Funding scenarios report

DRAFT
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Purpose and scope

Purpose

The purpose of this report is to

- Outline three credible funding scenarios that could be implemented for Auckland Light Rail City Centre to Māngere (ALR CC2M, or the “Project”), taking into consideration affordability, beneficiary analysis, and Project outcomes being sought.
- Highlight trade-offs and further optionality within the scenarios, noting that the paper focuses on the trade-offs as they relate to the Funding Principles Letter received and subsequent guidance provided by Sponsors.

Scope of this report

This report follows on from decisions made through the Indicative Business Case (IBC) and is based upon the Funding Principles Letter and Sponsors Guidance. Accordingly, the underlying funding scenarios and settings may change under different policy settings.

This report covers:

- Funding options related to the **emerging preferred transport solution**.
- Costs relating to the delivery of **urban enabling infrastructure or urban interventions**, remain in draft at the time of this report; and were quantified on a different basis to the cost estimation completed on the emerging preferred transport solution. These will need to be fully incorporated and considered in the final funding solution where possible (noting some aspects may not be confirmed until detailed business cases are undertaken with respect to specific catchments).

Table of contents

Executive summary

Executive summary

Funding scenarios report

This report provides three credible funding scenarios for Auckland Light Rail City Centre to Māngere (ALR CC2M) and highlights key considerations and potential trade-offs of the different scenarios.

The considerations and trade-offs identified refer to funding principles (outlined on page 27) and guidance received from Sponsoring Ministers. These may need to be updated following the formation of a new government and further clarity on its priorities and approach to funding mega-projects and ALR CC2M. Changes to the underlying policy settings may change the focus or balancing of the different trade-offs.

This report is a critical input into the Financial Case of the Corridor Business Case (CBC).

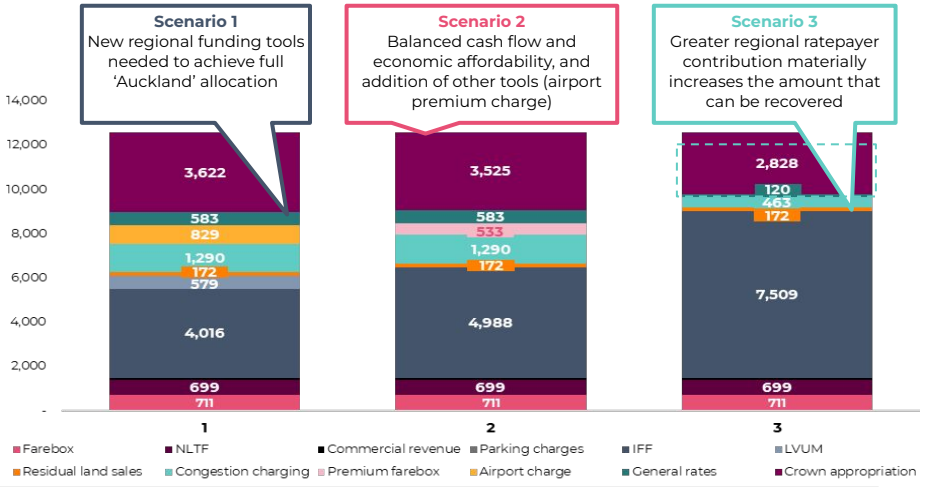
The funding scenarios in this report address the costs associated with delivering and operating the emerging preferred transport solution. However, the potential impact of funding critical urban enabling infrastructure (UEI) has also been considered. Further work is required to determine the degree to which these costs are already included in agency / funding entity long term plans, and therefore, the extent of incremental funding required.

Funding scenarios

All three funding scenarios are considered to be implementable and consistent with Sponsors Guidance, but may need to be updated in response to changes to the underlying policy settings.

- **Scenario 1 - Beneficiary pays with new tools** focuses on generating ~66% of the total capital funding from Auckland to reflect the beneficiary analysis; and includes the implementation of new funding tools: an airport departure charge and a Land Value Uplift Mechanism (LVUM) tool.
- **Scenario 2 - Balanced affordability and beneficiary pays** has more of a focus on cash flow affordability for local landowners and uses primarily existing funding tools. It seeks to balance this against economic affordability (through land value uplift). This is supplemented by new funding tools. The overall 'Auckland' contribution still reflects the beneficiary analysis, however, this is achieved by a larger contribution from regional beneficiaries.
- **Scenario 3 - Outcomes focus** seeks to incentivise development and densification within the ALR CC2M corridor by further reducing the differential between local and regional charges (i.e. reducing costs to ratepayers in station catchments and increasing costs to those outside catchments, relative to Scenarios 1 and 2).

Overview of total funding sources per scenario $m



Executive summary

Key observations

While the settings differ between the different funding scenarios, the following key observations can be made across the scenarios:

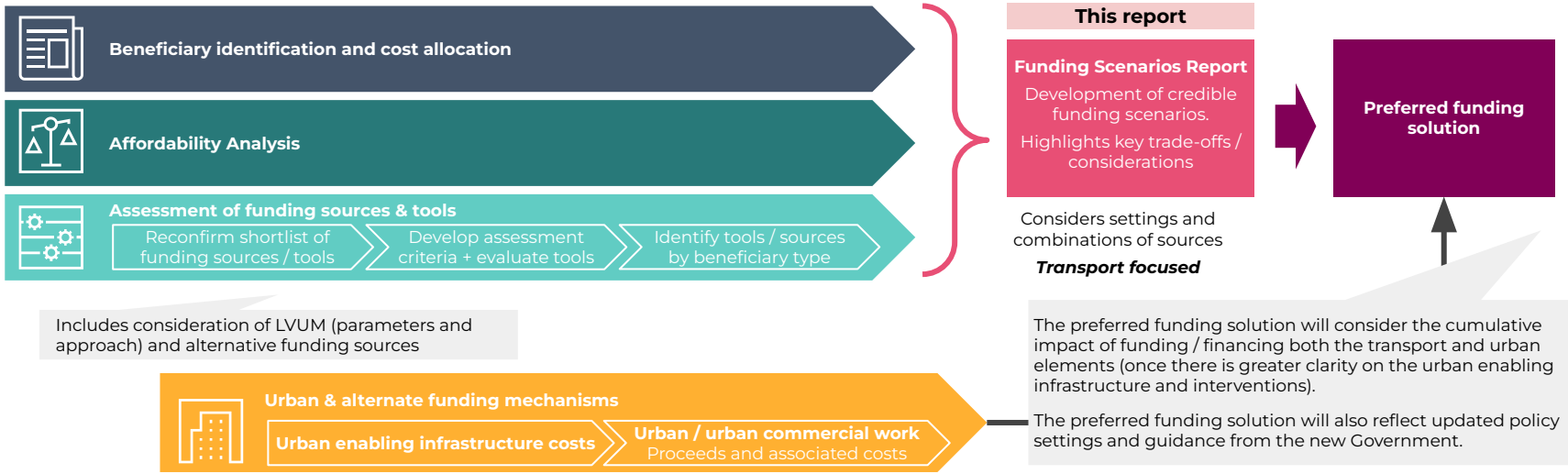
- An **IFF levy is an efficient mechanism to recover cost from local and regional beneficiaries** without putting further pressure on Auckland Council's balance sheet. Importantly, it also provides a way to recognise the degree of land value uplift (LVU) created by the Project ($12.1bn (nominal)), acting as a proxy for a value capture tool. There is flexibility within the legislation to implement a postponement scheme to manage affordability pressures.
- The scenarios indicate the IFF levy can be sized to cover between 40% and 70% of capex costs. The final amount and settings will depend on appetite for scale and local / regional and residential / commercial emphasis.
- IFF also provides the opportunity to spread cost over time through financing of the levy (as a long-term, relatively certain and secure revenue stream).
- Allocating a portion of **congestion charging** revenue could make a material contribution to project capex (~$1.3bn NPV assuming a third of congestion charging revenue is applied to the Project).
- A **premium farebox** charge for airport travellers (not workers) could provide a material potential revenue source. Subject to policy settings, the associated revenue stream could be used to bring in private capital and / or negotiate a capital contribution from major stakeholders at key stations (e.g. airport) through a concession arrangement. A premium farebox charge at the level modelled in these scenarios is comparable to travelling on a current Public Transport (PT) alternative (e.g. SkyDrive). It could fund capex or opex.
- Additional revenue from Auckland, if required, will need to be via new sources (i.e. not targeting landowners directly). This could include an airport departure charge (extension of the international visitor levy), new Regional Fuel Tax (RFT), or Land Value Uplift Mechanism (LVUM). These tools have varying degrees of complexity, and may have limited certainty at the time of the Final Investment Decision.
- The project is expected to **generate significant national benefits through increased economic activity**, health improvements, safety and environmental benefits. The economic analysis notes that the Crown will benefit from incremental tax take associated with economic activity which could total $2.0bn to $5.4bn NPV. In addition, the Crown will also directly stand to benefit from incremental Goods and Services Tax (GST) generated on the IFF levy of $601m to $1,223m in NPV terms (depending on scenario).
- **Over Station Development (OSD) and other residual land** within the notice of requirement (NoR) boundaries could be sold after completion of construction of transport elements of the Project. Given increased accessibility and other transport benefits, significant LVU is expected. The uplift component of OSD and residual land sales (~$172m NPV) has been included as a revenue source in all three funding scenarios.
- All scenarios include funding sources that could attract private finance if required.
- Ultimately a negotiation between Auckland Council and Crown will be required to agree the preferred funding solution. There is likely to be benefit in wrapping this as part of a wider 'City Deal' around funding of ALR CC2M alongside other commitments and requirements in relation to supporting urban enabling infrastructure.

1. Background and context

Funding scenarios report

This report builds on supporting analysis and decisions made through the IBC. It outlines three credible funding scenarios and identifies the key trade-offs associated with the different options, noting that these directly reflect the eight funding principles confirmed through Sponsors Guidance. These scenarios will be refined following confirmation of the underlying policy settings and once there is greater understanding of the urban enabling infrastructure and interventions.

The funding scenarios address the costs associated with delivering and operating the emerging preferred transport solution. However, the potential impact of funding critical urban enabling infrastructure has also been considered. Further work is required to confirm the specific enabling infrastructure projects that are required to unlock development and the extent to which allowance has already been made for these costs in funding organisations' plans.



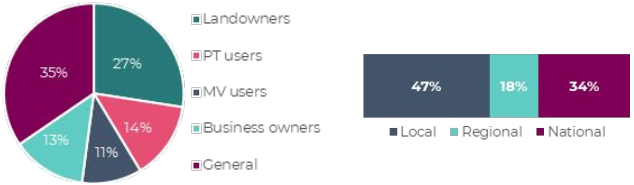
Key context from previous work

Previous work completed provides the foundations for the funding scenarios summarised in this paper. The funding scenarios is this report are grounded in beneficiary pays, which is a core Sponsor Funding Principle. A different composition of tools may be preferred under different policy settings (i.e. focus on affordability rather than beneficiary pays).

Beneficiary identification

Given Sponsoring Ministers' guidance received through the Funding Principles Letter, a 'beneficiary pays' approach has been adopted, where the funding scenarios allocate funding based on the distribution of Project benefits.

- A range of different beneficiary 'types' and 'geographies' were identified based on the transport and wider economic benefits estimated through the Economics Case.
- Each benefit was allocated between the beneficiary groups (both types and geographies). This assessment is complex and subjective. The adopted mid-point of analysis undertaken is summarised below. A key focal point is the portion of benefit allocated to national beneficiaries (~34%) and Auckland beneficiaries (~66%).
- Given affordability and equity considerations, these beneficiary allocations are starting points and a sense check for the funding scenarios, rather than firm limits to be adhered to.
- Using the benefits allocation to compare against funding allocation applies to both capex and opex, to reflect the Project's whole-of-life costs and benefits.

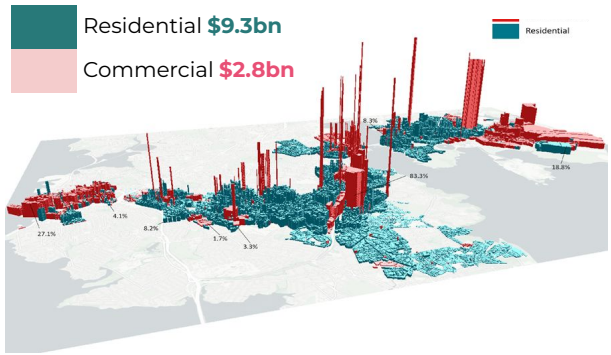


Land value uplift (LVU)

The Project is estimated to generate significant land value uplift* (~$12.1bn (at today's values)), through the monetisation of improved accessibility (transport benefits) and regulatory interventions (e.g. upzoning).

The majority of the land value uplift has been excluded from the benefit estimation in the Economic Case to avoid double counting of accessibility-induced benefits^. As such, LVU does not flow through to the benefit allocation used as the basis for the beneficiary pays allocations.

However, it was used as a proxy for the distribution of benefits within local landowner catchment to inform detailed funding tool design (i.e. IFF allocation methodology between station catchments), given the significant variation in estimated land value uplift between properties. Estimated land value uplift was also used as a 'sense check' to the allocations and funding tool design, including as a benchmarked for 'economic affordability'.



The scenarios in this paper show varying degrees of alignment with the beneficiary pays principle.

At times this appears imbalanced (e.g. one type of beneficiary pays a higher % of costs than the benefit allocation would suggest.

However, under all of the scenarios, no beneficiary group is charged more than their estimated benefit (refer Appendix E).

*LVU estimates provided by LUTI consulting.
^ Only the non-accessibility portion of the land value uplift has been included in the Economics Appraisal (refer Economics Case)

Key context from previous work

The affordability implications of the funding scenarios is also a key trade-off highlighted through this report, acting as a practical funding constraint.

Affordability

Sponsoring Ministers noted the need to consider practical funding constraints, such as affordability. Affordability is a multi-dimensional concept that cannot be determined through comparison against a single metric. Three general principles were applied:

1. **Cash flow affordability:** Beneficiaries should be able to pay their contributions as they fall due without material hardship.
2. **'One-off shocks':** One-off price shocks should be avoided to provide beneficiaries with time to adjust their expenditure to manage the impacts of any charges.
3. **Economic affordability:** The principle that beneficiaries shouldn't be required to contribute more than the benefits they derive from the project.

Cash flow affordability is the key practical affordability constraint. Three cash flow affordability measures were considered, with the 'Shand' measure* implying that landowners have the capacity to absorb additional Project charges. However, the other two measures, housing costs relative to gross income, and discretionary income relative to disposable income tended to suggested otherwise. Refer Appendix C for further detail on these affordability measures.

Affordability analysis is largely focused on landowners (i.e. ratepayers), given this is where a large portion of funding, as well as affordability constraints, lie. Affordability for sponsor organisations, such as Auckland Council, Waka Kotahi (the National Land Transport Fund (NLTF)) and the Crown, has also been considered.

Funding tools

Building on the shortlist of funding tools identified through the IBC work, a wide range of funding tools were considered (refer Appendix A) and evaluated against the eight Sponsor Funding Principles.

The IBC shortlist taken forward included a relatively large number of different funding tools, reflecting the fact that a combination of different tools (both existing and new) is required to meet ALR CC2M's substantial funding requirements. The scenarios presented in this paper are based on these short listed tools.

As with the funding scenarios the shortlist is not exhaustive and a change to the underlying policy settings could require a reconsideration of the funding tool shortlist.

*The Shand measure considers rates (and other related property charges) to be affordable when these are below 5% of a household's gross income. This is a commonly accepted affordability measure across the local government sector.

2. Funding scenarios

Drafting note:

The key trade-offs and considerations outlined in this section are based upon the eight Sponsor Funding Principles; and may change under different policy settings.

Approach to funding scenarios

Based on prior analysis, three funding scenarios have been developed that consider beneficiary pays, affordability, and Project outcomes that could be implemented to fund ALR CC2M.

Scope and approach

The three scenarios have been developed to show practical funding packages that could be implemented to fund ALR CC2M. These funding scenarios focus on the transport components of the Project as the costs and potential revenues relating to the Project's urban elements were still being worked through, specifically:

- initial draft estimates of urban enabling infrastructure (UEI) costs have been estimated as part of Urban Optioneering work. Further work is required to understand the extent to which allowance has been made for these funding organisation plans; and
- other than OSD / residual land sales (incl. uplift component of $172m), no specific interventions have been agreed at this stage in terms of potential revenues or capital investment required.

However, funding settings, in particular beneficiary affordability, have been designed to consider potential affordability impacts involved in funding the Project's urban elements. This approach will be refined as further information becomes available (refer Appendix F for further detail on how urban elements will be incorporated).

Presentation of funding scenarios

Page 13 outlines the approach to factoring in the key concepts (beneficiary pays, affordability, and Project outcomes) into the design of the three scenarios, while page 14 provides an overview of the funding tools and settings included in each scenario.

The following pages summarise the three scenarios, with the following included for each one:

- an overview of the funding sources used and their settings;
- a breakdown of how Project capex and opex could be funded, including the magnitude of funding provided by each funding tool;
- a summary of the impacts of the funding sources and settings on Project beneficiaries, particularly landowners (ratepayers) and on potential funding organisations - Auckland Council, Waka Kotahi (the NLTF), and the Crown
- Key trade-offs and considerations for the funding scenario.

Overview of scenarios
pages 13-14

Scenarios side-by-side 'at a glance'
page 15

Scenario 1
Beneficiary pays with new tools
page 16

Scenario 2
Balanced affordability and beneficiary pays
page 19

Scenario 3
Outcomes focus
page 22

Scenario evaluation
Section 3

Key concepts factored into funding scenarios

The scenarios each have different trade-offs, including how they align to the beneficiary pays principle, affordability constraints, and Project outcomes.

Beneficiary pays

The starting point for developing the three funding scenarios was a 'beneficiary pays' approach (based on Sponsor Guidance). In practice, this means aligning the proportion of funding from Auckland (local and regional) with the midpoint of the benefits identified (i.e. ~66% of cost).

Given the Project's scale, affordability and other constraints (including the timing of benefits monetisation), a first principles beneficiary pays approach is unlikely to be implementable. Thus, the Project likely requires additional funding tools to close such a funding 'gap'.

Scenario 1 (Beneficiary pays with new tools) achieves the Auckland and national split in funding allocation as indicated by beneficiary analysis. Given this first principles approach, landowner charges (IFF levies) are set based on economic affordability, capped at 25% of land value uplift (LVU). The other scenarios move away from beneficiary pays as a strict starting point.

Affordability

Affordability is a multi-dimensional concept that cannot be determined in a single way. Cash flow affordability is likely the key practical affordability constraint.

Using the 5% Shand measure, analysis indicated that the median Auckland household's property charges represent ~3.5% of gross income, indicating there was roughly ~1.5% 'headroom' available. The funding settings for the transport investment were designed to ensure there would be sufficient capacity to fund the urban enabling infrastructure costs, as well as other investment across Auckland.

Affordability is inherently subjective. Given its importance, the scenarios consider it from more than one angle. **Scenario 2 (Balanced affordability and beneficiary pays)** balances cash flow affordability with economic affordability in setting residential landowner charges. IFF settings are shaped to recognise the estimated LVU, but also consider cash flow constraints, only capturing a portion of the LVU generated. The cashflow affordability measure was also set to ensure there was 'headroom' to fund urban enabling infrastructure and other investment in Auckland.

Incentives and outcomes

The nature, sizing, timing, packaging, and implementation of funding tools can influence the outcomes that the Project achieves. A funding tool, in isolation, or as part of the overall funding stack, can drive a range of incentives that contribute to these outcomes. There are trade-offs that will need to be considered when confirming the preferred funding solution.

All scenarios assume congestion charging to further incentivise mode shift.

Scenario 3 (Outcomes focus) seeks to incentivise greater density in the corridor by adjusting the relative affordability and alignment to beneficiary pays between local and regional landowners. Through this it seeks to make it relatively less desirable to live outside the corridor.

*The IFF levy settings for Scenario 3 are a 'hybrid' between cash flow affordability and economic affordability, taking the lower of 0.5% of gross household income or 60% of LVU.

Funding scenarios overview

Detail of the three funding scenarios, including the relevant funding sources and settings, is outlined below.

	Funding scenario definition	Core transport capex	Opex
Beneficiary pays with new tools	Focussed on achieving ~66% Auckland contribution to reflect **beneficiary pays**. 'Economic' affordability as a % of LVU (rather than cash flow affordability) used as the basis for setting local contributions (residential and commercial). LVUM used to recover additional benefit from local commercial properties. Regional (residential and commercial) capped at overall economic benefit received. **New funding tools are required** to bridge the funding gap for core transport capex.	• **IFF levy: residential - ~25% of LVU for local** • **IFF levy: commercial ~25% LVU for local** • **LVUM: large commercial up to ~60% LVU** • **Congestion charging (scheme as per TCQ*, only a 1/3rd used for ALR CC2M)** • **Airport departure charge ($12 per passenger, only a 1/3rd used for ALR CC2M)** • **Crown appropriation (35%)** • **Residual land sales**	Standard FAR arrangements: • **Farebox** • **Auckland Council general rates (49%)** • **NLTF (51%)** plus • **Increased parking charge** • **Commercial revenue (advertising and leasing)**
Balanced affordability and beneficiary pays	Focused on **balancing cash flow and economic affordability**, particularly for local residential landowners. Supplemented with other tools such as the premium airport charge. **Majority of funding from existing tools and settings** to get as close possible to a beneficiary pays approach, within affordability constraints. The **balance of funding is met by Crown** (~34%).	• **IFF levy: residential - $800 local and $150 regional** • **IFF levy: non-residential - 60% LVU local; regional set as a 1.7x multiplier of residential as per Council's differential** • **Premium farebox ($12 per trip. Workers exempt)** • **Congestion charging (scheme as per TCQ*, only a 1/3rd used for ALR CC2M)** • **Crown appropriation for balance (~34%)** • **Residual land sales**	
Outcomes focus	Focussed on **incentivising urban development outcomes** rather than emphasis on beneficiary pays by reducing charges to landowners in the corridor. IFF sized to eliminate the need to other capex funding tools, thereby, increasing capacity for Auckland Council to fund required urban enabling infrastructure.	• **IFF levy: local residential - lower of 0.5% of gross income or 60% of LVU. Regional charge captures local 'shortfall'** • **IFF levy: non-residential - 60% of LVU; 60% LVU local; regional set as a 1.7x multiplier of residential as per Council's differential** • **Crown appropriation** • **Residual land sales**	Standard FAR arrangements plus: • **Increased parking charge** • **Congestion charging** • **Commercial revenue**

Landowner
Business owner
PT user
Motor vehicle user
General beneficiary
Developer

*The scheme as set out in *The Congestion Question* (TCQ) imposes a maximum charge during the peak period of $3.50 per light vehicle and $7 per heavy vehicle, with lower charges during the peak shoulder.

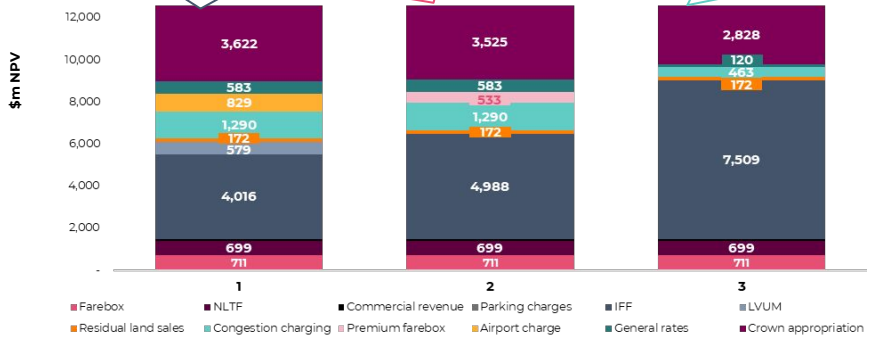
Scenarios side-by-side ‘at a glance’

Funding sources by scenario

Scenario 1
New regional funding tools needed to achieve full ‘Auckland’ allocation

Scenario 2
Funding predominantly from existing tools and settings. IFF settings rebalanced (towards commercial and regional) to reduce cost to local landowners)

Scenario 3
Greater regional ratepayer IFF contribution materially increases the amount that can be recovered



Impact on Council, Waka Kotahi, and Crown

The scenarios assume that the Council receives the revenue from the Congestion Charge, Airport Departure, and Premium Charge; and is responsible for the associated financing.

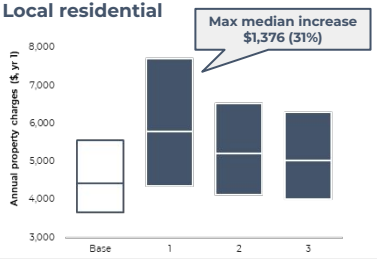
NLTF funding assumed in all scenarios

Scenario 1 reflects Crown contribution equivalent to national benefits (on a proportional basis)

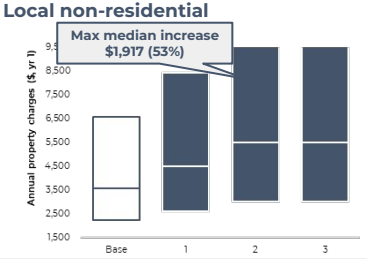
	Capex funding (*NPV*)	Interest (*nominal*)	Opex funding (*NPV*)
Auckland Council			
1	**$2.3bn**	**$3.3bn** ($78m p.a.)	**$671m**
2	**$2.0bn**	**$3.6bn** ($95m p.a.)	**$671m**
3	-	-	**$671m**
Waka Kotahi			
1	-	-	**$699m**
2	-	-	**$699m**
3	-	-	**$699m**
Crown			
1	**$3.6bn**	**$7.9bn** ($207m p.a.)	-
2	**$3.5bn**	**$7.7bn** ($202m p.a.)	-
3	**$2.8bn**	**$6.3bn** ($171m p.a.)	-

Impact on beneficiaries - Total landowner charges (year 1) under each scenario compared to the status quo

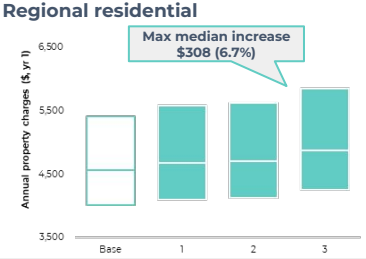
Local residential



Local non-residential



Regional residential



Regional non-residential

- Base scenario reflects the status quo (i.e. no ALR CC2M) rates / levies / water charges. Scenarios (1, 2 and 3) reflect the status quo plus any additional rates and IFF levies for ALR CC2M
- Non-residential LVUM charges are not shown on the figures.

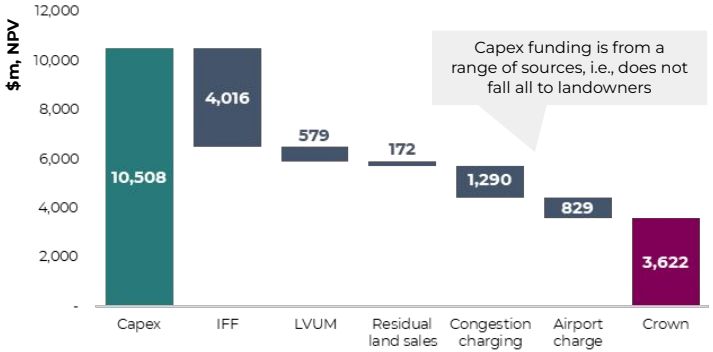
Scenario 1: Funding sources

Overview of scenario

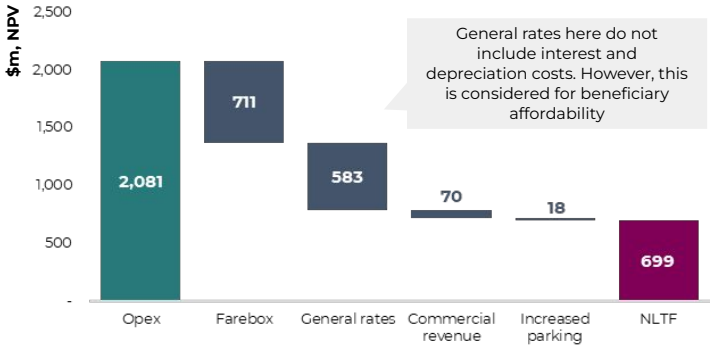
This scenario focuses on achieving a ~66% contribution from Auckland (local and regional) to reflect the beneficiary pays principle. Other 'regional' tools are assumed to help achieve this Auckland contribution. Key funding tools and settings include:

- An **IFF levy** of $4bn is used to fund a significant portion of Auckland's overall contribution. It is sized to recover 25% of LVU from **local and regional landowners** (adopting economic affordability approach rather than cash flow affordability).
- **LVUM** of $579m (local non-residential only) is also used to increase overall proceeds from this beneficiary class, up to a maximum of 60% of LVU.
- Both the IFF and LVUM are assumed to be financed via SPV structures and 'off-balance sheet' for Crown or Council.
- Other regional sources used to bring the Auckland contribution to ~66% include:
  - **Congestion charging** ($1.3bn)- 1/3rd of total forecast net revenue from this tool, based on the scheme envisaged under (TCQ)
  - An **airport (departure) charge** ($829m) - 1/3rd of total forecast revenue from this tool, based on ~$14 pp to close the funding gap.
- These sources would likely need to be financed by Auckland Council to fund capex upfront with debt, and then repay this as revenue is received over time.
- Receipts from the disposal of OSD and **residual land** ($172m) are expected to contribute to Project costs.
- **Crown appropriation ($3.6bn)** is sized so that the Crown's overall contribution to Project funding (capex and opex) is in line with the mid-point of the benefit analysis (34% of total costs).
- **Standard FAR arrangements** (i.e. 51% NLTF and 49% Auckland Council of post-farebox opex), with Auckland Council's contribution coming from commercial revenue and increased parking charges, with the remainder funded through general rates.

Project delivery phase funding



Project operating phase funding



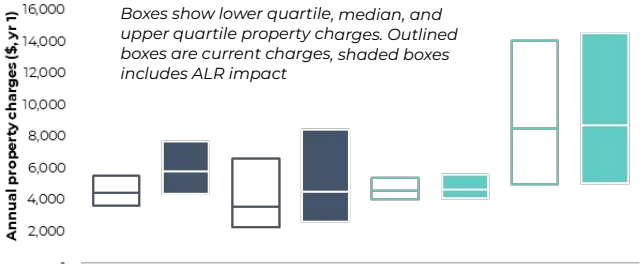
Scenario 1: Beneficiary and organisation impacts

Impact on beneficiaries

The median Project charges (IFF levy and general rates) for local residential landowners are ~$1,400 p.a.

From an **economic affordability** perspective, this represents an affordable level (given it is 25% of LVU). From a **cash flow affordability** lens, it the charges would still be within the 'Shand' affordability threshold, implying there would still be capacity to fund urban enabling infrastructure and other projects.

Relative to charges without the Project, this would represent an ~31% increase in charges for the median household (or >38% for upper quartile), which represents a material increase.



	Local residential	Local non-residential	Regional residential	Regional non-residential
Median increase	$1,376 30.8%	$911 25.0%	$113 2.5%	$183 2.1%
UQ increase	$2,160 38.4%	$1,829 27.2%	$156 2.8%	$424 3.0%

Impact on Auckland Council, Crown, and Waka Kotahi

There are a range of financial impacts to Auckland Council, which include:

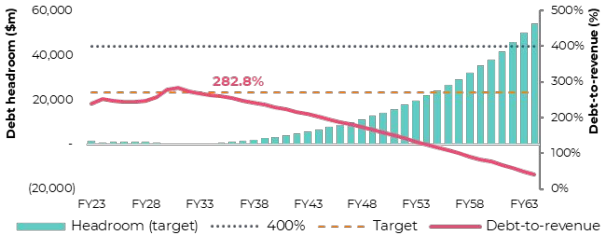
- **Debt:** Council's debt-to-revenue ratio **peaks at ~283% - above its 270% long-term target**, just **below its 290% maximum** (it is assumed to finance the congestion charge and airport charge).
- **Depreciation:** If Council is the ultimate asset owner, it would face the full burden of funding depreciation - an **annual average funding requirement of ~$195m.** Council's ability to fully fund depreciation as per its Revenue and Financing Policy may become constrained.

These impacts consider transport costs only; urban enabling infrastructure elements of the Project would put further pressure on Council.

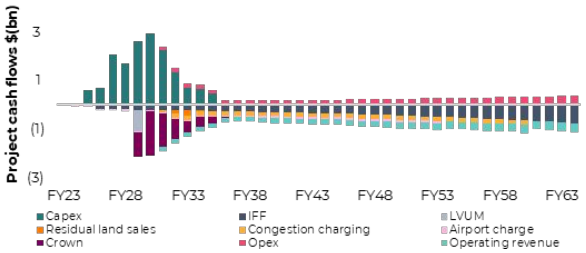
Timing: As shown in the cash flow chart, the Project has a significant mismatch in funding (unfinanced) and costs and will need to be 'smoothed' through financing.

	Capex funding (*NPV*)	Interest costs (*nominal*)	Opex funding (*NPV*)
Council	$2.3bn	$3.3bn $78m p.a.	$671m
Waka Kotahi	-	-	$699m ~5.5% of NLTP*
Crown	$3.6bn	$7.9bn $207m p.a.	-

Auckland Council debt-to-revenue



Unfinanced Project cash flows



*The total NPV of the first 10-years of NLTF opex funding for ALR represent ~5.5% of the NPV of the mid-point of the GPS-LT 2021-31 'Public Transport' activity class. On an undiscounted basis, this would be ~10%, representing a significant portion of available funding.

** Based on the current Regional Fuel Tax structure. Consideration as to where these tools should sit needs to be finalised.

Scenario 1: Key considerations

Key considerations and trade-offs

Landowner affordability and public acceptability

- While IFF levies have been set at a level that is 'economically affordable', the annual charge is relatively large. It will likely rely on postponement mechanisms being adopted for payment to be made until the benefit is realised (when properties are sold). Postponement is currently available to ratepayers, but rarely been used.
- A ~31% relative increase in charges is significant in the context of Council's stated (target) limit of 3.5% annual increases.
- The ~$2,000 (~38% increase) in additional charges for local residential households in the upper quartile is significant, albeit still 'economically affordable'.
- Indicative IFF charges faced by the median local residential landowner would be higher than non-residential (businesses), the opposite of what is observed in Council's rating policy. This is because the bulk (~77%) of the estimated LVU accrues to residential land, rather than commercial.
- Overall, this presents a risk of disincentivising living in the corridor.
- For context the ~$113 p.a. median regional residential charge sits below the $150 p.a. Rodney District Targeted Rate.

Affordability for Auckland Council

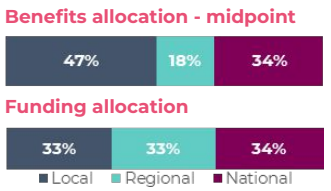
- Using an IFF levy to recover costs from local and regional landowners enables costs to be financed independently of Council's balance sheet.
- From an overall contribution perspective, Council's debt-to-revenue ratio would still peak above its long-term target, constraining its ability to raise further debt for BAU needs or to fund the Project's urban elements, noting this is based on an assumption that the Council finances the airport departure charge and congestion charge.

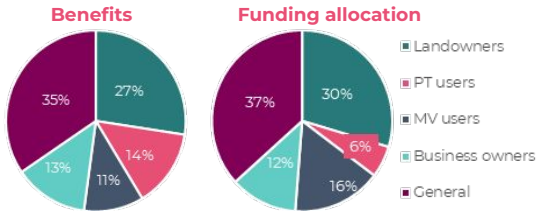
Other considerations

- The efficiency of new charges will need to be considered on a case-by-case basis compared to greater use of other tools. Introduction of an LVUM would require legislative change, with associated costs and lead-in time.
- An airport departure charge is an example of a new funding tool that could be used to close the funding gap. It could be increased to reduce the need for Crown contribution or affordability implications of the IFF. The costs of implementing this tool (financial, legislative, time etc.) could potentially outweigh funding benefits if revenue generated is relatively minor.
- Reliance on postponement mechanism for affordability purposes could impact revenue certainty and timing. Additional underwrite / support of the IFF financing may be required.

Alignment with beneficiary pays

The national funding contribution is equal to the midpoint of benefits allocation. However, the % of regional funding contribution is higher than its indicated % benefits*. Albeit given the BCR > 1.0 the $ amounts funded remain below the $ value received.





*In practice, the regional contribution is slightly lower than as indicated in the chart as this presents congestion charging as being fully regional, whereas this would actually include some portion of local funding.

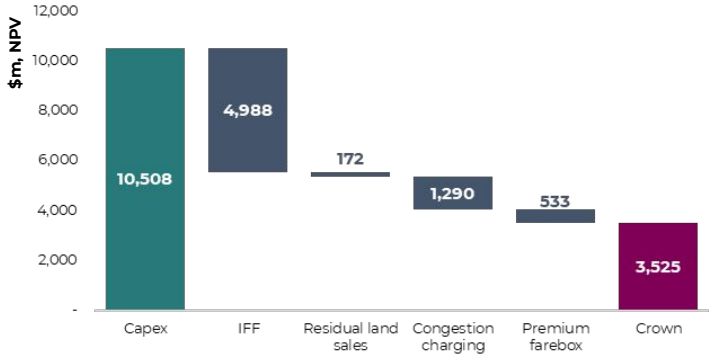
Scenario 2: Funding sources

Overview of scenario

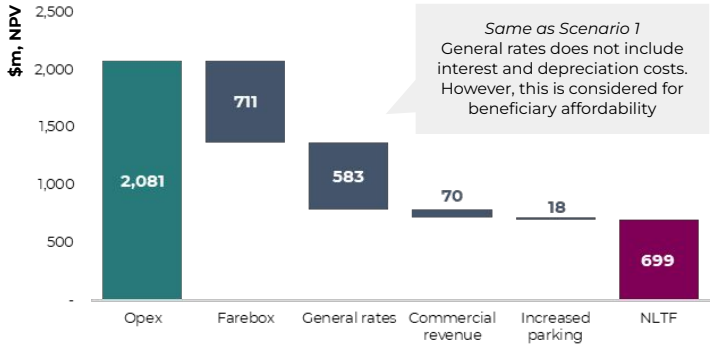
This scenario seeks to balance cash flow and economic affordability, particularly for local ratepayers. Other tools are also used to get close to the mid-point of the beneficiary analysis. allocation. Key funding tools and settings include:

- An **IFF levy** ($5bn) used to fund a significant portion of Auckland's overall contribution.
  - The median local residential rate of $800p.a. is significantly reduced vs scenario 1. It represents ~0.6% of gross household income and recovers ~20% of LVU.
  - Local commercial is set at 60% of LVU. It recovers the same as the IFF and LVUM components under scenario 1, without the need for a new tool to be created and used.
  - The median regional charge of $150p.a. is set to recover a greater amount than under scenario 1 while remaining at a level which is affordable from both a cash flow and economic perspective.
- Auckland contributions are supplemented by:
  - The use of **congestion charging** ($1.3bn)- 1/3rd of total forecast net revenue from this tool, based on the scheme envisaged under TCQ; and
  - **Premium farebox** ($533m) - a $12 additional fare applicable to airport travel.
- Receipts from the disposal of OSD and **residual land** are expected to contribute to Project costs.
- The balance of funding is assumed to be met by a Crown appropriation (~34%). This is in line with the mid-point of the beneficiary analysis.
- **Standard FAR arrangements** (i.e. 51% NLTF and 49% Auckland Council of post-farebox opex), with Auckland Council's contribution coming from commercial revenue and increased parking charges, with the remainder funded through general rates.

Project delivery phase funding



Project operating phase funding

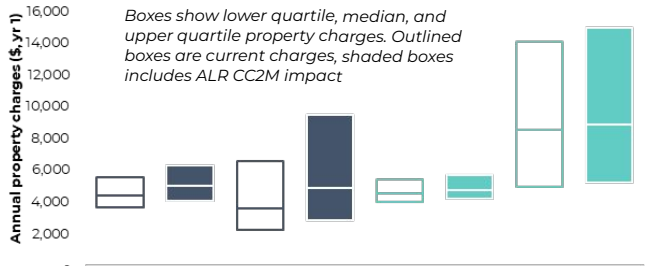


Scenario 2: Beneficiary and organisation impacts

Impact on beneficiaries

The median Project charge (IFF levy) for local residential landowners is ~$800 p.a. This is deemed affordable under both **economic affordability** (~20% of LVU) and **cash flow affordability** (one third of remaining Shand headroom) lenses. The intention is the remaining two-thirds would be available to fund urban enabling infrastructure and other projects.

Relative to charges without the Project, this would represent an ~18% increase in charges, lower than in Scenario 1 but still a relatively large increase.



	Local residential	Local non-residential	Regional residential	Regional non-residential
Median increase	$800 17.9%	$1,917 52.6%	$150 3.2%	$242 2.8%
UQ increase	$978 17.4%	$4,248 63.2%	$207 3.8%	$562 3.9%

Impact on Auckland Council, Crown, and Waka Kotahi

There are a range of financial impacts to Auckland Council, as outlined:

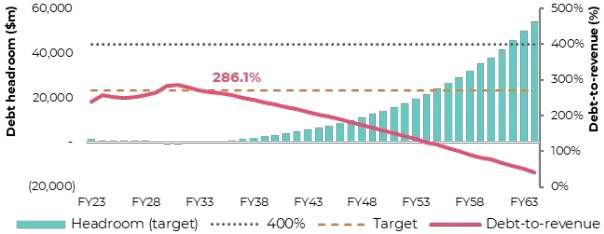
- **Debt:** Council's debt-to-revenue ratio **peaks at ~286%** - **above its 270% long-term target**, only just **below its 290% maximum** (it is assumed to finance the congestion charge and premium farebox).
- **Depreciation:** As with scenario 1, if Council is the ultimate asset owner, it would need to meet depreciation funding requirement of ~$195m p.a.

These impacts consider the impacts of the transport costs only; urban elements of the Project would put further pressure on Council.

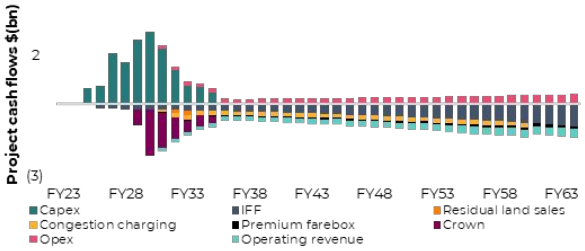
Timing: As shown in the cash flow chart, the Project has a significant mismatch in funding (unfinanced) and costs and will need to be 'smoothed' through financing.

	Capex funding (*NPV*)	Interest costs (*nominal*)	Opex funding (*NPV*)
Council	$2.0bn	$3.6bn $95m p.a.	$671m
Waka Kotahi	-	-	$699m ~5.5% of NLTP*
Crown	$3.5bn	$7.7bn $202m p.a.	-

Auckland Council debt-to-revenue



Unfinanced cash flows



*The total NPV of the first 10-years of NLTF opex funding for ALR represent ~5.5% of the NPV of the mid-point of the GPS-LT 2021-31 'Public Transport' activity class. On an undiscounted basis, this would be ~10%, representing a significant portion of available funding.

Scenario 2: Key considerations

Key considerations and trade-offs

Landowner affordability and public acceptability

- The ~18% median residential increase in charges is significant in the context of Council's stated (target) limit of 3.5% increases p.a, albeit a lower increase than in Scenario 1. For context, in current conditions, Council is implementing an 11% increase for 2023/24.
- Applying the Shand affordability measure, local landowners would still have capacity to contribute to urban enabling infrastructure and other projects.
- However, this increase is significantly lower than in scenario 1 (~31% for median and ~38% for upper quartile). This would likely be more acceptable from a social license perspective, particularly where the story is clearly tied to expected LVU and Project benefits.
- Local non-residential landowners, see an uplift in charges compared to Scenario 1. 'Tipping the scale' slightly towards business owners in this way would see charges differentiated more alike to current Council rates. The importance of appropriately recovering funding from business has been highlighted internationally, (e.g. Crossrail in the UK where £4.1bn or ~22% was funded by a business rate supplement).
- The regional component of $150 is less than half the IFF levy rate for Wellington's Moa Point Sludge Facility and below the high-level estimate of $250 per household for City Rail Link (CRL) being funded out of general rates. This level ensures regional landowners still have capacity to fund other major projects.

Affordability for Auckland Council

- As per Scenario 1, using an IFF levy to recover costs from local and regional landowners enables costs to be financed independently of Council's balance sheet. Council's depreciation funding burden would be significant.

Other considerations

- Using IFF alone (rather than IFF plus a LVUM component) to capture LVU from commercial landowners simplifies the process for the same overall funding. Current legislation and streamlining of process will also create efficiencies.
- The impact of a premium farebox on patronage requires further consideration. It has been assumed to apply only to travellers and not workers in the airport precinct.

Alignment with beneficiary pays

The national funding contribution is in line with the mid-point of the benefit allocation. The % of regional funding contribution is higher than the indicated % of benefits given the rebalancing of charges. Note that given the BCR > 1.0, the actual $ paid by regional beneficiaries remains below the $ of benefits received. Refer Appendix E for more detail.

PT users contribute more than in Scenarios 1 and 3, given the addition of premium farebox revenue, albeit still comfortably below 'their allocation'.

Scenario 3: Funding sources

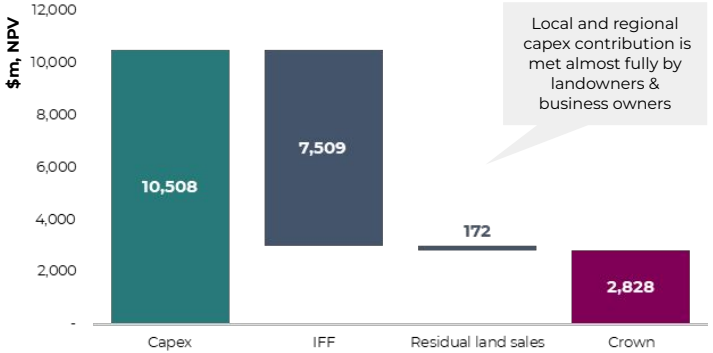
Overview of scenario

This scenario is focussed on incentivising urban development in the corridor rather than an emphasis on beneficiary pays. It seeks to incentivise density and development in the corridor, rather than throughout wider Auckland.

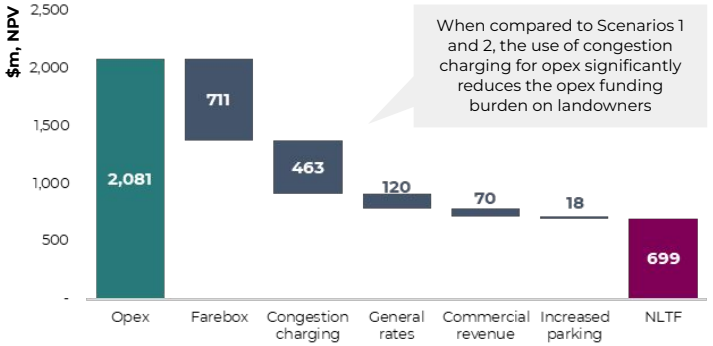
Key funding tools and settings include:

- An **IFF levy** ($7.5bn) is used to fund a significant portion of Auckland's overall contribution.
  - It is sized to recover the lower of 0.5% of gross household income or 60% of LVU from **local landowners** (hybrid of cash flow and economic affordability approach), resulting in a median local residential charge of $614p.a..
  - Local non-residential charges are as per scenario 2 (capped at 60% LVU).
  - Regional charges are sized to collect the balance of Auckland-wide benefit (both local and regional), this results in a median regional charge of $308p.a. (residential) and $497p.a. (commercial).
- Receipts from the disposal of OSD and **residual land** are expected to contribute to Project costs.
- No additional 'regional' tools are assumed to be used to ensure Auckland Council retains balance sheet capacity to fund urban enabling infrastructure (airport premium / congestion charge could be used to reduce the cost to regional landowners if required but would likely require Auckland Council financing).
- The balance of funding is met by a **Crown appropriation** and is lower than in either of the other scenarios.
- **Standard FAR arrangements** (i.e. 51% NLTF and 49% Auckland Council of post-farebox opex), with Auckland Council's contribution coming from congestion charging, commercial revenue, increased parking charges, and a small balance funded through general rates.

Project delivery phase funding



Project operating phase funding



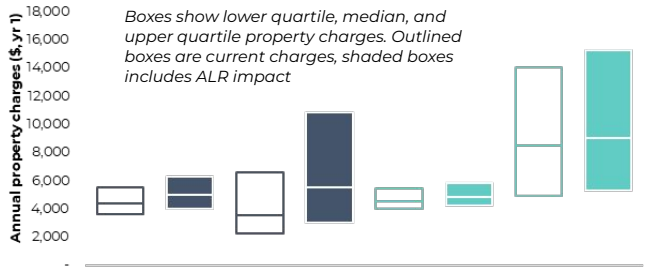
Scenario 3: Beneficiary and organisation impacts

Impact on beneficiaries

Local landowners charges are lower than in the other two scenarios.

Nevertheless, IFF funding overall increases as the local 'shortfall' is shifted to regional landowners, instead of to other tools as in Scenario 2.

The additional charges for regional landowners may not represent a large relative increase (compared to existing charges), but there may be acceptability challenges (refer next page).



	Local residential	Local non-residential	Regional residential	Regional non-residential
Median increase	$614 13.7%	$1,917 52.6%	$308 6.7%	$497 5.7%
UQ increase	$752 13.4%	$4,248 63.2%	$424 7.7%	$1,154 8.0%

Impact on Auckland Council, Crown, and Waka Kotahi

Council is not allocated any transport capex in this scenario, thus there are no impacts to Council's prudential debt metrics nor any ongoing financing costs to consider.

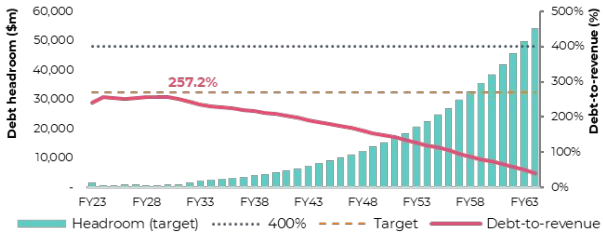
However, as in Scenarios 1 and 2, if Council is the ultimate asset owner, it would face the full burden of funding depreciation - an **annual average funding requirement of ~$195m.** Council's ability to fully fund depreciation as per its Revenue and Financing Policy may become constrained.

Timing: As shown in the cash flow chart, the Project has a significant mismatch in funding (unfinanced) and costs and needs to be 'smoothed' through financing.

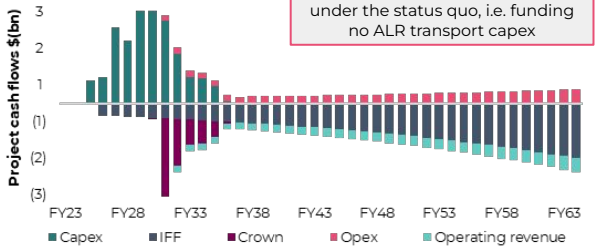
Given Council would have no funding requirement for transport capex, this indicates the potential for Council to have financial capacity in the funding and / or delivery of urban enabling infrastructure requirements. This will also depend on who the ultimate delivery entity for the Project's urban elements is.

	Capex funding (*NPV*)	Interest costs (*nominal*)	Opex funding (*NPV*)
Council	-	-	$671m
Waka Kotahi	-	-	$699m ~5.5% of NLTP*
Crown	$2.8bn	$6.3bn $171m p.a.	-

Auckland Council debt-to-revenue



Unfinanced cash flows



Council's debt-to-revenue ratio under the status quo, i.e. funding no ALR transport capex

*The total NPV of the first 10-years of NLTF opex funding for ALR represent ~5.5% of the NPV of the mid-point of the GPS-LT 2021-31 'Public Transport' activity class. On an undiscounted basis, this would be ~10%, representing a significant portion of available funding.

Scenario 3: Key considerations

Key considerations and trade-offs

Landowner affordability and public acceptability

- Local landowner affordability is improved relative to the other two scenarios.
- However, charges for regional landowners, both residential and non-residential (business owners), are approximately double those in Scenario 2, as the shortfall driven by the local affordability cap is met by regional landowners, rather than other funding tools.
- Charges for regional landowners of this magnitude (while being only ~5% increase in total charges), may come under scrutiny. Regional landowners are not expected to benefit as much as local landowners from the Project. These charges may also constrain the ability of landowners to contribute funding to other major infrastructure projects, when considering affordability / equity.
- Other tools could be introduced to moderate this down if needed, and reserve 'headroom' for other projects and urban enabling infrastructure.

Affordability for Auckland Council

- Given Auckland's contribution is met by IFF levy funding, Auckland Council is not allocated any transport capex to fund, and thus faces no impact to its debt metrics or ongoing debt servicing costs.
- However, as with Scenarios 1 and 2, Council would likely face significant pressure when funding the entirety of the depreciation associated with the Project's assets.

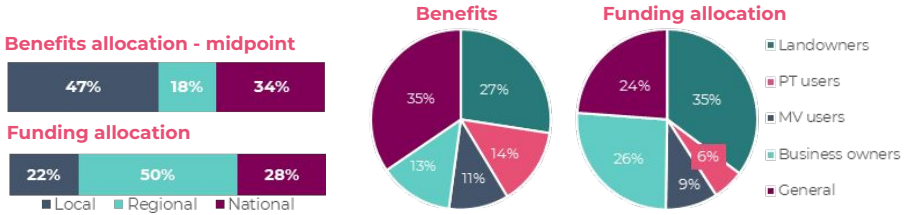
Other considerations

- While this funding scenario creates incentives to drive urban outcomes in the corridor, these alone will likely not achieve the Project's urban outcomes; these likely require Urban Interventions.
- The approach to urban interventions and the Project's (and ALR Ltd's) direct role in this is still being worked through. There may be additional costs and risks that need to be funded or allowed for.

Alignment with beneficiary pays

The national contribution is below the indicated mid-point analysis.

The regional contribution is significantly higher than indicated benefits. Given the Auckland contribution is fully met by IFF levy funding, landowners and business owners collectively would fund a much higher proportion of the Project's costs than beneficiary analysis would indicate.



3. Trade-offs of the different funding scenarios

Drafting note:

The evaluation process described in this section was designed to illustrate the key trade-offs associated with the different scenarios. The trade-offs identified reflect the eight Sponsor Funding Principles; and therefore, the analysis could change under different policy settings.

Two-stage evaluation process

A two-stage evaluation process was used to develop the funding scenarios and identify the associated trade-offs. The evaluation process is based upon the eight Sponsor Funding Principles.

1 Evaluation 1: funding tools

Overview

- IBC shortlist of funding tools evaluated against agreed criteria (note: some changes were made to the IBC shortlist to respond to Sponsor Guidance).
- Criteria reflect the Project outcomes and Sponsoring Ministers' guidance.

Criteria

- Magnitude
- Flexibility
- Stability / certainty
- Efficiency / simplicity
- Equity
- Positive incentives & Project outcomes

2 Evaluation 2: funding scenarios

Overview

- Initial criteria development identified that some key areas and principles would be considered at an overall funding scenario level.
- The three funding scenarios were assessed against the agreed criteria to identify the key trade-offs.
- No weighting applied to criteria.
- Evaluation based on specific scenario settings, and could change if scenario settings are updated.

Criteria

- Magnitude
- Flexibility
- Stability / certainty
- Efficiency / simplicity
- Equity
- Positive incentives & Project outcomes
- Beneficiary pays
- Value for money
- Affordability

There is some overlap between equity, beneficiary pays and affordability considerations when looking at an overall funding scenarios. Where possible these elements have been isolated.

Refinement

Overview

- Funding scenarios to be further refined as urban elements and costs further developed.

Key trade-offs of the funding scenarios

The funding scenarios illustrate the key trade-offs between alignment to beneficiary pays, affordability, and achievement of outcomes. Given the focus on trade-offs, a qualitative scoring approach was used, with no weightings attributed.

	Beneficiary pays with new tools	Balanced affordability and beneficiary pays	Outcomes focus
Magnitude			
Flexibility			
Stability / certainty			
Efficiency / simplicity			
Equity			
Positive incentives & outcomes			
Beneficiary pays			
Value for money	Moderate value for money due to cost of establishing and administering new funding tools / frameworks.	Improved value for money through utilisation of an IFF levy alongside existing tools and funding sources (fewer new tools than scenario 1).	Similar to scenario 2, provides improved value by primarily using an IFF levy alongside existing tools and funding sources.
Affordability			

Impact on ratepayer affordability

A summary of the cashflow impacts of the different funding scenarios is provided below. The figures include all of the land based taxes (IFF, general rates, etc.).

			Local residential	Local non-residential	Regional residential	Regional non-residential
Beneficiary pays with new tools	Economic rather than cash flow affordability results in a relatively high cost for local residential beneficiaries. However, it is comparatively more affordable for other Auckland beneficiaries.	Median	$1,376	$911	$113	$183
		Upper quartile	$2,160	$1,829	$156	$424

			Local residential	Local non-residential	Regional residential	Regional non-residential
Balanced affordability and beneficiary pays	Scenario is comparatively more affordable for local residential beneficiaries with similar affordability for regional beneficiaries, compared to Scenario 1.	Median	$800	$1,917	$150	$242
		Upper quartile	$978	$4,248	$207	$562

			Local residential	Local non-residential	Regional residential	Regional non-residential
Outcomes focus	Lowest local residential charges landowners, which is offset by higher regional residential charges.	Median	$614	$1,917	$308	$497
		Upper quartile	$752	$4,248	$424	$1,154

Key trade-offs of Scenario 1

Evaluation criteria	Comment	Score
Magnitude	• New tools including congestion charging, an airport departure charge, and LVUM ensures that there is no funding gap requiring additional direct Crown / Auckland Council funding. Potential for additional amounts to be raised from the airport departure charge, reducing the Crown's contribution if needed.	Low  High
Flexibility	• Use of new funding tools provides a relatively high level of flexibility to respond to changes in Project funding requirements and staging over the life of the Project.	Low  High
Stability / certainty	• The quantum of funding from new tools has some potential for volatility (e.g. reduction in congestion charging revenue, given positive mode shift). • LVUM reliant on people disposing of their properties.	Low  High
Efficiency / Simplicity	• Scenario would require new legislation and frameworks to administer and allocate funding to Projects (e.g. administering LVUM legislative change).	Low  High
Equity	• Potential for new charges to not fully align across all beneficiaries (e.g. airport departure charge for someone who has not directly benefited from the Project).	Low  High
Positive incentives & Project outcomes	• High local IFF charges could have an impact on attractiveness of living in the corridor.	Low  High
Beneficiary pays	• Overall funding generally aligns well with beneficiary pays. However, in some cases tools may not fully align with benefits (e.g. international passengers who have not visited Auckland / benefitted from the Project).	Low  High
Value for money	• Moderate value for money due to cost of establishing and administering new funding tools / frameworks.	Low  High
Affordability	• Economic rather than cash flow affordability results in a relatively high cost for local residential beneficiaries. However, it is the most affordable for other Auckland beneficiaries.	Low  High

Key trade-offs of Scenario 2

Evaluation criteria	Comment	Score
Magnitude	• The increased quantum of IFF funding, combined with use of congestion charging and premium farebox sources reduces the requirement for Crown and Auckland Council contributions relative to Scenario 1.	
Flexibility	• Use of fewer funding sources and less revenue diversification results in moderate funding flexibility being provided by this scenario.	
Stability / certainty	• Overall, the funding scenario has a high degree of stability and certainty with over 45% from the IFF providing a long-term certain funding source. Congestion charging and premium farebox, however, are sources of minor uncertainty (albeit analysis assumes only 33% is used for ALR CC2M). Less reliance on more variable sources than Scenario 1.	
Efficiency / Simplicity	• Limited ongoing administration associated with implementing the funding scenario (e.g. administration associated with IFF implementation and congestion charging).	
Equity	• Implementation of a congestion charge needs to be considered from an equity perspective, particularly for lower income motor vehicle users. • Exempting airport workers from premium farebox charges is also a key aspect of the scenario achieving a strong equity score.	
Positive incentives & Project outcomes	• By reducing the IFF levy differential between the CC2M corridor and wider region, there is greater incentive for development to occur in the corridor. Potential for some patronage implications of a premium farebox (noting similar cost as SkyDrive).	
Beneficiary pays	• Aligns moderately with the beneficiary pays principle within Auckland, balancing local affordability and regional funding contribution. On an NPV basis, all beneficiary groups receive more in economic benefits than they contribute in funding.	
Value for money	• Improved value for money through utilisation of mostly existing tools and funding sources.	
Affordability	• Scenario has improved affordability for local residential beneficiaries with similar affordability for regional beneficiaries, compared to Scenario 1. While not measured within affordability metrics, the impact on local non-residential beneficiaries is higher than other scenarios.	

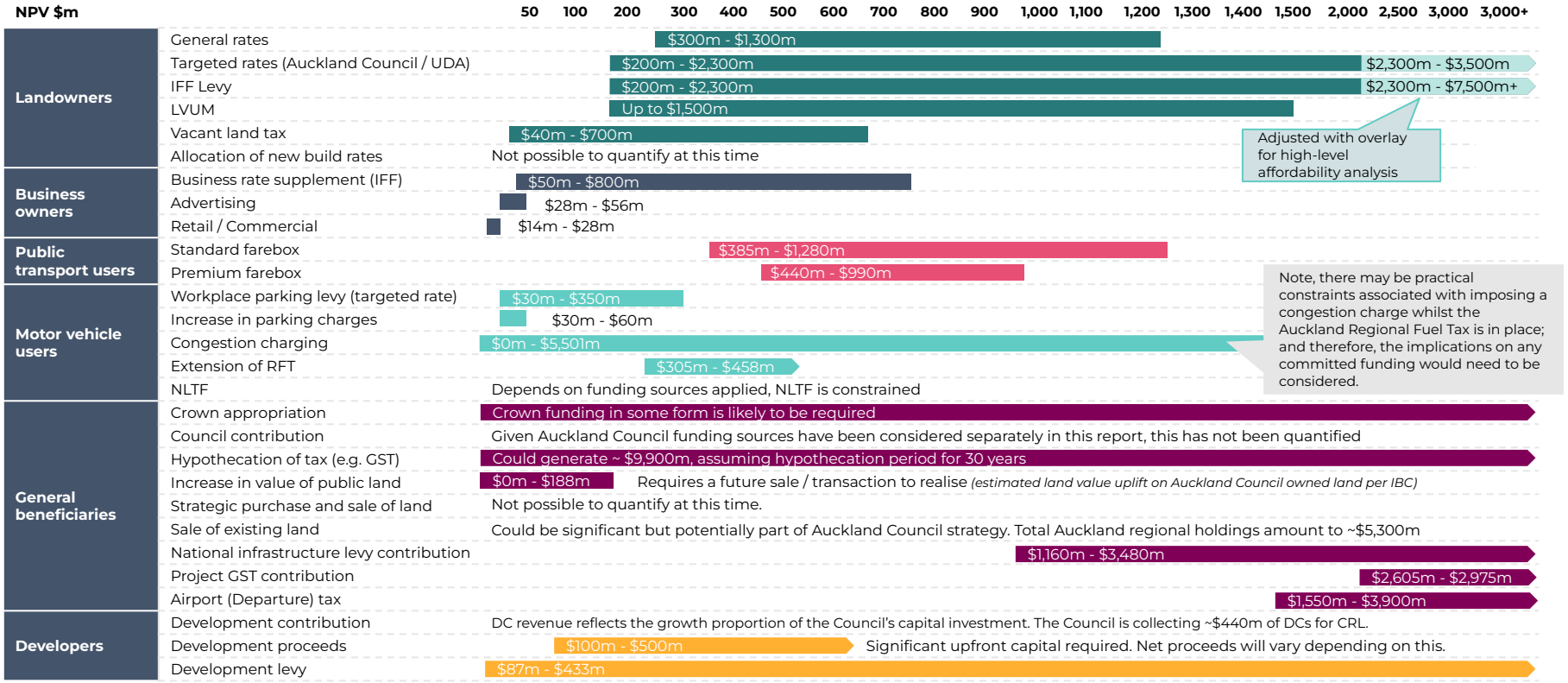
Key trade-offs of Scenario 3

Evaluation criteria	Comment	Score
Magnitude	• Higher regional IFF contribution closes funding gap and avoids the need for additional capex funding sources.	Low  High
Flexibility	• Some flexibility in IFF levy parameters when initially set, but limited ability to alter settings over time.	Low  High
Stability / certainty	• Relatively high certainty and stability provided by IFF levy although some uncertainty around congestion charging as an opex funding source.	Low  High
Efficiency / Simplicity	• OIC required to establish IFF, but simple and efficient to administer once established.	Low  High
Equity	• Higher regional IFF levy reduces less equitable for regional residential and commercial ratepayers.	Low  High
Positive incentives & Project outcomes	• Scenario is focussed on maximising urban outcomes and patronage. The reduced differential between local and regional charges acts to incentivise development in the corridor.	Low  High
Beneficiary pays	• Use of a higher regional IFF levy moves charges furthest away from benefit allocation of all the scenarios, with national and local lower, and regional significantly higher.	Low  High
Value for money	• Similar to scenario 2, provides improved value by primarily using an IFF levy alongside existing tools and funding sources.	Low  High
Affordability	• Scenario has best affordability for local landowners, but with a higher impact for regional landowners. While regional charges may be affordable under identified metrics, they are a significantly higher than Scenarios 1 and 2.	Low  High

Appendices

Appendix A - Funding sources - Order of magnitude

The table below summarises the potential magnitude of funding generated by the shortlisted funding sources, as identified in earlier reports.

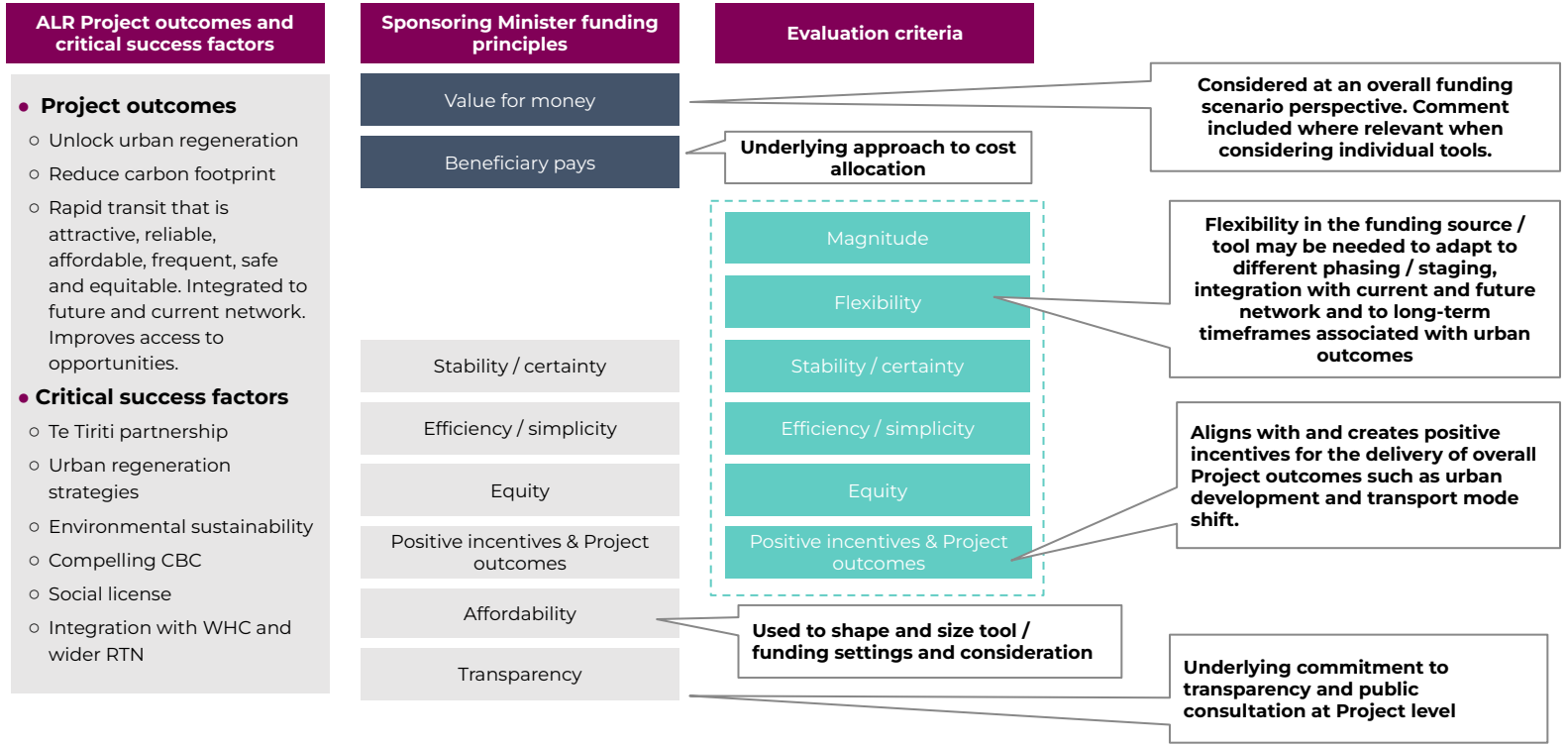


Appendix B - Evaluation criteria

The process used to develop the evaluation criteria is outlined below, noting that it predominantly draws upon Sponsor Guidance.

Drafting note:

The evaluation criteria would need to be updated if there was a change to the underlying policy settings.



Appendix B - Evaluation criteria

Definitions used to apply Sponsoring Minister funding principles and evaluation criteria to funding scenarios are outlined below.

	Definition
Magnitude	The extent to which the funding scenario provides funding from sources other than pure 'Crown' or 'council' contribution (i.e. where the funding gap is minimised).
Flexibility	The extent to which the funding scenario provides flexibility to adapt to different technical options, has the ability to be applied to enabling infrastructure, decisions, and market changes (e.g. environmental regulation and sector reform). Due to the likely need for funding sources to be in place for a long period, a key consideration under this criteria will be tools' capacity to be tailored to the Project's needs at various stages.
Stability / certainty	The level of certainty over both the timing and quantum of the associated revenue of each funding scenario. The overall funding scenario should, in totality, provide reasonably stable revenue sources over the Project lifetime.
Efficiency / simplicity	The extent to which the funding scenario is simple to implement, (including whether there is existing legislation, frameworks, necessary powers, and the complexity of associated processes), and the level of administrative requirements / burden to establish and administer the funding source on an ongoing basis. The overall funding scenario should bias towards simplicity and each funding source should be administered by the entity best placed to do so with efficiency and accountability.
Equity	The extent to which the funding scenario allocates the cost of the Project to its beneficiaries, including between different generations. Wider social considerations, such as affordability for the ultimate payer and socio-economic impacts will also be considered under this criteria. Individuals and businesses in similar circumstances should be treated as equally as possible (horizontal equity).
Positive incentive & Project outcomes	The extent to which the funding scenario incentivises desired behaviours at an individual level (e.g. fare structure to incentivise 'mode shift', financial incentives to increase land use, etc.). The funding scenario should align with, and ideally create, positive incentives for the delivery of overall Project outcomes such as urban development and transport 'mode shift'.
Beneficiary pays	The extent to which the scenario aligns with a beneficiary pays principle at a local, regional and national level, as well as between beneficiary groups (e.g. landowners and public transport users).
Value for money	The value associated with the funding scenario based on net / whole of life basis. Includes any requirement to develop and implement new funding tools / sources, as well as any ongoing overheads associated with collecting funding or administering funding sources.
Affordability	The extent to which the overall funding and financing scenario is affordable, meaning beneficiaries and organisations have the "capacity to pay for the Project without serious economic hardship". Also enables 'capacity' to be retained to support urban enabling infrastructure requirements. Predominant focus on **local landowners** as the beneficiaries with the most acute affordability constraints (particularly where looking to align to beneficiaries pays).

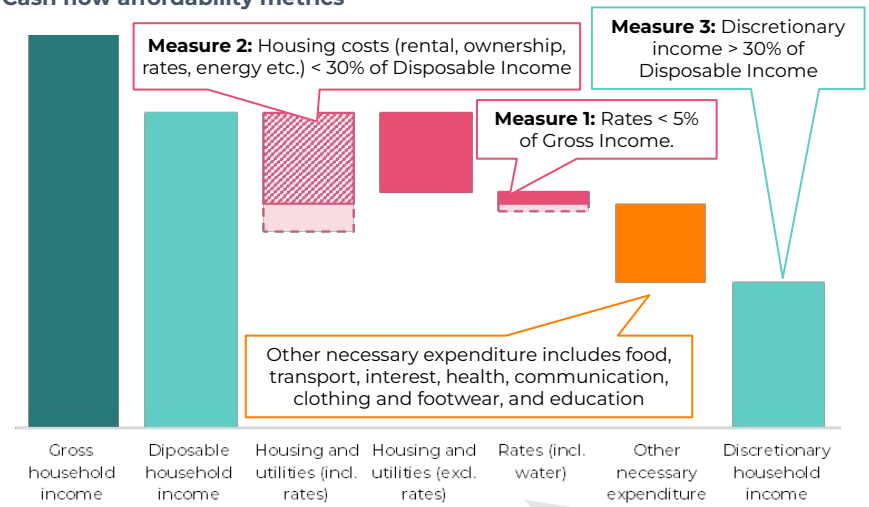
Appendix C - Affordability methodology and approach

Given that affordability is a multidimensional that cannot be summarised in totality by a single metric, five measures for landowners (ratepayers) affordability were considered.

Assessing cash flow affordability (Measure 1 - 3)

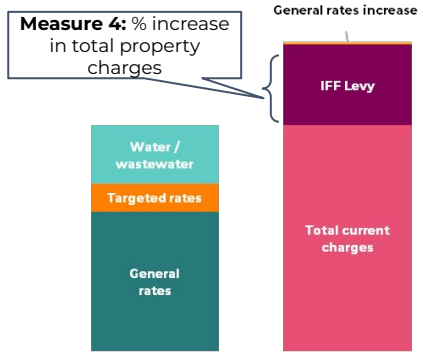
The analysis considers both the current implied affordability (FY23) and future affordability (i.e. change over time).

Cash flow affordability metrics



Assessing the affordability of 'one-off shocks' (Measure 4)

The relative change in property rates has also been considered for landowners.



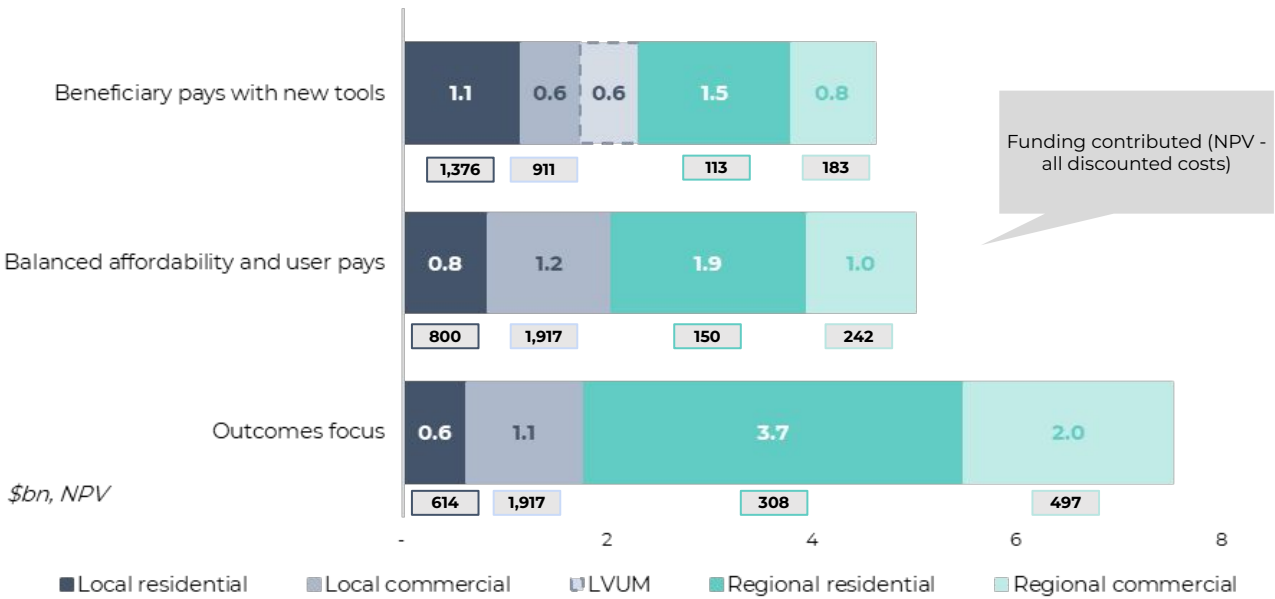
Assessing the economic affordability of the funding arrangements (Measure 5)

Economic affordability is deriving greater monetised benefits from a project than the funding contribution that is required. This requires a comparison of the assumed NPV of project benefits attributable to landowners and the NPV of the funding contribution.

While headroom under the Shand 5% measure implies there is capacity to increase rates, analysis of the two other measures suggests that current housing cost levels are relatively unaffordable. This is especially acute for lower quartile income earners.

Appendix D - IFF levy settings under the funding scenarios

There are a number of IFF levy settings that can be utilised as part of a capex funding package. This is not an exhaustive list of potential IFF settings that could be implemented. Further scenarios may be considered where there is a change to the funding scenarios (i.e. incorporation of a new funding tool) or the underlying policy settings (i.e. balance between beneficiary pays and affordability).



Funding contributed (NPV - all discounted costs)

Proportion of capex funded
~38% ($4.0bn)
~44% ($4.6bn) incl. LVUM
~47% ($5.0bn)
~71% ($7.5bn)

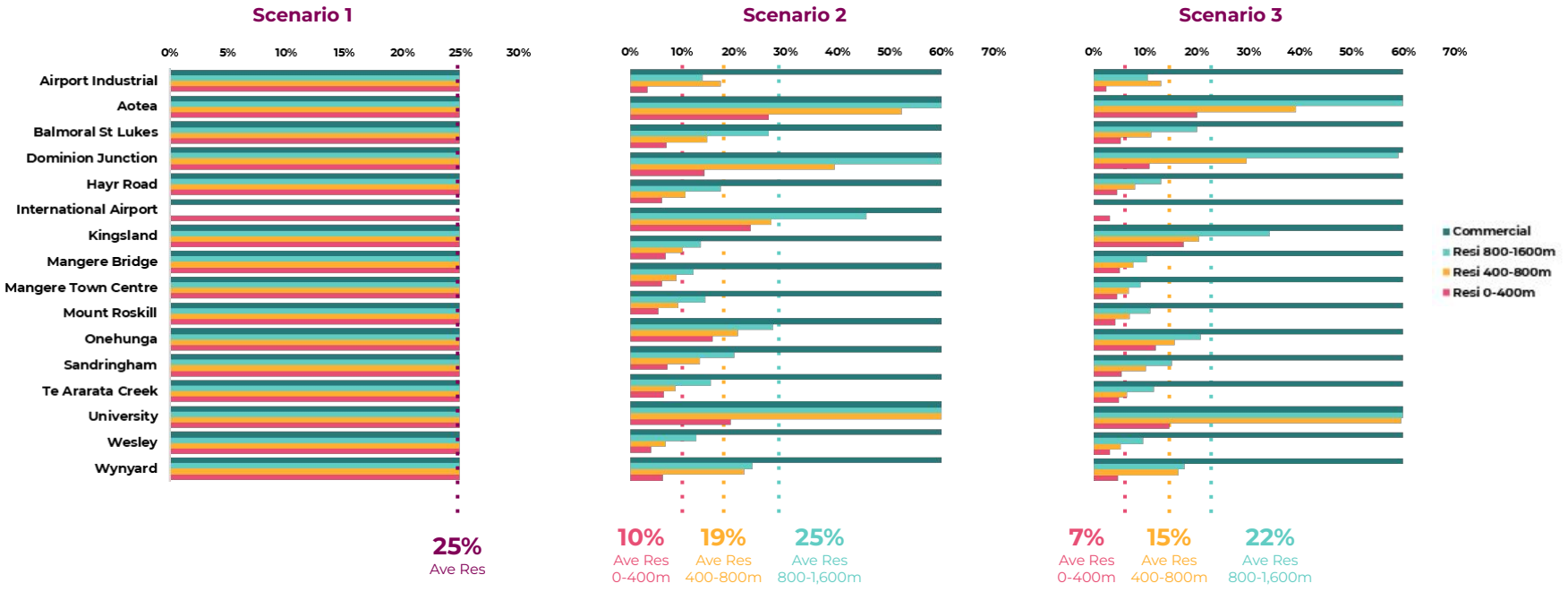
~71% on an NPV basis - under this scenario the IFF = 66% of capex costs on a nominal basis (i.e. captures all of Auckland benefit)

Appendix E - Economic benefit vs IFF charges

The relative proportions of land value uplift captured differ under each scenario, which demonstrates the impact of different cashflow affordability overlays.

% LVU captured - local landowners

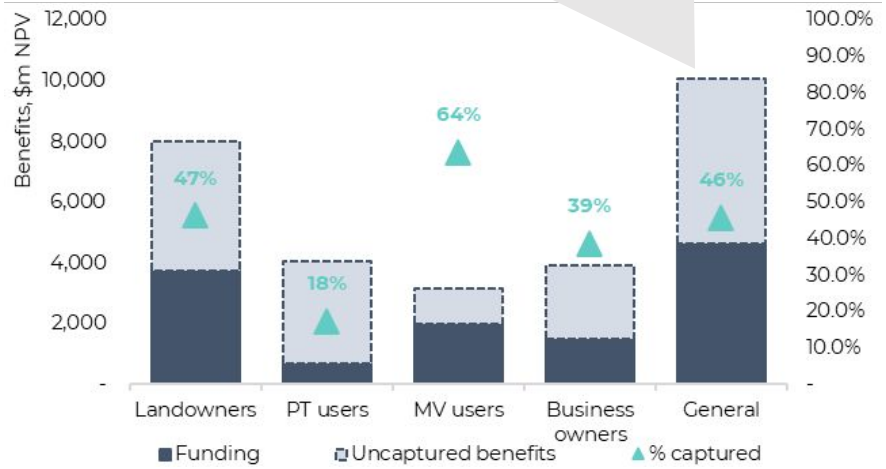
LVU is expected to be the highest for those closest to the stations (<400m). The % captured is lower reflecting affordability considerations.

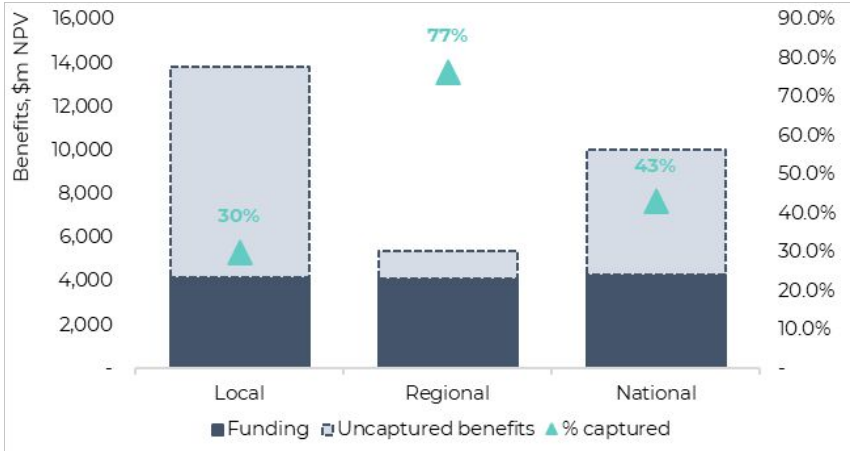


Appendix E - Economic benefit vs funding

Given the BCR > 1.0, all beneficiary types and geographies fund less than the $ value of benefit received under Scenario 1.

Even where % of funding appears to exceed % of benefit received, given the positive BCR the amount funded remains below the estimated benefit received for all beneficiary types.



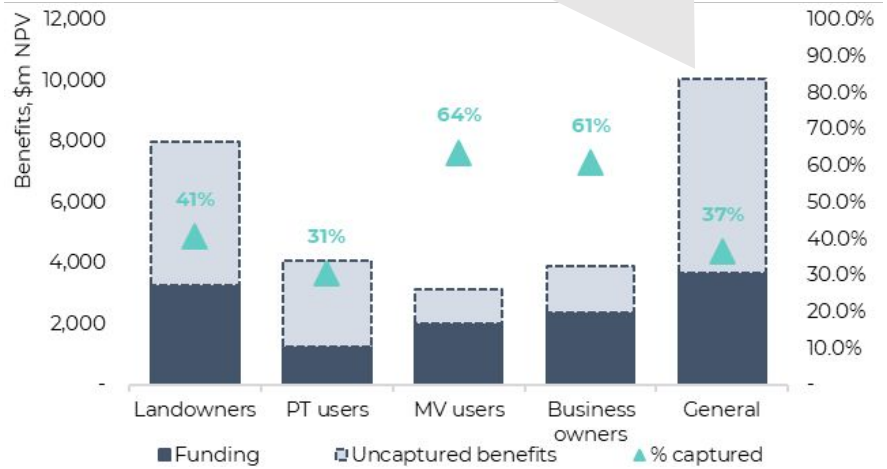


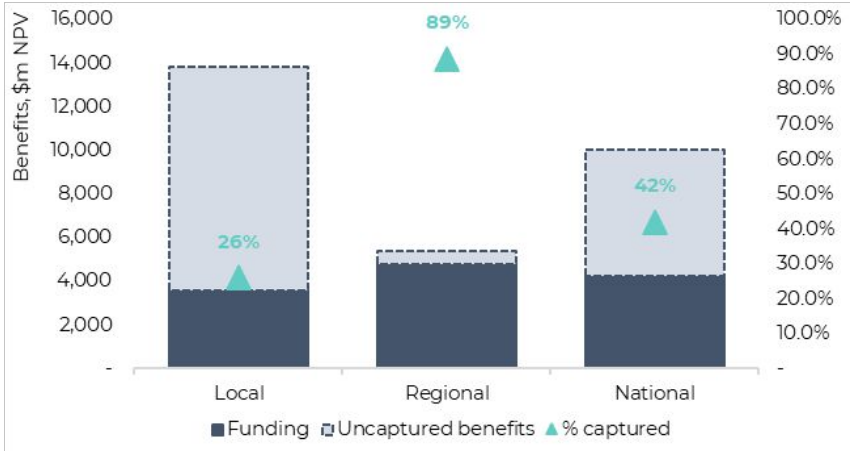
Approximately three quarters of the benefits derived by regional beneficiaries is recovered under this scenario

Appendix E - Economic benefit vs funding

Given the BCR > 1.0, all beneficiary types and geographies fund less than the $ value of benefit received under Scenario 2.

Even where % of funding appears to exceed % of benefit received, given the positive BCR the amount funded remains below the estimated benefit received for all beneficiary types.



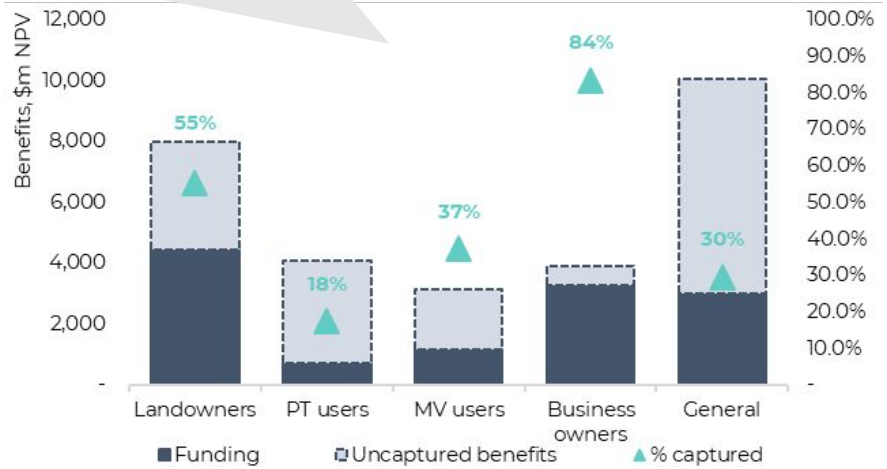


Funding contribution from regional beneficiaries consumes ~90% of the expected benefits received.

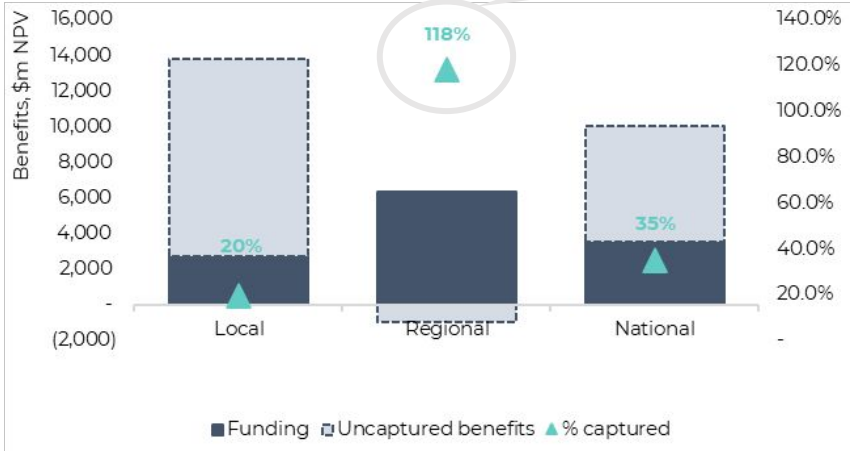
Appendix E - Economic benefit vs funding

Under Scenario 3, regional beneficiaries contribute more in funding than they are expected to receive in benefits, given the scenario seeks to reduce the differential between local and regional IFF levies.

Even where % of funding appears to exceed % of benefit received, given the positive BCR the amount funded remains below the estimated benefit received for all beneficiary types.



Quantum of funding recovered from regional beneficiaries exceeds the quantum of benefits expected to be derived



Appendix F -Project costs and Urban Enabling Infrastructure - affordability

Urban enabling infrastructure costs

- As part of the Urban Optioneering work, UEI requirements were identified to support the various growth scenarios. High level costings of these were undertaken by 'type' of UEI.
- The table below summarises the estimated total cost and incremental cost as a result of ALR.
- It also shows the portion of this cost that could be borne by Auckland Council and its subsidiaries (assumes 100% of three waters, green infrastructure, social infrastructure and 49% of transport), Crown and power providers.

	Baseline (no ALR)	Incremental Investment Option	Active Investment Option
Total cost	$1,167m	$1,740m	$2,217
Incremental cost vs no ALR	-	**$573m**	**$1,050m**
of which Auckland Council	-	***$320m***	***$535m***
of which 'Crown'	-	***$254m***	***$511m***
of which power	-	-	***$4m***

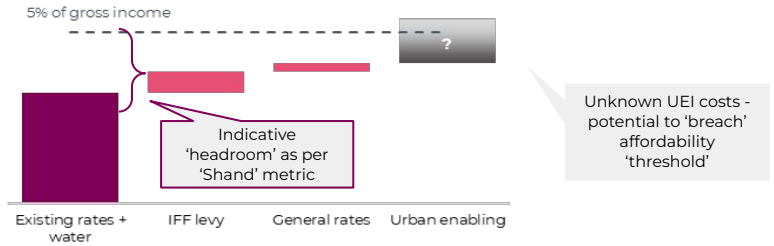
**The table above shows the total estimated cost of the required enabling infrastructure, as well, showing the incremental cost associated with the additional growth possible under the Incremental Investment Option and Active Investment Option.*

- The estimation approach assessed network capacity and benchmarked enabling infrastructure costs per household of additional growth, rather than identifying and costing specific investments. Accordingly, the costs cannot, at this stage, be compared to existing investment / capital plans to identify the incremental cost associated with enabling infrastructure.

Impact of UEI costs on affordability

- The focus on the commentary in this appendix is on the impact of the Auckland Council funded components of UEI noting the final costs and approach to funding is has not yet been determined. This impacts:
  - Ratepayers where costs are recovered via general or targeted rates
  - Developers where costs are recovered via development contributions (DCs)
- The funding scenarios, particularly in determining the settings for landowner charges (IFF levies in particular), have allowed some 'headroom' under the Shand measure to ensure there is capacity for landowners to fund urban enabling infrastructure and other projects.

Illustrative ratepayer charges



- A range of illustrative scenarios for funding Auckland Council's share of costs are shown on the following page: DCs to fund the project growth component and general rates to fund the project non-growth components.

Appendix F -Urban Enabling Infrastructure illustrative sensitivities

There are different ways of recovering the cost from developers and ratepayers. The proportion that is deemed to be growth related (recovered via DCs) and the geography DCs are recovered over will impact the costs ratepayers have to fund.

As shown in the tables below, while there is more infrastructure required under the Active Investment Option, the additional growth enabled within the corridor means the cost per household is not materially higher than under the Incremental Investment Option.

Growth component (e.g. DC charge)

Illustrative additional local DC charge (ALR corridor)						
	25% growth		50% growth		75% growth	
UEI DC cost	Incremental Investment Option	Active Investment Option	Incremental Investment Option	Active Investment Option	Incremental Investment Option	Active Investment Option
One-off cost	$1.6k	$1.8k	**$3.2k**	$3.5k	$4.8k	$5.3k

or

Illustrative additional regional DC charge (Auckland region)						
	25% growth		50% growth		75% growth	
UEI DC cost	Incremental Investment Option	Active Investment Option	Incremental Investment Option	Active Investment Option	Incremental Investment Option	Active Investment Option
One-off cost	$284	$477	$569	$954	$853	$1.4k

Non-growth component (e.g. increase in general rates)

Illustrative general rates impact (to fund non-growth component)						
	75% non-growth		50% non-growth		25% non-growth	
UEI DC cost	Incremental Investment Option	Active Investment Option	Incremental Scenario	Active Investment Option	Incremental Investment Option	Active Investment Option
One-off cost	$341	$572	**$227**	$381	$114	$191
or $ per annum over 30 years	$11 p.a.	$19 p.a.	**$8 p.a.**	$13 p.a.	$4 p.a.	$6 p.a.

Illustrative example - Incremental Scenario / 50% growth

- If a local DC charge was used to fund the growth component, this would result in a $3.2k DC. The ongoing UEI impact for the landowner would be $8 p.a. (for a new home).
- For a regional landowner, the impact would be limited to the general rates impact of $8 p.a.

*Based on the median local residential Auckland ratepayer, with charges as under Scenario 2 shown for the illustrative ratepayer at the start of Project operations.

Ngā mihi