



# Indexation for public transport operating contracts

Managing inflation and cost fluctuation risk

NZ Transport Agency Waka Kotahi

April 2025

## Copyright information

Copyright ©. This copyright work is licensed under the Creative Commons Attribution 4.0 International licence. In essence, you are free to copy, distribute and adapt the work, as long as you attribute the work to NZ Transport Agency Waka Kotahi (NZTA) and abide by the other licence terms. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

## Disclaimer

NZTA has endeavoured to ensure material in this document is technically accurate and reflects legal requirements. However, the document does not override governing legislation. NZTA does not accept liability for any consequences arising from the use of this document. If the user of this document is unsure whether the material is correct, they should refer directly to the relevant legislation and contact NZTA.

## More information

NZ Transport Agency Waka Kotahi  
April 2025

ISBN 978-1-99-004429-8 (online)

If you have further queries, call our contact centre on 0800 699 000 or write to us:

NZ Transport Agency Waka Kotahi  
Private Bag 6995  
Wellington 6141

This document is available on NZTA's website at [www.nzta.govt.nz](http://www.nzta.govt.nz)

## Table of Contents

<b>1. INTRODUCTION .....</b>	<b>4</b>
1.1. Audience .....	4
1.2. Using this document.....	4
1.3. Relevant legislation .....	5
1.4. Purpose of indexation .....	5
<b>2. INDEXATION MECHANISMS.....</b>	<b>5</b>
2.1 Overview .....	5
Indexation .....	5
Indexation methods .....	5
Selecting and applying an indexation mechanism .....	6
Sourcing index values .....	7
Updating indexes.....	7
2.2 Standard indexation methods.....	8
Background .....	8
Overview of composite and elemental indexation methods.....	8
2.3 Cost elemental indexation method.....	9
Cost component indexes .....	9
Calculating contract price adjustments .....	10
2.4 Composite indexation method.....	14
Composite index weightings.....	14
Calculating contract price adjustments using the composite method .....	16
<b>APPENDIX A – OVERVIEW OF RUC AND ‘OTHER’ INDEXES .....</b>	<b>20</b>
<b>APPENDIX B - INDEXING BUS DRIVER LABOUR COSTS.....</b>	<b>22</b>
<b>APPENDIX C - WORKED EXAMPLES .....</b>	<b>24</b>

# 1. Introduction

Indexation is a method used to adjust the price of multi-year public transport operating contracts to account for general input cost inflation and deflation (fluctuation) effects in the broader economy.

Indexing public transport contracts helps enable efficient pricing and sustainability for service providers and public transport authorities (PTAs).

This document outlines indexation options available to PTAs when setting up public transport operating contracts and provides guidance and requirements for applying indexation throughout the contract's life.

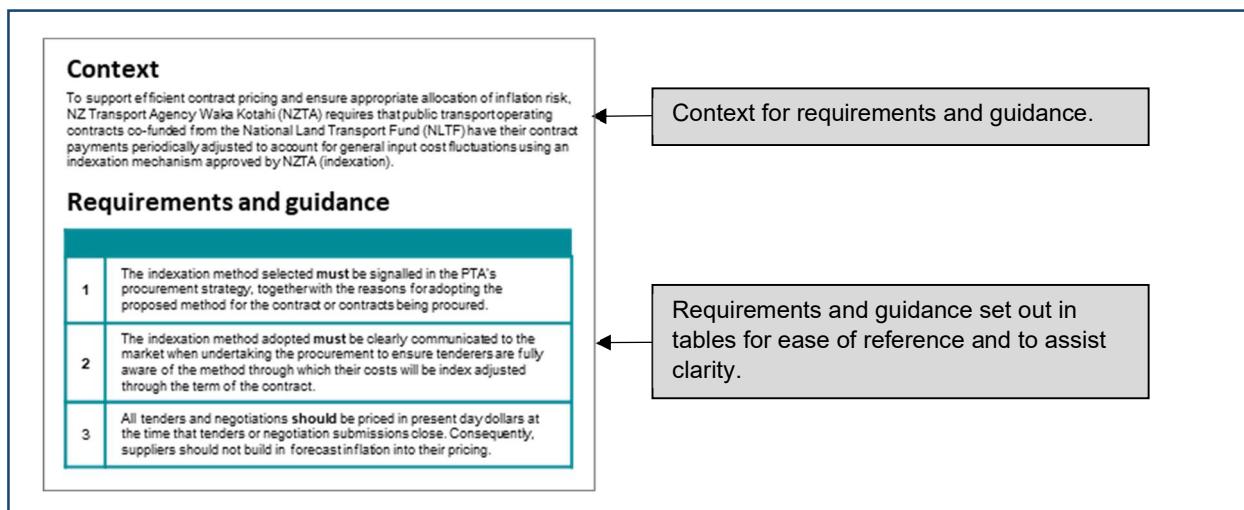
## 1.1. Audience

The intended audience includes people new to the subject of indexation as well as experienced practitioners. Accordingly, this document covers both first principles, along with more detailed guidance and requirements.

## 1.2. Using this document

For ease of reference and to assist clarity, this document tabulates requirements and guidance as illustrated in Figure 1 where relevant.

**Figure 1: Format for requirements and guidance.**



The following terms are utilised to distinguish between requirements and guidance:

- “**Must**” denotes requirements. This term refers to content that PTAs must adhere to. These requirements can stem from either a statutory provision within the LTMA or statutory powers granted to NZTA under the LTMA, such as defining conditions of receiving funding from the NLTF or approving procurement procedures.
- “**Should**” and “**May**” denotes guidance. The term “should” indicates strong recommendations or best practices, while “may” suggests optional guidelines.

NZTA may update requirements and guidance from time to time.

## 1.3. Relevant legislation

Under the Land Transport Management Act 2003 (LTMA):

- Activities funded from the NLTF must be procured in accordance with procedures approved by NZTA<sup>1</sup>. Selection and use of an indexation mechanism forms part of obtaining procurement procedure approval for public transport operating contracts.
- Planning, procuring, and operating public transport services must be carried out in an open and transparent manner, including with respect to operating costs<sup>2</sup>. Indexation methods must therefore contribute to openness and transparency.

## 1.4. Purpose of indexation

The purpose of indexation is to:

- Support efficient pricing by reducing cost fluctuation risk for public transport operators (PTOs) when tendering for public transport operating contracts with a multi-year term.
- Help ensure operating contracts remain financially viable over their term.
- Contribute to openness and transparency with respect to pricing of public transport operating contracts.

In the interests of clarity, indexation reduces, but does not mitigate all, risks associated with cost fluctuation for contracted PTOs.

# 2. Indexation mechanisms

## 2.1 Overview

### Indexation

When a multi-year operating contract is signed, an initial price is agreed based on costs current at the time of tender or negotiation close. As part of the procurement process, an indexation mechanism is specified that will use a set of indexes to track changes to key input costs, like fuel and labour, in the broader economy.

At regular intervals the contract price is adjusted based on the changes in the relevant indexes. If the cost of inputs, such as fuel or labour, has increased as reflected by movements in the applicable index, the contract price will be adjusted upwards to reflect these higher costs. Conversely, if costs decrease, the contract price may be adjusted downwards.

### Indexation methods

This document defines three indexation mechanisms

- Elemental mechanism – used for operating contracts procured from June 2025 onwards. Refer section 2.3 for a description of the elemental mechanism.
- Composite mechanism – used for operating contracts procured prior to June 2025. Refer to section 2.4 for a description of the composite mechanism.
- Custom mechanism – developed on a case-by-case basis to support unique delivery or contractual models where such an approach offers greater value.

Further guidance and requirements are provided in the balance of this document.

---

<sup>1</sup> Section 25 of the Land Transport Management Act.

<sup>2</sup> Section 116 of the Land Transport Management Act.

## Selecting and applying an indexation mechanism

The following applies irrespective of the specific mechanism or type of operating contract.

Guidance and requirements	
<b>1</b>	<b>Selecting an indexation mechanism</b> <p>Public transport operating contracts co-funded from the National Land Transport Fund (NLTF) that have a term exceeding 12 months <b>must</b> have their contract payments periodically adjusted to account for general input cost fluctuations using an indexation mechanism approved by NZTA.</p> <p>PTAs <b>should</b> adopt the elemental mechanism, being the standard mechanism for use with new public transport operating contracts.</p> <p>Custom indexation methods <b>may</b> be developed on a case-by-case basis to support unique delivery or contractual models where such an approach offers greater value. NZTA's prior agreement is required for using a custom mechanism.</p> <p>The indexation mechanism selected <b>must</b> be signalled in the PTA's public transport procurement strategy endorsed by NZTA, along with the rationale relevant to the contract or contracts being procured.</p>
<b>2</b>	<b>Market transparency</b> <p>The indexation method adopted <b>must</b> be clearly communicated to the market by PTAs when undertaking procurement to ensure contracted providers are fully aware of the method through which costs will be index adjusted through the term of the contract.</p>
<b>3</b>	<b>Indexation base quarter</b> <p>All contract prices set through a competitive process or where the PTO is directly appointed by negotiation <b>must</b> be priced in present day dollars at the time that tender or negotiations close (tender close). Consequently, PTOs should not build in forecast inflation into their pricing.</p> <p>Indexation is calculated throughout the term relative to index movements against a base quarter, representing the present-day dollars assumed by tenderers at tender close. Reference to quarters aligns with the quarterly publication of indexation data and comprise the quarterly periods ending in the months of March, June, September and December each year.</p> <p>The base quarter against which indexation is to be calculated throughout the term of the contract is the <b>quarter prior</b> to the quarter in which tenders close. This means that indexation mechanisms <b>must</b> cover cost fluctuation risk (inflation and deflation) that occurs from the quarter prior to the date in which tenders close (including the interval between the close of tenders and the commencement of the services), through to the final contract payment associated with expiration of the contract.</p> <p>For example, if a tender close date is between 1 October 2025 and 31 December 2025, the base quarter against which indexation is calculated throughout the term of the contract is the quarter ending 30 September 2025.</p> <p>The reason that the base quarter is the quarter prior to tender close (and not the quarter in which tenders close) is that a tenderer will know (for example) the average cost of fuel in the last completed quarter and will be able to base their tender price on that cost. By contrast the average price of fuel for the quarter in which tenders close will not be known until the end of the quarter, which will be after tenders have closed. This approach reduces the risk of unforeseen cost price fluctuation during the intervening period between tenders closing and the end of the applicable quarter.</p>

#### 4 Periodic application of indexation

Contract price indexation adjustments for bus operating contracts **must** be made monthly (with reference to quarterly index movements).

Contract price indexation adjustments for ferry operating contracts **must** be made at least quarterly.

Contract price indexation adjustments for rail operating contracts **must** be made at least annually.

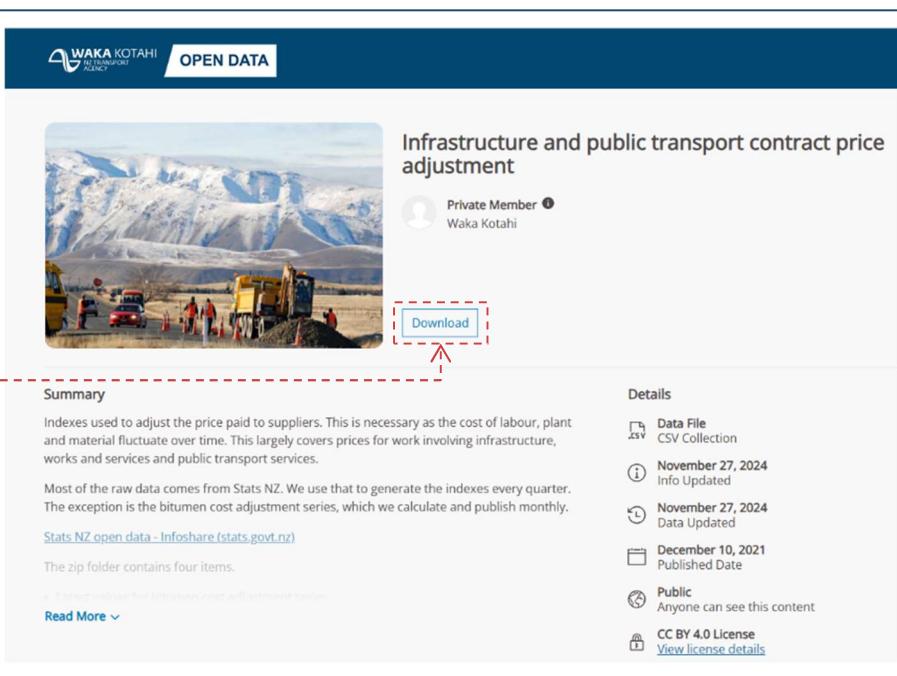
Along with the method of indexation, the frequency of contract price adjustments **must** be made clear to tenderers in procurement documentation.

## Sourcing index values

The latest index values for both the composite and elemental indexation methods are published on the NZTA website and can be accessed as illustrated in Figure 2. For the purposes of applying indexation to PT operating contracts, all index values must be sourced from NZTA.

NZTA sources index values from Statistics New Zealand (Stats NZ), with the exception of Road User Charges (RUC), which are calculated by NZTA from movements in RUC rates for a representative sample of buses used in delivering public transport services. Some of the Stats NZ input indexes are 'standard' publicly available indexes and others are 'special' indexes maintained for NZTA by Stats NZ.

Figure 2: Accessing latest index value files on NZTA website



Visit the NZTA website <https://opendata.nzta.opendata.arcgis.com/datasets/infrastructure-and-public-transport-contract-price-adjustment/about> to access the latest index values.

Select 'Download' to download a Zip file. Once downloaded, open the Zip file and select the file 'latest-values-public-transport-indexes.xls'.

The screenshot shows the 'Infrastructure and public transport contract price adjustment' dataset on the NZTA Open Data portal. The dataset is a CSV collection last updated on November 27, 2024. It includes details such as Data File (CSV Collection), Info Updated (November 27, 2024), Data Updated (November 27, 2024), Published Date (December 10, 2021), and License (CC BY 4.0 License). A red arrow points to the 'Download' button.

## Updating indexes

Stats NZ regularly revises the indexes it publishes to ensure that they continue to accurately track industry prices and replaces outdated indexes with new ones. NZTA may also review and update the make-up of indexes from time to time after consultation with sector stakeholders.

## 2.2 Standard indexation methods

### Background

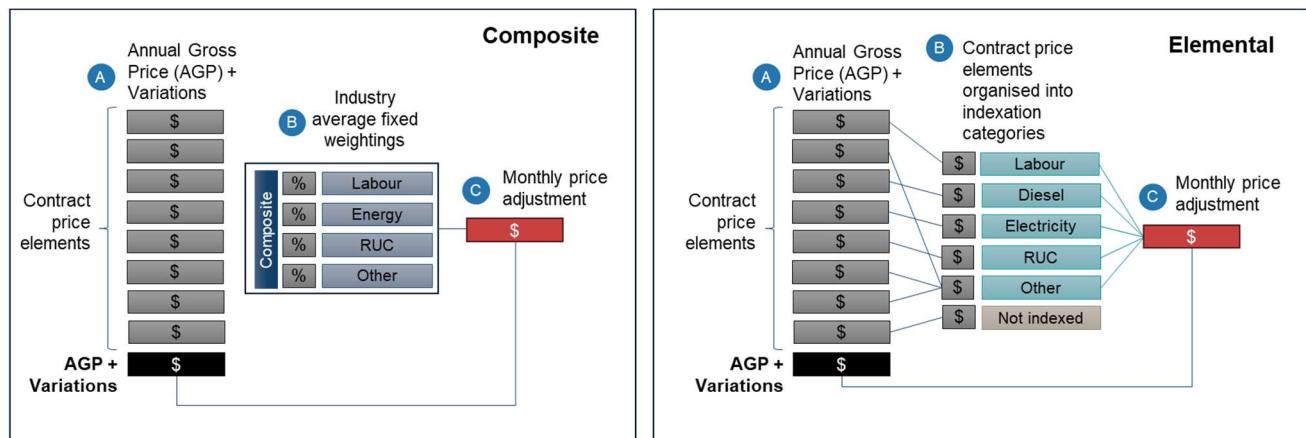
The composite mechanism, developed in 2008, has served as the standard indexation methodology for bus and ferry contracts through to 2025.

The elemental mechanism was developed in 2024 through engagement with sector stakeholders and came into effect in 2025 as the standard mechanism for new public transport operating contracts.

### Overview of composite and elemental indexation methods

The following figure summarises how each method works at a general level. Later sections in this document provide more detailed guidance and requirements.

**Figure 3: Conceptual overview of composite and elemental indexation methods.**



**Table 1: Key features of composite and elemental indexation methods.**

Common features	Key differences	
	Composite	Elemental
Both mechanisms track movements in key input costs, of labour, energy, RUC and other costs, based on indexes produced by Statistics New Zealand and NZTA.	The composite mechanism assigns a fixed weighting (percentage) against each input cost category to produce a single index.	The elemental mechanism organises contract price elements into indexation categories. The dollar value in each category, expressed in tender close dollars, is then adjusted by the movement in the relevant index associated with that category.
PTAs use the indexes to adjust contract payments to service providers based on cost fluctuations (inflation or deflation) over the contract term.	<p>The fixed weighting assigned to each input cost category reflects an 'industry average' mix of inputs, not the mix of individual contracts.</p> <p>The composite mechanism applies indexation to the total monthly gross contract price plus any variations. This means all input cost categories will be adjusted for indexation throughout the contract term, including those inputs that may not be subject to fluctuation risk.</p>	<p>This enables the elemental method to reflect the actual mix of input cost categories of individual contracts plus changes in that mix over the term of the contract.</p> <p>The elemental mechanism also readily enables costs that are not subject to significant cost fluctuation risk, to be excluded from indexation adjustments (refer section 2.3 below for more</p>

	<p>The composite mechanism is simple to administer, but, as an industry average, it is less reflective of an individual contract cost structures and how they may change overtime.</p>	<p>information on contract price elements that may be excluded from indexation).</p> <p>Overall, the elemental method better manages cost fluctuation risk by reflecting the actual mix of input cost categories of individual contracts. It can also accommodate change in that mix over time, while remaining relatively simple to administer.</p>
--	--	--

## 2.3 Cost elemental indexation method

### Cost component indexes

Applying the elemental mechanism requires the use of appropriate input cost indexes that track cost fluctuation inputs applicable to bus, ferry and rail operating contracts. The following table summarises the input cost indexes to be used for indexing bus contracts and the approach to be taken for ferry and rail contracts.

Requirements and guidance													
1	<p><b>Bus operating contracts</b></p> <p>Indexation categories for bus operating contracts are:</p> <table border="1"> <thead> <tr> <th>Category</th><th>Index</th></tr> </thead> <tbody> <tr> <td>Bus driver labour</td><td>Labour (bus) - Road and rail drivers Base June 2014 - Series ref: 31240206</td></tr> <tr> <td>Diesel</td><td>Fuel - Commercial diesel (Bulk) Base December 1996 - NRGQ.SICZ7</td></tr> <tr> <td>Electricity</td><td>Electrical energy - Electricity: Commercial Consumers - SQUC51110</td></tr> <tr> <td>Road user charges</td><td>Road user charges (RUC) – a NZTA index which tracks movement in RUC rates for a representative sample of buses used in delivering public transport services<sup>3</sup></td></tr> <tr> <td>Other</td><td>Other costs (bus) - Road transport excluding fuel, road and water transport - Base December 2010 – Series ref: 31240165<sup>4</sup></td></tr> </tbody> </table> <p>Index values <b>must</b> be sourced from NZTA.</p> <p>The indexes <b>must</b> be used without modification or substitution unless agreed in writing with NZTA beforehand.</p>	Category	Index	Bus driver labour	Labour (bus) - Road and rail drivers Base June 2014 - Series ref: 31240206	Diesel	Fuel - Commercial diesel (Bulk) Base December 1996 - NRGQ.SICZ7	Electricity	Electrical energy - Electricity: Commercial Consumers - SQUC51110	Road user charges	Road user charges (RUC) – a NZTA index which tracks movement in RUC rates for a representative sample of buses used in delivering public transport services <sup>3</sup>	Other	Other costs (bus) - Road transport excluding fuel, road and water transport - Base December 2010 – Series ref: 31240165 <sup>4</sup>
Category	Index												
Bus driver labour	Labour (bus) - Road and rail drivers Base June 2014 - Series ref: 31240206												
Diesel	Fuel - Commercial diesel (Bulk) Base December 1996 - NRGQ.SICZ7												
Electricity	Electrical energy - Electricity: Commercial Consumers - SQUC51110												
Road user charges	Road user charges (RUC) – a NZTA index which tracks movement in RUC rates for a representative sample of buses used in delivering public transport services <sup>3</sup>												
Other	Other costs (bus) - Road transport excluding fuel, road and water transport - Base December 2010 – Series ref: 31240165 <sup>4</sup>												
2	<p><b>Ferry operating contracts</b></p> <p>For indexation of ferry operating contracts, PTAs <b>should</b> adopt:</p> <ul style="list-style-type: none"> <li>• an elemental method with custom indexes relevant to the contract being procured, or</li> <li>• a customised mechanism.</li> </ul> <p>Use of custom indexes and mechanisms <b>must</b> be agreed in writing with NZTA beforehand.</p>												

<sup>3</sup> Refer Appendix A for information on the composition of the RUC index.

<sup>4</sup> Refer Appendix A for information on the input cost categories that make up 'Other costs (bus)'.

3

### Passenger rail operating contracts

For indexation of passenger rail operating contracts, PTAs **should** adopt:

- an elemental method with custom indexes relevant to the contract being procured, or
- a customised mechanism.

Use of custom indexes and mechanisms **must** be agreed in writing with NZTA beforehand.

## Calculating contract price adjustments

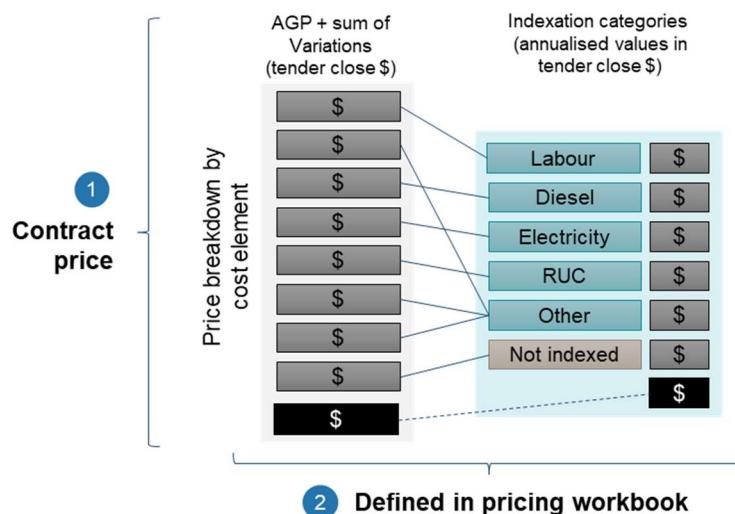
The following provides an example illustrating how a contract price adjustment is calculated for a bus operating contract using an elemental method. While specific details differ, the same principles apply to ferry and rail operating contracts that utilise an elemental method.

### Requirements and guidance

#### 1 Establish transparent price and indexation categories

Contract price elements **must** be defined in a pricing workbook that forms part of contract documentation between the PTA and PTO and is maintained over the term of the contract; and those price elements **must** be organised into the relevant indexation categories.

**Figure 4: Organising contract price elements into indexation categories**



2

#### Excluding certain costs from indexation

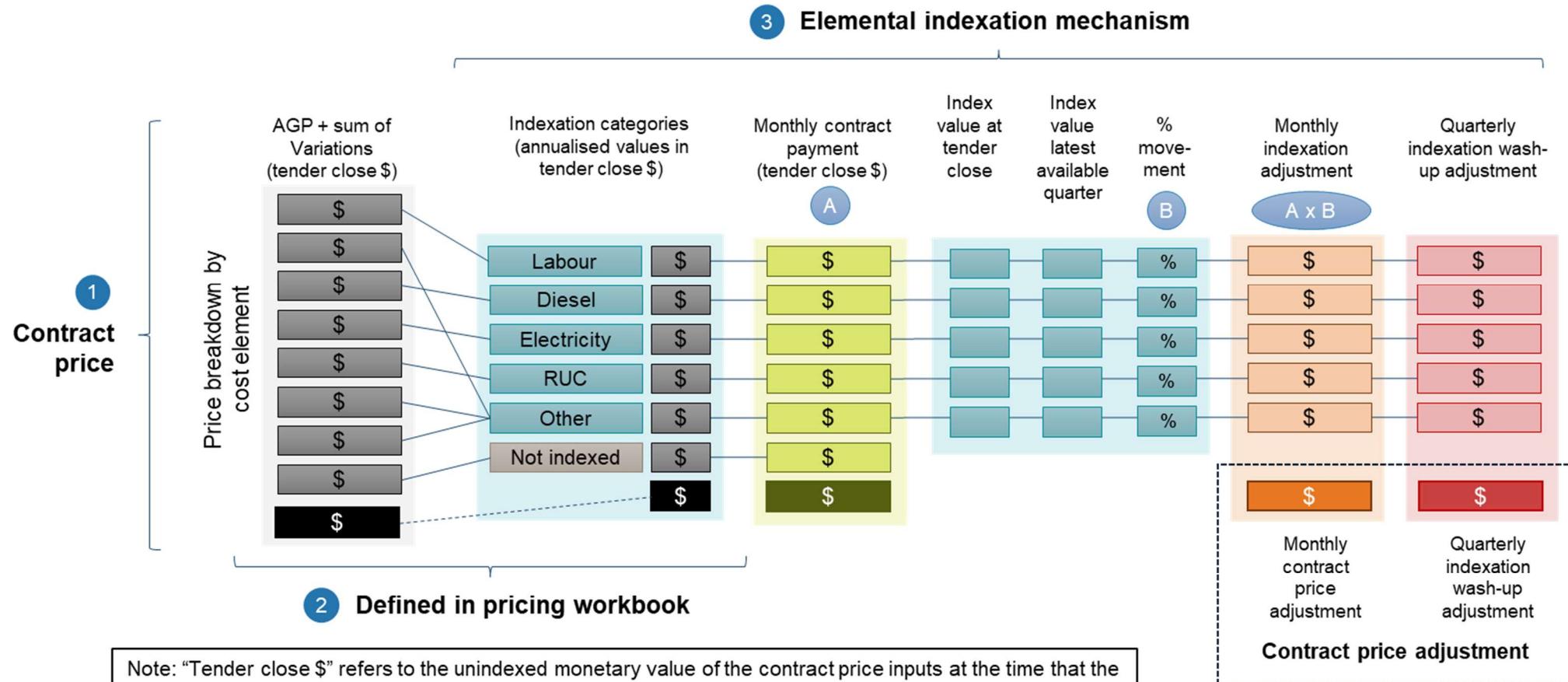
In relation to any type of operating contract (e.g. bus, ferry rail), there may be certain costs that may not be exposed to material cost fluctuation risk or there may be alternative, more appropriate, mechanisms for addressing cost fluctuation risk for those costs. These costs **may** be excluded from indexation as illustrated above.

	<p>Any decision to exclude certain costs from indexation under a cost elemental approach <b>must</b> be:</p> <ul style="list-style-type: none"> <li>• signalled in PTAs' procurement strategy along with supporting rationale</li> <li>• informed by engagement with the supplier market prior to being finalised for each contract procured or negotiated that proposes to exclude any cost components from indexation</li> <li>• clearly communicated to the market to ensure tenderers are fully aware of any costs that will not be index adjusted through the term of the contract</li> <li>• appropriate to the specific context of a contract and either be limited to costs that will not be subject to material cost fluctuation during the contract term or where the fluctuation risk is managed through other contract mechanisms.</li> </ul> <p>For the avoidance of doubt, all operational costs, including labour, fuel, vehicle operating costs, and indirect costs, including licensing, insurances, rent, salaries, other overheads and margin <b>must</b> be indexed.</p>
3	<p><b>Pass through to bus driver workforce</b></p> <p>The full value of contract price adjustments for bus operating contracts associated with the bus driver labour component of indexation <b>must</b> be passed through in full to the bus driver workforce, at least annually, in the form of wage increases, supported by suitable evidence. Terms to this effect <b>must</b> be specified in contract documentation between the PTA and PTO.</p> <p>PTAs and PTOs will need to monitor the movement in the input labour index, which is published by NZTA as part of its quarterly publication of public transport indexes. Refer to Appendix B for further guidance.</p>
4	<p><b>Calculating contract price adjustments</b></p> <p>The value in each indexation category for the period being indexed, comprising the applicable portion of the AGP (i.e. monthly for bus contracts) and any variations, <b>must</b> be adjusted by the movement in the associated index over the applicable period from the quarter prior to the date in which tenders closed (base quarter).</p> <p>For example, if the labour cost index increases by 3% from the base quarter to the latest applicable quarter, then the adjusted value of the labour cost component of the contract price will be equal to an increase of 3% on the unindexed value of the labour cost component.</p> <p>This is illustrated in Figure 5 below.</p>
5	<p><b>Quarterly wash up for bus contracts</b></p> <p>PTAs <b>must</b> apply contract price adjustments for bus contracts monthly. Monthly adjustments must therefore be based on the latest available published index values, which, due to a lag in the compilation of index data, will usually require reference to indexes from the quarter prior to the month in which costs fall.</p> <p>NZTA index values for a quarter are usually published within seven to eight weeks of the end of the quarter. For example, the index values applicable to services delivered in the quarter ending 30 September will usually be published around 22 November. This lag has implications for the timing of payments of indexation adjustments. Consequently, PTAs <b>must</b> apply a contract price adjustment wash-up for the difference in actual indexation owed for a quarter as soon as possible after that relevant quarter's index values are made available by NZTA.</p> <p>Refer to Appendix C for further guidance on the timing of indexation adjustments.</p>
6	<p><b>Contract price variations</b></p> <p>For bus operating contracts, indexation is applied to monthly contract payments, which generally comprise one twelfth of the AGP, subject to pro-rating any partial periods, and any variations since</p>

contract award. This means contract variations **must** be calculated on unindexed variation rates or, if determined by other means, deflated to the dollar value at the time of tender close.

- For variations based on rates submitted at tender time or agreed at the outset of a directly negotiated contact, calculate the variation amounts applicable for a month using uninflated variation rates. Then apply the indexation mechanism to the monthly contract payments, inclusive of any unindexed variation amounts.
- For variations based on rates or lump sums (that are not one-off), negotiated during the contract term using present day dollar values, deflate the values to tender close date dollars. Calculate the variation amounts applicable for a month using deflated variation rates. Then apply the indexation mechanism to the monthly contract payments, inclusive of any deflated variation amounts.
- For one-off variations based on a lump sum negotiated during the contract term, invoice as a one-off payment in present-day dollars with no indexation applied and document the payment in a register of contract variations.

Figure 5: Illustrative depiction of cost elemental indexation method



## 2.4 Composite indexation method

NZTA publishes composite indexes for existing diesel bus, battery electric bus and diesel ferry operating contracts and will continue to update and support these mechanisms until all existing contracts using the composite method expire.

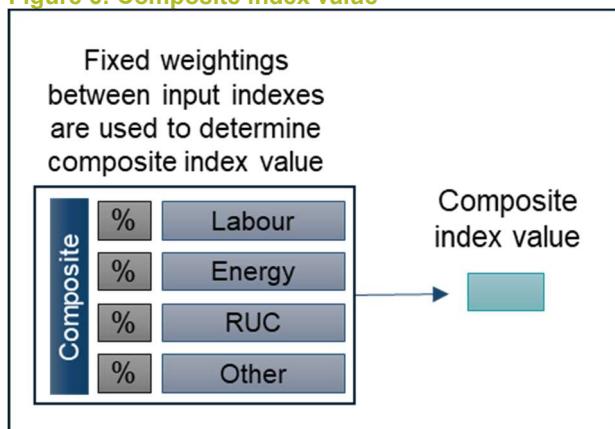
**Table 2: NZTA bus and ferry composite indexes**

NZTA index	Application	Index base quarter	Comment
Diesel bus index	Contracts or proportion of contracts delivered by diesel powered buses	September 2020	Originally introduced in 2008 and updated in 2020.
Battery electric bus index	Contracts or proportion of contracts delivered by electric powered buses	September 2020	Introduced in February 2021
Diesel ferry index	Contracts delivered solely by diesel powered ferries	December 2019	Originally introduced in 2008 and updated in 2021.

### Composite index weightings

The composite mechanism accounts for labour, energy, RUC and other input costs and assigns a fixed weighting between input cost categories to produce a single index value. The input cost weightings are based on an industry average cost structure determined from industry surveys.

**Figure 6: Composite index value**



**Table 3** lists the input indexes for bus and ferry contracts, along with the cost category weights that NZTA uses to calculate the composite index values for diesel bus, battery electric bus and diesel ferry contracts. The weightings reflect industry average contract cost structures as at the time of the base quarter for the index, not the cost structure of individual contracts.

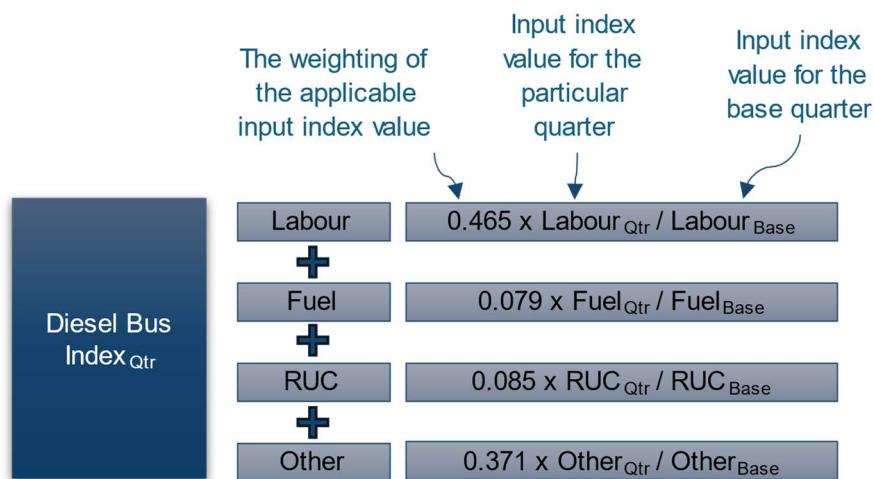
**Table 3: NZTA bus and ferry composite index weightings**

Input index	Diesel bus composite index weighting	Battery electric bus composite index weighting	Diesel ferry composite index weighting
Labour (bus) - Road and rail drivers Base June 2014 - Series ref: 31240206	0.465	0.534	0.414
Fuel - Commercial diesel (Bulk) Base December 1996 - NRGQ.SICZ7	0.079	–	0.176
Road user charges (RUC) – a Waka Kotahi index which tracks movement in RUC rates for a representative sample of buses used in delivering public transport services	0.085	–	–
Other costs (bus) - Road transport excluding fuel, road and water transport - Base December 2010 – Series ref: 31240165	0.371	0.426	–
Electrical energy - Electricity: Commercial Consumers - SQUC51110	–	0.040	–
Other ferry costs - Base December 2016 – Series ref: 3139751 <sup>5</sup>	–	–	0.411

If there are significant changes in the industry average mix of input cost categories, the index and its weightings may be updated. When adjusted, the latest composite indexes and weightings apply to all current contracts using the composite method.

The NZTA composite index value is calculated by NZTA by combining input indexes values using the formula outlined in Figure 7.

**Figure 7: Illustrative formula for calculating the NZTA composite diesel bus index value for a quarter**



<sup>5</sup> Refer Appendix A for information on the input cost categories that make up 'Other costs (ferry)'.

The composite Electric Bus and Diesel Ferry indexes for a quarter are calculated in a similar manner, supplementing the applicable weightings and cost component indices for those used in the applicable index.

## Calculating contract price adjustments using the composite method

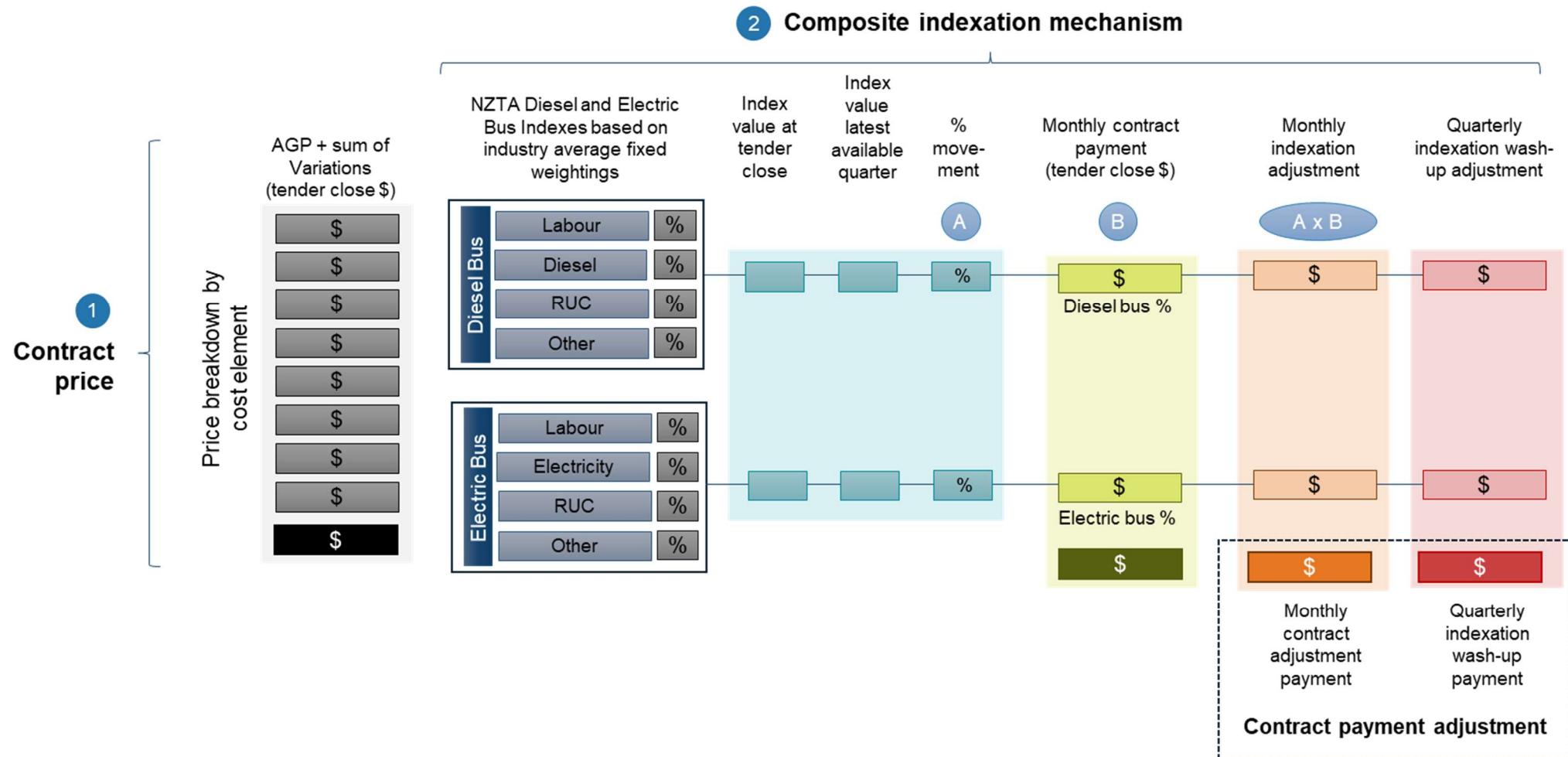
The following outlines how a contract price adjustment is calculated for a bus operating contract using the composite method. While specific details differ, the same principles apply to diesel ferry operating contracts.

Requirements and guidance	
<b>1</b>	<b>Calculate and pay monthly price adjustment</b>  Indexation is applied to the gross contract price including any variations since contract award. The monthly contract price <b>must</b> be adjusted by the movement in composite index over the applicable period from the quarter in which tenders closed.  For example, if the index increases by 3% over the period since tenders closed then the monthly unindexed contract payment will be adjusted by an increase of 3%.  This is illustrated in Figure 8 below.
<b>2</b>	<b>Pass through to bus driver workforce</b>  The full value of contract price adjustments for bus operating contracts associated with the bus driver labour component of indexation <b>must</b> be passed through in full to the bus driver workforce, at least annually, in the form of wage increases, supported by suitable evidence. Terms to this effect <b>must</b> be specified in contract documentation between the PTA and PTO.  PTAs and PTOs will need to monitor the movement in the input labour index, which is published by NZTA as part of its quarterly publication of public transport indexes. Refer to Appendix B for further guidance.
<b>3</b>	<b>Quarterly wash up</b>  PTAs <b>must</b> apply contract price adjustments for bus contracts monthly. Monthly adjustments must therefore be based on the latest available published index values, which, due to a lag in the compilation of index data, will usually require reference to indexes from the quarter prior to the month in which costs fall.  NZTA index values for a particular quarter are usually published within seven to eight weeks of the end of the quarter. For example, the index values applicable to services delivered in the quarter ending 30 September will usually be published around 22 November. This lag has implications for the timing of payments of indexation adjustments. Consequently, PTAs <b>must</b> apply a contract price adjustment wash-up for the difference in actual indexation owed for a quarter as soon as possible after that relevant quarter's index values are made available by NZTA.  Refer to Appendix C for further guidance.
<b>4</b>	<b>Indexing variations</b>  For bus operating contracts, indexation is applied to monthly contract payments, which generally comprise one twelfth of the AGP, subject to pro-rating any partial periods, and any variations since contract award. This means contract variations <b>must</b> be calculated on unindexed variation rates or, if determined by other means, deflated to the dollars at the time of tender close. <ul style="list-style-type: none"><li>For variations based on rates submitted at tender time or agreed at the outset of a directly negotiated contact, calculate the variation amounts applicable for a month using uninflated</li></ul>

	<p>variation rates. Then apply the indexation mechanism to the monthly contract payments, inclusive of any unindexed variation amounts.</p> <ul style="list-style-type: none"> <li>For variations based on rates or lump sums (that are not one-off), negotiated during the contract term using present day dollar values, deflate the values to tender close date dollars. Calculate the variation amounts applicable for a month using deflated variation rates. Then apply the indexation mechanism to the monthly contract payments, inclusive of any deflated variation amounts.</li> <li>For one-off variations based on a lump sum negotiated during the contract term, invoice as a one-off payment in present-day dollars with no indexation applied and document the payment in a register of contract variations.</li> </ul>																					
5	<p><b>Indexing contracts with mixed vehicles fleets</b></p> <p>Two indexes may be used when the costs incurred to deliver services are not of a single type – for example a contract could be delivered by a combination of diesel and battery electric buses. The two applicable indexes would thus be the <i>NZTA diesel bus index</i> and the <i>NZTA battery electric bus index</i>.</p> <p>NZTA recommends the following methodology for the application of the two composite bus indexes for contracts operated using a mix of both diesel and electric vehicles:</p> <ol style="list-style-type: none"> <li>Calculate an index weighting (out of 100%) using the in-service kilometres (or other agreed measure) undertaken by each vehicle type (diesel and electric) for the month in question as a proxy for weighting the proportion of the Monthly Contract Payment to be indexed by the diesel vehicle index and the electric vehicle index respectively.</li> <li>Multiply the Monthly Contract Payment by the diesel vehicle weighting (e.g. 40%) for the month and apply the relevant diesel vehicle index to calculate the indexation for the month relevant to the operator's diesel vehicle operations.</li> <li>Multiply the Monthly Contract Payment by the electric vehicle weighting (e.g. 60%) for the month and apply the relevant electric vehicle index to calculate the indexation for the month relevant to the operator's electric vehicle operations.</li> <li>Add the two indexation values together to calculate the total indexation amount payable by the PTA for the month in question.</li> </ol> <p>A worked example is provided below in Table 4 and illustrated in Figure 8.</p> <p><b>Table 4: Worked example for a contract with a combination of diesel and battery electric buses</b></p> <table border="1"> <thead> <tr> <th>Applied methodology</th><th>Reference</th><th>Values</th></tr> </thead> <tbody> <tr> <td>Monthly Contract Payment</td><td>A</td><td>\$500,000</td></tr> <tr> <td>Proportion of in-service km by diesel bus</td><td>B</td><td>40%</td></tr> <tr> <td>Proportion of in-service km by electric bus</td><td>C</td><td>60%</td></tr> <tr> <td>Diesel Bus Index movement for the quarter (relative to tender close)</td><td>D</td><td>7%</td></tr> <tr> <td>Electric Bus Index movement for the quarter (relative to tender close)</td><td>E</td><td>5%</td></tr> <tr> <td><b>Calculation</b></td><td colspan="2"><b><math>(A \times B \times D) + (A \times C \times E)</math></b></td></tr> </tbody> </table>	Applied methodology	Reference	Values	Monthly Contract Payment	A	\$500,000	Proportion of in-service km by diesel bus	B	40%	Proportion of in-service km by electric bus	C	60%	Diesel Bus Index movement for the quarter (relative to tender close)	D	7%	Electric Bus Index movement for the quarter (relative to tender close)	E	5%	<b>Calculation</b>	<b><math>(A \times B \times D) + (A \times C \times E)</math></b>	
Applied methodology	Reference	Values																				
Monthly Contract Payment	A	\$500,000																				
Proportion of in-service km by diesel bus	B	40%																				
Proportion of in-service km by electric bus	C	60%																				
Diesel Bus Index movement for the quarter (relative to tender close)	D	7%																				
Electric Bus Index movement for the quarter (relative to tender close)	E	5%																				
<b>Calculation</b>	<b><math>(A \times B \times D) + (A \times C \times E)</math></b>																					

	<b>Result</b>	$\$29,000 = 14,000 + 15,000$
Additional information on the use of two indexes can be found in <a href="#">Contract price adjustment for cost fluctuation: Infrastructure contracts</a> which includes a discussion on how to calculate contract price adjustment using two indexes.		

Figure 8: Illustrative depiction of the composite indexation method



## Appendix A – Overview of RUC and ‘other’ indexes

### Bus – RUC

The RUC index value is calculated from the RUC paid by a sample of urban bus operators. When RUC charges change the index changes to reflect the weighted average movement in the RUC rate for various RUC vehicle types plus licence weight groups.

For example, RUC payments attributed to type 2 vehicles over 12 tonne accounts for the largest proportion, 58.2%, of the total paid. When RUC rates change the change in the rate for type 2 vehicles over 12 tonne therefore has the greatest influence on the change in the index.

**Table 5: RUC categories that make up the input cost components within the index ‘RUC’**

RUC category	Weighting
Type 311 not more than 18 tonnes	25.9%
Type 311 more than 18 tonnes	6.5%
Type 2 more than 12 tonnes	58.2%
Type 2 more than 9 tonnes and not more than 12 tonnes	7.2%
Type 2 more than 6 tonnes and not more than 9 tonnes	1.4%
Type 2 not more than 6 tonnes	0.8%

### Bus – Other

‘Other costs (bus)’ are indexed using a tailored PPI of road transport costs that have been assessed to be relevant to the bus sector. Wage costs relevant to each cost category can influence the quarterly movement of each cost category. For example, wage costs for roles such as mechanics are included in costs associated with ‘Repair and maintenance services’.

The tailored PPI (Road Transport) index used to index ‘Other costs (bus)’ is made up of the input cost components listed in Table 6.

**Table 6: Input cost components within the index 'Other costs (bus)'**

Input cost elements to 'Other costs (bus)'	Weighting
Renting and leasing services	28.4%
Repair and maintenance services	19.3%
Goods and materials	14.6%
Business services	13.6%
Transport and storage	13.6%
Financial and insurance services	3.7%
Communication services	2.2%
Other expenses	4.6%

## Ferry

'Other costs (ferry)' are indexed using a tailored PPI of water transport costs that have been assessed to be relevant to the ferry sector.

The index 'Other costs (ferry)' is made up of the input cost components listed in Table 7.

**Table 7: Input cost components within the index 'Other costs (ferry)'**

Input cost elements to 'Other costs (ferry)'	Weighting
Repairs and maintenance	64.1%
Rents	5.5%
Insurance	7.4%
Berthage charges	12.4%
Accounting/legal fees	1.9%
Advertising/marketing	2.2%
Telecommunications	1.6%
Consultancy/audit fees and directors' fees	2.9%
Motor vehicle expenses	1.0%
Printing and stationery	1.1%

## Appendix B - Indexing bus driver labour costs

The labour component of the current bus index is applicable to bus driver labour costs, with non-driver labour costs incorporated within the Other Costs (Bus) index.

In 2023, the sector lifted the level of bus driver wages through a targeted intervention in conjunction with other measures to address a sector wide shortage of bus drivers.

A 2024 review of the bus indexation mechanism identified that, while the use of the labour cost index appropriately reflects labour cost movements relative to related industry wages, the ability of the bus sector to retain and attract drivers is also influenced by the relativity of bus driver wages to the Minimum Wage. Analysis undertaken during this review showed that driver wages and the Minimum Wage over the period 2016-2022 converged and likely contributed to the challenges in retaining and recruiting bus drivers over this period.

Consequently, a new 'hybrid' indexation approach for bus driver labour costs was introduced that continues to use the existing Labour (Bus) Road and Rail Drivers index (LCI (Bus)) but also seeks to maintain a prescribed relativity for bus driver wages over the Minimum Wage. The approach balances indexation of bus driver labour costs against movements in related industry wages while also ensuring a prescribed relativity is maintained above the Minimum Wage.

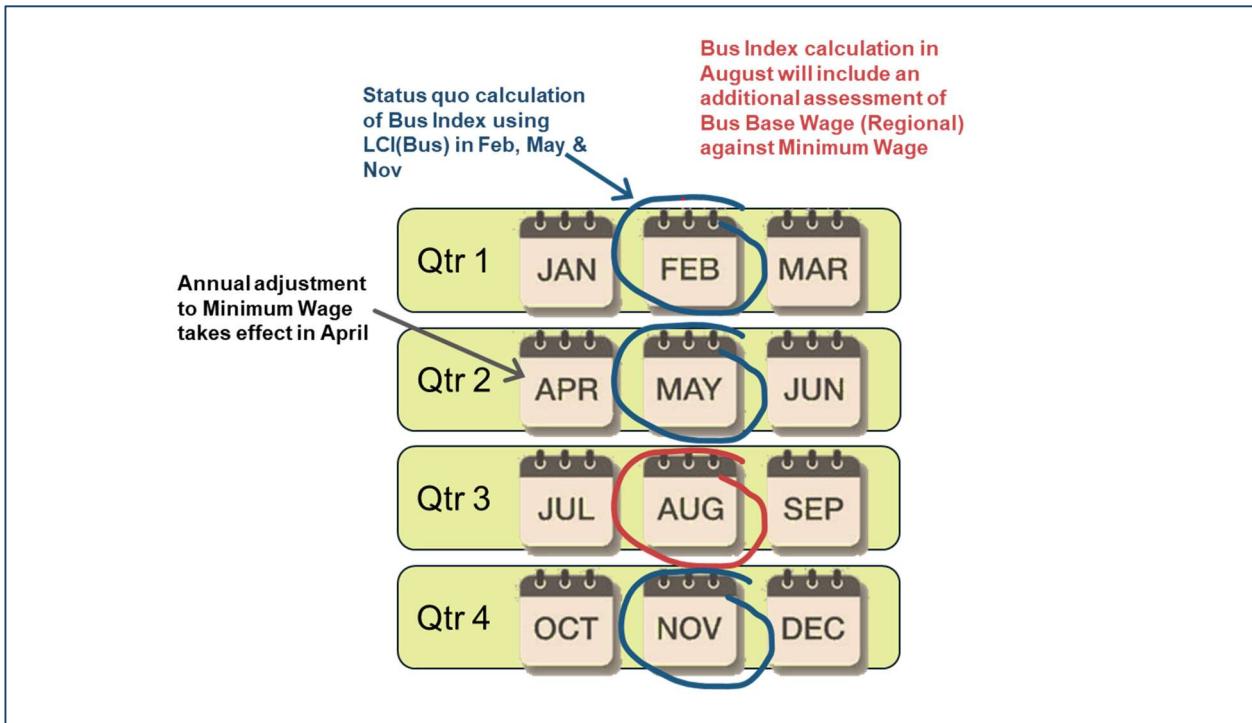
NZTA determines the quarterly labour cost changes for the bus indexation mechanism as follows:

- a) On each of the Bus Index publish dates in February (for the index value applicable in Quarter 4 of the prior calendar year), May (for Q1 of current year) and November (for Q3 of current year), NZTA will publish the labour cost index based on movements in the LCI (Bus).
- b) Adjustments to the Minimum Wage are notified in February each year and take effect in April of that year. Therefore, Q2 of the calendar year is the relevant quarter to consider if an additional adjustment is needed to the labour cost index to ensure bus driver wages maintain relativity over the Minimum Wage.
- c) On the Bus Index publish date in August (for the index value applicable to Q2 of the current year), after adjusting the Sector Minimum Base Bus Driver Wage (Regional) by the latest quarterly movement in the LCI (Bus), the resultant wage will be compared against the Minimum Wage current at that time.
- d) Should the difference between the Sector Minimum Base Bus Driver Wage (Regional) after indexation and the Minimum Wage be less than 23%, the percentage increase required to lift the Sector Minimum Base Bus Driver Wage (Regional) to a level that is 23% higher than the Minimum Wage will be applied to the labour cost component of the NZTA bus index. ).
- e) The Sector Minimum Base Bus Driver Wage (Urban) will be adjusted such that it maintains a relativity over the Sector Minimum Base Bus Driver Wage (Regional) of around 7%.

The minimum difference between the Sector Minimum Base Bus Driver Wage (Regional) and the Minimum Wage has been set at 23% on the basis that this percentage represents the difference between the sector uplift wage rate for regional drivers of \$28.00 and the Minimum Wage that was applicable at the time of the sector uplift in April 2023.

Figure 9 illustrates the timing of the labour cost adjustments.

Figure 9: Timing of the labour cost adjustments



## Appendix C - Worked examples

Worked examples of the calculation methods and timing of indexation payments for each of the cost elemental and composite indexation methods is provided below.

Figure 10: Worked example for the cost elemental indexation method

**Indexation worked example - cost elemental index (bus)**

Tender close date 1-Dec-23  
 Tender close index quarter Sep-23  
 Operations commencement 1-Apr-24

Source: NZTA 'latest-values-public-transport-indexes.xls'

Index values	Sept-23	Dec-23	Mar-24	Jun-24
Labour	L 1156	M 1172	1177	N 1181
Diesel	2007	2089	2015	1978
Electricity	1148	1002	1062	1208
RUC	1000	1000	1000	1000
Other	1139	1145	1157	1155

Quarter 2								
Apr-24			May-24			Jun-24		
Unindexed monthly payment	Index movement (latest available quarter (Dec23))	Monthly indexation adjustment	Unindexed monthly payment (including variations)	Index movement (latest available quarter (Dec23))	Monthly indexation adjustment	Unindexed monthly payment (including variations)	Index movement (latest available quarter (Mar24))	Monthly indexation adjustment
<b>Indexation categories</b>								
Labour	A \$200,000	Q 1.38%	F \$2,768	B \$210,000	1.38%	G \$2,907	C \$210,000	1.82%
Diesel	\$30,000	4.09%	\$1,226	\$30,000	4.09%	\$1,226	\$30,000	0.40%
Electricity	\$50,000	-12.72%	-\$6,359	\$52,000	-12.72%	-\$6,613	\$52,000	-7.49%
RUC	\$40,000	0.00%	\$0	\$42,000	0.00%	\$0	\$42,000	0.00%
Other	\$150,000	0.53%	\$790	\$151,000	0.53%	\$795	\$151,000	1.58%
<b>Total</b>	<b>\$470,000</b>		<b>-\$1,575</b>	<b>\$485,000</b>		<b>-\$1,686</b>	<b>\$485,000</b>	<b>\$2,425</b>
<b>Calculation and payment timing:</b>			MAY		JUN		JUL	

Quarter 2 wash-up				
Q2 Unindexed monthly payments	Index movement (applicable quarter (Jun24))	Q2 indexation owed	Q2 indexation paid	Q2 indexation adjustment
<b>D</b> \$620,000	<b>R</b> 2.16%	<b>X</b> \$13,408	<b>Y</b> \$9,490	<b>Z</b> \$3,919
\$90,000	-1.44%	-\$1,300	\$2,571	-\$3,871
\$154,000	5.23%	\$8,049	-\$16,868	\$24,916
\$124,000	0.00%	\$0	\$0	\$0
\$452,000	1.40%	\$6,349	\$3,972	\$2,378
<b>\$1,440,000</b>		<b>\$26,506</b>	<b>-\$835</b>	<b>\$27,341</b>
			SEP	

**Key:**

- Unindexed payments
- Index movements
- Indexation adjustments
- Quarterly wash-up input values
- Index values

**Calculations:**

Monthly indexation adjustment by indexation cost category:  $F = A \times Q$ , where  $Q = (M / L) - 1$

Quarterly indexation adjustment by indexation cost category:  $Z = X - Y$ , where:

$$Y = F + G + H, \text{ and}$$

$$X = D \times R, \text{ where:}$$

$$D = A + B + C, \text{ and}$$

$$R = (N / L) - 1$$

**Note:**

- Positive indexation adjustments represent indexation payments
- Negative indexation adjustments represent indexation deductions

Figure 11: Worked example for the composite indexation method

**Indexation worked example - composite index (bus)**

Tender close date 1-Dec-23  
 Tender close index quarter Sep-23  
 Operations commencement 1-Apr-24

Index values	Sept-23	Dec-23	Mar-24	Jun-24
Electric bus index	L 1149	M 1154	1164	N 1171
Diesel bus index	1485	1504	1505	1503

Source: NZTA 'latest-values-public-transport-indexes.xls'

	Quarter 2								
	Apr-24			May-24		Jun-24			
	Unindexed monthly payment	Index movement (latest available quarter (Dec23))	Monthly indexation adjustment	Unindexed monthly payment (including variations)	Index movement (latest available quarter (Dec23))	Monthly indexation adjustment	Unindexed monthly payment (including variations)	Index movement (latest available quarter (Mar24))	Monthly indexation adjustment
Share of monthly cost by bus type:									
Electric bus	A \$200,000	Q 0.44%	F \$870	B \$210,000	0.44%	G \$914	C \$210,000	1.31%	H \$2,742
Diesel bus	\$100,000	1.28%	\$1,279	\$100,000	1.28%	\$1,279	\$100,000	1.35%	\$1,347
Total	\$300,000		\$2,150	\$310,000		\$2,193	\$310,000		\$4,088
Calculation and payment timing:									

**Key:**

- Unindexed payments
- Index movements
- Indexation adjustments
- Quarterly wash-up input values
- Index values

**Calculations:**

Monthly indexation adjustment by indexation cost category:  $F = A \times Q$ , where  $Q = (M / L) - 1$

Quarterly indexation adjustment by indexation cost category:  $Z = X - Y$ , where:

$$Y = F + G + H, \text{ and}$$

$$X = D \times R, \text{ where:}$$

$$D = A + B + C, \text{ and}$$

$$R = (N / L) - 1$$

**Note:**

- Positive indexation adjustments represent indexation payments
- Negative indexation adjustments represent indexation deductions