Time of Use Charging in Auckland

Programme update & study summary

July 2025

Purpose of this document

- To provide a summary of the technical work undertaken as part of the Time of Use Charging work programme.
- This work was instructed by the Auckland Council Transport and Infrastructure Committee in November 2023. Oversight was provided by the ToUC Political Reference Group.
- This work informed the Auckland Council submission to Select Committee on the enabling legislation.

Context

- This is a summary of technical work-to-date, with interim findings.
- Further work is needed before final conclusions on a way forward can be identified.
- We are not recommending any decisions at this point.
- Final Council decision-making rights will be subject to the outcome of draft legislation.

The congestion problem & ToUC as a potential solution

The congestion problem

Congestion is already costing Auckland

Rapid population growth and constrained geography have seen congestion increase in Auckland - even as major improvements have been made to the transport network.

29 million

hours stuck in congestion per annum

66 hours

delay per commuter per annum

$120 million

additional vehicle operating costs per annum

$1.9 billion

value of time lost in congestion per annum

$700 million

macro-economic impact per annum

Lost productivity, reduced spending and tax revenue

$9 million

additional greenhouse gas emission costs per annum

on top of other transport emissions

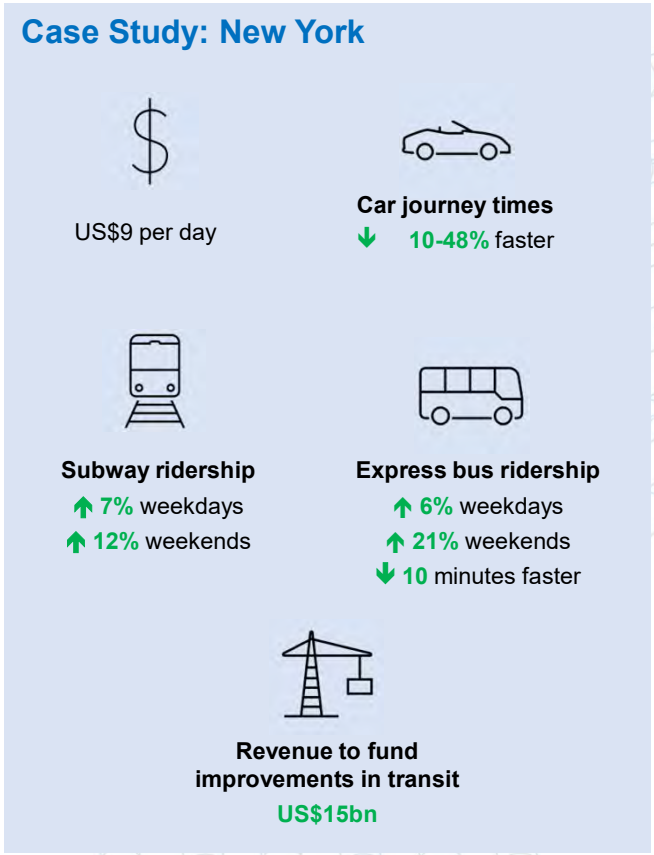
As at 2026 with no congestion pricing in place.
Source: Auckland's Cost of Congestion, EY & Arup, 2025
Informed by Auckland Forecasting Centre & TomTom data

ToUC as a potential solution

What is Time of Use Charging?

A tool to manage demand for the road network, charging road users when and where roads are congested.

- Encourages people to travel at different times, by different modes or not at all
- Uses public roads in the most productive way possible
- Successfully implemented in cities overseas, including London, Stockholm, and New York
- However, more cities have failed to implement charging schemes than have succeeded

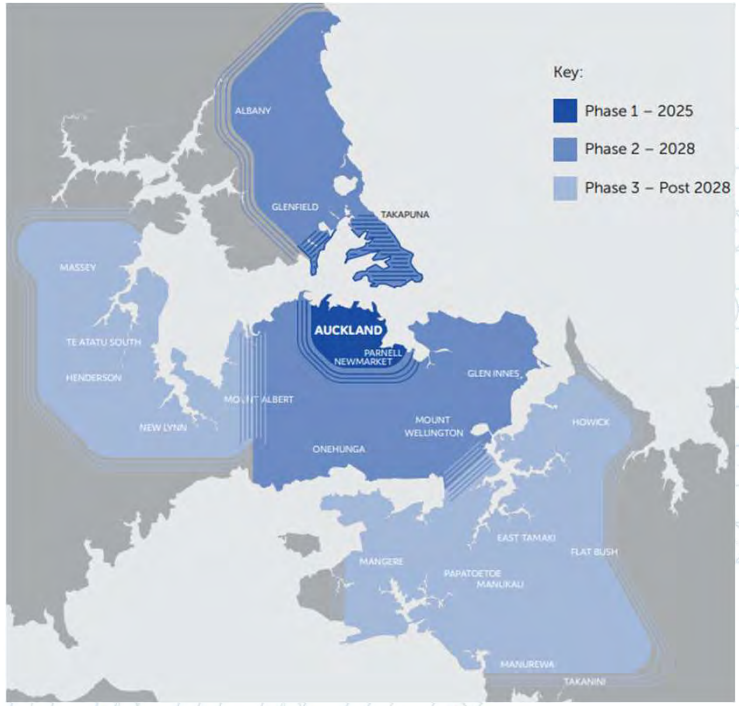


Study summary

Findings from initial assessment

Background to our work

- Auckland Council directed a joint AT/ AC team to assess the potential for ToUC in Auckland in November 2023
- Council endorsed congestion reduction as the key ToUC programme objective in June 2024
- This initial phase of work builds off '**The Congestion Question**' (2020) study
- Draft legislation was released by Government in December 2024, aiming for enactment in late 2025



TCQ recommended option

Establishing the settings for a successful scheme

- The ToUC assessment framework includes the agreed Programme Objective, plus a core set of policy principles, reflecting the wider impacts of a ToUC.
- Policy principles were drawn from 'The Congestion Question' and lessons learnt from international schemes.

Programme objective

To manage travel demand to achieve an improvement in road network performance by reducing congestion, increasing the throughput of people and goods, improving the reliability of the road network

Core policy principles	Assessment criteria
Effective Improve network performance	Network Assessment (Charge Area and City-wide)
Fair Minimise/mitigate adverse social impacts and ensure benefits and costs are fairly distributed across users	Social & Distributional
	Local Economy
Simple Be understandable and avoid complexity	User Experience & Understanding
Feasible Socially, politically and financially realistic	Practicality
	Social License Risk
	Affordability
Secondary outcomes Public transport and active modes Reducing emissions Improving air and water quality Net revenue	Environmental
	Sustainable Travel
	Wider Economic Impacts

Findings

A charging scheme is a package of elements working together

- A ToUC is more than a charging location. Elements work together to increase overall benefits, avoid negative impacts and mitigate residual disbenefits.
- Initial work on all key scheme elements included:

Core scheme

Charging location

Scheme options e.g. city centre cordon

Charging tariff

Pricing policy e.g. charge level by time of day, direction of travel, vehicle type

Complementary measures

e.g. improved bus provision & priority, traffic signal optimisation

Targeted mitigations

Discounts, exemptions, rebates or account credits for specifically identified user groups

This presentation focuses mainly on the Charging Location. Further work on other elements will continue once scheme locations are shortlisted.

Findings

Charging location options assessment

Initial ‘long-list’ options assessment has been undertaken and 6 options remain.

- ‘The Congestion Question’ (TCQ) work proposed starting at the city centre and expanding outwards to cover the whole network
- Our process drew on the TCQ options and added more focus on congestion hot-spots
- Thirteen long-list options went through a multi-criteria assessment
- Seven options removed due to negative impacts that would be hard to mitigate – e.g. high traffic diversion
- Remaining 6 options underwent additional detailed assessment
- This presentation outlines the network impacts of the 6 remaining options

Further assessment and final legislation is needed before any recommendations are made

Findings

These seven options will not be taken further

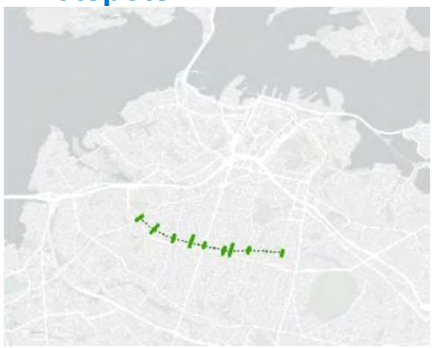
1b: City Centre cordon + motorways

2a: Inner Isthmus + motorways

2b: Inner Isthmus excl motorways

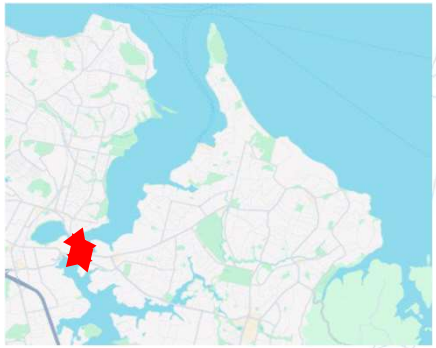
3a: Extensive Motorways

3d: Limited isthmus hotspots



3f: Lake Road link charge

3g: Tāmaki River Bridges link charge



2a, 2b, 3a and 3d created impacts that would be challenging to mitigate

3f, 3g were developed to test the trial concept

1b was unnecessary given its close similarity to 3c

Findings

These 6 options will go forward for more detailed assessment

1a: City centre cordon

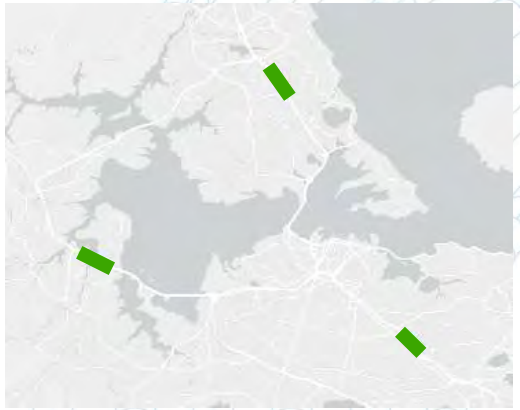
1c: City centre and fringe

2c: Isthmus double cordon

3b: Core Motorways

3c: Core Motorways + City Centre

3e: Targeted motorway hotspots



No decisions on options have been made by Auckland Council.

Options are not final and may evolve following further analysis and engagement.

Findings

Regional changes in travel patterns

Schemes modelled in 2026 with CRL in place, using a consistent charge across all options.

- Smaller city centre schemes (1a & 1c) charge fewer trips, but still reduce peak vehicle demand and help shift to public transport.
- Motorway schemes (3b & 3e) achieve shift to public transport and trip reduction, but charge more trips.

Measure (Figures rounded)		**1a:** City Centre	**1c:** City Centre and Fringe	**2c:** Isthmus Double cordon	**3b:** Core Motorways	**3c:** Core Motorways + City Centre	**3e:** Targeted Motorway Hotspots
AM Peak	Vehicles that pay a charge (% of total regional trips)	19,000 (3%)	30,700 (5%)	47,300 (8%)	45,400 (7%)	53,200 (9%)	34,800 (6%)
	Reduction in vehicle trips (% reduction)	-3,600 (-0.6%)	-6,200 (-1.1%)	-9,300 (-1.7%)	-3,300 (-0.6%)	-5,400 (-1%)	-3,800 (-0.7%)
	Public transport demand passenger number change (% change)	+2,400 (+2.2%)	+3,100 (+2.9%)	+4,100 (+3.8%)	+1,600 (+1.5%)	+3,000 (+2.8%)	+600 (+0.5%)

Findings

Re-routing / diversion

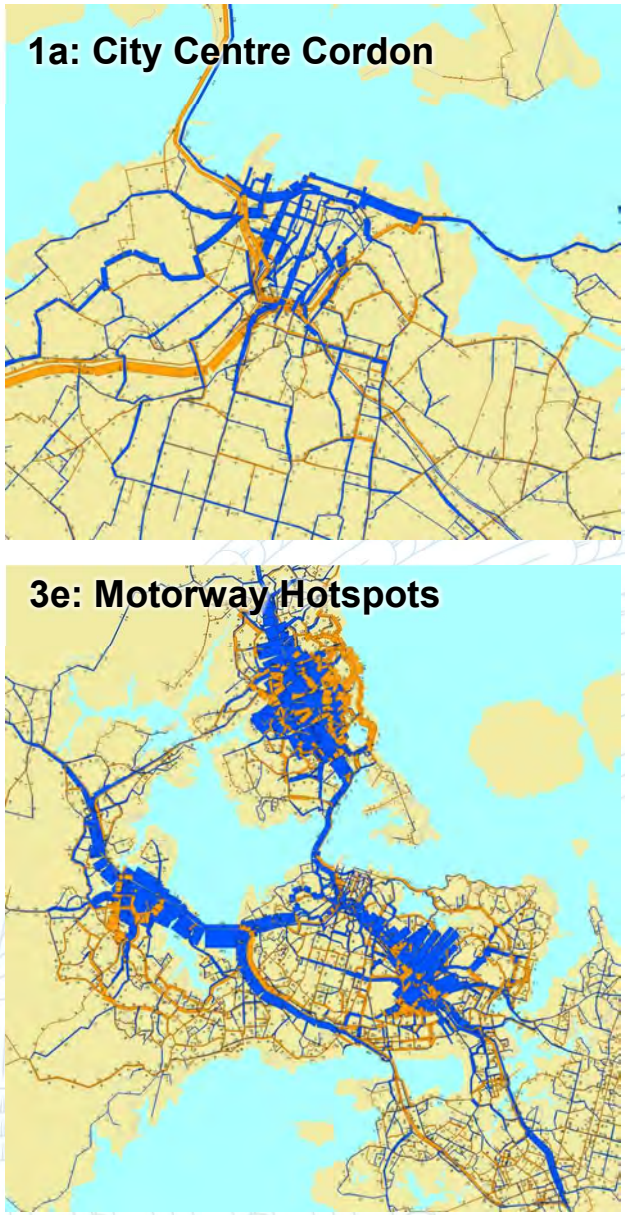
- Traffic diversion occurs with all schemes as some drivers seek to avoid the charge.
- Diversion creates new areas of congestion, but overall travel speeds still improve.
- Charging choke points or cordons sees less diversion.
- Where there are alternative routes, traffic will swap from motorways to arterials and vice versa.
- Future complementary measures will reduce diversion impact

1a: City Centre Cordon

Limited traffic diversion onto the Central Motorway Junction, but still enough to create new areas of congestion.

3e: Motorway Hotspots

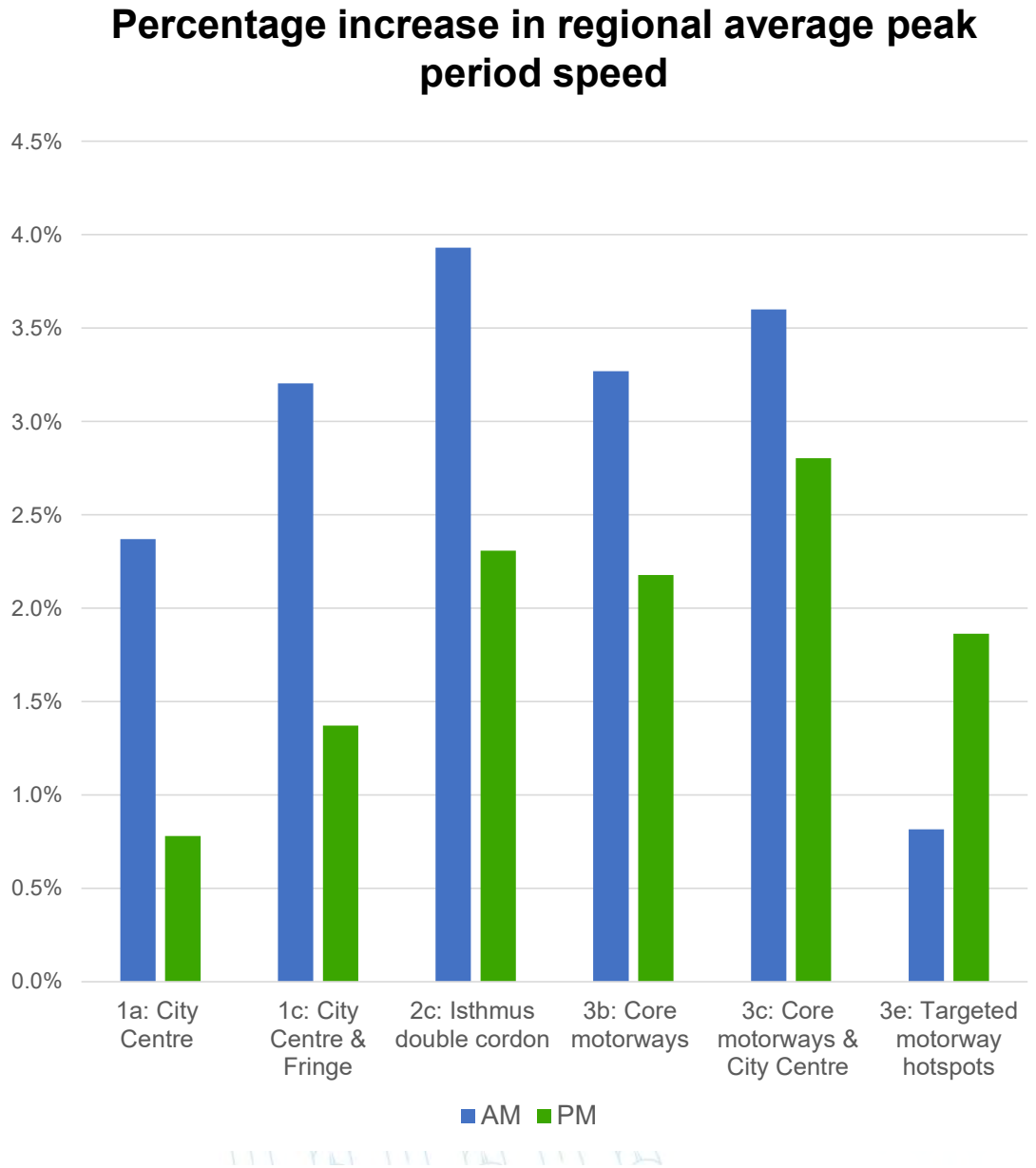
Charging single locations on the motorway network can see more traffic and slower speeds on arterials, although overall speeds still improve signficantly.



Findings

Congestion benefits – regional speed impacts

- All options enhance average regional vehicle speeds
- Change in speed reflects local network conditions in the charge area; not necessarily related to number of vehicles removed from the peak periods
- Change appears modest at regional level, but disguises larger localised benefits
- Total daily peak period travel time saving ranges between 4,800 and 12,200 hours
- As a comparison, morning peak regional average speeds are forecast to decrease by 6% 2016 and 2051 (without ToUC)



Findings

Congestion benefits – localised time savings

- Vehicles that pay the charge get faster trips, with savings of up to 12 minutes identified
- Additional small time savings occur across a wide range of trips outside the charged area
    - Traffic diversion can mean a delay for some trips outside of the charged area
- Trip reliability will also improve
- As a comparison, Transmission Gully (estimated cost of $1.25 billion) was estimated to save 10 minutes for trips from Kapiti to Wellington.

Change in travel time for selected trips with TOUC options

Example trip	Change in travel time (minutes)		
	1c: City Centre & Fringe	2c: Inner Isthmus Double Cordon	3c: Core Motorways & City Centre
Airport to City Centre	-3.6	-2.6	-1.7
Silverdale to City Centre	-6.1	-7.5	-11.8
Westgate to City Centre	-6.9	-1.7	-5.6
Manukau to City Centre	-4	-2.2	-7.5
Howick to City Centre	-4.6	-4.2	-5.6
Mt Roskill to City Centre	-2	-4	0
St Johns to St Lukes*	-0.5	-1	-1
Waterview to Manukau*	+0.6	+4	+2.7

**These trips would not be expected to pay the charge.*

Findings

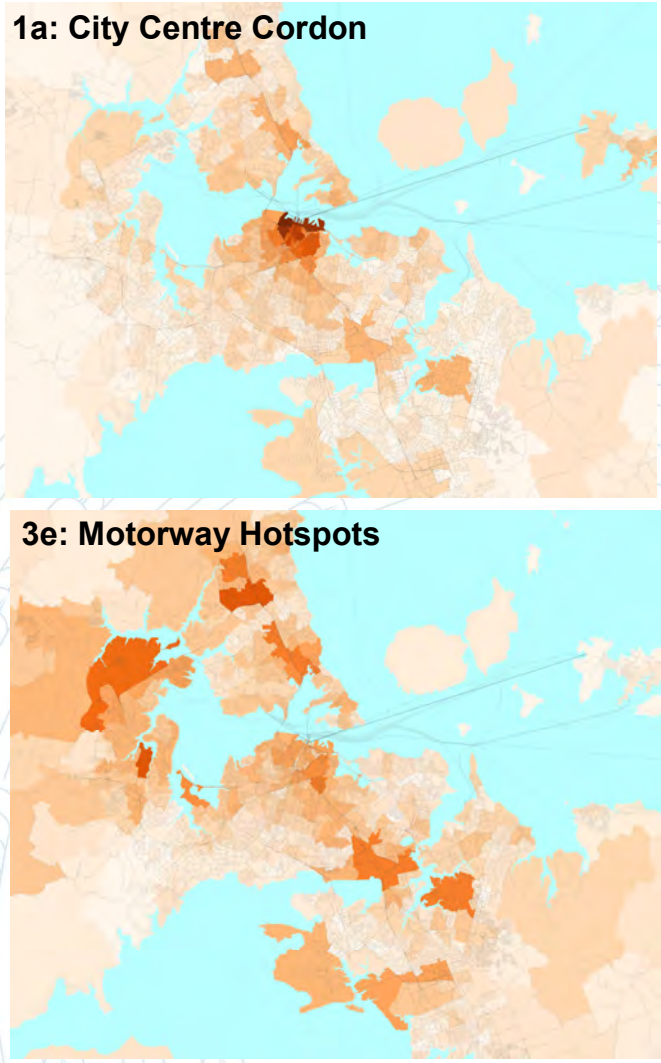
Impacts on people and jobs

There are different impacts on social and economic outcomes depending on the location and size of the scheme. This will likely effect perceptions of fairness and social licence.

Insights from initial assessment

- Smaller scheme options have fewer impacts on people that could require mitigation.
- Larger options impact a greater number of geographically dispersed lower-income travellers, making the provision of good public transport alternatives more challenging.
- More Māori are charged under option 3b, the fewest are charged under option 1a. This reflects where Māori live and travel to.
- Most options improve freight journey times

% of low-income people charged relative to the total number of low-income people charged throughout Auckland



Findings

Additional elements required for a scheme

- *Additional elements enhance the benefits of a scheme and mitigate negative impacts.*
- *International experience shows these elements are key to building social licence.*
- *The Council Group submission on the ToUC legislation set out preferred policy on these elements.*

Complementary measures (e.g. traffic calming and additional PT services) are needed as part of the scheme and should be funded from scheme revenue.

Pricing policy should:

- focus on reducing congestion rather than raising excess revenue
- take into account time of day and the impact of vehicle types on congestion.

Revenue raised from a ToUC scheme needs to be reinvested to cover scheme costs and benefit those impacted by a charge.

Mitigations (e.g. discounts, exemptions or fee caps) are likely to be needed to address any significant negative financial impacts on vulnerable user groups

- without impacting the overall scheme
- being feasible to implement
- initial work identified emergency vehicles, buses and disabled people as potential candidate groups.

More work and decisions on these elements will be needed once we have final legislation and a preferred charging location

Findings

Feedback from stakeholders, community panels

- Congestion is a significant issue for Aucklanders and requires intervention
- Time of Use Charging is a **reasonable idea** if designed and implemented properly
- Focus on reducing congestion; be adaptable; be easy to understand; **avoid rat-running**
- Trips affected must have **alternative travel choices**, public transport
- Revenue should be reinvested into improved public transport

ToUC must consider:

- User affordability
- Car dependent road users
- Education of alternative travel options
- Impact on Māori, access to places of significance.

Feedback received from

- Local Boards (20)
- Mana whenua iwi (12)
- Houkura Independent Māori Statutory Board
- Strategic business group (7)
- Freight reference group (12)
- Public transport & capital project accessibility groups (9 members)
- Other stakeholder/advocacy groups (10)
- 2x Community panels (26-30 members of public on each panel)

Summary from interim findings

- ToUC has the potential to reduce congestion, saving Aucklanders time.
- All shortlisted options have pros and cons, and more assessment is underway.
- The impacts of ToUC are wider than congestion benefits e.g. diversion and public transport, people and businesses.
- Wider network conditions and impacts mean that the best results do not necessarily come from charging the highest volume congested locations.
- Smaller schemes have smaller impacts and are simpler; larger schemes have bigger impacts, but are more complex.
- Complementary measures, mitigations and revenue allocation build public acceptability – a key success factor in international schemes.
- All international schemes have some complementary measures and mitigations.

Further assessment needs to consider optimising for price, mitigating diversion, detailed mana whenua, social and economic impacts.

Going forward

Going forward

Next steps

Will be dependant on legislation and subsequent instruction from Auckland Council.

- Some additional assessment is ongoing, to optimise and better understand the options
- Second draft of legislation expected late 2025.
- Once the legislation is confirmed, we will advise on a recommended way forward towards agreeing a preferred option
- Approach depends on the governance arrangements in the legislation