



Revision History

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1 Introduction

1.1 Overview

This document provides the Transport for NSW Opal fare business rules.

1.2 Purpose

The business rules and definitions provide information for the derivation of fare amounts for trips and journeys within the Transport for NSW Opal network.

This document is to be reviewed in conjunction with the *Open Data Opal Distance Tables and Opal Fare Values* Excel spreadsheet. Both this document and the spreadsheet can be found in the “Opal Fares” dataset on the Open Data Hub: <https://opendata.transport.nsw.gov.au/dataset/opal-fares>.

1.3 Terms and Definitions

| Term | Definition |
|----------------------------|---|
| Airport Link Company (ALC) | A private company which operates Green Square, Mascot, Domestic Airport and International Airport Railway stations on the T8 Airport & South line of the Sydney Trains network in Sydney, Australia |
| Capping (cap) | An upper limit or restriction on the amount charged. |
| Contactless payments (CTP) | Contactless payment systems are credit cards and debit cards, including smartphones and other mobile devices that use radio-frequency identification or near field communication for making secure payments. |
| Daily cap | Travel all day on Metro, Train, Bus, Ferry and Light Rail services and pay no more than the maximum amount advised per day. A day starts from 04:00am to 03:59:59am the following day. |
| Intermodal transfer | An intermodal transfer occurs when an Opal customer interchanges between travel modes within the 60-minute transfer time in order to complete their journey (e.g. from Bus to Train). |
| Intra-modal transfer | An intra-modal transfer is the transfer between vehicles, wharves or stations of the same mode as part of an overall single journey undertaken by an Opal customer within the defined transfer time limit for that mode (e.g. Train to Train). |
| Journey | A journey consists of one or more trips on eligible services where transfers between services occur within 60 minutes (except the Sydney Ferries Manly Ferry service where the standard transfer time is 130 minutes from tap on). |
| Maximum journey time | Maximum journey time is the time allowed between a tap on and a tap off, for the tap off to be treated as part of the same journey on that mode. The time starts from the first tap on of the trip or multiple trips on the same mode (intra-modal transfer). It varies across modes and locations. For more information on the maximum journey time for each mode, please see “Maximum journey time” on https://transportnsw.info/tickets-opal/opal/fares-payments/how-opal-fares-are-calculated |
| Maximum trip time | Maximum trip time is only applicable to customers who use contactless payments. Maximum trip time is the maximum time allowed between a tap on and a tap off for the tap off to be treated as part of the same |

| | |
|--------------------------|---|
| | trip. If the tap off occurs after the maximum trip time, then the previous tap on is treated as an incomplete trip. |
| Opal Network | <p>The Opal network comprises:</p> <ul style="list-style-type: none"> • Sydney Trains and NSW TrainLink Intercity networks. • The Bus networks of the cities of Sydney and Newcastle and the Blue Mountains, Central Coast, Illawarra and Hunter regions. • The Sydney Ferries network and the Stockton Ferry in Newcastle. • Light Rail • Metro |
| Park&Ride | Transport for NSW has a number of commuter car parks which provides up to 18 hours of free parking each day when a customer uses public transport journey - the parking is not charged as long as the customer has tapped on and off using an accepted Opal card and used the same Opal card when exiting the car park. |
| Peak/Off-Peak | <p>Peak fares apply during the times at which the highest numbers of people are using public transport.</p> <p>Off-peak fares apply when travel demand is less.</p> |
| Reloadable cards | A reloadable Opal card is a smartcard that is the size of a credit card. The card can hold information limited to travel history, card balance, travel entitlements, and customer types. A standard "Opal card" (e.g. Adult, Concession) is a reloadable card. |
| Station Access Fee (SAF) | A station access fee (SAF) is a surcharge that is deducted from an Opal card in addition to the Opal fare charged for a journey to or from either the International or Domestic Airport Train stations. |
| Stockton Ferry | Stockton Ferry is managed by Newcastle Transport, which is a subsidiary of Keolis Downer Hunter (KDH) and travels from Newcastle to Stockton across the Hunter River. Stockton Ferry is using bus fares and rules. A transfer involving a bus and the Stockton Ferry is considered to be an intra-modal bus transfer. |
| Tap | <p>The action taken by a customer to confirm a start and end of a trip by physically 'tapping' the card or device against an Opal machine.</p> <p>Failure to tap can result in an incomplete trip and the customer being charged the default fare for the mode travelled.</p> |
| Trip | A trip is to travel on one route in one mode. When you transfer to another route or service, you are commencing a new trip. |

2 Opal Fare Structure

Opal fares are calculated according to the distance travelled between the tap on and tap off locations for each trip.

2.1 Fare Calculation

The following table outlines the distance bands used for calculating fares.

| Ferry | Km | Train | Km | Bus | Km | Light Rail | Km |
|--------------|-----|------------------------|--------|------------|------|-------------------|------|
| Opal Ferry 1 | 0-9 | Opal Train/ Metro 1 | 0-10 | Opal Bus 1 | 0-3 | Opal Light Rail 1 | 0-3 |
| Opal Ferry 2 | >9 | Opal Train/ Metro 2 | >10-20 | Opal Bus 2 | >3-8 | Opal Light Rail 2 | >3-8 |
| | | Opal Train/ Metro 3 | >20-35 | Opal Bus 3 | >8 | Opal Light Rail 3 | >8 |
| | | Opal Train/ Metro 4 | >35-65 | | | | |
| | | Opal Train/ Metro 5 | >65 | | | | |

2.2 Calculation of Distance Based Fares by Mode

For any exceptions to the distances refer to the accompanying Opal Distance Tables spreadsheet.

| Mode | Description |
|-------------|---|
| Train/Metro | Train route distance between the origin and destination stations (also known as 'track distance'). |
| Light Rail | Straight-line distance between the origin and destination Light Rail stops (also known as 'point-to-point' or 'as the crow flies'). |
| Ferry | Straight-line distance between the origin and destination wharves (also known as 'point-to-point' or 'as the crow flies'). |
| Bus | Straight-line distance between the origin and destination Bus stops (also known as 'point-to-point' or 'as the crow flies'). |

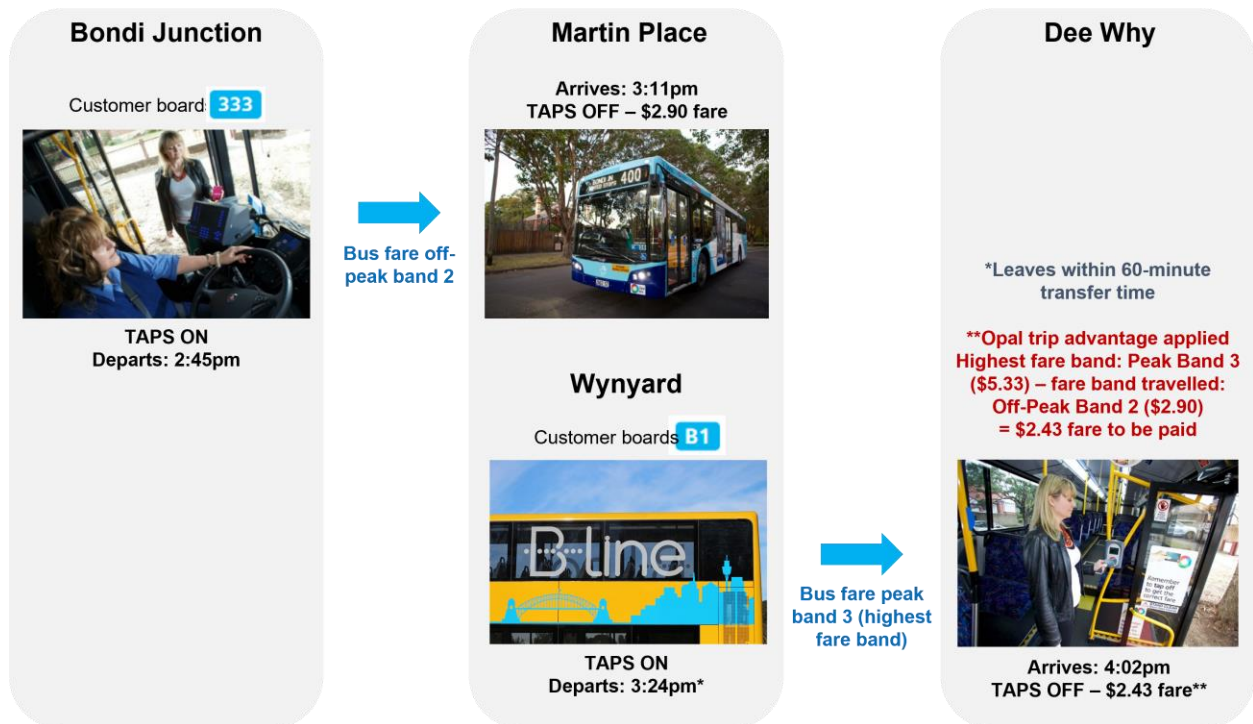
The following table lists the Opal fare Business rules defined for the payment methods for travel.

| Payment type | Business Rule | Description |
|--------------------------------------|-----------------------------|--|
| Opal Reloadable cards | Day types | There are five (5) day types defined as follows: weekdays, Fridays, Saturdays, Sundays, and public holidays. Notes: <ul style="list-style-type: none"> Public holidays take precedence over weekdays, Fridays, Saturdays, and Sundays. |
| | Times | Day types start and end at midnight, with the following exceptions: <ul style="list-style-type: none"> For daily capping, day types start at 04:00am and finish at 03:59:59am the following day. Journeys starting before 11:59:59pm are allowed to be completed up to 03:59:59am of the following day. Journeys started on or after 00:00am are allowed to be completed by a tap off either before or after 04:00am subject to the Maximum Journey Time. The first tap on after 04:00am is always the start of a new journey. |
| Single trip tickets | Single trip | <ul style="list-style-type: none"> Opal single tickets are available as Adult or Child/Youth only. There are no other concessions available as a single ticket. You cannot break your journey with Opal single tickets and there are no return tickets. You will need to buy a new ticket each time you need to change to another service. Your single trip ticket also needs to be tapped on and then tapped off at the Opal card readers. |
| Contactless payments | Pricing | <ul style="list-style-type: none"> The pricing payment for travel using contactless payments is aligned to the Adult Opal reloadable card. |
| | Opal travel benefits | <ul style="list-style-type: none"> All Opal travel benefits, except for Park&Ride, are available for customers using contactless payments. |

2.3 Opal Trip Advantage (intra-modal transfer discount)

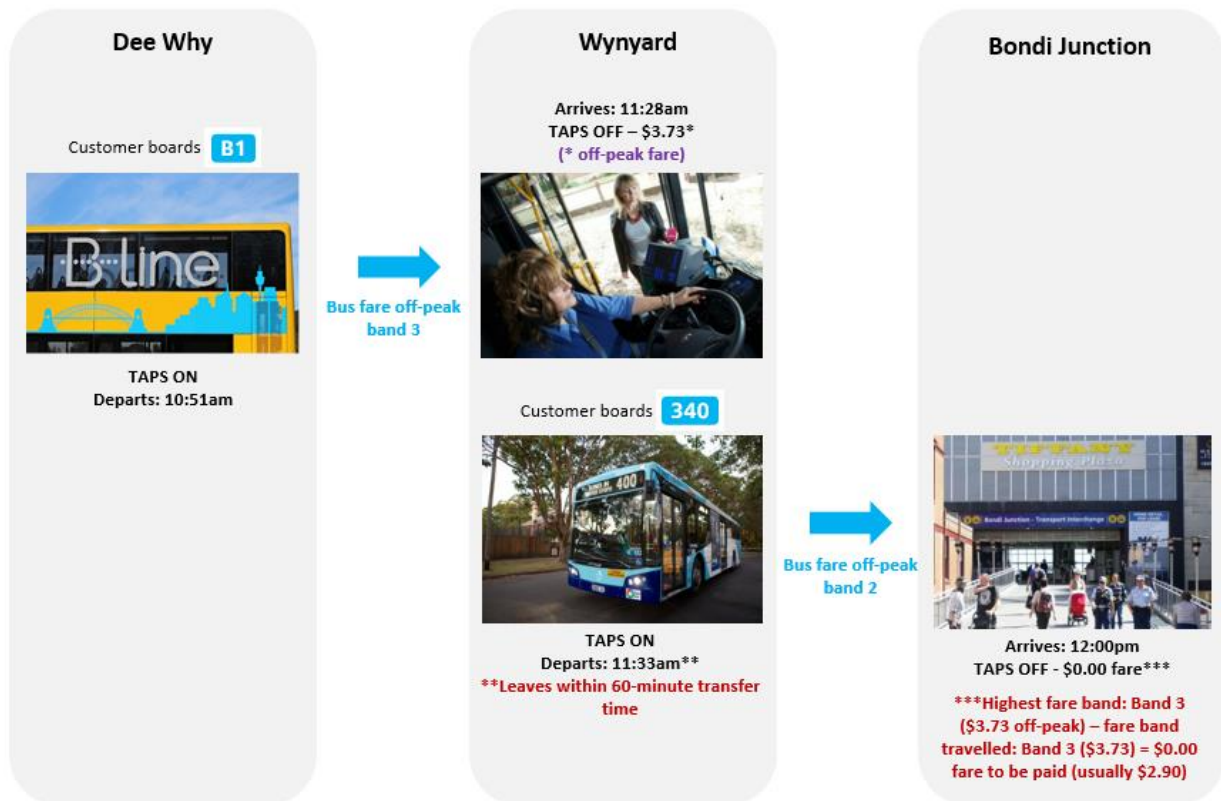
When a customer makes several trips using the same transport mode, it counts as a single journey and a single fare, as long as their transfer occurs within 60 minutes of tapping off from their last trip. The benefit applies to customers using a reloadable Opal card or contactless payment card/device for travel. The Opal trip advantage benefit is available at any time on the Opal network.

If an intra-modal transfer occurs across the change from peak to off-peak (and vice versa), the amount the customer pays on subsequent trips will reflect the new period (e.g. peak period).



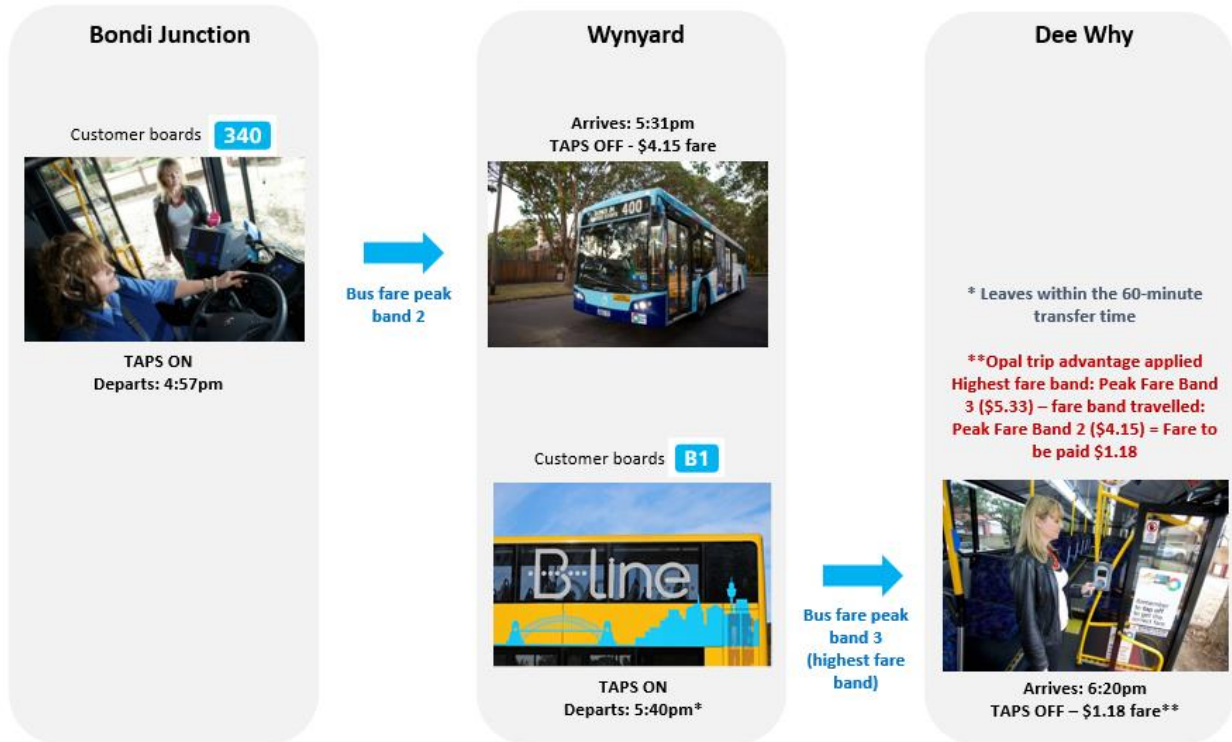
Opal trip advantage scenario 1

In the first Opal trip advantage example, if a customer travels by bus from Dee Why to Wynyard (fare band 3 – highest band) and then catches another bus from Wynyard to Bondi Junction within the 60-minute journey window, the customer is not charged for the second bus trip as they have already travelled the highest fare band (see the following scenario).



Opal trip advantage scenario 2

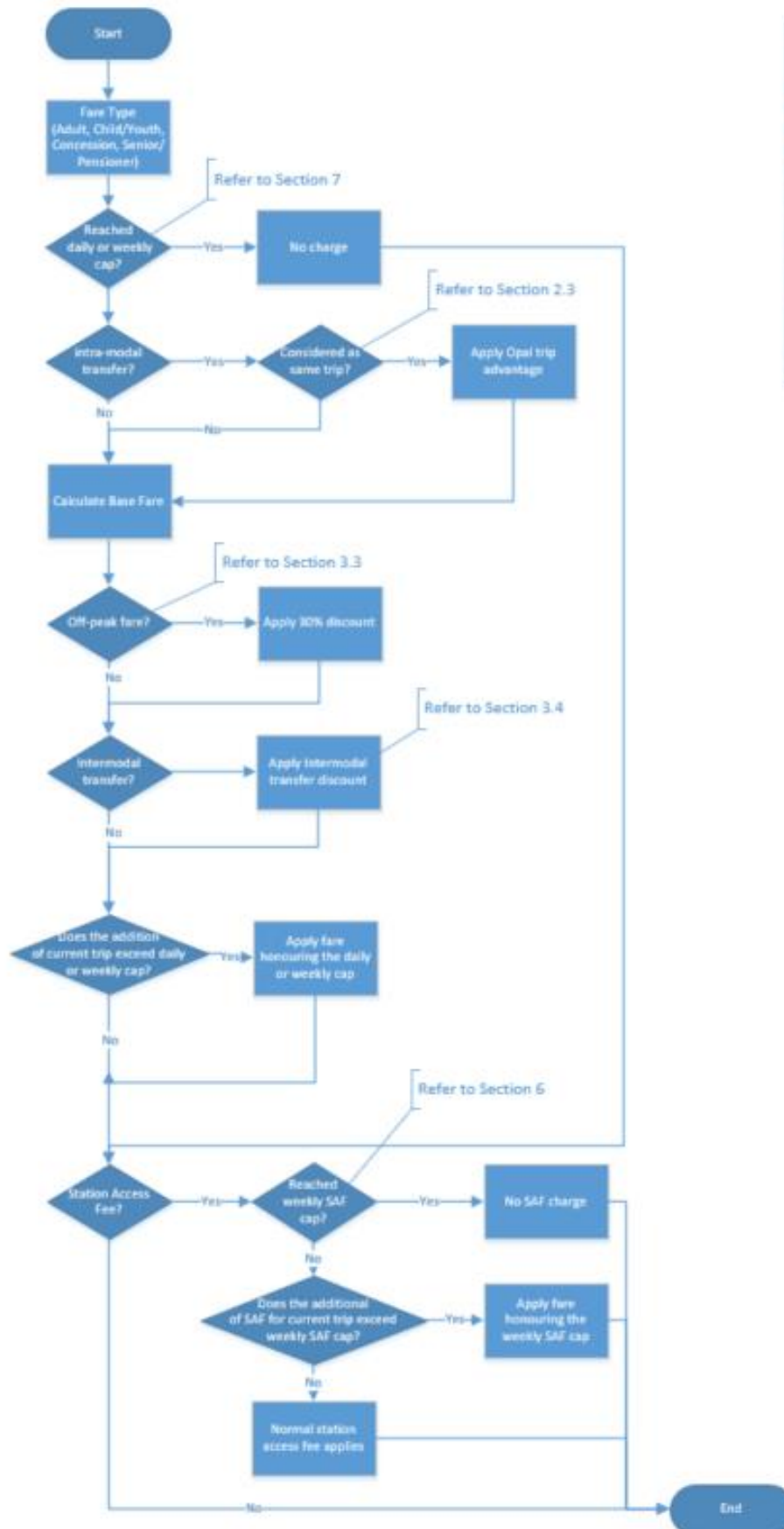
In the second example, if a customer travels by bus from Bondi Junction to Wynyard (fare band 2) and then catches another bus from Wynyard to Dee Why within the 60-minute journey window, the customer is charged the difference between the highest fare band (band 3) and the fare band already travelled (band 2) (see the following scenario).



Notes

- Refer to section **5. Longest Distance fare** for more information.
- Transferring between Train and Metro is considered an intra-modal transfer.
- An exception applies to the Sydney Ferries Manly Ferry service where a customer does not tap off and the standard transfer time is counted as 2 hours and 10 minutes (130 minutes) from tap on.
 - When travelling on the F1 Manly Ferry service, you are not required to tap off. The service has only one stop, so you are charged automatically when you tap on.

2.4 Opal Fare Flow Chart



Notes:

1. The calculations assume the customer performs proper tap on and tap off. Failing to do so results in being charged the default fare, as well as break of journey and potentially impacts the frequency of use counter.
2. Calculations of the fares depends on tap on and tap off, not the arrival of services.
3. Use this flow chart to calculate a trip as part of a journey.
4. Use this flow chart to determine the order of Opal discount.
5. The use of this flow chart is with the assumption that the customer's travel history is known.

3 Rewards and Discounts

3.1 Off-peak Discount

The off-peak discount is a 30% discount that applies to customers who travel by Metro, Train, Bus and Light Rail during the weekday off-peak periods as well as all day on weekends, Fridays, and public holidays. This discount applies to customers using a reloadable Opal card or a contactless payment card/device for travel.

The following are the peak and off-peak times for Metro, Sydney Trains, Bus and Light Rail.

| Time Band | 0:00am - 06:29:59am | 06:30am - 09:59:59am | 10:00am - 02:59:59pm | 03:00pm - 06:59:59pm | 07:00pm - 11:59:59pm |
|-----------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| Weekdays | Off-peak | AM Peak | Off-peak | PM Peak | Off-peak |
| Fridays | Off-peak | Off-peak | Off-peak | Off-peak | Off-peak |
| Saturdays | Off-peak | Off-peak | Off-peak | Off-peak | Off-peak |
| Sundays | Off-peak | Off-peak | Off-peak | Off-peak | Off-peak |
| Public Holidays | Off-peak | Off-peak | Off-peak | Off-peak | Off-peak |

The following are the peak and off-peak times for NSW TrainLink/Intercity Train stations (*please refer to the Open Data Opal Distance Tables for a list of Trains*).

| Time Band | 0:00am - 05:59:59am | 06:00am - 09:59:59am | 10:00am - 02:59:59pm | 03:00pm - 06:59:59pm | 07:00pm - 11:59:59pm |
|-----------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| Weekdays | Off-peak | AM Peak | Off-peak | PM Peak | Off-peak |
| Fridays | Off-peak | Off-peak | Off-peak | Off-peak | Off-peak |
| Saturdays | Off-peak | Off-peak | Off-peak | Off-peak | Off-peak |
| Sundays | Off-peak | Off-peak | Off-peak | Off-peak | Off-peak |
| Public Holidays | Off-peak | Off-peak | Off-peak | Off-peak | Off-peak |

Note:

- The fare is calculated from the first time you tap on.
- Trips/journeys that include transfers between Sydney Metro, Sydney Trains and/or NSW TrainLink Intercity services are considered continuous.
- On weekends, Fridays and public holidays, all fares are charged as off-peak.
- There is no off-peak discount when using an Opal single ticket.
- Off-peak fares are available for the Newcastle Stockton Ferry service.
- The latest peak and off-peak times can be found here: <https://transportnsw.info/tickets-opal/opal/fares-payments/opal-peak-off-peak-fares>

3.2 Intermodal Transfer Discount

A customer receives an intermodal transfer discount (known as the Opal Transfer Discount) each time they change travel modes during a single journey (for example, changing from Bus to Train), as long as they tap on less than 60 minutes after tapping off their previous travel mode. So if they change modes once, they receive the intermodal transfer discount. If they change modes more than once, they receive the discount for each change they make. This discount is available at all times to encourage travel between modes.

This discount applies to customers using a reloadable Opal card (Adult, Child/Youth, Senior/Pensioner and Concession Opal cards) or contactless payment card/device for travel.

Note:

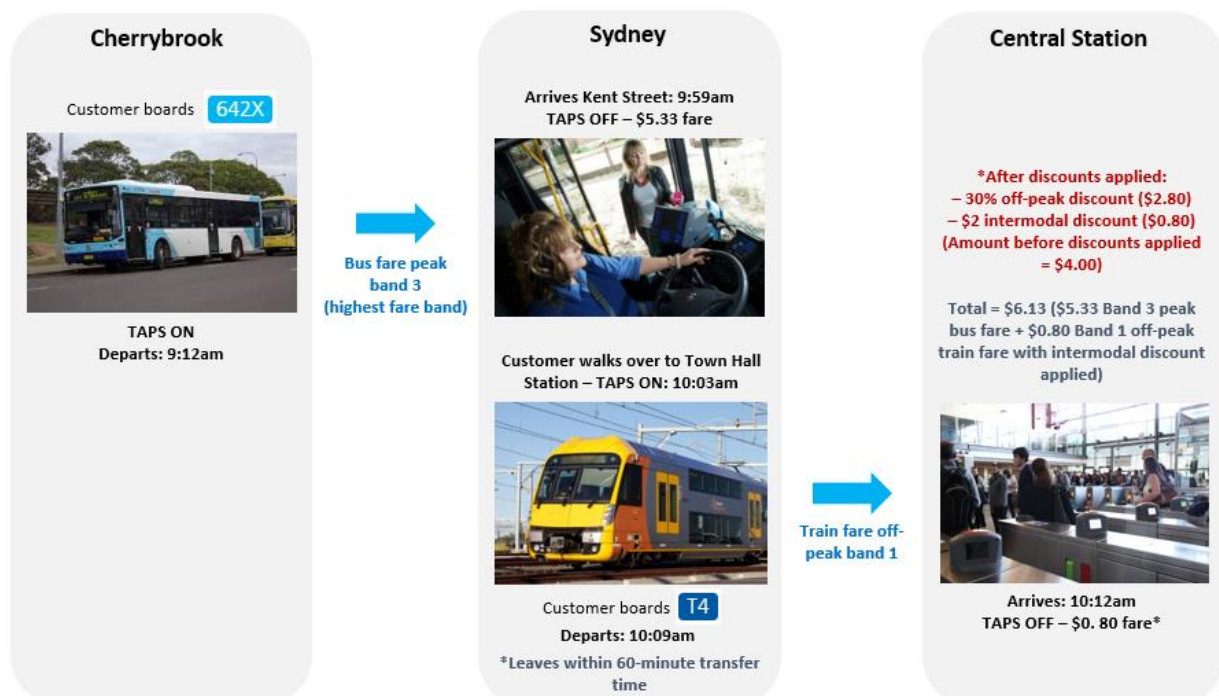
This discount is still applied even when a customer:

- Receives an off-peak discount when travelling on Train or Metro
- Has reached their weekly travel reward (where the intermodal transfer discount is 50% of the discount applied before the reward is reached).
- For a single mode change, you are eligible for the transfer discount every time you change mode as part of a journey.

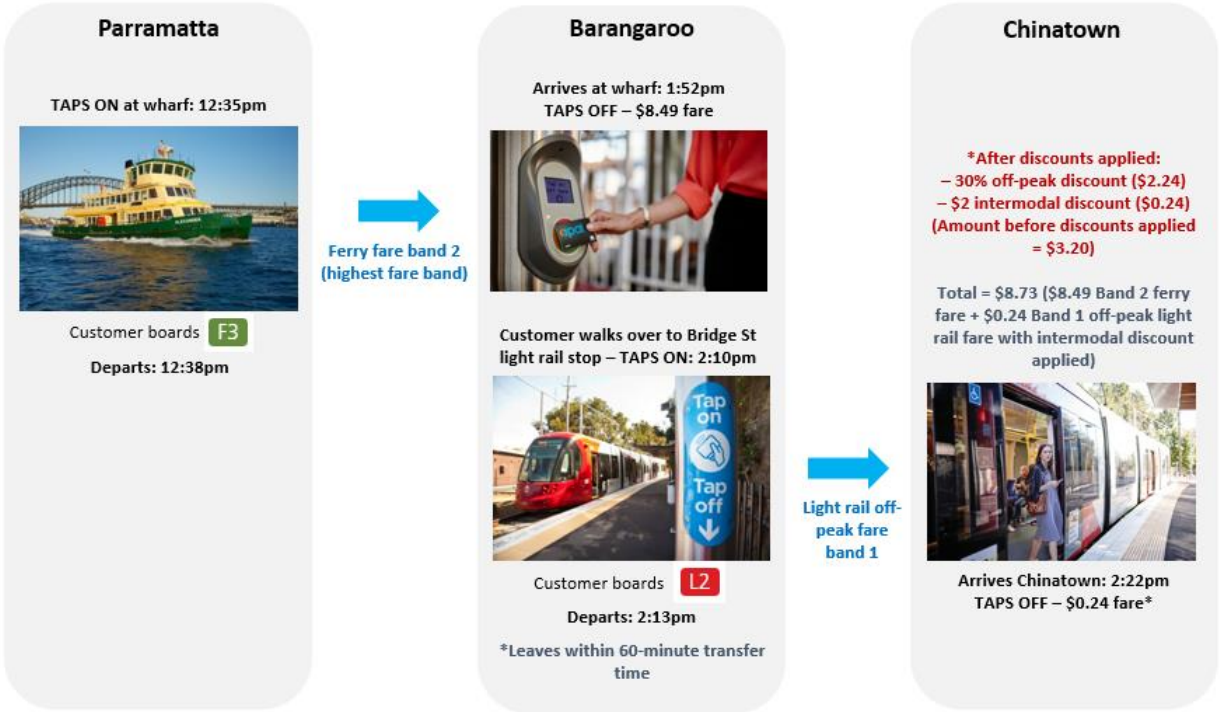
The following table outlines the discounts applied.

| Opal card type | Discount for single trip |
|------------------|--------------------------|
| Adult | \$2.00 |
| Senior/Pensioner | \$1.00 |
| Concession | \$1.00 |
| Child/Youth | \$1.00 |

The following figure shows the intermodal transfer discount for a customer using an Adult Opal Card who travels from Cherrybrook to Central Station via Town Hall by Bus and off-peak Train.



The following figure shows the intermodal transfer discount for a customer using an Adult Opal card who travels from Parramatta to Chinatown via Barangaroo by Ferry and Light Rail.



4 Default Fare Business rules

Under the distance-based fare structure, the final fare cannot be determined until a tap off has occurred, the distance travelled calculated and the corresponding fare charged to the customer. Customers who fail to complete a tap on or tap off (i.e. they do only one or the other) incur a default fare, either as an 'unstarted' exit (tap off with no matching tap on) or an incomplete journey (tap on with no matching tap off). A trip for which a default fare was charged, cannot result in a transfer (Intra-modal or Inter-modal).

The following table lists the Business rules for default fares.

| Situation | Conditions |
|---|---|
| Zero default fare | A zero default fare applies under the following conditions: <ul style="list-style-type: none"> A fare cap has already been reached. For an intra-modal transfer, the maximum fare for that mode has already been reached. |
| Reduced default fare | A reduced default fare will apply where: <ul style="list-style-type: none"> There are physically short Bus routes (if fare due can never be the maximum distance band) A travel reward threshold has already been reached Tap on starts a new trip as part of an intra-modal transfer (the default fare will be reduced by the amount already deducted for travel on the same mode) The difference between the accumulated daily travel cost and the daily fare cap is less than the default fare for that mode of travel |
| Opal setting of default fare for mode substitution services | In all instances, when a customer fails to tap on or off travelling on an Opal-enabled Bus replacing either a Ferry, Train or Light Rail service will charge the default fare applicable to the mode that it is replacing. |
| Default fare settings | Set to the highest fare band for that mode for peak and off-peak, excluding the station access fee (SAF). |

4.1 Default Fare Train and Metro

Metro and Train fares for reloadable Opal cards and Contactless Payment are provided in the "Opal Fares" dataset within the "Open Data Opal Distance Tables and Opal Fare Values" resource on the Open Data Hub (see Section 1.2 for details).

4.2 Default Fare Bus

Bus fares for reloadable Opal cards and Contactless Payment are provided in the "Opal Fares" dataset within the "Open Data Opal Distance Tables and Opal Fare Values" resource on the Open Data Hub (see Section 1.2 for details).

4.3 Default Fare Ferry

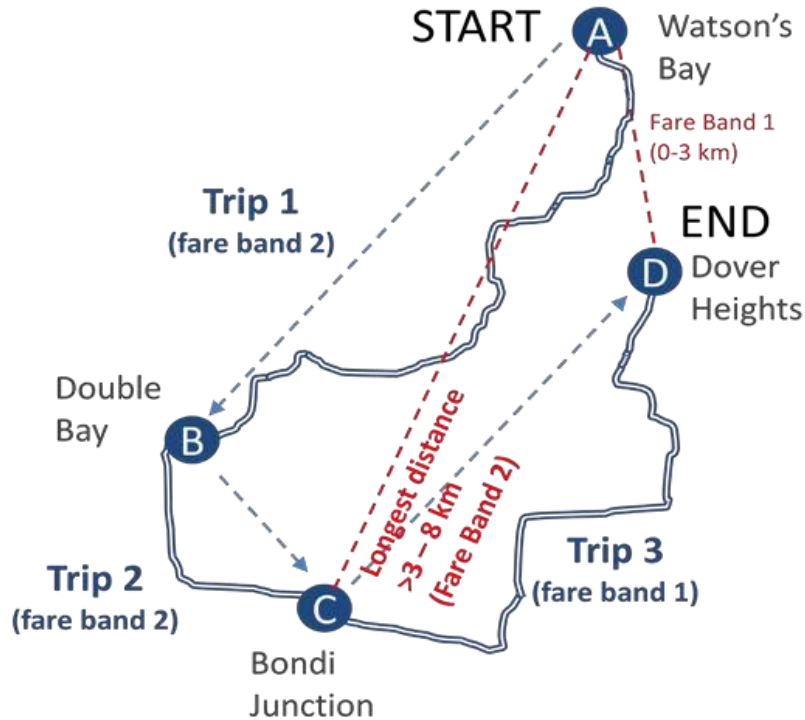
Ferry fares for reloadable Opal cards and Contactless Payment are provided in the "Opal Fares" dataset within the "Open Data Opal Distance Tables and Opal Fare Values" resource on the Open Data Hub (see Section 1.2 for details).

4.4 Default Fare Light Rail

Light Rail fares for reloadable Opal cards and Contactless Payment are provided in the "Opal Fares" dataset within the "Open Data Opal Distance Tables and Opal Fare Values" resource on the Open Data Hub (see Section 1.2 for details).

5 Longest Distance Fare

The distance-based fare for a whole intra-modal journey will never be less than the maximum distance-based fare calculated on any previous trip/s as part of the same intra-modal journey.



- The distance between the start and end locations (A & D) is < 3 km (fare band 1)
- The total fare for the single intra-modal journey equals fare band 2 - calculated on the longest (straight line) journey segment

The following table provides examples of calculations for the **longest distance fare rule for Buses**.

| Trip | Tap on | | Tap off | | |
|-------|-----------------|-------------------------------|------------------------------------|------------------------------------|-------------------------------|
| | Reader balance* | Card balance | Fare band (Bus) | Fare paid, reader and card balance | |
| A → B | \$20.00 | \$14.67 (\$20.00 - \$5.33) | Peak Fare Band 2 (\$4.15) A → B | -\$4.15 \$15.85 | (-\$5.33 + \$1.18 = - \$4.15) |
| B → C | \$15.85 | \$14.67 (\$15.85 - \$1.18) | Peak Fare Band 2 (\$0.00) A → C | -\$0.00 \$15.85 | (-\$1.18 + \$1.18 = \$0.00) |
| C → D | \$15.85 | \$14.67 (\$15.85 - \$1.18) | Peak Fare Band 1 (\$0.00) A → D | -\$0.00 \$15.85 | (-\$1.18 + \$1.18 = \$0.00) |

*During tap on, we take default fare from the card and adjust the card balance once final fare is calculated at tap off.

6 Station Access Fee Surcharges

The only surcharge applicable on the Opal network is for the Train Station Access Fee (SAF) (Domestic and International Airport stations). There are no surcharges that apply for Buses, Ferries and Light Rail. The appropriate SAF rate is added to the applicable Opal Train peak/off-peak Train fare band.

Note: A journey to/from an Airport Line station can also include Ferry and Bus trips.

The following principles apply for SAF:

- Airport SAF does not count towards the Opal Daily Travel Cap.
- Airport SAF is subject to the weekly SAF cap.
- The deduction of the SAF might mean that the Opal card balance goes negative. If this happens, the customer will need to top up their Opal card so that they can exit the paid area of either the International or Domestic airport station.
- The weekly SAF cap does not apply to contactless payments.

6.1 Station Access Fee Values

Station Access Fee values are provided in the “Opal Fares” dataset within the “Open Data Opal Distance Tables and Opal Fare Values” resource on the Open Data Hub (see Section 1.2 for details).

7 Fare Caps

Fare capping is available on Opal reloadable cards and contactless payments where a customer will pay no more for their travel taken after the fare cap has been reached. Once the fare cap has been reached, the customer can undertake unlimited free travel anywhere on the Opal network until the cap period expires. Fares caps are used to enable an upper limit on the daily and weekly cost of travel.

Daily and weekly fare cap values are provided in the “Opal Fares” dataset within the “Open Data Opal Distance Tables and Opal Fare Values” resource on the Open Data Hub (see Section 1.2 for details).

7.1 Fare Cap Business Rules

| Rule | Description |
|-----------------------------------|---|
| Free travel after cap reached | After a fare cap is reached, no further payment is required for the remainder of the period covered by the fare cap, with the exception of SAF surcharges. |
| Additional journeys | After the daily fare cap is reached, subsequent journeys for the remainder of the day are free until the daily fare cap resets at the start of the next day. |
| Fare caps applied after discounts | Fare caps are applied after discounts are deducted. |
| All fares counted | All fares paid on any mode count towards the caps (including default fares, with the exception of surcharges). |
| Configurable by card type | The daily and weekly fare cap is configurable by customer type. |
| Daily cap period | For daily capping, day types start at 04:00am and finish at 03:59:59am the following day. |
| Contactless payments | A customer must use the same contactless payment card or device (i.e. physical card, digital wallet, wearable) for each trip to be eligible for capping. The customer will not be eligible for capping if they mix the use of their payment card and device or if they mix the use of their payment card/device and their Opal card. This is because there is no linking between Opal cards and contactless cards/devices, so capping is on one or the other. |