IPART
Independent Pricing and Regulatory Tribunal | NSW

Review of maximum fares for private ferry services for 2022 to 2025

Draft Report

October 2021

Transport »

Tribunal Members

The Tribunal members for this review are:

Ms Carmel Donnelly, Chair
Ms Deborah Cope
Ms Sandra Gamble

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Invitation for submissions

IPART invites comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by Friday, 5 November 2021

We prefer to receive them electronically via our online submission form.

You can also send comments by mail to:

Review of maximum fares for private ferry services 2022 to 2025
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop, Sydney NSW 1240

If you require assistance to make a submission (for example, if you would like to make a verbal submission) please contact one of the staff members listed above.

Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed above.

We may decide not to publish a submission, for example, if we consider it contains offensive or potentially defamatory information. We generally do not publish sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please let us know when you make the submission. However, it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.

The Independent Pricing and Regulatory Tribunal (IPART)

We make the people of NSW better off through independent decisions and advice. IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from IPART's website.

Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders, past, present and emerging.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Contents

1 Draft decisions and recommendations

Seven private ferry operators in Sydney, the Central Coast, and far northern NSW provide regular passenger ferry services under contract with Transport for NSW (TfNSW). TfNSW sets the maximum fares for routes offered by the private operators based on an IPART determination under the *Passenger Transport Act 2014*. Operators may charge less than the maximum fare.

The private ferries are not part of the Opal public transport network. The operators are typically small to medium sized businesses, with some being family operated. Some operators offer charter and tour services as well as the regular passenger services.

A large proportion of passengers using private ferries travel on concession fares or school student passes. The NSW Government pays the operators for the concession and student passengers and some operators get additional "viability payments". The total subsidy from the government to operators is about $4 million per year, with total fare revenue is just over $4 million per year.

1.1 Draft maximum fares for 7 private ferry operators

Table 1.1 Draft decisions for maximum fares 2022 to 2025 ($nominal, inc GST)

Operator	2022	2023	2024	2025
Brooklyn Ferry Service	9.20	9.50	9.70	9.90
Captain Cook Cruises	8.70	9.60	10.70	11.90
Central Coast Ferries	8.50	8.70	8.90	9.20
Church Point Ferry Service	9.90	10.20	10.40	10.70
Clarence River Ferries	9.70	10.00	10.20	10.50
Cronulla and National Park Ferry Service	7.40	7.40	7.40	7.40
Palm Beach Ferries – Mackerel Beach and the Basin	9.10	9.30	9.50	9.70

Note: All fares are rounded to 10c.

In making our draft decisions for fares we considered the impact on passengers, operators and taxpayers

1.2 Draft recommendations for viability payments

The Government pays 3 of the operators (Central Coast Ferries, Church Point Ferry Service and Cronulla and National Park Ferry Service) an annual "viability payment" subsidy based on an assessment in 2010 that those operators would not be viable without it.

IPART usually sets private ferry fares taking the viability payments as a given. However, this year our terms of reference asked us to consider the viability payments as well. Our draft recommendations for these are below, and are discussed in more detail in Chapter 9, and the chapters for the relevant operators (chapters 4, 5 and 7).

1.3 Draft decision on a fuel cost adjustment mechanism

Our fare determinations in the past have included a "fuel cost adjustment mechanism" to adjust fares if the price of fuel for operators goes up or down by a significant amount during a year. This mechanism helps operators manage the risk of a large change in price of one of their major input costs. However, the fuel adjustment mechanism was not triggered during the current 4-year determination period.

For this determination, we are proposing to modify the adjustment mechanism. Our draft determination is that the threshold for the fuel cost adjustment mechanism should be reduced to a percentage change in the diesel price exceeding ±10% in a single year; and for the whole percentage change in the diesel price to apply to the adjustment (rather than the percentage change exceeding the threshold as currently).

That is, once the threshold 10% price change is triggered, the maximum fare would increase or decrease by multiplying the percentage change in the diesel price by the proportion of an operator's total costs that fuel accounts for. See section 9.5 for more detail.

Draft decision for fares

1. That the maximum adult fares for private ferry services be set as in Table 1.1.

Draft recommendations for viability payments

1. That the viability payments for Central Coast Ferries and Church Point Ferry Service continue at their current levels in real terms.

2. That the viability payment for Cronulla and National Park Ferry Service be phased out over the 4 years to 2025.

Draft decision for the fuel cost adjustment mechanism

2. If the average fuel price changes by more than 10% in absolute terms in a year, the maximum fare for the following year would be adjusted by the amount calculated as follows:

$$\Delta Max\ Fare_{t+1,i} = \%\ of\ fuel\ cost_i * \Delta Fuel\ price_t + 1$$

Where:

- $\Delta Max\ Fare_{t+1,i}$ is the percentage change to be applied to the maximum fare for a ferry operator *i* in year *t*
- $\%\ of\ fuel\ cost_i$ is the proportion of fuel in the total operating cost for a ferry operator *i*
- $* \Delta Fuel\ price_t$ is the percentage change between the average fuel price in year *t* and the average fuel price in year *t-1*

1.4 Have your say on our draft decisions and recommendations

Chapters 2-8 discuss our draft decisions on fares and where relevant, viability payments, for each private ferry operator. Chapter 9 sets out in greater detail how we made our draft decisions and recommendations and the factors we considered.

We engaged Indec Pty Ltd to estimate the efficient costs of providing private ferry services over the period 2022-2025. Stakeholders can also make submissions and provide feedback on Indec's draft report on efficient costs.

We are seeking submissions to this Draft Report by 5 November 2021. Page ii at the front of this document explains how to do this. All stakeholders including ferry operators will have a further opportunity to provide comments on this Draft Report at a public forum on 18 October 2021.

Have your say

Your input is critical to our review process.

You can get involved by making a submission, submitting feedback or attending the public hearing.

Submit feedback »

Attend public hearing »

2 Brooklyn Ferry Service

Brooklyn Ferry Service has operated the route between Brooklyn and Dangar Island under a net cost contract with TfNSW since August 2020. Under this contract, the operator retains the fare revenue and receives the balance of the gross contract payment (i.e. the net cost) from TfNSW. However, they no longer receive payments from TfNSW for concession, Pensioner Excursion Ticket (PET) and School Student Transport Scheme (SSTS) passengers, although passengers are still able to use these passes on the ferry. Previously Brooklyn Ferry Service operated under a contract like the other private ferry services covered by our review, and received payments for concession, PET and SSTS tickets. They also received a viability payment.

Over 55% of passengers travelling on the Brooklyn Ferry Service do so on concession, pensioner or school student passes

We asked TfNSW to propose a fare for Brooklyn Ferry Service as they bear the fare revenue risk under the net cost contract. TfNSW advised that they prefer the fares for these services to be set in line with efficient costs.

We engaged Indec Pty Ltd to estimate the efficient costs of providing private ferry services. Indec found that Brooklyn Ferry Service's labour costs were well below the benchmark, but that all its other operating costs were above the benchmark. In total, Indec considered the operating costs for Brooklyn Ferry Service to be efficient.

In recommending fares for Brooklyn Ferry Service, we have considered:

- The operator's operating costs were found to be reasonably efficient
- Setting fares to recover full efficient costs would require large increases to fares (around 20% per annum)
- There is no alternative public transport for passengers
- The existing moderate subsidy from government via the net contract payments provides an appropriate balance of costs between passengers and taxpayers

We recommend increasing fares for Brooklyn Ferry Service in line with forecast inflation and that fares be subject to the fuel cost adjustment mechanism in 2023 to 2025.

Table 2.1 Draft decision fares - Brooklyn Ferry Service ($nominal, inc GST)

Current maximum fare	2022	2023	2024	2025	Average annual increase
9.00	9.20	9.50	9.70	9.90	2.4%

3 Captain Cook Cruises – Lane Cove Route

Captain Cook Cruises has operated the route between Circular Quay and Lane Cove under a net cost contract with TfNSW since July 2019. The operator retains the fare revenue and receives the balance of the gross contract payment (i.e. the net cost) from TfNSW. They no longer receive payments from TfNSW for concession, PET and SSTS passengers, although passengers are still able to use these passes on the ferry. Previously the route was operated under a contract like the other private ferry services covered by our review, and the operator received payments for concession and SSTS tickets.

Over 68% of passengers travelling on the Lane Cove ferry do so on school student passes[a]

We asked TfNSW to propose a fare for the Lane Cove route as they bear the fare revenue risk under the net cost contract, but they did not do so. We requested, but did not receive, patronage and cost forecasts from the operator. In the absence of this information, Indec Pty Ltd extrapolated benchmarks to estimate efficient costs for the operator.

In recommending fares for Captain Cook Cruises Lane Cove route, we have considered:

- The subsidy the operator receives from government (i.e. taxpayers) through its contract payments is very large
- Alternative public transport is available to passengers
- Fares should recover a larger share of the operator's efficient costs

Our modelling found that with the estimate of efficient costs and current fares, the operator receives a very large implied subsidy, far in excess of what they would have received as reimbursement for concession and school student passengers.

To balance the cost of the service more appropriately between taxpayers and passengers, we recommend increasing fares for Captain Cook Cruises Lane Cove route by 11.1% per annum and that fares be subject to the fuel cost adjustment mechanism in 2023 to 2025.

Table 3.1 Draft decision for fares – Captain Cook Cruises – Lane Cove route ($nominal, inc GST)

Current maximum fare	2022	2023	2024	2025	Average annual increase
7.80	8.70	9.60	10.70	11.90	11.1%

[a] The proportion of passengers travelling on school student passes increased to 81% in 2020.

4 Central Coast Ferries

Central Coast Ferries run between Woy Woy and Empire Bay, with stops at Davistown and Saratoga.

Over 81% of passengers travelling on the Central Coast Ferries do so on concession tickets

Central Coast Ferries proposed an annual fare increase of 10%. We are not recommending this increase as it is too large an increase for passengers and taxpayers (in the form of concession and school student payments) to pay.

As we did not receive cost information from Central Coast Ferries, Indec Pty Ltd, extrapolated benchmarks to estimate efficient costs for the operator. Using these estimates, our modelling found that a very large increase in fares and/or the viability payment from TfNSW would be required to meet efficient costs. For this reason, we have not recommended removing the current viability payment.

However, we found no evidence that a larger subsidy is required, as there are other public transport options available in the area. For example, TfNSW buses operate between the same destinations (Empire Bay and Woy Woy) with similar frequency and journey time as the ferry, making it hard to justify an increase in viability payments or a large increase in fares.

In recommending fares for Central Coast Ferries, we have considered:

- The impact on passengers of the proposed fare increase would be excessive
- Alternative public transport is available to passengers
- The existing subsidy from government in the form of a viability payment is moderate and should continue

We recommend increasing fares for Central Coast Ferries annually in line with inflation and that fares be subject to the fuel cost adjustment mechanism in 2023 to 2025. We recommend maintaining the current viability payment (in $2021).

Table 4.1 Draft decision for fares and viability payment - Central Coast Ferries

	Current	2022	2023	2024	2025	Average annual increase
Recommended fare ($nominal, inc GST)	8.30	8.50	8.70	8.90	9.20	2.6%
Viability payment ($2021, ex GST)	70,437	70,437	70,437	70,437	70,437	

5 Church Point Ferry Service

Church Point Ferry Service runs between Scotland Island and the western foreshore of Pittwater.

Around two-thirds of passengers travelling on the Church Point Ferry Service do so on concession, pensioner, or school student passes

Church Point Ferry Service proposed a fare increase in line with CPI.[1] We have accepted their fare proposal.

We engaged Indec Pty Ltd to estimate the efficient costs of providing private ferry services over the period 2022-2025. Indec found that Church Point Ferry Service was operating efficiently at the aggregate level. Church Point Ferry Service operates 2 ferries (one exclusively for the morning and afternoon school runs) and has a third back up vessel.

Our modelling found that the proposed fare increases, and the current viability payment is sufficient to recover efficient costs.

In recommending fares for Church Point Ferry Service, we have considered:

- The operator's costs were found to be efficient
- There is no alternative public transport for passengers
- The existing moderate subsidy from government in the form of a viability payment provides an appropriate balance of costs between taxpayers and passengers.

We recommend increasing fares for Church Point Ferry Service annually in line with inflation and that fares be subject to the fuel cost adjustment mechanism in 2023 to 2025. We recommend maintaining the current viability payment ($2021).

Table 5.1 Draft decision for fares and viability payment – Church Point Ferry Service

	Current	2022	2023	2024	2025	Average annual increase
Recommended fare (nominal $, inc GST)	9.70	9.90	10.20	10.40	10.70	2.5%
Viability payment ($2021, ex GST)	95,359	95,359	95,359	95,359	95,359	

6 Clarence River Ferries

Clarence River Ferries run between Yamba and Iluka on the Clarence River in Northern NSW.

Just over 50% of passengers travelling on Clarence River Ferries pay the concession fare

Clarence River Ferries did not submit a fare proposal or respond to our information request. In the absence of the operator's cost forecasts, Indec Pty Ltd, who we engaged to estimate the efficient costs of providing private ferry services, extrapolated benchmarks to estimate their efficient costs for the operator.

Based on Indec's efficient cost estimates, our modelling found that fares would need to increase by more than 20% per annum to ensure there was no shortfall. This is not an appropriate increase for passengers to pay. We also do not know how the estimate of efficient costs compares to the operator's actual costs. Indec's estimates of efficient costs may not be a good benchmark for Clarence River Ferries which also operates weekly scenic river and live music cruises and private charters.

In recommending fares for Clarence River Ferries, we have considered what increase in fares is reasonable for passengers to pay in the absence of a fare proposal or the operator's cost forecasts

We recommend setting fare increases for Clarence River Ferries in line with inflation and that fares be subject to the fuel cost adjustment mechanism in 2023 to 2025. Clarence River Ferries does not currently receive a viability payment, and we are not recommending one.

Table 6.1 Draft decision for fares – Clarence River Ferries ($nominal, inc GST)

Current maximum fare	2022	2023	2024	2025	Average annual increase
9.50	9.70	10.00	10.20	10.50	2.5%

7 Cronulla and National Park Ferry Service

Cronulla and National Park Ferry Service runs between Cronulla and Bundeena.

Almost two-thirds of passengers travelling on the Cronulla and National Park Ferry Service do so on concession, pensioner or school student passes

Cronulla Ferry Service proposed an annual fare increase of around 5% over the 4-year determination. Multiple submissions from the Cronulla-Bundeena area argued against higher fares on the Cronulla Ferry, stating it was extremely expensive for daily commuters.[2] One submission argued that the current ferry was old and slow and that a newer boat and more regular services were required.[3]

Our modelling found that Cronulla Ferry Service's proposed fare was much higher than the cost reflective fare: that is, based on efficient costs the proposed fare would result in a large surplus. As the proposed fares are significantly more than necessary to recover efficient costs, our draft decision is to not accept them.

In recommending fares for Cronulla Ferry Service, we have considered:

- The operator's costs were found to exceed efficient costs
- The proposed fare would collect more revenue than required to cover efficient costs
- The operator does not require a viability payment in addition to fares to cover efficient costs

We recommend freezing fares at the 2021 maximum in nominal terms and that fares be subject to the fuel cost adjustment mechanism in 2023 to 2025. Even at this level of fares, and without a viability payment, we estimate the operator would still generate a surplus. However, this is based on efficient costs, and Indec found that Cronulla Ferry Service's operating costs are not efficient, and that their ferry is past its economic life. To allow the operator time to achieve greater operating efficiency, we recommend that the current viability payment be reduced incrementally over the 4-year determination and be reduced to zero by 2026.

Table 7.1 Draft decision for fares and viability payment – Cronulla and National Park Ferry Service

	Current	2022	2023	2024	2025	Average annual increase
Recommended fare (nominal $, inc GST)	7.40	7.40	7.40	7.40	7.40	0.0%
Viability payment ($2021, ex GST)	74,501	74,501	55,876	37,251	18,625	

8 Palm Beach Ferries

Palm Beach Ferries operates 2 routes: Palm Beach to Ettalong via Wagstaffe and Palm Beach to Mackerel Beach with stops at Bennets, Bonnie Doon, the Basin and Currawong Beach. IPART can only determine the fares for the Palm Beach to Mackerel Beach route, as the Palm Beach to Ettalong service is not provided under a contract with TfNSW. In determining fares for the Mackerel Beach route, we have considered the fares for Palm Beach to Ettalong. Both routes are relevant to our consideration of the efficient costs of providing the Mackerel Beach route.

55% of passengers travelling on the Palm Beach to Mackerel route pay the adult fare

Palm Beach Ferries proposed annual fare increases of 2.8% and 3.1% for the Mackerel Beach and Ettalong routes respectively.

We engaged Indec Pty Ltd to estimate the efficient costs of providing private ferry services over the period 2022-2025. Indec considered that the operating costs for both routes were reasonably efficient, and our modelling found that taken together, the proposed fare for each route would recover the efficient costs of operating each service. Palm Beach Ferries do not receive a viability payment, and at the proposed fares, do not require one.

In recommending fares for Palm Beach Ferries, we have considered:

- The operator's costs were found to be efficient
- The proposed fares should provide enough revenue to cover efficient costs
- The proposed fares do not have an excessive impact on passengers

We recommend increasing fares for Palm Beach Ferries Mackerel Beach route annually by 2.8% and that fares be subject to the fuel cost adjustment mechanism in 2023 to 2025. If fares for the Palm Beach to Ettalong route increase annually by 3.1% and are also subject to the fuel cost adjustment mechanism in 2023 to 2025, the operator will be able to meet the efficient costs of both services. We consider these increases are reasonable.

Table 8.1 Table 2 Draft decision for fares – Palm Beach Ferries – Mackerel Beach ($nominal, inc GST)

Current maximum fare	2022	2023	2024	2025	Average annual increase
8.70	9.10	9.30	9.50	9.70	2.8%

9 How we made the draft decisions and draft recommendations

Private ferry operators receive revenue for passenger services from fares and from government subsidies, including viability payments to 3 of the operators. Our fare draft decisions and viability payment draft recommendations considered the balance between passengers and taxpayers.

We developed our draft decisions and recommendations by:

- inviting each ferry operator to submit their proposed fares and forecast costs and patronage for the 4-year period of the determination
- modelling each operator's "efficient revenue requirement" for the next 4 years based on estimated efficient operating and capital costs
- modelling revenue based on the operators' proposed fares, our forecast patronage, and forecast Government payments for concession, Pensioner Excursion Ticket (PET)[b] and School Student Transport Scheme (SSTS) passengers
- comparing the scenario modelled using proposed fares with other scenarios that match the efficient revenue requirement with estimated revenue, either by changing fares, including a "viability payment" subsidy from the Government, or both
- considering submissions to our Issues Paper, which discussed costs, service levels, external benefits of private ferry services and impacts on passengers
- deciding which combination of fares and viability payments (if required) is an appropriate sharing of costs between passengers and taxpayers, considering impacts on passengers of changes to fares, any external benefits or other rationale for viability payments.

We have also considered:

- a risk adjustment mechanism for fares if fuel costs change significantly during the determination period
- the potential impact of COVID-19 on future patronage and therefore revenue, outside the fare-setting calculation.

The sections below explain each of these steps in more detail.

[b] The $2.50 PET was replaced by the Gold Opal for pensioners and seniors. As Opal is not available on the private ferries, operators are no longer able to offer PET tickets. However, TfNSW has identified certain geographical areas where the contracted private ferry service is the only public transport mode available. For these areas, local pensioners can travel for free and TfNSW reimburses the operator the full fare.

9.1 Operators proposed fares and forecast their costs and patronage

In March 2021 we invited each ferry operator to propose fares for each year of the review period. We also asked the operators for their forecast operating and capital costs and forecast patronage to support their proposals. We received fare proposals from 4 operators, as shown in Table 9.1.

Brooklyn Ferry Service and Captain Cook Cruises (Lane Cove route) operate under a net contract with Transport for NSW (TfNSW), which means they receive a monthly contract payment net of fare revenue. We therefore requested fare proposals from TfNSW (which bears the fare revenue risk for these 2 services). TfNSW advised that they prefer the fares for these services to be set in line with efficient costs. Clarence River Ferries did not submit a fare proposal.

Table 9.1 Ferry operators' fare proposals for 2022 to 2025 ($nominal, inc GST)

Operator	Current maximum fare	2022	2023	2024	2025	Average annual increase
Brooklyn Ferry Service	9.00				Did not propose fares	
Captain Cook Cruises	7.80				Did not propose fares	
Central Coast Ferries	8.30	9.10	10.00	11.00	12.10	10%
Church Point Ferry Service	9.70	9.90	10.10	10.30	10.50	2%
Clarence River Ferries	9.50				Did not propose fares	
Cronulla and National Park Ferry Service	7.40	7.80	8.20	8.60	9.00	5%
Palm Beach Ferries – Ettalong and Wagstaffe[a]	12.50	13.20	13.50	13.80	14.10	3%
Palm Beach Ferries – Mackerel Beach and the Basin	8.70	9.10	9.30	9.50	9.70	3%

a. IPART can't determine the fares for the Ettalong route, but Palm Beach Ferries proposed fares for that route

Note; we requested the proposed fares in $2021, but operators proposed fares in nominal terms.

Source: Current private ferry fares and fare proposals from operators.

We received cost forecasts from Church Point Ferry Service, Cronulla and National Park Ferry Service and Palm Beach Ferries, and current year costs from Brooklyn Ferry Service. Only Church Point Ferry Service and Palm Beach Ferries provided patronage forecasts. We have not published this information as it is commercial-in-confidence.

9.2 We estimated the efficient costs of ferry services

We engaged Indec Pty Ltd to estimate the efficient costs of providing private ferry services over the period 2022-2025. Their draft report is available on our website.

9.2.1 Indec estimated efficient operating costs for each operator

Indec assessed operators' forecast costs (where provided), across operators and against benchmarks from previous reviews of efficient costs undertaken by Indec for IPART's fare reviews from 2014 to 2017 and by The Centre for International Economics (The CIE) for the 2018-21 fare review. Indec also used a bottom-up cost build-up for both crewing labour and fuel consumption. Further details of their approach are outlined in Indec's draft report.

Of the operators that provided operating cost information, Indec assessed all to be reasonably efficient except Cronulla Ferry Service.

Due to the commercially sensitive nature of the cost information provided by operators, this detail is not published in Indec's draft report. We have provided information papers to each operator with Indec's analysis and comparison of actual costs (where provided) to benchmark efficient costs, and further details on the inputs used in our modelling.

9.2.2 We calculated an efficient capital cost annuity for each operator

For this review we have treated capital expenditure as an annuity, akin to operators leasing their ferries, as Brooklyn Ferry Service does currently. Efficient capital expenditure is estimated as the whole-of-life cost, including maintenance costs, of an 'equivalent' service provider delivering the contracted services. The cost is converted to an annuity payment for each year of the review period. Box 9.1 shows the assumptions we have used to calculate the annuity for each operator.

As all vessel purchase and renewal maintenance costs are captured within the annuity payment, this approach will also address past issues associated with major capital expenditures not always falling within the review cycle. The adoption of an annuity payment will provide greater certainty by smoothing current and future fare determinations.

We acknowledge that most operators own their own vessels and will not actually be leasing a ferry. In these cases, the annuity provides a capital allocation that could be used to service a loan to acquire a new vessel, as well as maintain the vessel.

Box 9.1 Assumptions used in calculating the capital annuity

Capital allowances for vessel replacement will generally be considered appropriate when the existing vessel/s reached or exceed a pre-defined life expectancy.

Life expectancy assumptions used in the review are:

- fast ferry – 15 years (only applies to the Palm Beach – Ettalong route)
- slow ferry – 25 years.

The useful economic life for other asset classes has been assessed as:

- engine rebuilds occur at 10,000 hours
- engine replacements occur at 20,000 hours
- general refurbishments occur every 3 years

Source: Indec, *IPART Review of Private Ferries – Draft Report*, September 2021, p 21.

For each operator we have estimated the annual annuity to lease a new ferry and 50% of the cost leasing of a backup ferry.

9.3 We modelled fare and subsidy options

The model we developed uses information about costs, forecast inflation, and the Weighted Average Cost of Capital (WACC) to calculate the “required revenue” for each ferry operator. The model uses information about Government subsidies and forecast patronage to divide the required revenue (less any Government subsidies) between the number of passengers forecast to use the service. This calculates the fare each passenger should pay. The model also calculates how much revenue each operator’s proposed fare would generate.

We can change the inputs to model different assumptions (e.g. what patronage levels might look like given the impacts of COVID-19), or to compare the effect of different levels of subsidy on fares.

We modelled different scenarios to compare combinations of fares and subsidy payments that allowed operators to recover the efficient costs of their services.

Where our modelling showed that fares proposed by the operators would not achieve the required revenue, we considered the appropriate balance between passengers and taxpayers to meet any difference.

The sections below set out the process in more detail.

9.3.1 Model inputs, scenarios, and outputs

Model inputs

For all operators we used

- Indec's estimate of **efficient operating costs**, Of the operators that provided operating cost data, all were found to be reasonably efficient except Cronulla Ferries.
- The **capital annuity** associated with operating a new ferry, as this equates to efficient capital expenditure. Continuing to use ferries well past their economic life is not efficient as costs of maintenance increase and quality of the service for passengers decreases. For each operator we have included an annual annuity equivalent to leasing a new ferry and 50% of the cost of leasing a backup ferry.
- Forecast **inflation** of 2.5% pa[c]
- A pre-tax **WACC** of 4.9% to calculate the annuity, and as the discount rate for present value. For more information on IPART's WACC methodology and calculations see our Market Update for August 2021.
- Forecast **patronage** based on pre COVID-19 patronage levels.

Patronage forecasts are important in our fare-setting process. In general, higher patronage forecasts means lower growth in fares as the total revenue required to be met by fares is divided among more passengers. Higher patronage by concession passengers and more students eligible for SSTS passes also mean higher government payments.

In our previous annual private ferry reviews, we forecast patronage using an average of the past 3 years, updating it each year. In 2017 we again took an average of the previous 3 years and held it constant for the determination period 2018 to 2021. We have used a similar approach this time, however using patronage data for the 3 years prior the COVID-19 pandemic (2017 to 2019).

As noted in our Information Paper, in 2020 the impact of COVID-19 presented new challenges for each operator, affecting both levels of patronage for their ferry services and the profitability of charter and tour services. In addition to a reduction in tourists and overall passenger numbers, social distancing requirements have impacted the maximum capacity of ferries. Increased cleaning practices in line with government recommendations have also added costs. In 2021, the pandemic continues to add a level of unpredictability for all operators.

COVID-19 has made the task of forecasting patronage extremely uncertain. We sought patronage forecasts as part of our information request to operators – however only Church Point Ferry Service and Palm Beach Ferries provided their estimates. These operators both forecast that passenger numbers would not return to pre COVID-19 levels until at least 2023 or 2024.

To ensure stable fares and minimise the impact on passengers, we decided to use a consistent forecast based on pre COVID-19 patronage levels and consider the extent of the risk of lower patronage outside the fare-setting process. We discuss this in further detail at Section 9.6.

[c] We will update this for our Final Report with the actual CPI for 2022 and forecast of 2.5% for the forward years.

Model scenarios

We used the inputs set out above and modelled the following scenarios:

1. Starting with the proposed fare for each operator (or current fare adjusted for inflation when none has been proposed), we calculated the fare revenue and any funding gap between that fare revenue and the efficient revenue requirement. We compared the viability payment required to close this gap with the current viability payment (if relevant).
2. We calculated the fare required to ensure there is no funding gap with the current viability payment (or no viability payment as applicable).
3. If neither of these scenarios produced a combination of fares and subsidies that we considered reasonable while also allowing the operators' efficient costs to be met, we considered the circumstances of that operator in deciding the level of fares and subsidies to recommend.

We also modelled a scenario using 2020 patronage and holding all other inputs the same, to estimate the impact on revenue of lower patronage during 2022-2025 due to COVID-19.

Model outputs – nominal fares

Fares are in nominal terms for the relevant years and incorporate forecast CPI. Fares are rounded to the nearest 10c. As mentioned, we have used an estimate of 2.5% per annum. We will update this for our Final Report with the actual CPI for 2022 and forecast of 2.5% for the forward years.

We consider presenting the fares in nominal terms (rather than a formula to be updated annually) provides greater certainty to operators and passengers and overcomes the issue of rounding which can occur when fares are adjusted in each separate year.

9.4 Factors we considered in comparing fare and subsidy options

In our 2017 and previous reviews we accepted the viability payment that several operators receive as a given and included it in our modelling of cost reflective (i.e. efficient) fares as a fixed revenue input. As our terms of reference for this review require us to consider viability payments, we have taken a slightly different approach.

As discussed in the sections below, we considered:

- the subsidies private ferry services currently receive and the impact on taxpayers
- external benefits generated by private ferries
- the impact on passengers of different levels of fares
- feedback from submissions
- the impact on operators.

9.4.1 Current subsidies for private ferries

Public transport is heavily subsidised – cost recovery for Sydney Ferries in 2017-18 was 34.8% compared to overall Opal network cost recovery of 24.6%.[4] COVID-19 impacts on public transport patronage have driven that level even lower.

Private ferries are not part of the public transport network. However, in some regards they are treated like public transport rather than purely commercial operators. They receive subsidies for concession passengers and, where applicable, SSTS and PET passengers, and currently 5 of the 7 operators receive viability payments or net cost payments from TfNSW. Box 9.2 explains in more detail the subsidies paid by TfNSW to private ferry operators.

Box 9.2 The ferry operators receive revenue from fares, and from payments from the NSW Government

- Five of the operators (Central Coast Ferries, Church Point Ferry Service, Clarence River Ferries, Palm Beach Ferries, and Cronulla and National Park Ferry Service) receive payments from the NSW Government based on the concession and local pensioner passengers they carry and the school students they may carry:
  - Concession passengers generally pay half the full fare and the Government pays the rest of the fare to the operators, based on the operators' reported concession patronage.
  - For 3 of the operators, local pensioners travel for free and the Government pays the operator the equivalent of a full fare for them, based in the operators' reported patronage.
  - For 4 of the operators, the Government pays the operators the equivalent of a return child fare for daily travel during the school year for eligible school students who live in the routes' catchment area and may catch the ferry to and from school under the School Student Travel Scheme (SSTS), whether they catch the ferry or not.
- The Government also pays 3 of these operators a "viability payment" based on an assessment in 2010 that those operators would not be viable without it.
- The other 2 operators (Captain Cook Cruises and Brooklyn Ferry Service) have moved to "net cost contracts" which means that the total revenue to the operator each month is guaranteed by the Government. The ferry operator keeps the fare revenue, and the Government pays the difference between the fare revenue and the contracted monthly payment.

  These operators no longer receive payment from TfNSW for passengers travelling on concession tickets, pensioner, or school student passes, nor do they receive explicit viability payments.

Box 9.2 The ferry operators receive revenue from fares, and from payments from the NSW Government

However, their contract payments exceed what they would have received from TfNSW for concessions, pensioners, and school students, so they receive both implied concession subsidies and implied viability payments.

Particularly in cases where fares cannot rise to full cost recovery levels because of the impact on passengers or the impact on patronage, subsidy payments imply a level of Government support for the private ferry services' continued availability.

9.4.2 External benefits generated by private ferries

Passenger transport imposes direct costs (fares) on the people who decide to use those services and provides direct benefits (getting from A to B) to those people. However, passenger transport also imposes costs (government subsidies) on people who are not users of those services and provides benefits (e.g. lower road congestion) to non-users. These community-wide costs and benefits are known as external costs and benefits because they are external to the people making the decision to use passenger transport.

For private ferries, the external benefits and costs can be assessed by looking at what a private ferry passenger would do if they did not catch the ferry.

For the private ferries that service islands, a passenger could instead use a private boat or water taxi. The possible external benefits of using the private ferry are therefore reduced congestion on the waterways and at moorings (much as using a bus reduces congestion from private cars on the roads and from parking), reduced pollution and reduced boating accidents.

For the private ferries that service destinations that are land-connected, a passenger could instead use a private car or land-based public transport. The possible external benefits of using the private ferry are reduced road congestion, accidents, pollution and parking.

Another possibility is that the private ferry passenger would not or could not make the trip at all if the private ferry was not available – in which case the external benefit of the private ferry trip is the social inclusion benefit to society of all people being able to access school, employment, services, social activities and entertainment, regardless of their age or mobility constraints.

In previous private ferry reviews we have referred to the existence of external benefits as the rationale for viability payments, on the basis that it is appropriate for government on behalf of taxpayers to pay for the benefits that all of the community experiences.

The value of these external benefits can be estimated if we have enough data. In some cases, the net benefit may not be large – for example, while using a private ferry to an island avoids the pollution, congestion and accident cost of using private vessels, the ferries themselves create pollution, congestion and accident risk.

In our 2017 review, we did not consider there were significant external benefits associated with ferry services provided by Brooklyn Ferry Service, Church Point Ferry Service or Clarence River Ferries, as these ferries provide a service to islands and/or are in areas where there are unlikely to be external benefits associated with avoided road congestion.

In our 2017 review, we estimated the external benefits associated with the Cronulla Ferry Service and Palm Beach Ferries (Ettalong route) using $0.94 per passenger trip as the upper estimate, the figure used for Sydney Ferries as part of the 2016 public transport review. Even using this upper estimate, we found that any external benefits were smaller than the viability payments the private ferry operators were already receiving from the NSW Government, and that further subsidisation was not justified. We also considered whether private ferries generated external benefits by reducing boating accidents but did not quantify this benefit. We did not consider the social inclusion benefit at all.

More recently, we have taken a broader view of what constitutes external benefits and how we consider them in our fare-setting. In the 2020 rural and regional bus review for example, we considered but did not quantify the social inclusion benefits of rural and regional bus services.[5]

The Church Point Ferry Service submitted that as the only form of public transport for the residents of Scotland Island and the Western Foreshores of Pittwater, they provide an invaluable service to this community, particularly for those less financially and physically capable. They also argued that the external benefits generated by the service are of benefit to all NSW residents, citing the avoided water and air pollution.[6]

For this review, we did not re-estimate the value of external benefits for each private ferry service but took their existence and likely level into account when considering the balance between fares and subsidies for each service.

9.4.3 Impacts on passengers

When considering the appropriate share of costs between passengers and taxpayers, we have also considered the impact on passengers if fares rise by the amount required to cover efficient costs. Prices that reflect the efficient costs of providing private ferry services enable ferry operators to sustain their business over the long term by allowing them to recover the efficient costs.

We have also considered the nature of the patronage of each service – for example, where patronage is skewed towards concession, PET and/or SSTS passengers, raising fares effectively increases the Government subsidy as well.

9.4.4 Submitters' views on subsidies for private ferry services

Our Issues Paper sought feedback on how much of any gap between proposed fares and the cost reflective fare should be met by taxpayers (via a government subsidy – the viability payment) and how much by passengers (via higher fares).

Multiple submissions from the Cronulla-Bundeena area argued that the price of the Cronulla Ferry was extremely expensive for daily commuters, arguing for lower fares to be covered by a government subsidy. One reported that if the fare proposal is accepted, a return journey to the CBD would be well over $30 (including a train) by the end of the review cycle.[7] Some also argued that it was much easier and cheaper to drive.[8] Submissions also asked for the service to be included under Opal caps.[9]

Church Point Ferry Service's submission also considered that any shortfall in the costs of operating a ferry service should be made by the taxpayer, rather than an increase in fares due to the external benefits generated.[10]

The survey of private ferry usage we undertook earlier in the review found that more than 88% of residents surveyed across all routes said that their local route was at least *quite useful* to the community. For the Brooklyn, Church Point, Cronulla and Palm Beach routes, at least half of the surveyed residents described the service as *essential* to the community.[11]

The survey also showed a range of opinions around the impact of fare changes to local ferry use. For all except the Brooklyn route, 61%-89% of users considered the value for money *good* or *very good*, and 79%-100% considered it at least adequate. However, when presented with a list of possible changes that would impact their ferry use, cheaper fares and more stops were the most likely to have *at least* a small effect in increasing ferry use. Cheaper fares would have the biggest impact on usage for the Palm Beach and Captain Cook Cruises Lane Cove routes, however there was only a very small sample of respondents for the Lane Cove route.[12]

9.4.5 Impacts on operators

We modelled fares based on operators' efficient costs rather than their actual costs. If operators have higher than efficient costs, they may not receive enough revenue to cover all those costs. They can reduce costs by becoming more efficient, but this may take time. We took this into account when we decided whether to remove or reduce a subsidy to operators or set fares at lower than the level proposed by the operators.

9.5 We decided to modify the fuel cost adjustment mechanism

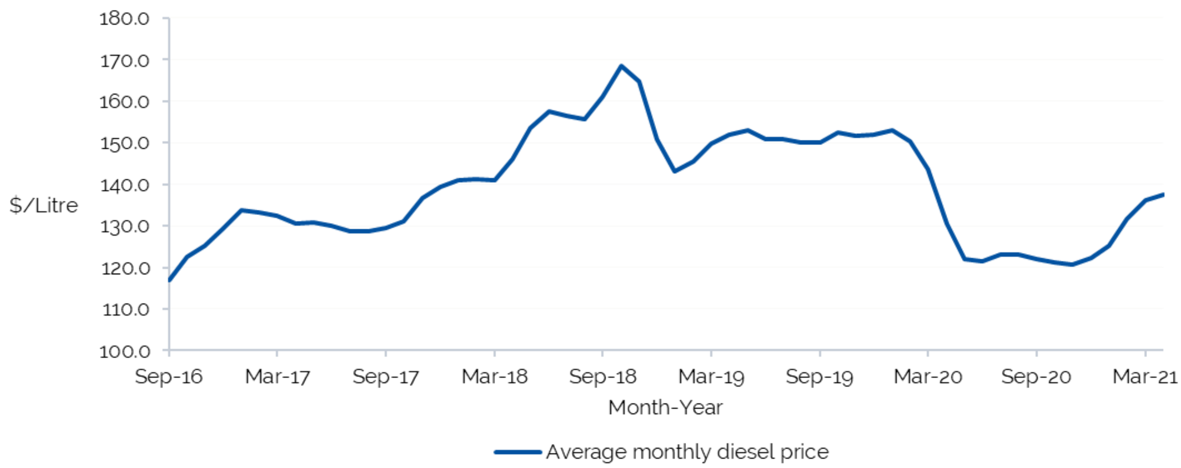
In our Issues Paper we sought comment on the fuel cost adjustment mechanism, to which the Church Point Ferry Service responded that the fuel adjustment mechanism should be retained, but dropped to a 10 or 15% change.[13]

The current fuel price adjustment mechanism is only triggered if fuel prices change by more than 20% (up or down) in the year to September. This threshold has not been reached over the current determination period despite large fluctuations in fuel prices in 2018 (13%) and 2020 (-10%).

Given this, we decided that the threshold for the fuel cost adjustment mechanism should be reduced to 10% in absolute terms. We also decided that the whole percentage change in fuel costs be applied in calculating the change in the maximum fare. Currently only the percentage change above the threshold would apply.

Figure 9.1 shows the volatility in the price of diesel in Sydney over the current determination period. Large changes in fuel costs represent a risk, especially to smaller services, with fuel costs accounting for between 4-18% of operating costs for private ferry operators (Table 9.2).

Figure 9.1 Average monthly diesel price



Source: Fueltrac monthly data

Table 9.2 Proportion of fuel cost as a share of total operator expenditure

Operator	Share of cost
Brooklyn Ferry Service	8.9%
Captain Cook Cruises	6.1%
Central Coast Ferries	6.9%
Church Point Ferry Service	7.9%
Clarence River Ferries	4.0%
Cronulla and National Park Ferry Service	4.0%
Palm Beach Ferries – Mackerel Beach and the Basin	5.8%

Source: Indec Pty Ltd, IPART Review of Private Ferries, Draft Report, September 2021.

We are proposing to:

1. reduce the fuel price adjustment threshold to ±10%
2. apply the percentage annual change in fuel price to the calculation of the new maximum fare (rather than just the portion above the threshold).

The new calculation for the fuel adjustment mechanism would therefore be:

$$\Delta Max\ Fare_{t+1,i} = \%\ of\ fuel\ cost_{t,i} * \Delta Fuel\ price_t + 1$$

and apply if the change in fuel price exceeded ±10%.

The fuel cost adjustment mechanism would be applied to fares from 2023 to 2025.

Box 9.3 provides an example of what would occur under the new calculation.

Box 9.3 Fuel adjustment mechanism example

The fuel cost adjustment for 2023 would be calculated as follows:

$$(Fuel\ Cost\ Proportion \times \Delta Average\ Fuel\ Price_{2021-2022}) + 1$$

For an operator with fuel costs representing 7.4% of total operating costs - shown as fuel cost proportion, if:

- the determined maximum adult fare in 2023 was $6.50
- the average fuel price over the year to September 2022 - shown as $\Delta Average\ Fuel\ Price_{2021-2022}$ - increased by 15%

The maximum fare for 2023 would be increased by 6.6c, and the new fare for 2023 would be $6.60 (rounded to 10c).

While IPART cannot determine fares for the Palm Beach to Ettalong route, we suggest that TfNSW use the same fuel cost adjustment mechanism that we have proposed for the other operators to determine maximum fares for the Ettalong route. Indec found that the proportion of fuel cost as a share of Palm Beach Ferries total expenditure for the Ettalong route is 20.9%.

In response to our question about whether any other major volatile costs need to be managed, Church Point Ferry Service raised concerns that as they transition from an enterprise agreement onto the award in 2022, they expect their labour costs to increase. Arguing that labour is one of the largest costs, they asked us to consider a separate adjustment mechanism or the increased cost as an input into the fare determination.[14]

Any increase in labour costs has a large impact of operating expenses, with labour accounting from between 51-77% of total operating costs across the operators.

In estimating efficient labour costs, Indec used a benchmark of $80,000 (including on costs). As such, we estimate that the wage rate incorporated into our fare determination already exceeds the industry award. It also includes an annual increase of 2.5%. We are not proposing a separate risk adjustment mechanism for labour costs.

9.6 We considered the risk of COVID-19 impacts on patronage

Using the lower passenger numbers from 2020, or the operators' forecasts, to set fares would mean the revenue required to run each ferry service would need be recovered from fewer passengers through higher fares. This in turn could potentially lead to a further decline in patronage, exacerbating the situation and if not addressed, would lead to a downward spiral of increasing fares and declining patronage. Therefore, as mentioned above, we have made our draft determination for fares using the average patronage of the 3 years prior to the pandemic (2017-2019).

While there is a high degree of uncertainty about patronage levels over the determination period, there is certainly a risk that it will continue to be lower due to the impact of COVID-19 than it was for the period 2017-2019 on which fares are being set.

We have estimated the difference in fare revenue using 2020 patronage data, but holding all other factors constant, at around $900,000 per annum across all the services.

For the operators on net cost contracts, Brooklyn Ferry Service and Captain Cook Cruises, the impact of lower fare revenue would be borne by TfNSW, as under their net cost contracts, they receive the same total revenue every month regardless of fare revenue. If their patronage and hence fare revenue is lower, the net payment from TfNSW will be higher.

There would however be a shortfall in revenue for the remaining 5 operators which we estimate at just under $700,000.

It would not be appropriate to include changes in patronage in the risk management mechanism (discussed at section 9.5) as this mechanism, if triggered, affects the level of fares. The mechanism can move fares up or down, but in the case of lower patronage than forecast would likely lead to higher fares. We do not consider it appropriate that the potential revenue shortfall be passed onto passengers. As discussed above, this could drive patronage further downward.

How any shortfall is shared between taxpayers and/or operators needs to be considered in the context of other Government assistance provided to deal with the impact of COVID-19.

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[1] Church Point Ferry Service submission to IPART Issues Paper, July 2021, p 1.
[2] Anonymous submission to IPART Issues Paper, July 2021, p 1.
[3] Anonymous submission to IPART Issues Paper, July 2021, p.1.
[4] IPART, Opal Fares 2020-2024 data sources TfNSW cost revenue tab.
[5] IPART, *Maximising the community benefits of rural and regional buses: Information Paper*, December 2020, p 1.
[6] Church Point Ferry Service submission to IPART Issues Paper, July 2021, pp 1-2.
[7] Anonymous submission to IPART Issues Paper, July 2021.
[8] Anonymous submission to IPART Issues Paper, July 2021.
[9] Anonymous submission to IPART Issues Paper, July 2021.
[10] Church Point Ferry Service submission to IPART Issues Paper, July 2021, pp 1-2.
[11] IPART, *Review of maximum fares for private ferry services for 2022 to 2025 – survey results* – Information Paper, July 2021, p 4.
[12] IPART, *Review of maximum fares for private ferry services for 2022 to 2025 – survey results* – Information Paper, July 2021, p 4.
[13] Church Point Ferry Service submission to IPART Issues Paper, July 2021, p 3.
[14] Church Point Ferry Service submission to IPART Issues Paper, July 2021, p 3.