to the matters contained in section 124 of the Passenger Transport Act 2014, the following specified matters are referred to IPART under section 123(2) (b) of the Passenger Transport Act 2014 for consideration in undertaking this investigation:

The pricing of competing modes for private forry corvices, including the pricing of Sydney Ferries' fares.

IPART is to publish a draft report and determination as soon as practicable but no later than 15 September 2017.

IPART is to submit its final report and determination under this referral to the Minister for Transport and Infrastructure as soon as practicable but no later than 15 December 2017, or such later date as notified in writing by the Minister.

Signed:

The Hon Andrew Constance MP

Minister for Transport and Infrastructure

14/5/2017

Date:

Signed:

The Hon Gladys Berejiklian MP

NSW Premier

Date:

B Requirements of the IPART Act for the review of private ferries maximum fares

Section 124(3) of the *Passenger Transport Act 2014* (NSW) sets out the matters that IPART must consider in making a determination. The section is reproduced in full below.

- (3) IPART is to consider the following matters in making a determination or recommendation under this Part:
 - (a) the cost of providing the services,
 - (b) the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers,
 - (c) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service,
 - (d) the social impact of the determination or recommendation,
 - (e) the impact of the determination or recommendation on the use of the public passenger transport network and the need to increase the proportion of travel undertaken by sustainable modes such as public transport,
 - (f) standards of quality, reliability and safety of the services (whether those standards are specified by legislation, agreement or otherwise),
 - (g) the effect of the determination or recommendation on the level of Government funding,
 - (h) any matter specified in the referral to IPART,
 - (i) any other matter IPART considers relevant.

C Fares under the building block model

As discussed in Chapter 4, we found that Brooklyn Ferry Service (Brooklyn Ferries), Church Point Ferry Service (Church Point Ferries), Clarence River Ferries (Clarence River), Cronulla and National Park Ferry Service (Cronulla Ferries) and Palm Beach Ferries operate in markets with no or limited competition. For these operators, we analysed the total efficient costs of providing ferry services, and calculated fares for the next four years using a building block approach to make our determination on maximum fares.

For each operator, calculating fares under the building block approach involved three broad steps:

- 1. Estimating its total efficient costs for each year of the determination period using a building block approach (Section C.1 and Section C.2).
- 2. Deciding what share of the total efficient costs passengers should pay through fares (see Section C.4). To do this, we subtract from the total efficient costs:
 - a) An amount equal to the government payments the operator receives for providing school travel and concessions tickets, plus any financial viability payments it receives.
 - b) An amount equal to our estimate of the external benefits generated by the use of private ferry services, where this amount is not accounted for by any existing financial viability payments.
- 3. Calculating the fare for each ferry service that would be required to cover the passengers' share of total efficient costs, based on our forecast estimate of annual patronage (see Section C.5).

C.1 Estimating total efficient costs using a building block approach

The building block approach is commonly used by IPART³⁷ and other regulators to estimate the total revenue a business needs to generate to recover the efficient costs of providing the regulated services to the required standard over the price determination period.

The 'efficient costs' of providing each ferry service include:

- operating costs (eg, fuel, labour, repairs and maintenance etc) for a well-run ferry service
- a fair return on capital invested in the business, and depreciation on this capital, and
- necessary capital expenditure (eg, to replace engines, refurbish vessels etc).

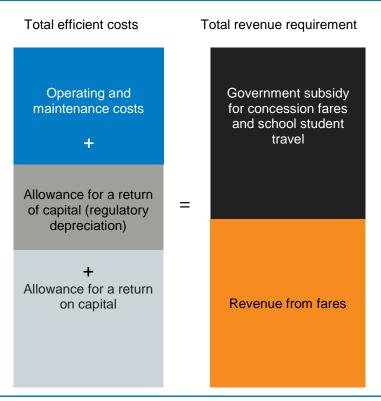
Fares from the building block model are based on a 'benchmark ferry operator' in each market; not on the actual costs, revenues, and business decisions of existing ferry operators.

³⁷ https://www.ipart.nsw.gov.au/Home/Industries/Special-Reviews/Regulatory-policy/IPART-cost-building-block-and-pricing-model?qDh=0 accessed 14 September 2017.

This approach ensures that passengers pay no more than necessary to provide a well-run ferry service, and ferry operators have an incentive to provide their service at the least cost.

Under the private ferry service contracts, operators receive payments for providing school travel and concession tickets and some receive viability payments. In calculating fares, we subtracted these payments from the total efficient costs. This is discussed in more detail below.

Figure C.1 Revenue requirement under the building block approach



Note: Our building block model also includes allowances for regulatory taxation and working capital. These are not shown in the figure because they represent a small proportion of the total revenue requirements for private ferries. The figure is not to scale. Some ferry operators receive a direct viability subsidy from the NSW Government.

C.2 Key inputs to the building block model

The sections below explain our approach for estimating efficient operating and capital expenditure, an allowance for a return on and of assets, and an allowance for tax and working capital.

C.2.1 Efficient operating expenditure

As in previous reviews, the efficient operating expenditures include labour costs, fuel, insurance, repairs and maintenance, berthing and mooring fees and 'other costs'. 'Other costs' comprise, but are not limited to, cash collection costs, office rent, communication costs, financial services, external consultants and advertising.

We engaged The CIE to provide advice on the total efficient operating and capital costs proposed by operators to provide the contracted level of services for the four years between

2018 and 2021. Brooklyn Ferries, Church Point Ferries, Cronulla Ferries and Palm Beach Ferries have submitted their forecast operating and capital costs over the determination period. The CIE reviewed the operators' forecast operating and capital costs, and assessed whether they are reasonably efficient based on their estimated efficient benchmarks. As Clarence River Ferries did not provide cost information, The CIE estimated its efficient costs based on the average efficient costs of all other operators. During this process, The CIE consulted with all ferry operators including Clarence River, and the operators had an opportunity to provide further information on costs.

The CIE assessed operators' proposed costs by reference to cost benchmarks from our 2014 review of the industry after adjusting for annual changes in costs to 2017. Due to the characteristics of the industry (fleet choices, differences in routes, service level obligations and business structure), The CIE found that it is not possible to definitively determine whether an operator is efficient. Rather, The CIE compared costs across operators and against industry cost benchmarks to determine whether an operator's cost forecasts are reasonably efficient, and whether cost changes expected by the operator are reasonable.³⁸

C.2.2 Efficient capital expenditure

The maintenance and replacement of vessels represent the largest proportion of capital expenditure incurred by private ferry operators. As in previous reviews capital allowance also includes ferry refurbishment and engine replacement. Non-vessel related capital expenditure comprises office buildings, equipment and furniture, and vehicles.

The CIE assessed operators' forecast capital costs, and recommended the efficient capital costs for Brooklyn Ferries, Church Point Ferries, Clarence River Ferries, Cronulla Ferries and Palm Beach Ferries.

In assessing efficient capital costs, The CIE recommended:

- except for Palm Beach Ferries (Mackerel), allowing engine rebuilds and replacements every 10,000, and 20,000 service hours, respectively, and for Palm Beach Ferries (Mackerel), allowing engine rebuilds and replacements every 20,000 and 60,000 hours the timing of the capital allowances for engine rebuilds and replacements has been aligned to that of the capital allowances that were granted for vessel acquisition in our previous reviews. This is a change from Indec's approach, which we adopted in our previous reviews, where engine rebuilds and replacements were allowed every three years and six years, respectively.
- estimating capital allowances for engine works based on total service hours. This is a change from Indec's approach, where capital allowances for engine works were estimated per vessel. The CIE's amendment recognises that ferry operators manage the timing for vessels to be serviced depending on their use (ie, service hours), and that ferry operators may swap vessels between routes and/or allocate particular vessels to other services.
- adopting operators' reported costs for engine works where this is not provided, estimate costs for engine works based on information provided by other operators and the capacity of the vessel.

The CIE, Private ferry services, Review of maximum fares from 1 January 2018 – Prepared for IPART, November 2017, p 1.

- adopting \$21,183 for refurbishment cost for a slow ferry and \$105,913 for a fast ferry, consistent with Indec's advice for our previous reviews.
- adopting operators' reported other capital costs as the efficient costs.

As discussed above, The CIE's recommended capex for engine works is estimated based on service hours, not per vessel, irrespective of how many main and spare ferries are being utilised by ferry operators. For the purpose of rolling forward the RABs, we have allocated 75% of the allowance for engine works to the main ferry and the rest to the spare ferry.

The CIE's findings and recommendations with respect to reasonably efficient operating and capital costs are outlined in their final report, The CIE, *Private ferry services*, *Review of maximum fares from 1 January 2018 – Prepared for IPART*, November 2017, available on our website (www.ipart.nsw.gov.au).

C.2.3 Allowances for regulatory depreciation and a return on assets

Rolling forward the regulatory asset base at the end of 2017

In our review in 2014 we included capital expenditure to replace very old ferries for some operators. Although they were not planning any ferry replacement we considered that it was prudent to do so as the old ferries were utilised far beyond their conventional useful economic lives. As a result, the efficient prices that we recommended for 2015 to 2017 provided for operators to replace old ferries although they did not incur these costs.

For this review, we rolled forward the asset base of the contracted ferry services at the close of 2017 to the price setting period commencing 1 January 2018.

Allowance for a return on assets

The allowance represents the opportunity cost of assets that ferry operators invest in to provide the contracted ferry services (such as the ferry, wharf infrastructure, office accommodation and equipment).

We calculated this allowance by rolling forward the value of the asset base each year, taking into account any new capital expenditure and multiplying the value of the asset base in each year by the rate of return. We used our standard approach to estimate the WACC range and for our final decision we apply the midpoint WACC of 5.4% to estimate the allowance for a return on assets (see Table C.1). The final WACC is 20 basis points lower than for our draft decision.

Table C.1 Real post-tax WACC range and midpoint

	Low	Mid	High
Real post-tax WACC	5.2%	5.4%	5.7%

Note: Market data sampled to 31 October 2017.

Source: IPART calculation.

Details on our WACC calculation and parameters are set out in Appendix D.

C.2.4 Allowance for a return of assets (depreciation)

Operators need to recover the cost of the assets used in providing ferry services over their economic lives. To calculate this allowance, we used the standard economic asset lives of 25 years for 'slow' ferries and 15 years for 'fast' ferries and the straight line depreciation method we used in previous reviews.

C.2.5 Working capital and regulatory taxation

We also included in the total efficient costs regulatory taxation and working capital which represent a small proportion of the total efficient costs.

C.3 Summary of changes since the draft decision

Since our draft decision we have updated a number of elements of our building block analysis, based on further consultation, analysis, updated advice from the CIE and updated market information:

- Reduced asset lives for capital expenditure we have reduced the asset lives for capital expenditure (excluding ferry replacements). Previously asset lives were tied to vessel lives, however we have now assumed five years, given that engine works depend on service hours, and occur every 3 to 7 years, and refurbishments occur every 3 years. This has the effect of increasing the depreciation allowance, putting upward pressure on building block fares, depending on the amount of capital expenditure for each operator over the determination period.
- ▼ Labour costs / treatment of school ferry based on advice from the CIE we increased the efficient labour cost for Cronulla Ferries to account for the second ferry providing the school service at the same time as the regular service.³⁹ We have also included 100% of the value of the dedicated school ferry in the RAB.
- Repairs and maintenance costs / refurbishment capex we agree with the CIE that the efficient cost allowance for repairing/maintaining and refurbishing larger slow ferries should increase by 50% to better reflect the additional costs for these vessels (relevant to Palm Beach Ferries' Mackerel service and Cronulla Ferries who have slow ferries with more than 100 passenger capacity).⁴⁰
- ▼ Palm Beach Ferries' fleet restructure since our draft decision we have received further information from Palm Beach Ferries in relation to its fleet restructure, including the addition of a fourth vessel to its fleet. Based on this information we have decided to retain the fleet structure from our previous review⁴¹ for the purpose of estimating fares in the building block model as we consider the proposed fleet restructure and associated ongoing costs would likely have a higher lifecycle cost.

³⁹ The CIE, Private ferry services, Review of maximum fares from 1 January 2018 – Prepared for IPART, November 2017, p 14.

⁴⁰ Ibid, p 16, 22.

⁴¹ IPART, Review of maximum fares for private ferry services in 2017, November 2016.

- ▼ Incremental cost for service disruption/cancellation we consider it is reasonable to allow for the incremental costs associated with route diversions/service disruptions (for example the costs of hiring buses to replace ferries). We have accepted advice from the CIE about the frequency of these events and the incremental costs per event.⁴² This increased operational costs for Palm Beach and Cronulla Ferries.
- Other operating costs' for Palm Beach other operating costs include terminal and office rent, office administration and IT, marketing, financial/professional services costs, cash collection costs, etc. Based on information provided by Palm Beach, we consider it reasonable that other operating costs would be higher for the market it is operating in, and our final decision is to increase the allowance for other operating costs.
- ▼ WACC the WACC fell by 20 bps since the draft decision, putting downward pressure on fares based on efficient costs for all operators (see Appendix D)
- ▼ Inflation we have updated inflation for 2017 (2.0% down from 2.2%) and 2018 (1.9% down from 2.2%).

C.4 Determining passengers' share of total efficient costs

After we determined the total efficient costs using a building block model, we subtracted government payments and external benefits as detailed in C.4.2 below from the total efficient costs to estimate the proportion that should be paid by passengers through fares. In estimating building block fares for the private ferry services we used forecast annual patronage based on the average patronage for the last three years, taking into account patronage under different types of tickets (eg, adult, child and concession tickets) based on information from ferry operators, where provided.

A summary of multi-trip ticket information is provided in Table C.2

The CIE, Private ferry services, Review of maximum fares from 1 January 2018 – Prepared for IPART, November 2017, p 19.

Table C.2 Summary of multi-trip ticket information

Operator	Multi-trip ticket type (trips per ticket)	Discount rate implied by current ticket price
Brooklyn Ferry Service	Ferry Ten (10)	10%
	Ferry Twenty (20)	13%
Church Point Ferry Service	Total Adult 12 ^a	37%
Clarence River Ferries	Info not available	Info not available
Cronulla and National	Weekly (10)b	36%
Park Ferry Service	10 Ride (10)	16%
	Family (6)c	38%
Palm Beach Ferries	Ferry Ten (10)	10% for Ettalong 10% for Mackerel

a Church Point Ferry Service sells other multi-trip tickets such as Adult Return, Concession 12, Concession Return and Child Return

Source: Operators' pricing proposals; Church Point Ferry Service, http://churchpointferryservice.com; Cronulla and National Park Ferry Service, http://www.cronullaferries.com.au; Palm Beach Ferry Service, http://www.palmbeachferries.com.au accessed 8 September 2017

When incorporating multi-trip tickets in our building block model we assumed that the percentage discount implied by the current ticket price will remain unchanged over the determination period from 2018 to 2021.

Our approach for estimating fares takes account of both discounted and non-discounted fares, and calculates the fare that allows an operator to earn enough revenue to recover the passengers' share of total efficient costs. If the availability of discounted tickets increases patronage, the non-discounted fare would be lower as more of the total efficient costs would be recovered from those travelling under discounted tickets, all else being equal. However, if the availability of discounted fares does not increase patronage, the non-discounted fare would need to be higher for the operator to recover total efficient costs.

Private ferry operators are commercial businesses with an incentive to be efficient and profitable. Private ferry operators earn revenue from ticket sales, and operators make discounted tickets available if they judge it would increase the profitability of their businesses. Hence we consider it appropriate for operators to decide the price of multi-trip tickets.

C.4.1 Government payments for school travel and concession tickets, and viability payments

Ferry operators may receive a number of different government payments, including:

School Student Travel Scheme (SSTS): this relates to government payments for services that carry school children. The total SSTS payment is notional and is calculated based on the following formula:

b Weekly ticket allows unlimited trips per week, but we assumed 10 trips per week for the purpose of calculating the implied discount rate.

Semester payment = number of eligible children x single child fare price x 2 x number of school days in semester x average number of days travelled (77% for school children or 75% for TAFE) 43

▼ Gold Opal travel which replaces the Pensioner Excursion Ticket (PET): The total government payment relating to Gold Opal travel is calculated based on the following formula:

Payment = number of Gold Opal trips x (2 x full adult ticket)

Concession payments: The total government payment relating to Concession tickets is calculated as follows:

Payment = number of Concession tickets sold x half the adult ticket price.

Viability payments: The viability payments are made to certain operators based on consultant advice in 2010. The total amounts are indexed by the change in CPI each year.

We subtracted these government payments from the total efficient costs to be recovered from fares.

C.4.2 External benefits

When a person chooses to use a public transport service there are costs and benefits to that person, and to the wider community (including other users of public transport). In the context of this review, people can choose between public and private transport (eg, private ferry and private cars or boats). If private ferry services benefit the whole community, not only the people who use them, a portion of the total efficient costs may be paid by the NSW community as a whole through a Government subsidy. The higher the value of external benefits, the lower the revenue requirement, leading to lower fares. Some operators are already receiving a form of subsidy through financial viability payments.

To quantify the amount of external benefits associated with ferry services, we:

- estimated the amount of patronage in the peak period as the proportion of daily commuter services to total daily services multiplied by total annual patronage, and
- multiplied the peak period trips by the estimate of net external benefits of \$0.94 per passenger journey for Sydney Ferries.⁴⁴

As discussed in Chapter 8, we consider that the external benefits from private ferries are likely to be small, however we used the estimated external benefit from Sydney Ferries as an upper estimate. We found that, using the upper estimate, external benefits of private ferries do not exceed the financial viability payment that many operators are receiving from the NSW Government. Clarence River Ferries does not receive a financial viability payment, however we consider that given its regional location and relatively low annual patronage, external benefits arising from this service are likely to be negligible. Therefore, we do not consider there are any external benefits (in addition to any financial viability payment) that

We have assumed 75% for all as we do not have information on the split between TAFE and school students. This is a conservative assumption.

This estimate is based on our externality model used for our 2016 public transport review.

need to be accounted for in our building block model, and there are no economic grounds for IPART to recommend an additional subsidy for private ferry operators.

C.5 Calculating fares

The last step in our building block approach is calculating the fare for each ferry service that would be required to cover the passengers' share of total efficient costs using our forecast estimate of annual patronage.

In our previous reviews, we estimated patronage forecasts based on the average of the last three years of historical data (where available) for each operator, and updated it each year. We analysed historical trends in patronage levels as they can provide a reasonable indication of future patronage growth.

Figure C.2 shows annual reported patronage levels for all private ferry operators since 2012. We did not identify individual operators due to confidentiality. Overall, we found that the annual patronage for the majority of operators has remained relatively stable. For one operator, the level of patronage has increased in recent years. Note that our analysis excludes the patronage level reported under the School Student Travel Scheme (SSTS). This is because the SSTS patronage is a notional number intended for calculating SSTS payments, and does not reflect the actual number of students travelled under the scheme.

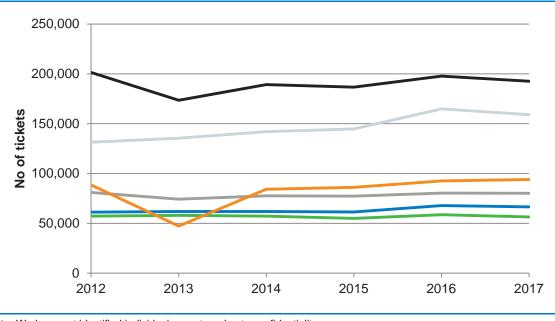


Figure C.2 Annual patronage levels excluding SSTS

 $\textbf{Note:} \ \ \textbf{We have not identified individual operators due to confidentiality}.$

Data source: TfNSW and Secretariat's analysis.

In our view, the average patronage over the most recent three years (where available) is a reasonable guide to future patronage. Therefore, for this review we used forecast patronage equivalent to average patronage for the last three years and held this figure constant over the determination period from 2018 to 2021.

D Weighted Average Cost of Capital (WACC)

As discussed in Appendix C, the rate of return is a key input to our calculation for the allowance for a return on assets. We calculate the allowance for a return on assets by multiplying the weighted average cost of capital (WACC) by the RAB.

Our approach is to use a post-tax WACC to determine a rate of return.⁴⁵ We first estimate a WACC range based on current and long term market data. Then we selected a point within the range (established by the mid-points of the two WACC ranges) using our uncertainty index. As our assessment of market uncertainty is currently within one standard deviation from the long term average of zero (ie, economic uncertainty is neutral), we have used the midpoint of the range of WACC values.⁴⁶

We have also considered the level of the industry-specific parameters (ie, the equity beta and the gearing level) by investigating:

- the risks of providing ferry services, and
- the value of equity beta and gearing levels of companies that face similar risks to the ferry businesses we are regulating.

Table D.1 sets out the market and industry specific parameters that underpin our WACC calculation. For our final decision, we have adopted the same industry-specific parameters that were used in the draft decision and updated market-based parameters to 31 October 2017. We have also updated our uncertainty index to 31 October 2017. Stakeholders did not comment directly on the WACC parameters in their submissions to the private ferry draft decision or at the public hearing.

Table D.1 WACC parameters and values (sampled to 31 October 2017)

	Current market data			Long term averages			WACC range		
	Low	Mid	High	Low	Mid	High	Low	Mid	High
Nominal risk free	2.8%	2.8%	2.8%	4.0%	4.0%	4.0%			
Inflation	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%			
Debt margin	1.8%	1.8%	1.8%	3.2%	3.2%	3.2%			
Market risk premium	7.1%	9.2%	11.2%	5.5%	6.0%	6.5%			
Gearing	60%	50%	40%	60%	50%	40%			
Gamma	0.25	0.25	0.25	0.25	0.25	0.25			
Equity beta	0.8	0.9	1.0	0.8	0.9	1.0			
Nominal vanilla WACC	6.2%	7.8%	10.2%	7.7%	8.3%	9.2%	7.8%	8.1%	8.3%
WACC (real post-tax)	3.6%	5.2%	7.6%	5.1%	5.7%	6.5%	5.2%	5.4 %	5.7%

Source: IPART calculations.

⁴⁵ IPART, Review of WACC Methodology - Final Report, December 2013, p 18.

⁴⁶ See IPART, Review of WACC Methodology - Final Report, December 2013, p 23 for further details on our decision rule for selecting a point within the range of WACC values.

The rest of this section provides our consideration of the industry-specific parameters – equity beta and gearing for the ferry industry.

D.1 Industry-specific parameters

To determine the appropriate level for the equity beta and the gearing, we have evaluated the risks faced by private ferry operators. We have compared these risks to other businesses/industries we regulate. We have also investigated market evidence available from companies providing ferry services that are listed on stock exchanges.

In determining the equity beta and gearing level, our current practice is to adopt benchmark values (rather than the values of the regulated entity). This ensures that customers will not bear the costs associated with inefficient funding and capital structures. This is consistent with regulatory practice in Australia.

Equity beta and gearing ratio

The equity beta measures the extent to which the return of a particular security varies with the overall return of the market. It represents the systematic or market-wide risk of a security that cannot be eliminated by holding it as part of a diversified portfolio. It is important to note that the equity beta does not measure business-specific or diversifiable risks.

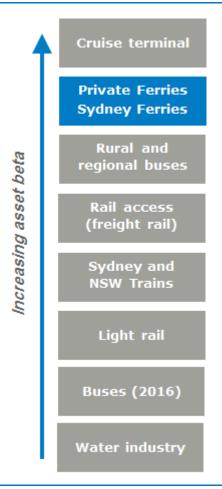
The gearing ratio is the ratio of the value of debt to the total value of assets in the business' capital structure. Gearing is used to weigh the costs of debt and equity in estimating the WACC. Since, all else being equal, debt funding is cheaper than equity funding, the lower the level of gearing the higher the WACC and vice versa.

Our final decision is to use:

- ▼ an equity beta of 0.8 to 1.0, and
- a gearing ratio ranging from 60% to 40%.

This decision implies that the level of risk faced by a ferry operator is higher than the risk faced by other public transport modes (Figure D.1). We came to this judgment after considering the relative risks involved in providing private ferry passenger services compared to other modes of transport. We also placed limited weight on beta and gearing values for a range of proxies for the private ferries.

Figure D.1 Implied relative risks of utilities regulated by IPART



Note: The rural and regional bus decision is IPART's Draft Decision, and Buses (2016) refers to government and private bus services in Sydney, Newcastle, the Central Coast, Wollongong, the Blue Mountains and the Hunter regions.

Data source: IPART analysis.

Risks relative to other industries

In principle, ferry and bus operators are likely to respond faster in the short to medium term to changes in patronage than rail operators due to the more capital intensive nature of the rail business. However, the high level of profit variability of ferry operators affects the levels of risk they face. By contractual arrangements private ferry operators are required to provide a set number of services, regardless of the number of passengers and more importantly, they earn fare box revenue from ticket sales which is variable.

This is likely to expose private ferry operators to revenue volatility as revenue is directly related to the number of passengers, although some private ferry operators may receive a viability payment. The scheduling requirements also limit the ability of ferry operators to respond to changes in patronage. Further, ferry operators are likely to have a higher proportion of tourist passengers than rail and bus operators. Ferry operators are therefore more exposed to fluctuations in the tourism cycle than bus and rail operators.

Market evidence

Table D.2 presents the listed companies providing ferry passenger services.

Table D.2 Gearing and equity beta of private ferry comparator firms

Company	Country	Gearing (%)	Equity beta	Asset beta
Reederei Herbert	Germany	no data	0.07	n/a
Viking Line	Finland	33	0.21	0.14
Hainan Strait Shipping Co	China	2	0.82	0.8
Superdong Fast Ferry	Vietnam	0	0.37	0.37
Raja Ferry	Thailand	5	1.76	1.67
Attica Holdings	Greece	37	-0.01	0
ANEK Lines	Greece	89	0.00	0
Minoan Lines	Greece	32	0.00	0
Tokai Kisen	Japan	35	0.20	0.06
Sado Steam Ship	Japan	72	0.11	0.03
Irish Continental	Ireland	27	0.61	0.45
Penguin International	Singapore	2	0.89	0.87
Shun Tak Holdings	HongKong	28	0.95	0.69
Mean		30.2	0.46	0.42
Median		29.8	0.21	0.26

Source: Bloomberg, accessed 30 August 2017, IPART calculation.

The data in Table D.2 suggests that, for private ferry operators the level of gearing ranges from 0% to 89% and the average is 30%. Also, the equity beta ranges from -0.01 to 1.76 and the average is 0.46.

We have placed limited weight on the evidence from the market due to a number of concerns we have with the data. For example:

- ▼ Table D.2 shows that gearing and beta values range widely. However, we note the average gearing level from this sample is at the lower end of the selected range of our analysis shown in Table D.1.
- ▼ The beta estimation method (regression of stock returns on market returns) may be subject to estimation errors.
- Also, most of the comparators provide more than just ferry transport services. These include property management, tourism and hospitality sectors and investment management.

Our WACC decision rule

We use the uncertainty index to help us choose a WACC point estimate from within the WACC range:

▼ If the uncertainty index is within or at one standard deviation from the long term average of zero (ie, economic uncertainty is neutral), we will select the midpoint WACC.

If the uncertainty index is more than one standard deviation from the long term average of zero, we will consider moving away from the midpoint WACC. We will have regard to the value of the uncertainty index and additional financial market information.⁴⁷

Figure D.2 shows that the uncertainty index is currently within one standard deviation from the long term average of zero. Based on IPART's decision rule, we have decided to adopt the midpoint of the real post-tax WACC range, 5.4%, as the point estimate WACC.

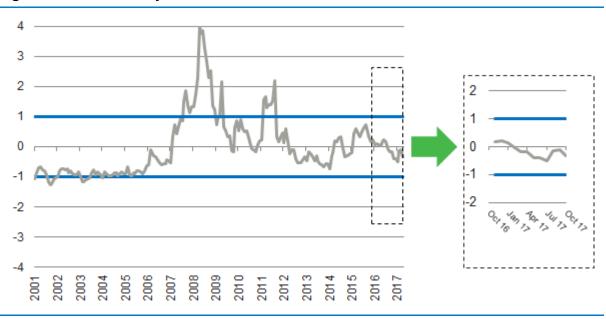


Figure D.2 Uncertainty index

Data source: Thomson Reuters DataStream and IPART calculation.

Our final decision WACC is 20 basis points lower than the draft decision WACC calculated as of the end of June. The difference in the WACC since the draft decision is due to changes in the market-based parameters. The table below shows how these market-based parameters have changed. Most parameter movements would reduce the WACC when considered in isolation. However, the change in the current risk free rate offsets these decreases to some extent.

Table D.3 Changes in market-based parameters and effect on WACC

	Current	Effect on the WACC	Long term	Effect on the WACC
Risk free rate	Increased by 30 bps	1	Decreased by 10bp	↓
Inflation	Increased from 2.4% to 2.5%	\downarrow	Increased from 2.4% to 2.5%	<u> </u>
Debt margin	Decreased by 30 bps	\	No change	-
MRP	Midpoint decreased by 30 bps	Ţ	No change	-

Source: Bloomberg, RBA and IPART analysis.

⁴⁷ IPART, Review of WACC Methodology - Final Report, December 2013, p 23

E Final Determination



Private Ferry Services

Maximum fares for private ferry services from 1 January 2018

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Contents

Pre	liminary	1
1	Background	1
2	Application of this determination	1
3	Compliance with this determination	2
4	Approach to determining maximum Fares	2
5	Pricing Schedules	2
6	Definitions, interpretation and rounding rule	3
Dar 1	nedule 1 Maximum Fares for Private Ferry Services provided on the Brooklyn ngar Island Route Application	4
2	Maximum Fares for Private Ferry Services on the Brooklyn to Dangar Island Route	4
	medule 2 Maximum Fares for Private Ferry Services provided on the Woy Woy Empire Bay Route Application Maximum Fares for Private Ferry Services on the Woy Woy to Empire Bay Route	5 5 5
		J
	nedule 3 Maximum Fares for Private Ferry Services provided on the Church nt and Scotland Island Route Application Maximum Fares for Private Ferry Services on the Church Point and Scotland Island Route	6
	medule 4 Maximum Fares for Private Ferry Services provided on the Iluka to haba Route Application	7
2	Maximum Fares for Private Ferry Services on the Iluka to Yamba Route	7
Bui 1	nedule 5 Maximum Fares for Private Ferry Services provided on the Cronulla ndeena Route Application	8
2	Maximum Fares for Private Ferry Services on the Cronulla to Bundeena Route	8
	nedule 6 Maximum Fares for Private Ferry Services provided on the Circular ay to Darling Harbour Route Application	9
2	Maximum Fares for Private Ferry Services on the Circular Quay to Darling Harbour Route	9
	nedule 7 Maximum Fares for Private Ferry Services provided on the Circular ay to Lane Cove Route Application	10
2	Maximum Fares for Private Ferry Services on the Circular Quay to Lane Cove Route	10
		-

Contents

	hedule 8 ach to Macke	Maximum Fares for Private Ferry Services provided on the Palm erel Beach Route	11
1	Application		11
2	• •	ares for Private Ferry Services on the Palm Beach to Mackerel Beach	11
	hedule 9 ach to Ettalo	Maximum Fares for Private Ferry Services provided on the Palm ng Route	12
1	Application		12
2	Maximum F	ares for Private Ferry Services on the Palm Beach to Ettalong Route	12
Sc	hedule 10	Fuel Cost Adjustment to maximum Fares	13
1	Application		13
2	IPART notifi	cation of Fuel Cost Adjustment	13
3	Calculation	of the Fuel Cost Adjustment	13
Sc	hedule 11	Definitions, interpretation and rounding rule	17
1	Definitions		17
2	Interpretatio	n	22
Sc	hedule 12	Statement of reasons why IPART has chosen to set a methodolog	y for
fix	ing a maximu	ım price	24

Preliminary

Background 1

1.1 **Passenger Transport Act**

- (a) Under section 123(1) of the Passenger Transport Act, the Minister may refer to IPART, with the approval of the Minister administering the IPART Act, all or any of the services provided by one or more public passenger services for determination of, or a recommendation as to:
 - (1) appropriate maximum fares for the services;
 - (2) appropriate maximum fares for specified fares or classes of fares for the service or services.
- (b) Under section 124(1) of the Passenger Transport Act, IPART is to conduct investigations and report to the Minister on the appropriate maximum fares if a referral is made under section 123(1).
- (c) By letter dated 16 May 2017, IPART received a referral from the Minister, with the approval of the Minister administering the IPART Act, to investigate and report on the determination of appropriate maximum fares for Private Ferry Services.

1.2 **IPART Act**

- (a) The following provisions of the IPART Act apply in making a determination under Part 7 of the Passenger Transport Act:
 - (1) sections 13A-14A (in relation to the approaches to be applied in making pricing determinations); and
 - (2) Divisions 6 and 7 of Part 3 (in relation to the publication of reports and conduct of investigations).
- (b) In accordance with section 13A of the IPART Act, IPART has:
 - (1) fixed the maximum Fares for Private Ferry Services supplied during the 2018 Period of the Determination Period; and
 - (2) set a methodology for fixing maximum Fares for Private Ferry Services supplied during the 2019, 2020 and 2021 Periods of the Determination Period.

2 Application of this determination

- (a) This determination sets out the formulae to be applied to determine the maximum Fares for Private Ferry Services.
- (b) This determination commences on 1 January 2018 (Commencement Date).

- (c) This determination applies from the Commencement Date until the earlier of:
 - (1) 31 December 2021; and
 - (2) the date on which this determination is replaced,
 - (Determination Period).

3 Compliance with this determination

- (a) Under section 125(2) of the Passenger Transport Act, Transport for NSW may not determine a Fare under a fares order that exceeds any maximum Fare determined by IPART, or that is determined otherwise than in accordance with a methodology determined by IPART, under Part 7 of the Passenger Transport Act.
- (b) Under section 125(6) of the Passenger Transport Act, a person may not demand a Fare that exceeds any maximum Fare determined by Transport for NSW.

4 Approach to determining maximum Fares

- (a) In making a determination on the maximum Fares for Tickets for Private Ferry Services, IPART has had regard to a broad range of matters including:
 - (1) the matters specified by the Minister in the referral pursuant to section 123(2)(b) of the Passenger Transport Act; and
 - (2) the matters set out in section 124(3) of the Passenger Transport Act.
- (b) In accordance with section 124(6) of the Passenger Transport Act and section 13A of the IPART Act, IPART has set a methodology for fixing the maximum Fares for Tickets for Private Ferry Services.
- (c) As required by section 13A(3) of the IPART Act, IPART's reasons for setting a methodology for fixing maximum Fares are set out in Schedule 12.

5 Pricing Schedules

- (a) Schedule 1 sets out maximum Fares for Tickets for Private Ferry Services provided on the Brooklyn to Dangar Island Route during each Period of the Determination Period.
- (b) Schedule 2 sets out maximum Fares for Tickets for Private Ferry Services provided on the Woy Woy to Empire Bay Route during each Period of the Determination Period.
- (c) Schedule 3 sets out maximum Fares for Tickets for Private Ferry Services provided on the Church Point and Scotland Island Route during each Period of the Determination Period.
- (d) Schedule 4 sets out maximum Fares for Tickets for Private Ferry Services provided on the Iluka to Yamba Route during each Period of the Determination Period.

- (e) Schedule 5 sets out maximum Fares for Tickets for Private Ferry Services provided on the Cronulla to Bundeena Route during each Period of the Determination Period.
- (f) Schedule 6 sets out maximum Fares for Tickets for Private Ferry Services provided on the Circular Quay to Darling Harbour Route during each Period of the Determination Period.
- (g) Schedule 7 sets out maximum Fares for Tickets for Private Ferry Services provided on the Circular Quay to Lane Cove Route during each Period of the Determination Period.
- (h) Schedule 8 sets out maximum Fares for Tickets for Private Ferry Services provided on the Palm Beach to Mackerel Beach Route during each Period of the Determination Period.
- (i) Schedule 9 sets out maximum Fares for Tickets for Private Ferry Services provided on the Palm Beach to Ettalong Route during each Period of the Determination Period
- (j) Schedule 10 sets out the Fuel Cost Adjustment applicable to maximum Fares for Tickets for Private Ferry Services for the 2019 Period to 2021 Period of the Determination Period.

6 Definitions, interpretation and rounding rule

Schedule 11 sets out definitions and interpretation provisions and rounding rule used in this determination.

Schedule 1 Maximum Fares for Private Ferry Services provided on the Brooklyn to Dangar Island Route

1 Application

This Schedule 1 sets out the maximum Fares for Private Ferry Services provided on the Brooklyn to Dangar Island Route during the Determination Period.

2 Maximum Fares for Private Ferry Services on the Brooklyn to Dangar Island Route

The maximum Fare for a Private Ferry Service supplied under a Ticket on the Brooklyn to Dangar Island Route is:

- (a) for the 2018 Period, the amount specified in Table 1 below for the 2018 Period; and
- (b) for each Period other than the 2018 Period, the amount specified in **Table 1** below for the applicable Period multiplied by the Fuel Cost Adjustment for the applicable Period.

[Note: the Fuel Cost Adjustment is calculated in accordance with clause 3 of Schedule 10 and will only apply to an amount specified in **Table 1** for the 2019, 2020 and 2021 Periods if the circumstances identified in clause 1(b) of Schedule 10 exist in respect of the relevant Period.]

Table 1 Maximum Fares for Private Ferry Services on the Brooklyn to Dangar Island Route (\$)

	2018 Period	2019 Period	2020 Period	2021 Period
Ticket	7.70	8.10	8.50	9.00

Schedule 2 Maximum Fares for Private Ferry Services provided on the Woy Woy to Empire Bay Route

1 Application

This Schedule 2 sets out the maximum Fares for Private Ferry Services provided on the Woy Woy to Empire Bay Route during the Determination Period.

2 Maximum Fares for Private Ferry Services on the Woy Woy to Empire Bay Route

The maximum Fare for a Private Ferry Service supplied under a Ticket on the Woy Woy to Empire Bay Route is:

- (a) for the 2018 Period, the amount specified in Table 2 below for the 2018 Period; and
- (b) for each Period other than the 2018 Period, the amount specified in **Table 2** below for the applicable Period multiplied by the Fuel Cost Adjustment for the applicable Period.

[Note: the Fuel Cost Adjustment is calculated in accordance with clause 3 of Schedule 10 and will only apply to an amount specified in Table 2 for the 2019, 2020 and 2021 Periods if the circumstances identified in clause 1(b) of Schedule 10 exist in respect of the relevant Period.]

Table 2 Maximum Fares for Private Ferry Services on the Woy Woy to Empire Bay Route (\$)

	2018 Period	2019 Period	2020 Period	2021 Period
Ticket	8.00	$Fare_{2018} \times (1 + \Delta CPI_1)$	$Fare_{2019} \times (1 + \Delta CPI_2)$	$Fare_{2020} \times (1 + \Delta CPI_3)$

Where:

Fare₂₀₁₈, Fare₂₀₁₉, and Fare₂₀₂₀ are the maximum Fares for a Ticket for a Private Ferry Service provided on the Woy Woy to Empire Bay Route for the relevant Period.

 Δ CPI₂, Δ CPI₃ each have the meaning given to those terms in clause 1.2 of Schedule 11.

Schedule 3 Maximum Fares for Private Ferry Services provided on the Church Point and Scotland Island Route

1 Application

This Schedule 3 sets out the maximum Fare for Private Ferry Services provided on the Church Point and Scotland Island Route during the Determination Period.

2 Maximum Fares for Private Ferry Services on the Church Point and Scotland Island Route

The maximum Fare for a Private Ferry Service supplied under a Ticket on the Church Point and Scotland Island Route is:

- (a) for the 2018 Period, the amount specified in Table 3 below for the 2018 Period; and
- (b) for each Period other than the 2018 Period, the amount specified in **Table 3** below for the applicable Period multiplied by the Fuel Cost Adjustment for the applicable Period.

[Note: the Fuel Cost Adjustment is calculated in accordance with clause 3 of Schedule 10 and will only apply to an amount specified in **Table 3** for the 2019, 2020 and 2021 Periods if the circumstances identified in clause 1(b) of Schedule 10 exist in respect of the relevant Period.]

Table 3 Maximum Fares for Private Ferry Services on the Church Point and Scotland Island Route (\$)

	2018 Period	2019 Period	2020 Period	2021 Period
Ticket	8.70	9.00	9.40	9.70

Schedule 4 Maximum Fares for Private Ferry Services provided on the Iluka to Yamba Route

Application 1

This Schedule 4 sets out the maximum Fares for Private Ferry Services provided on the Iluka to Yamba Route during the Determination Period.

2 Maximum Fares for Private Ferry Services on the Iluka to Yamba Route

The maximum Fare for a Private Ferry Service supplied under a Ticket on the Iluka to Yamba Route is:

- (a) for the 2018 Period, the amount specified in Table 4 below for the 2018 Period; and
- (b) for each Period other than the 2018 Period, the amount specified in **Table 4** below for the applicable Period multiplied by the Fuel Cost Adjustment for the applicable Period.

[Note: the Fuel Cost Adjustment is calculated in accordance with clause 3 of Schedule 10 and will only apply to an amount specified in Table 4 for the 2019, 2020 and 2021 Periods if the circumstances identified in clause 1(b) of Schedule 10 exist in respect of the relevant Period.]

Table 4 Maximum Fares for Private Ferry Services on the Iluka to Yamba Route (\$)

	2018 Period	2019 Period	2020 Period	2021 Period
Ticket	8.60	8.90	9.20	9.50

Schedule 5 Maximum Fares for Private Ferry Services provided on the Cronulla to Bundeena Route

1 Application

This Schedule 5 sets out the maximum Fares for Private Ferry Services provided on the Cronulla to Bundeena Route during the Determination Period.

2 Maximum Fares for Private Ferry Services on the Cronulla to Bundeena Route

The maximum Fare for a Private Ferry Service supplied under a Ticket on the Cronulla to Bundeena Route is:

- (a) for the 2018 Period, the amount specified in Table 5 below for the 2018 Period; and
- (b) for each Period other than the 2018 Period, the amount specified in **Table 5** below for the applicable Period multiplied by the Fuel Cost Adjustment for the applicable Period.

[Note: the Fuel Cost Adjustment is calculated in accordance with clause 3 of Schedule 10 and will only apply to an amount specified in **Table 5** for the 2019, 2020 and 2021 Periods if the circumstances identified in clause 1(b) of Schedule 10 exist in respect of each of the relevant Period.]

Table 5 Maximum Fares for Private Ferry Services on the Cronulla to Bundeena Route (\$)

	2018 Period	2019 Period	2020 Period	2021 Period
Ticket	6.60	6.80	7.10	7.40

Schedule 6 Maximum Fares for Private Ferry Services provided on the Circular Quay to Darling Harbour Route

1 Application

This Schedule 6 sets out the maximum Fares for Private Ferry Services provided on the Circular Quay to Darling Harbour Route during the Determination Period.

2 Maximum Fares for Private Ferry Services on the Circular Quay to Darling Harbour Route

The maximum Fare for a Private Ferry Service supplied under a Ticket on the Circular Quay to Darling Harbour Route is:

- (a) for the 2018 Period, the amount specified in Table 6 below for the 2018 Period; and
- (b) for each Period other than the 2018 Period, the amount specified in **Table 6** below for the applicable Period multiplied by the Fuel Cost Adjustment for the applicable Period.

[Note: the Fuel Cost Adjustment is calculated in accordance with clause 3 of Schedule 10 and will only apply to an amount specified in **Table 6** for the 2019, 2020 and 2021 Periods if the circumstances identified in clause 1(b) of Schedule 10 exist in respect of the relevant Period.]

Table 6 Maximum Fares for Private Ferry Services on the Circular Quay to Darling Harbour Route (\$)

	2018 Period	2019 Period	2020 Period	2021 Period
Ticket	7.60	$Fare_{2018} \times (1 + \Delta CPI_1)$	$Fare_{2019} \times (1 + \Delta CPI_2)$	$Fare_{2020} \times (1 + \Delta CPI_3)$

Where:

Fare₂₀₁₈, Fare₂₀₁₉, and Fare₂₀₂₀ are the maximum Fares for a Ticket for a Private Ferry Service provided on the Circular Quay to Darling Harbour Route for the relevant Period.

 Δ CPI₁, Δ CPI₂, and Δ CPI₃ each have the meaning given to those terms in clause 1.2 of Schedule 11.

Schedule 7 Maximum Fares for Private Ferry Services provided on the Circular Quay to Lane Cove Route

1 Application

This Schedule 7 sets out the maximum Fares for Private Ferry Services provided on the Circular Quay to Lane Cove Route during the Determination Period.

2 Maximum Fares for Private Ferry Services on the Circular Quay to Lane Cove Route

The maximum Fare for a Private Ferry Service supplied under a Ticket on the Circular Quay to Lane Cove Route is:

- (a) for the 2018 Period, the amount specified in Table 7 below for the 2018 Period; and
- (b) for each Period other than the 2018 Period, the amount specified in **Table 7** below for the applicable Period multiplied by the Fuel Cost Adjustment for the applicable Period.

[Note: the Fuel Cost Adjustment is calculated in accordance with clause 3 of Schedule 10 and will only apply to an amount specified in Table 7 for the 2019, 2020 and 2021 Periods if the circumstances identified in clause 1(b) of Schedule 10 exist in respect of the relevant Period.]

Table 7 Maximum Fares for Private Ferry Services on the Circular Quay to Lane Cove Route (\$)

	2018 Period	2019 Period	2020 Period	2021 Period
Ticket	7.60	$Fare_{2018} \times (1 + \Delta CPI_1)$	$Fare_{2019} \times (1 + \Delta CPI_2)$	$Fare_{2020} \times (1 + \Delta CPI_3)$

Where:

Fare₂₀₁₈, **Fare**₂₀₁₉, **and Fare**₂₀₂₀ are the maximum Fares for a Ticket for a Private Ferry Service provided on the Circular Quay to Lane Cove Route for the relevant Period.

 Δ CPI₂, Δ CPI₃ each have the meaning given to those terms in clause 1.2 of Schedule 11.

Schedule 8 Maximum Fares for Private Ferry Services provided on the Palm Beach to Mackerel Beach Route

1 Application

This Schedule 8 sets out the maximum Fares for Private Ferry Services provided on the Palm Beach to Mackerel Beach Route during the Determination Period.

2 Maximum Fares for Private Ferry Services on the Palm Beach to Mackerel Beach Route

The maximum Fare for a Private Ferry Service supplied under a Ticket on the Palm Beach to Mackerel Beach Route is:

- (a) for the 2018 Period, the amount specified in Table 8 below for the 2018 Period; and
- (b) for each Period other than the 2018 Period, the amount specified in **Table 8** below for the applicable Period multiplied by the Fuel Cost Adjustment for the applicable Period.

[Note: the Fuel Cost Adjustment is calculated in accordance with clause 3 of Schedule 10 and will only apply to an amount specified in Table 8 for the 2019, 2020 and 2021 Periods if the circumstances identified in clause 1(b) of Schedule 10 exist in respect of the relevant Period.]

Table 8 Maximum Fares for Private Ferry Services on the Palm Beach to Mackerel Beach Route (\$)

	2018 Period	2019 Period	2020 Period	2021 Period
Ticket	8.20	8.40	8.60	8.70

Schedule 9 Maximum Fares for Private Ferry Services provided on the Palm Beach to Ettalong Route

1 Application

This Schedule 9 sets the maximum Fares for Private Ferry Services provided on the Palm Beach to Ettalong Route during the Determination Period.

2 Maximum Fares for Private Ferry Services on the Palm Beach to Ettalong Route

The maximum Fare for a Private Ferry Service supplied under a Ticket on the Palm Beach to Ettalong Route is:

- (a) for the 2018 Period, the amount specified in Table 9 below for the 2018 Period; and
- (b) for each Period other than the 2018 Period, the amount specified in **Table 9** below for the applicable Period multiplied by the Fuel Cost Adjustment for the applicable Period.

[Note: the Fuel Cost Adjustment is calculated in accordance with clause 3 of Schedule 10 and will only apply to an amount specified in **Table 9** for the 2019, 2020 and 2021 Periods if the circumstances identified in clause 1(b) of Schedule 10 exist in respect of the relevant Period.]

Table 9 Maximum Fares for Private Ferry Services on the Palm Beach to Ettalong Route (\$)

	2018 Period	2019 Period	2020 Period	2021 Period
Ticket	11.80	12.00	12.20	12.50

Schedule 10 Fuel Cost Adjustment to maximum Fares

1 Application

- (a) Subject to paragraph (b) below, this Schedule 10 sets out the formulae for determining the Fuel Cost Adjustment to apply to maximum Fares for Tickets for Private Ferry Services.
- (b) This Schedule 10 applies only where the percentage change (in absolute terms) between the:
 - (1) Average Fuel Price for the current Fuel Cost Review Period; and
 - (2) Average Fuel Price for the Fuel Cost Review Period immediately prior to the current Fuel Cost Review Period,

is greater than 20%.

2 IPART notification of Fuel Cost Adjustment

(a) Following the end of each Fuel Cost Review Period during the Determination Period, but before the commencement of the following Period, IPART will notify a Private Operator and Transport for NSW if, under the determination, a Fuel Cost Adjustment is to be made to the maximum Fare for a Ticket applicable to the Private Operator in the following Period.

[Note: For example, if the Fuel Cost Adjustment is to apply to a maximum Fare for Private Ferry Services supplied during the 2019 Period, IPART will provide the notification under clause 2(a) to the relevant Private Operator and Transport for NSW after 30 September 2018 (the end of the Fuel Cost Review Period), but by no later than 31 December 2018 (the day before the commencement of the 2019 Period).]

- (b) A notice under paragraph (a) will identify the maximum Fare for a Ticket to be applied by the Private Operator in the following Period, as adjusted by the Fuel Cost Adjustment.
- (c) IPART may publish a notice under paragraph (a) on its website.

3 Calculation of the Fuel Cost Adjustment

The Fuel Cost Adjustment is calculated as follows:

(a) For the 2019 Period:

Fuel Cost Proportion₂₀₁₈ \times [\triangle Average Fuel Price₂₀₁₇₋₂₀₁₈ \pm 0.2]

Where:

Fuel Cost Proportion₂₀₁₈ is Fuel Cost Proportion for the relevant Private Operator identified in Table 10 for the 2018 Period; and

Δ**Average Fuel Price**₂₀₁₇₋₂₀₁₈ is the percentage change between the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2018 and the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2017, calculated as follows:

$$\Delta Average\ Fuel\ Price_{2017-2018}\ =\ \frac{Average\ Fuel\ Price_{2017-2018}}{Average\ Fuel\ Price_{2016-2017}}\ -1$$

Where:

Average Fuel Price₂₀₁₇₋₂₀₁₈ is the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2018; and

Average Fuel Price₂₀₁₆₋₂₀₁₇ is the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2017.

[Note: Clause 3(d) of this Schedule 10 identifies when 0.2 is to be added to, or subtracted from, the Δ Average Fuel Price₂₀₁₇₋₂₀₁₈ in calculating the Fuel Cost Adjustment for the 2019 Period.]

(b) For the 2020 Period:

Fuel Cost Proportion₂₀₁₉ × [
$$\triangle$$
Average Fuel Price₂₀₁₈₋₂₀₁₉ \pm 0.2]

Where:

Fuel Cost Proportion₂₀₁₉ is the Fuel Cost Proportion for the relevant Private Operator identified in Table 10 for the 2019 Period; and

Δ**Average Fuel Price**₂₀₁₈₋₂₀₁₉ is the percentage change between the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2019 and the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2018, calculated as follows:

$$\Delta Average\ Fuel\ Price_{2018-2019}\ =\ \frac{Average\ Fuel\ Price_{2018-2019}}{Average\ Fuel\ Price_{2017-2018}}\ -\ 1$$

Where:

Average Fuel Price₂₀₁₈₋₂₀₁₉ is the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2019; and

Average Fuel Price₂₀₁₇₋₂₀₁₈ is the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2018.

[Note: Clause 3(d) of this Schedule 10 identifies when 0.2 is to be added to, or subtracted from, the ΔAverage Fuel Price₂₀₁₈₋₂₀₁₉ in calculating the Fuel Cost Adjustment for the 2020 Period.]

(c) For the 2021 Period:

Fuel Cost Proportion₂₀₂₀ \times [Δ Average Fuel Price₂₀₁₉₋₂₀₂₀ \pm 0.2]

Where:

Fuel Cost Proportion₂₀₂₀ is the Fuel Cost Proportion for the relevant Private Operator identified in Table 10 for the 2020 Period; and

Δ**Average Fuel Price**₂₀₁₉₋₂₀₂₀ is the percentage change between the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2020 and the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2019, calculated as follows:

$$\Delta Average\ Fuel\ Price_{2019-2020}\ =\ \frac{Average\ Fuel\ Price_{2019-2020}}{Average\ Fuel\ Price_{2018-2019}}\ -\ 1$$

Where:

Average Fuel Price₂₀₁₉₋₂₀₂₀ is the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2020; and

Average Fuel Price₂₀₁₈₋₂₀₁₉ is the Average Fuel Price for the Fuel Cost Review Period ending 30 September 2019.

[Note: Clause 3(d) of this Schedule 10 identifies when 0.2 is to be added to, or subtracted from, the \triangle Average Fuel Price₂₀₁₉₋₂₀₂₀ in calculating the Fuel Cost Adjustment for the 2021 Period.]

- (d) Where the \triangle **Average Fuel Price**_i in any of the above formulae is calculated:
 - (1) as a **positive** number, 0.2 will be **subtracted** from that number to determine the amount of the Fuel Cost Adjustment; or
 - (2) as a **negative** number, 0.2 will be **added** to that number to determine the amount of the Fuel Cost Adjustment.

Table 10 Fuel Cost Proportions for Private Operators (%)

Private Operator (by Route)	2018 Period	2019 Period	2020 Period
Brooklyn to Dangar Island Route	8	9	9
Woy Woy to Empire Bay Route	7	7	7
Church Point and Scotland Island Route	10	10	10
Iluka to Yamba Route	6	6	7
Cronulla to Bundeena Route	5	5	5
Circular Quay to Darling Harbour Route	16	16	17
Circular Quay to Lane Cove Route	16	16	17
Palm Beach to Ettalong Route	16	16	17
Palm Beach to Mackerel Beach Route	5	5	5

Schedule 11 Definitions, interpretation and rounding rule

1 **Definitions**

1.1 **Defined Terms**

2018 Period means the period beginning on the Commencement Date and ending on 31 December 2018 (inclusive).

2019 Period means the 12 month period beginning on 1 January 2019 and ending on 31 December 2019 (inclusive).

2020 Period means the 12 month period beginning on 1 January 2020 and ending on 31 December 2020 (inclusive).

2021 Period means the 12 month period beginning on 1 January 2021 and ending on 31 December 2021 (inclusive).

Adult means a person who is aged 16 years or over, and is not entitled to a concession

[Note: As at the date of this determination, Transport for NSW has specified that the persons aged between 4 and 16 years are entitled to pay a concession fare and that those persons aged 16 years and over, who are not otherwise entitled to a concession fare, are required to pay adult fares for travel on public transportation services.]

Average Fuel Price means the daily average retail price of diesel fuel in Sydney (excluding GST and excise duty) published by FUELtrac averaged over a Fuel Cost Review Period.

Brooklyn to Dangar Island Route means the route between two or more of the following ferry wharves:

- (a) Brooklyn Public Wharf, Dangar Road, Brooklyn NSW 2083;
- (b) Little Wobby Wharf, Little Wobby NSW 2256;
- (c) Dangar Island Ferry Wharf, Neotsfield Avenue, Dangar Island NSW 2083; and
- (d) any other ferry wharf used to provide ferry services on the same line of route from time to time.

Church Point and Scotland Island Route means the route between two or more of the following ferry wharves:

- (a) Church Point Wharf, Pittwater Road, Church Point NSW 2108;
- (b) Bells Wharf, Vivian Street, Scotland Island NSW 2105;

- (c) Carols Wharf, Richard Road, Scotland Island NSW 2105;
- (d) Eastern Wharf, Lowanna Street, Scotland Island NSW 2105;
- (e) Tennis Court Wharf, Pitt View Street, Scotland Island NSW 2105;
- (f) Hall's Wharf, Bona Crescent, Morning Bay NSW 2108;
- (g) Lovett Wharf, Lovett Bay NSW 2105;
- (h) South Elvina Wharf, Normanhurst Street, Elvina Bay NSW 2105; and
- (i) any other ferry wharf used to provide ferry services on the same line of route from time to time.

Circular Quay to Darling Harbour Route means the route between two or more of the following ferry wharves:

- (a) Circular Quay NSW 2000;
- (b) Pier 26, Darling Harbour NSW 2000;
- (c) Jeffrey Street Wharf, Jeffrey Street, Kirribilli NSW 2061; and
- (d) any other ferry wharf used to provide ferry services on the same line of route from time to time.

Circular Quay to Lane Cove Route means the route between two or more of the following ferry wharves:

- (a) Wharf 6, Circular Quay NSW 2000;
- (b) Jeffrey Street Wharf, Jeffrey Street, Kirribilli NSW 2061;
- (c) Kirribilli Wharf, Holbrook Avenue, Kirribilli NSW 2061;
- (d) Birchgrove Wharf, Louisa Road, Birchgrove NSW 2041;
- (e) Greenwich Point Wharf, Serpentine Road, Greenwich NSW 2065;
- (f) Greenwich Wharf, Bay Street, Greenwich NSW 2065;
- (g) Northwood Wharf, Northwood Road, Northwood NSW 2066;
- (h) Longueville Wharf, Stuart Street, Longueville NSW 2066;
- (i) Hunters Hill Wharf, Alexandra Street, Hunters Hill NSW 2110;
- (j) Riverview College Wharf, Wharf Lane, Riverview NSW 2066;
- (k) Pier 26, Darling Harbour NSW 2000; and
- (l) any other ferry wharf used to provide ferry services on the same line of route from time to time.

Commencement Date means the Commencement Date defined in clause 2(b) of the Preliminary section of this determination.

Cronulla to Bundeena Route means the route between Cronulla Wharf, Tonkin Street, Gunnamatta Bay, Cronulla NSW 2230 and Bundeena Wharf, Brighton Street,

Bundeena NSW 2230, and includes any other ferry wharf used to provide ferry services on the same line of route from time to time.

Determination Period means the Determination Period defined in clause 2(c) of the Preliminary section of this determination.

Fare means a fare payable by an Adult for a Ticket to undertake a Trip on a Private Ferry Service.

Ferry Service has the meaning given to that term in the Passenger Transport Act.

Fuel Cost Adjustment means the percentage increase or decrease (as the case may be) to the maximum Fare for a Ticket for a Private Ferry Service applicable in a Period, calculated in accordance with Schedule 10.

Fuel Cost Proportion means the percentage identified for each Private Operator and relevant Period in Table 10 of Schedule 10.

[Note: the percentage represents the efficient cost of acquiring diesel fuel incurred by a Private Operator, as a percentage proportion of the efficient total operating cost incurred by the Private Operator, in providing a Private Ferry Service during a Period.]

Fuel Cost Review Period means:

- (a) the period beginning on 1 October 2016 and ending on 30 September 2017; and
- (b) thereafter, each 12 month period beginning on 1 October and ending on 30 September.

GST has the meaning given to that term in *A New Tax System* (*Goods and Services Tax*) *Act* 1999 (Cth).

Iluka to Yamba Route means the route between Iluka Wharf, Charles Street, Iluka NSW 2466 and Yamba Wharf, River Street, Yamba NSW 2464, and includes any other ferry wharf used to provide ferry services on the same line of route from time to time.

IPART means the Independent Pricing and Regulatory Tribunal of New South Wales established under the IPART Act.

IPART Act means the *Independent Pricing and Regulatory Tribunal Act* 1992 (NSW).

Minister means the Minister administering the Passenger Transport Act.

Palm Beach to Ettalong Route means the route between two or more of the following ferry wharves:

- (a) Palm Beach Public Wharf, Barrenjoey Road, Palm Beach NSW 2108;
- (b) Wagstaffe Wharf, Mulhall Street, Wagstaffe NSW 2257; and
- (c) Ettalong Wharf, Ferry Road, Ettalong Beach NSW 2257; and
- (d) any other ferry wharf used to provide ferry services on the same line of route from time to time.

Palm Beach to Mackerel Beach Route means the route between two or more of the following ferry wharves:

- (a) Palm Beach Public Wharf, Barrenjoey Road, Palm Beach NSW 2108;
- (b) Bennets Wharf, Ku-Ring-Gai National Park, Coasters Retreat NSW 2108;
- (c) Bonnie Doon Wharf, Ku-Ring-Gai National Park, Coasters Retreat NSW 2108;
- (d) The Basin Wharf, Ku-Ring-Gai Chase NSW 2083;
- (e) Currawong Wharf, Currawong Beach NSW 2108;
- (f) Mackerel Beach Wharf, Ross Smith Parade, Great Mackerel Beach NSW 2108; and
- (g) any other ferry wharf used to provide ferry services on the same line of route from time to time.

Passenger Service Contract has the meaning given to that term in the Passenger Transport Act.

Passenger Transport Act means the *Passenger Transport Act* 2014 (NSW).

Period means any one or more of (as the context requires):

- (a) 2018 Period;
- (b) 2019 Period;
- (c) 2020 Period; and
- (d) 2021 Period.

For the avoidance of doubt, where this determination is replaced in part, the new determination may stipulate the date on which a Period ends in so far as this determination is replaced.

Private Ferry Services means Ferry Services provided by a Private Operator and to which Division 2 of Part 7 of the Passenger Transport Act applies.

Private Operator means a party to a Passenger Service Contract under which that party provides Private Ferry Services on one of the following routes:

- (a) Brooklyn to Dangar Island Route;
- (b) Woy Woy to Empire Bay Route;
- (c) Church Point and Scotland Island Route;
- (d) Iluka to Yamba Route;
- (e) Cronulla to Bundeena Route;
- (f) Circular Quay to Darling Harbour Route;
- (g) Circular Quay to Lane Cove Route;
- (h) Palm Beach to Mackerel Beach Route; or

(i) Palm Beach to Ettalong Route.

Ticket means the proof of entitlement to undertake a Trip on a Private Ferry Service.

Transport for NSW means Transport for NSW as constituted under the *Transport Administration Act 1988* (NSW).

Trip means a single instance of travel on a Private Ferry Service consisting of getting on a ferry once, travelling on that ferry, and getting off that ferry once.

Woy Woy to Empire Bay Route means the route between two or more of the following ferry wharves:

- (a) Woy Woy Wharf, The Boulevard, Woy Woy NSW 2256;
- (b) Veterans Hall Wharf, Henderson Road, Saratoga NSW 2251;
- (c) Lintern Street Wharf, Lintern Street, Davistown NSW 2251;
- (d) Central Wharf, Davistown Road, Davistown NSW 2251;
- (e) Pine Avenue Wharf, Pine Avenue, Davistown NSW 2251;
- (f) Empire Bay Wharf, Kendall Road, Empire Bay NSW 2257; and
- (g) any other ferry wharf used to provide ferry services on the same line of route from time to time.

1.2 Consumer Price Index

- (a) CPI means:
 - (1) the consumer price index, All Groups index number for Sydney as published by the Australian Bureau of Statistics; or
 - (2) if the Australian Bureau of Statistics does not or ceases to publish the index, then CPI will mean an index determined by IPART.
- (b) ΔCPI_1 , ΔCPI_2 , and ΔCPI_3 are calculated as follows:

$$\Delta \text{CPI}_{1} = \left(\frac{CPI}{CPI}_{September 2019}\right) - 1$$

$$\Delta \text{CPI}_2 = \left(\frac{CPI_{September2020}}{CPI_{Semptember2019}}\right) - 1$$

$$\Delta \text{CPI}_{3} = \left(\frac{CPI_{September2021}}{CPI_{September2020}}\right) - 1$$

each as calculated and notified by IPART.

(c) The subtext (for example September 2019) when used in relation to the CPI in paragraph (b) above refers to the CPI for the quarter and year indicated (in the example, the September quarter for 2019).

2 Interpretation

2.1 General provisions

In this determination:

- (a) headings are for convenience only and do not affect the interpretation of this determination;
- (b) a reference to a schedule, annexure, clause or table is a reference to a schedule to, clause of, or table in, this determination unless otherwise indicated;
- (c) a construction that would promote a purpose or object expressly or impliedly underlying the IPART Act or the Passenger Transport Act is to be preferred to a construction that would not promote that purpose or object;
- (d) words importing the singular include the plural and vice versa;
- (e) a reference to a law or statute includes regulations, rules, codes and other instruments (including licences) under it and consolidations, amendments, reenactments or replacements of them or of the law or statute itself;
- (f) where a word is defined, other grammatical forms of that word have a corresponding meaning;
- (g) a reference to a month is a calendar month;
- (h) a reference to a person includes a reference to the person's executors, administrators, successors, substitutes (including, but not limited to, persons taking by novation), replacements and assigns;
- (i) a reference to an officer includes a reference to the officer which replaces it or which substantially succeeds to its powers or functions;
- (j) a reference to a body, whether statutory or not:
 - (1) which ceases to exist; or
 - (2) whose powers or functions are transferred to another body,

is a reference to the body which replaces it or which substantially succeeds to its powers or functions.

2.2 Explanatory notes, simplified outline, examples and clarification notices

- (a) Explanatory notes and worked examples do not form part of this determination, but in the case of uncertainty may be relied on for interpretation purposes.
- (b) IPART may publish a clarification notice in the NSW Government Gazette to correct any manifest error in or to clarify any part of this determination. Such a clarification notice is taken to form part of this determination.

2.3 Maximum Fares inclusive of GST

Maximum Fares specified in this determination include GST.

2.4 Rounding Rule

- (a) All maximum Fares provided for in this determination are to be rounded to the nearest 10 cents.
- (b) For the avoidance of doubt, if an unrounded fare is equal to Y and Z cents (where Z is equal to 1, 3, 5, 7, 9, 11, 13, 15, 17 or 19), then the rounded ticket price for that ticket will be Y and Z0 cents.

Schedule 12 Statement of reasons why IPART has chosen to set a methodology for fixing a maximum price

Under section 124(6) of the Passenger Transport Act and section 13A of the IPART Act, IPART may fix maximum prices, or may set a methodology for fixing maximum prices, for services provided by one or more public passenger services.

In this determination, IPART has set a methodology for fixing the maximum Fares that Private Operators may charge for Private Ferry Services for the 2019 Period, 2020 Period and 2021 Period.

IPART has set a methodology because it is impractical to make a determination directly fixing the maximum Fares for Private Ferry Services.

IPART's decision is to apply a Fuel Cost Adjustment to the maximum Fares for Private Ferry Services for the 2019 Period to 2021 Period. A Fuel Cost Adjustment is a mechanism allowing IPART to account for material deviations between the forecast and actual fuel costs of Private Operators during the Determination Period, in circumstances where Private Operators have limited capacity to independently hedge against volatility in fuel costs.

It would be impractical to apply a Fuel Cost Adjustment through a determination directly fixing a price on a building block approach, because directly fixing the Fare would not adequately account for actual variations in future fuel costs. A methodology provides the necessary flexibility to apply a Fuel Cost Adjustment that allows maximum Fares to vary with material deviations in forecast and actual fuel costs during the Determination Period.