

# Coversheet: Regional Fuel Tax

Advising agencies	<i>Ministry of Transport</i>
Decision sought	<i>Introduction of legislation to enable a regional fuel tax to be imposed</i>
Proposing Ministers	<i>Minister of Transport</i>

## Summary: Problem and Proposed Approach

<p><b>Problem Definition</b></p> <p><b>What problem or opportunity does this proposal seek to address? Why is Government intervention required?</b></p>
<p>Significant investment is required to meet identified regional transport needs. This investment needs to be funded through new funding mechanisms. Legislation is required to enable a regional fuel tax to be levied on fuel sold in defined regions.</p>

<p><b>Proposed Approach</b></p> <p><b>How will Government intervention work to bring about the desired change? How is this the best option?</b></p>
<p>A regional fuel tax will collect revenue from fuel distributors who deliver fuel into a defined region. It is intended that fuel distributors will pass the cost of the tax to road users (as is done with fuel excise duty currently) who buy fuel in the defined region. It is a relatively efficient, low cost approach which collects revenue from those who will benefit from transport investment.</p> <p>The regional fuel tax alone will not fully bridge the funding gap but will enable funding to be delivered to begin development of those transport projects determined to be the highest priority. Further funding will be required in the future and alternative funding sources will need to be identified.</p>

## Section B: Summary Impacts: Benefits and costs

<p><b>Who are the main expected beneficiaries and what is the nature of the expected benefit?</b></p>
<p>The direct beneficiary will be the local authorities who receive the revenue from the tax. The indirect beneficiaries will be the regional transport users who will benefit from the new transport projects brought forward.</p>

<p><b>Where do the costs fall?</b></p>
<p>The direct costs will fall on fuel distributors who deliver fuel into a defined region. It is intended that the cost will be passed on to those who purchase fuel for use in the defined region. Indirect costs will fall on the fuel companies which will collect the tax, New Zealand Transport Agency who will collect and administer the tax, and the local authority who will be responsible for enforcement.</p>

**What are the likely risks and unintended impacts, how significant are they and how will they be minimised or mitigated?**

The increase in fuel prices creates a risk of a negative impact on businesses which are heavily reliant on fuel, and on the welfare of low income households.

There is also a risk of price spreading where fuel companies spread the cost of the tax across other regions not subject to the tax. If price spreading does not occur then there is a risk of people traveling outside of the defined region to purchase fuel and transporting it back into the region.

Concerns have been raised over the risk that fuel stations close to the border within the regional boundary will suffer from reduced sales volumes due people travelling slightly further to outside the region to purchase fuel in a location that is not subject to the tax. This will significantly impact these businesses.

**Identify any significant incompatibility with the Government’s ‘Expectations for the design of regulatory systems’.**

The regional fuel tax is consistent with the Government’s ‘Expectations for the design of regulatory systems’.

## Section C: Evidence certainty and quality assurance

**Agency rating of evidence certainty?**

The election of the new Government and the speed of implementation sought has limited the ability to collect the evidence base to carry out a complete analysis. The evidence in this Regulatory Impact Statement (RIS) relies on previous work of the Ministry of Transport, discussions with stakeholders, and publicly available reports prepared by external parties for organisations other than the Ministry of Transport.

*To be completed by quality assurers:*

**Quality Assurance Reviewing Agency:**

The Treasury

**Quality Assurance Assessment:**

The Regulatory Quality Team at the Treasury has reviewed the RIS “Regional fuel tax” by the Ministry of Transport and considers that it meets the Quality Assurance criteria. The RIS shows clearly that alternative options have been carefully considered, an indicative cost benefit analysis has been undertaken, implementation risks have been identified, a reasonable approach has been proposed to mitigate risks, and key stakeholders’ view have been considered.

**Reviewer Comments and Recommendations:**

It would be desirable to encourage households as users of fuel to be involved in the process to help understand their behaviour changes and the impact on low income families.

With respect to the regional fuel tax implementation and operation, an appropriate funding mechanism for the one-off establishment costs should also be carefully considered.

# Impact Statement: Regional Fuel Tax

## Section 1: General information

<b>Purpose</b>
The Ministry of Transport is solely responsible for the analysis and advice set out in this RIS, except as otherwise explicitly indicated. This analysis and advice has been produced for the purpose of informing final decisions to proceed with a policy change to be taken by or on behalf of Cabinet

## Key Limitations or Constraints on Analysis

The Government/Minister of Transport's objective to have legislation in place to enable a tax to be collected in Auckland by 1 July 2018 has limited the time available to compile the data required for the cost benefit analysis. This constraint has resulted in a limited analysis.

### Time Constraints

Time constraints have limited this analysis. To have the tax in place by 1 July 2018 requires a decision by Cabinet before the end of 2017 to enable sufficient time for drafting the legislation. This will allow to completion of the necessary parliamentary stages to enable the legislation to be in place for collection to begin on 1 July 2018.

### Assumptions underpinning impact analysis

The purpose of the proposed legislation is to allow regions to propose a regional fuel tax to the Minister of Finance and the Minister of Transport. The Ministers will then determine whether to authorise an Order in Council to implement a tax in a region.

At the time of the impact analysis it was indicated that Auckland would be the only region to receive authorisation for the tax. Therefore, the cost benefit and impact analysis in this document uses Auckland as an example to show the impact of a regional fuel tax. The proposed rate for Auckland is currently 10 cents per litre (excluding GST). This is consistent with proposals made in 2008 when legislation to enable a regional fuel tax was introduced (the legislation was subsequently repealed before a regional fuel tax proposal was approved).

Ministry of Transport calculations have been cross-checked against historic data provided by Auckland Council, derived from its local authority fuel tax returns.

### Data constraints

- Fuel companies have not had time to accurately quantify the costs of collection of the regional fuel tax. Cost values provided are a best estimate based on the information available at the time of consultation.
- Due to time constraints Auckland Council have not had time to accurately quantify the costs of implementation, enforcement and monitoring of the regional fuel tax. Costs included in this analysis are based on the 2008 regional fuel tax RIS and have been adjusted for inflation using the Reserve Bank of New Zealand inflation calculator.

The analysis does not take into account changes to behaviour where households purchase fuel outside the Auckland region therefore avoiding the tax. Due to time constraints the Ministry of Transport were unable to consult with individual fuel consumers to accurately estimate how they will change their behaviour as the result of an intervention. The Ministry of Transport have estimated that large road freight companies could reduce the value of fuel purchased in Auckland by up to \$20 million per annum.

The estimate of revenue generated by a regional fuel tax is subject to the following assumptions:

- The Ministry of Transport has used an odometer reading based approach for estimating vehicle kilometres travelled (VKT) by vehicles of different fuels.
- The Ministry of Transport has assumed that the average fuel economy (litres per 100 kilometres travelled) in Auckland is the same as that for vehicles in the rest of NZ.
- The analysis makes use of the Ministry of Business, Innovation and Employment (MBIE) fuel data which is for road transport only - fuel use by off-road has been adjusted by MBIE and is not considered in this analysis.
- For fuel use in Auckland, there is a good agreement for petrol between the two data sources (Ministry of Transport estimates and Auckland Council's wholesale data), but for diesel the Auckland Council data is 6 percent - 18 percent higher.
- MBIE's fuel data has shown that non-transport use of petrol has been generally below 2 percent since 2009. Therefore, the Auckland Council's petrol wholesale data will provide a tight upper bound for petrol use by road. Ministry of Transport's estimates for road petrol are very close to or up to 2 percent lower than the Auckland Council data. This demonstrates that the Ministry of Transport's methodology is working and acceptable.
- The Ministry of Transport has applied the following methodology to consider the impacts of fuel price increase by a fuel tax. *Application of fuel price elasticity* (Cazalet E G et al (1997), The methodology of the SRI-GULF energy model).

**(44) Price Sensitive Demand**

$$q(t) = q^{\circ}(t) \cdot \left( \frac{p(t)}{p^{\circ}(t)} \right)^{\nu_s} \cdot \left( \frac{q(t-1)}{q^{\circ}(t-1)} \right)^{\lambda}$$

where  $\nu_s = \nu_l(1-\lambda)$

and  $\nu_s =$  short-run (one year) elasticity

$\nu_l =$  long-run elasticity

$\lambda =$  lag parameter

- Fuel price elasticities are taken from (<https://www.nzta.govt.nz/assets/resources/research/reports/331/docs/331.pdf>, page 9).
- There are a lot of uncertainties in the projections of future road transport demand. The magnitude of the uncertainty is hard to quantify. We have taken a scenario approach to deal with the uncertainty and produced a range of projections. However, the projections in each scenario are still associated with uncertainty. A few percentage changes to the upper and lower bounds may be considered.

- The revenue forecast estimate does not take into account illegal avoidance or any unforeseen future growth or decline in fuel use.

### **Consultation and testing**

Consultation was held with key industry participants including the Automobile Association (AA), Road Transport Forum, fuel companies and distributors, Auckland Council and NZ Transport Agency.

### **Responsible Manager (signature and date):**

Marian Willberg

Demand Management

Strategy and Investment

Ministry of Transport

# Section 2: Problem definition and objectives

## 2.1 What is the context within which action is proposed?

New Zealand's population is growing, and this growth is concentrated in certain areas. Transport investment across New Zealand has not kept pace with the increasing demands this growing population places on the transport network. Transport is crucial to the New Zealand economy and a well-directed, future-proofed, focussed, multimodal network has huge benefits for productivity, jobs, business growth, and social well-being.

Auckland in particular has grown significantly and is now home to a third of all New Zealanders. By 2030, almost 2 million people are expected to live in the city, compared to 3 million people living in the rest of New Zealand. Around 400,000 new homes will be needed to house the projected population growth and all of these new homes will need to have access to the transport network.

Auckland faces transport gridlock on a daily basis. According to the Employers and Manufacturers Association<sup>1</sup> it costs the Auckland economy \$1.9 billion in lost productivity every year and wastes large amounts of time for hundreds of thousands of Aucklanders. Investment in the Auckland transport network is necessary. The only way to meet Auckland's transport needs is by investing in an integrated, multi modal transport network.

Outside Auckland, regions face growing traffic congestion and unreliable journey times, poor and declining levels of service, safety issues, especially for cycling and walking, and vulnerability to disruption from unplanned events. In 2016 Wellington travel times took 34 percent longer in peak times resulting in an average additional 43 minutes per day spent in traffic compared to free flow traffic.<sup>2</sup>

### Funding Gap

The Auckland Transport Alignment Project (ATAP) is a joint investigation between Government and Auckland Council to test whether better returns from transport investment in Auckland can be achieved over the next 30 years. It identified an aligned strategic approach for the development of Auckland's transport system that delivers the best possible outcomes for users of the transport system and delivers the best value for money.

An indicative package to address Auckland's transport needs is outlined in the *Auckland Transport Alignment Project: Recommended Strategic Approach*.<sup>3</sup> The *Auckland Transport Alignment Project Update to reflect faster growth*<sup>4</sup> identified a \$5.9 billion funding gap in the next decade between estimated expenditure and revenue from current funding plans.

In Wellington, Lets Get Wellington Moving, a joint initiative between Wellington City Council, Greater Wellington Regional Council and the NZ Transport Agency, identified a range of options to ease traffic in the CBD. The most expensive plan is estimated to cost \$2.3 billion and would involve building tunnels or bridges to separate conflicting traffic movements around the Basin Reserve and to allow future mass transit.<sup>5</sup> In the future a Wellington may require additional funding to bring forward these projects.



## **Current Funding arrangements**

The National Land Transport Programme (NLTP) for 2015–18 contains all the land transport activities, including public transport, road maintenance and improvement, and walking and cycling activities, that the NZ Transport Agency anticipates funding over the three year period. This NLTP represents a \$13.9 billion investment in New Zealand’s land transport system for the three year period by the NZ Transport Agency from the National Land Transport Fund (NLTF), Government through Crown investments and loans, and local authorities. Section 2.2 outlines the current regulatory system in place for land transport funding.

### **Auckland Funding**

Auckland’s transport network is complex, handling the demands of freight, general road traffic, public transport, cycling and walking. To support these demands, investment is needed to maintain the existing network, to operate the network more efficiently and for building new infrastructure. Overall, investment from the 2015–18 NLTP will be around \$4.223 billion.

Keeping land transport networks available for people and freight to get where they want to go easily, reliably and safely is a primary objective of transport investment within and beyond Auckland.

Close to \$1 billion investment from Auckland Transport and the Transport Agency will be spent on public transport services in the Auckland region in the 2015–18 NLTP period, as well as around \$176 million on public transport improvements. This is expected to support 88 million passenger trips per year over the next three years, representing a 21 percent increase in patronage over the prior three year NLTP period.

The Government has also provided Crown loans to the NZ Transport Agency to assist its NLTF cash-flow management in delivering acceleration of the Auckland Transport Package, which otherwise would have been programmed over a longer period of time within the constraints of NLTF revenue. Delivery of the programme commenced in 2014/15 and the \$375 million loan will be drawn down over five years and repaid, without interest, from the NLTF over 10 years.

Further information on the NLTP, NLTF and the role of the NZ Transport Agency can be found in section 2.2.

Despite continued investment from central and local government, without intervention and investment, transport gridlock in Auckland and other regions and the associated costs will continue to increase as the population increases.

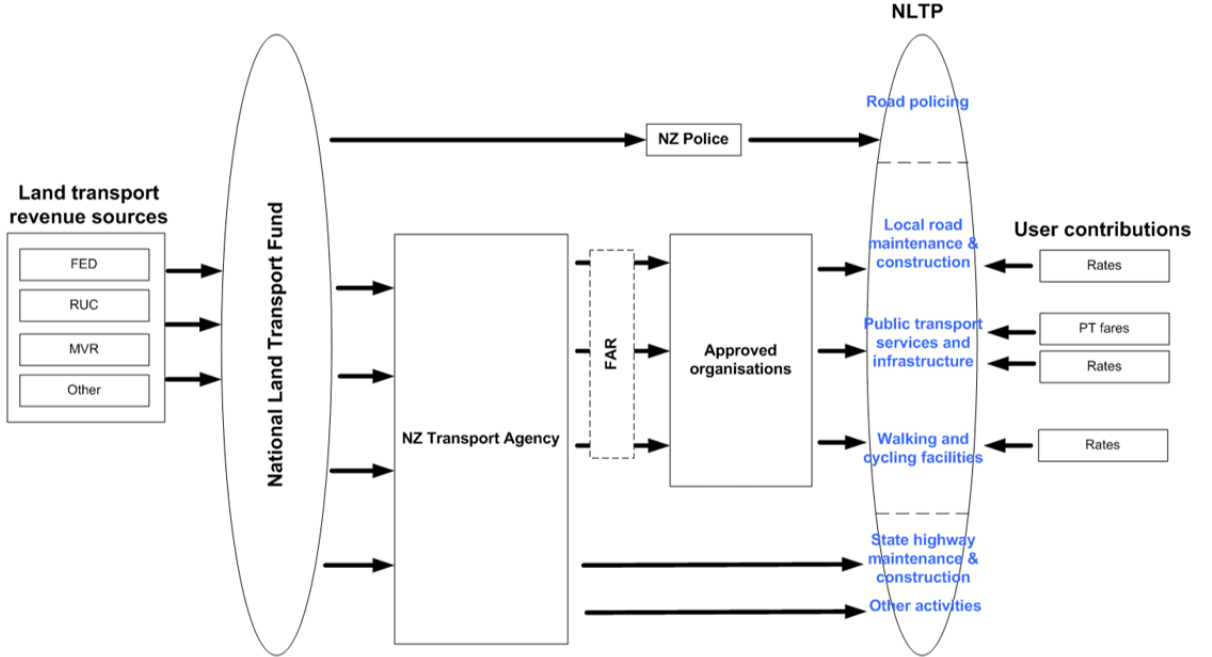
## **2.2 What regulatory system, or systems, are already in place?**

### **Land Transport Management Act 2003**

Land transport funding is governed by the Land Transport Management Act 2003 (the Act).

The purpose of the Act is to contribute to achieving an affordable, integrated, safe, responsive, and sustainable land transport system. The agencies involved in land transport funding and funding process are outlined below.

**Image 1: New Zealand Land Transport Funding**



**Ministry of Transport**

The Ministry of Transport provides advice to Ministers who set the level of funding for road transport through Fuel Excise Duty (FED) and Road User Charges (RUC), and assists the Minister of Transport in developing the Government Policy Statement on Land Transport (GPS), which allocates funding to different classes of activity. Funding decisions for individual projects are made by the NZ Transport Agency.

**The Government Policy Statement**

The Minister of Transport produces the GPS. The GPS covers the outcomes the Government wishes to achieve from its investment in land transport, how it will achieve these outcomes through funding certain activity classes, how much funding will be provided, and how the funding will be raised. The NZ Transport Agency allocates funds to give effect to the GPS. A new GPS is required to be produced at least every three years.

**NZ Transport Agency**

The NZ Transport Agency is charged with ensuring New Zealanders travel reliably and safely, and investing in moving people and freight. The NZ Transport Agency plans and delivers national transport networks and supports local transport networks.

The NZ Transport Agency is responsible for allocating funds from the National Land Transport Fund (NLTF) to land transport activities. Activities include local road and state highway improvement, road maintenance and renewal, and passenger transport. The NZ

Transport Agency makes the decisions on the specific activities and combinations of activities it will invest in, but must comply with the Government Policy Statement on Land Transport Funding (GPS) and the Land Transport Management Act 2003.

The NZ Transport Agency is responsible for all state highways. The NZ Transport Agency, together with local and regional government, funds local roads and public transport infrastructure and services. The NZ Transport Agency also provides assistance and advice through membership of regional transport committees which develop regional land transport programmes.

### ***National Land Transport Fund***

New Zealand's road users primarily fund the country's land transport system through petrol tax, road user charges, and vehicle registration and licensing fees. These funds are paid into the NLTF for investment in maintaining and improving land transport networks and services.

There are three types of NLTF funding:

- Nationally distributed funds - this is the main funding stream for investment in national priorities, most often state highway projects. This funding is guided by Land Transport Management Act 2003 objectives and the GPS.
- Regionally distributed funds - these are the funds allocated to regions for transport projects. Allocation of the funds is based on population size.
- Special funding for specific regions for investment in specific transport needs - Allocation of this funding is in line with the Land Transport Management Act 2003, Regional Land Transport Programmes (RLTP), and Crown objectives.

### ***National Land Transport Programme***

The NLTP includes the activities that the NZ Transport Agency anticipate will be funded from the NLTF. The NLTP is prepared for a three year period. The NZ Transport Agency must adopt a NLTP before the start of the first financial year to which it applies.

To be included in the NLTP, and receive NLTF funding, activities must either be proposed in an RLTP or be an activity that is to be delivered nationally.

The NZ Transport Agency has a framework it uses to determine the priority of the projects proposed both nationally and regionally. This framework includes assessments of the activities against the GPS, RLTPs, regional transport strategies, NZ Transport Agency national activities, strategic fit, economic efficiency, and effectiveness.

State highway activities are 100 percent funded from the NLTF, while the cost of local land transport activities (for example local roads and public transport) is shared between local government and the NLTF.

The percentage of local land transport funding eligible to be received from the NLTF is called the Funding Assistance Rate (FAR). The normal FAR for Auckland Transport and Auckland Council for the NLTP 2015-2018 is 51 percent.

### **Local government**

Regional councils (except Auckland) are required to appoint a regional transport committee (RTC). The RTC is responsible for establishing a regional transport strategy and a RLTP. The RLTP will prioritise the region's projects. The RLTP will feed into the NZ Transport Agency's planning when deciding which projects to fund.

Auckland Transport, a council controlled organisation, is responsible for Auckland's transport needs. Auckland Transport is responsible for all of the region's transport services (excluding state highways). Auckland Transport is responsible for the regional transport strategy and the RLTP.

Regional, district, and city councils are responsible for delivering land transport infrastructure and services in their areas. The NZ Transport Agency contributes funding for these local activities. The NZ Transport Agency allocates funds based on population size. Auckland receives approximately 35 percent of NLTF funding.

### **Local Government Act 1974**

Part 11 of the Local Government Act 1974 allows regional authorities to levy a fuel tax in their region called the local authorities fuel tax (LAFT). The LAFT is applied on all specified engine fuel at a maximum rate of 0.66 cents per litre for petrol and 0.33 cents for diesel delivered within the tax area by or on behalf of any wholesale distributor pursuant to any sale, agreement to sell, or disposition made by the wholesale distributor.

Within 28 days after the end of each month wholesale distributors are required to send the distribution authority of every tax area in which a LAFT in force a monthly return setting out:

- a) the quantity of each class of specified engine fuel delivered within the tax area during that month; and
- b) the amount of local authority fuel tax payable on that fuel.

## **2.3 What is the policy problem or opportunity?**

Auckland's commuters are spending an extra 45 minutes a day - or four working weeks a year - stuck in traffic. Time spent on Auckland's roads has doubled in the space of three years. Auckland is ranked as the 47th most congested city in the world, worse than Hong Kong, which has a population of 7.2 million.<sup>6</sup>

The *Benefits From Auckland Road Decongestion* report, prepared by the New Zealand Institute of Economic Research (NZIER) for the Employers and Manufacturers Association, Infrastructure New Zealand, Auckland International Airport Ltd, Ports of Auckland Ltd and the National Road Carriers Association calculated that lost productivity and opportunities due to traffic delays cost \$1.9 billion per year.

The report noted that congestion was spreading, forcing firms to hire more staff to do the same amount of work, or make fewer runs and deliver less stock. In the December 2016 quarter, 24 percent of the arterial network was congested during the morning peak. That's an 18 percent spike over the same period in 2014.<sup>7</sup>

NZIER also found that infrastructure improvements could claw back \$1.3 billion of that lost productivity and opportunity. Average speed in morning peak traffic is 41km/h. If that was lifted to 56km/h, the Auckland economy would benefit by an extra \$3.5 million a day.<sup>8</sup>

The findings of the report have sparked calls for urgent investment in new infrastructure projects, public transport and congestion charges to curb worsening delays.

Intervention is necessary to provide local authorities with the funds to deliver significant investment in transport infrastructure to provide Auckland with an improved multi-modal transport network.

## 2.4 Are there any constraints on the scope for decision making?

The Labour party election manifesto sets out the Government's objectives for transport. The manifesto states that Labour will:

- rebalance Government transport expenditure away from low-value projects towards the investments that will best improve growth, reduce congestion, and move our transport system to a more sustainable footing
- redirect funding to upgrades for rail, coastal shipping, public transport, regional roads, safety, and cycling
- review the 2018 GPS with a view to better achieving growth, value for money, and sustainability
- ensure good urban design and integration of transport infrastructure with residential and urban development through a National Policy Statement and other planning mechanisms.

For Auckland, Labour committed to re-negotiate ATAP with Auckland to develop a modern transport network based on the Congestion Free Network 2.0 ([www.greaterauckland.org.nz](http://www.greaterauckland.org.nz)). This included allowing Auckland Council to collect a regional fuel tax to fund the acceleration of these investments, along with infrastructure bonds and targeted rates to capture value uplift.

## 2.5 What do stakeholders think?

Both current Auckland Mayor Phil Goff and his predecessor Len Brown pushed for a fuel tax to bring forward infrastructure projects.

Auckland Council have been vocal in their desire to bring forward transport infrastructure projects. To do this they have indicated that they need additional funding. Mayor Phil Goff says the city "has to pay its share" in developing "desperately needed" projects, including a light rail link between the CBD and the airport.<sup>9</sup>

The AA has identified strong population growth creating pressure to invest in all parts of our transport infrastructure. The AA supports investment in a diverse mix of transport modes and good use of new technologies, but also recognises that 80 percent of trips Kiwis make are still in private vehicles. The AA has stated that as the population grows and record numbers of tourists choose to travel independently around our country, the private vehicle fleet will continue to expand, and there will be congestion challenges. The AA believe there are still

many things that can be done do to improve the safety and economic efficiency of our roads, while ensuring costs are fair.<sup>10</sup> The AA has advised the Ministry of Transport that it is not opposed to the idea of a regional fuel tax in Auckland. The AA have stated that making many people pay \$125 a year more to travel around their city is a step that shouldn't be taken lightly, new approaches need to be looked at. Auckland can't rely on the rest of the country to fund the shortfall in its transport budget.<sup>11</sup>

The AA has also stated that “given that Auckland’s population is expected to grow by 50 percent or 700,000 people in the next 30 years, ignoring the funding gap is neither responsible nor a viable option. Even with the removal of controversial projects, the lack of funds remains an issue.”<sup>12</sup>

Outside Auckland, Wellington and Hamilton City Councils have expressed an interest in alternative funding arrangements to bring forward transport projects in their regions. Hamilton Mayor Andrew King stated “We will be working hard to collaborate with the new Government on additional funding opportunities such as a regional fuel tax, infrastructure bonds and loan structures to reduce any rates increase for Hamilton.”<sup>13</sup>

Funding gaps also exist in other regions. Recently train improvements in the Wellington region, including more frequent and reliable services for the Hutt Valley, were put on hold because the Wellington Regional Council had not found the \$30 million needed to pay for them.

The AA has stated there needs to be a firm commitment from the Government that the regional tax will not be extended to other regions if they follow Auckland's lead in requesting one. The AA believe other parts of the country do not face infrastructure pressures as critical as those of Auckland, and are not set to create the same burden for taxpayers on a national scale.<sup>14</sup>

Federated Farmers and Horticulture New Zealand support an intervention provided that some of the amount raised is spent on rural roads, and if a tax is introduced there is a refund mechanism available for fuel used off road, such as on farms.

## Section 3: Options identification

### 3.1 What options are available to address the problem?

There are a range of options available to address the funding gap. Image 2 below illustrates how each of the options considered for intervention compare on a user pays scale. These vary from a targeted user pays options like tolling and increased public transport fares to less-user pays options such as increasing RUC and FED nationally and general taxation.

**Image 2: Intervention options user pays scale**



### **Tolling existing roads**

Tolling can provide revenue by charging users for the roads they drive on.

In New Zealand tolling is currently used for roads that have been brought forward in time so the benefits of building the road can be enjoyed earlier. In these cases the toll is used to recover the costs of servicing the debt incurred in bringing the project forward.

Currently under the Land Transport Management Act 2003, toll revenue can only be applied to the particular project on which it is being collected. Road Controlling Authorities under the Land Transport Management Act 2003 can seek Ministerial approval of a tolling scheme allowing the authority to charge tolls for new roads, or existing roads where it is physically integral to the tolling scheme, and a feasible, un-tolled, alternative route is available. Road users therefore have a choice to pay the toll and take advantage of the time savings offered by the toll road or use a longer alternative free route.

Although most tolling proposals can raise some additional revenue, diversion of traffic from the new route due to the toll may reduce the economic value of the investment.

Tolling in New Zealand is considered by many to not be cost effective because of the combination of high diversion rates (where people take advantage of alternative routes) and modest traffic volumes.

Tolling can provide reasonable and proven pricing signals if it is used as a demand management tool toward the road pricing end of the spectrum. Variable tolls could be charged depending on the time of day, providing some pricing signals.

Traffic diversion due to the toll can also encourage the use of alternative routes that have higher crash risk. The reduction in traffic volumes on the untolled routes can lead to increased speeds, causing higher severity crashes and therefore higher social crash costs than would have occurred previously.

### **Increase RUC and FED rates across the country**

Increasing RUC and FED rates across the country would spread the burden for funding Auckland's across all fuel consumers nationwide. While this option would raise the revenue required to fund transport projects, it is unable to target the tax to those using a region's roads.

When the regional fuel tax was repealed in 2013 the Ministry of Transport calculated that a 3 cent per litre increase of FED and an equivalent increase in RUC would raise the equivalent amount as a 10 cent per litre regional fuel tax. At the time the Government cited a desire to reduce compliance costs and increase the effectiveness and efficiency of land transport funding.

FED and RUC would need to be increased by equal proportions so not to promote one fuel type over the other.

### ***FED***

FED is a proxy for distance travelled, by (predominantly light) petrol vehicles. FED is paid by the fuel wholesalers and the cost is effectively passed on to purchasers through in the price of petrol, LPG and CNG fuels (the rate of excise or excise-equivalent duty varies for each fuel). The tax is collected at the border (when imported), or at the refinery (for domestically produced fuel). FED rates are set by Order in Council on the recommendation of the Minister of Transport.

Payment of fuel taxes requires no action on the part of end users, who may not even be aware of how much they are paying. Small increases can go unnoticed by many users and generate little negative response. Transport fuel taxes have significant scope to be increased. Fuel demand is generally acknowledged to be highly inelastic historically, that is, demand is not very responsive to price. However, this may be changing according to both international and national indicators, especially since the price of petrol in New Zealand increased to above two dollars per litre.

Technological changes in the vehicle fleet may impact on the long-term sustainability of FED revenues. These changes include more fuel efficient petrol vehicles, which produce less revenue for the same use of the network (VKT), which is expected to lead to long term erosion of FED revenues if tax rates are not increased. Technological changes also include the increasing use of hybrid and electric vehicles that use little or no fuel.

Road users are not charged for the time and location of their travel (for example, travel during peak or congested periods). This means once FED is paid, transport is essentially perceived as a free good, with congestion the only real brake on excess demand. This imposes large costs on the economy, particularly in metropolitan areas such as Auckland, where projected congestion levels are estimated to be higher than other parts of the country.

### ***RUC***

RUC is a charge for distance travelled on public roads by diesel vehicles (diesel not being subject to FED). Distance charging can directly link the distance a vehicle travels on the road network as rates are set by reference to distance travelled, and vary by vehicle type

RUC is a sustainable source of revenue. Revenue is unlikely to be severely threatened in the short to medium term. This system charges vehicles according to their overall use of the network and the general damage they impose on the road system.

Variation in levels of RUC for different types of vehicle can be a bone of contention for users who perceive their vehicle is treated unfairly. The NZ Transport Agency receives a steady flow of requests for exemptions or concessions. If agreed to, these add to the complexity of the system, and can complicate enforcement; but if disregarded they can undermine compliance.

Increasing RUC in one region alone would not be possible at present as many vehicle owners could change the location of the vehicle registration to an address outside the region to avoid the higher RUC rate in the region.

### **Regional fuel tax**

A regional fuel tax would apply to all petrol and diesel sold in a region. It would have to be collected at the point the fuel is available for distribution to individuals as fuel sold at



wholesale will not necessarily be used in the region in which it is sold. In New Zealand, a regional fuel tax framework was put in place in major metropolitan regions in the early 1990s and was repealed after price spreading occurred between regions. A regional fuel tax scheme was legislated in 2008 but was never fully put into effect and was then repealed in 2013 due to concerns about price spreading and refund costs imposed on non-transport users of transport fuels (farming, construction and manufacturing).

A regional fuel tax places the burden for paying for transport projects on those who use the existing road network and will benefit from further investment. Directly or indirectly, improved transport options will lead to a reduction in vehicle traffic.

Experience from Canada (British Columbia and Quebec) and the United States was considered in a 2012 report for Auckland Council BERL Economics and Ascari.<sup>15</sup>

The report found that enforcement of the fuel tax has been a concern in the United States, as the relatively high tax rate provides lucrative incentives for evasion and corruption. The costs associated with the collection of the tax have also been high. There are two policy options available to states:

- streamline the method of tax collection, and
- increase audit coverage.

Another interesting feature of the Canadian tax was the inclusion of differential rates not just between states but also within areas covered by public transport. The report suggests that either the successful management of the incidence and border issues associated the tax or a tolerance for the distortions in prices. Presumably because the benefits were perceived to outweigh the cost or the differences were so small that consumers did not notice or care.

### **Regional transport levy**

A regional transport levy is a potential revenue tool whereby a rate would be set by central government but collected on behalf of the central government at the territorial level. This money could be diverted to the Crown fund to be spent on transport initiatives for the region the money is levied from. Auckland has an existing interim transport levy on businesses and residents. The levy, due to expire in 2018, is \$113.85 per year (including GST) for household ratepayers and \$182.85 for businesses. Auckland Mayor Phil Goff has signalled that the current levy will not be renewed once it expires.<sup>16</sup>

Retaining the existing transport levy would ensure that funding for transport projects would come from people who live in the area where it is spent. Strong accountability would exist because the rate is used to fund locally determined expenditure and It enables local contribution to local benefits.

The transport levy would be a mechanism for raising increased revenue in fast growing areas that particularly need transport investments, without placing an unfair burden on other parts of the country.

Retaining the existing transport levy would not be popular with elected officials. Strong accountability also makes local representatives resistant to rates rises. One of the main limitations on the contribution of rates to transport is the ability of local government to increase rates.

### **Increase Local Authority Rates**

Rates are local authorities' primary source of revenue. General rates are related to property

value. They are difficult to avoid and any increase is relatively inexpensive to collect. In New Zealand, generally a large proportion of local authority rates revenue is used to pay for transport infrastructure and services, and they therefore provide a significant addition to the transport funding provided from national transport taxes. Recently, the proportion of rates being spent on transport infrastructure has been declining. Local authorities spend about \$1.5 billion a year on land transport and central government about \$3 billion. General rates are not tied to any particular form of expenditure. In many centres of New Zealand they are based on a properties' capital value. General rates can be differentiated whereby different types of property (for example, residential, commercial, farms) are charged at different rates.

General rates are a relatively efficient, transparent and fair way of raising revenue that enables local contribution to local benefits. Rates are location specific in nature and therefore a reasonable candidate for consideration in any regionally based funding regime. They also establish a direct link between local decision making and local taxation. This provides local representatives with strong incentives to use rates wisely.

Rates are a rough proxy for the value property owners get from the transport system as they are based on property values which tend to reflect the level of accessibility provided by the transport system (for example the value of properties close to key transport nodes tend to be higher). They are arguably as equitable as other transport taxes that are averaged across the entire network.

Increases to rates have proven to be unpopular in the past. Strong accountability also makes local representatives resistant to rates rises. One of the main limitations on the contribution of rates to transport is the ability of local government to increase rates.

One criticism of rates is that they are not in proportion to the amount people use the transport system. For example, some owners/occupants do not make full use of the accessibility of their properties. In particular, households with elderly occupants tend to make less direct use of the transport system. This group can also be asset rich but income poor, and be highly sensitive to changes in rates.

### **Funding from general taxation**

Funding for a region's transport projects could come from general revenue through an appropriation. Funding from general taxation could be implemented by 1 July 2018. General taxation is a sustainable source of revenue. Revenue is unlikely to be severely threatened in the short to medium term as revenue is not dependent on fuel consumption.

Collection and compliance would be simple as existing tax systems are already in place and are well understood. People are already paying general taxation so would not require any additional systems to be put in place.

Despite the ease of implementation, funding from general taxation is not equitable or fair on those who pay the tax but receive minimal benefit from the infrastructure investment brought forward (for example a resident in Southland receives a limited benefit from public transport investment in Auckland). Funding from general taxation would not be consistent with established transport funding through the NLTP and NLTF.

### **Non-regulatory options**

Non-regulatory options have not been considered. In order to levy a new tax a regulatory option is necessary to amend or introduce new legislation.

### 3.2 What criteria, in addition to monetary costs and benefits, have been used to assess the likely impacts of the options under consideration?

**Revenue generation and integrity:** The primary objective of any intervention should create a revenue stream to enable transport infrastructure in a region to be brought forward. The intervention must be sustainable over time, minimise opportunities for tax avoidance or evasion and provide a sustainable revenue base for Government.

**Equity and fairness:** The scheme should be fair. The burden of interventions differs across individuals and businesses depending on which bases and rates are adopted. Assessment of both vertical equity (the relative position of those on different income levels or in different circumstances), horizontal equity (the consistent treatment of those at similar income levels, or similar circumstances) and spatial equity (areas and locations that benefit from the tax should pay the cost) is important. The timeframe is also important, including how equity compares over peoples' lifetimes. The Government has indicated that those who benefit from the transport projects brought forward should carry the burden for paying for the transport projects. In terms of equity and fairness this means that transport users should pay for the transport projects that will benefit them either through direct use such as road use or through indirect benefits such as reduced congestion on existing roads.

Existing transport funding is allocated by the NZ Transport Agency for the benefit of the land transport system users who provide the revenue. Currently, these are road users who pay directly or indirectly, e.g. fare paying passengers, through FED on petrol, RUC for diesel vehicles and motor vehicle registration fees. Existing funding also contributes to activities used by other than road users where these benefit road users, e.g. reducing congestion by investing in rail public transport; in general the contribution will be in proportion to the benefits that accrue to road users.

**Environmental Sustainability:** Any intervention should meet the needs for transport in a way that can be continued in perpetuity without damaging social or environmental effects. A sustainable transport system for New Zealand will take into account both the needs of future generations and the urgent need for immediate improvements, minimise harm to people, and safeguard all aspects of the environment and minimise greenhouse gas emissions.

**Compliance and administration cost:** The system should be as simple and low cost as possible for taxpayers to comply with and to administer.

**Coherence:** Options should make sense in the context of the entire system. While a particular measure may seem sensible when viewed in isolation, implementing the proposal may not be desirable given the system as a whole.

**Speed of implementation:** The Minister has indicated that any proposed scheme should be in place by 1 July 2018.

### 3.3 What other options have been ruled out of scope, or not considered, and why?

#### Congestion Pricing

Congestion pricing is being considered for Auckland jointly by central and local government,

and if implemented (likely at least four years away) will generate some revenue. It is unknown at this point how much revenue could be raised, and there is strong evidence from other jurisdictions that a primary focus on revenue-raising reduces the chance of successful implementation of congestion pricing because of its adverse impact on public acceptability.

### **Electronic Road User Charges for all vehicles**

In the longer term, fuel taxes such as FED are likely to become less sustainable and more inequitable as vehicles both become more fuel-efficient and move away from being powered by fossil fuels. While FED and RUC work reasonably well at present, a range of emerging issues and the opportunities provided by developing technology suggest they will not be the best way to fund transport in the longer term.

A possible future option that is not currently available is an electronic RUC system for all vehicles and all fuel types. Such a system would enable variable pricing (for example charging by time of day and location) and would enable those who drive in the Auckland region (determined by satellite technology) to be charged an additional amount, without most of the issues which arise with a fuel tax. However, if the Government was to proceed with this approach, implementation would be some time away as implementation will only be practical when the cost of the new technology to the vehicle owner decreases from its current level.

### **Increased Public Transport Fares**

In New Zealand, fare box revenue partly funds public transport operations, while capital projects are fully funded by other transportation revenues or the Crown. Fare box revenue is directly linked to the use of public transportation and to the cost of operation and maintenance. In a theoretical sense, users of the transport system pay the full cost of use, including public transport users. However, public transport would get little use if users had to pay the full costs. In New Zealand, the amount of revenue raised by public transport users is usually well below operating costs (the NZ Transport Agency has established a fare box recovery rate of 50 percent). Establishing the appropriate pricing of public transport is challenging especially given the low population, large transport network, spatial and land use density context of New Zealand. There seems little practical scope to increase public transport fares.

## Section 4: Impact Analysis

**Marginal impact:** How does each of the options identified at section 3.1 compare with the counterfactual, under each of the criteria set out in section 3.2? *Add, or subtract, columns and rows as necessary.*

	No action	Tolling Existing Roads	Increasing RUC and FED nationally	Regional Fuel Tax	Interim transport Levy	Increase Local Authority Rates	General Taxation
Revenue generation and integrity	0	++	++	++	+	+	++
Environmental Sustainability	0	+	+	+	0	0	0
Equity and fairness	0	+	--	+	--	--	--
Compliance and administration cost	0	--	0	-	-	-	-
Coherence	0	--	-	-	-	-	-
Speed of implementation	0	--	+	-	-	-	-
Overall assessment	0	+	+	++	-	-	+

### Key:

- ++ much better than doing nothing/the status quo
- + better than doing nothing/the status quo
- 0 about the same as doing nothing/the status quo
- worse than doing nothing/the status quo
- much worse than doing nothing/the status quo

	Revenue generation and integrity	Environmental Sustainability	Equity and fairness	Compliance and administration	Coherence	Speed of implementation
No Action	The current system does not generate the revenue required to deliver transport needs	The current system does not encourage reduced vehicle use and therefore has no additional negative or positive impact on society.	There will be no additional impact on equity and fairness.	There are no additional compliance and administration costs.	The existing system has been in place for a number of years and is well understood by those in the transport sector but individuals outside the sector are less aware.	There will be no implementation required as the status quo will remain in place.
Tolling Existing Roads	<p>Tolls for existing roads could be set to ensure that revenue matches anticipated expenditure. There will be some leakage as some road users will use un-tolled roads.</p> <p>If road use estimates do not eventuate, the tolls levied on the road may be unable to recover costs associated with borrowing</p> <p>Tolling is an expensive means of generating revenue when compared to FED and RUC. Tolling roads could therefore be expected to make a modest contribution to meeting project costs but is unlikely to account for a</p>	<p>Toll roads make road users consider their vehicle use. If a reduction in vehicle use occurs it will contribute to a reduction in vehicle emissions.</p> <p>If potential toll road users take longer alternative routes this may result in increased fuel use and therefore greater emissions.</p>	<p>Tolling is a location-specific form of charging and therefore a valid candidate for consideration in a regionalised approach to raising revenue.</p> <p>Tolling existing roads ensures equity and fairness as road users who benefit from the road pay for its use. Tolls could be used to fund infrastructure improvements that reduce congestion on and around these roads.</p>	<p>There will be significant compliance cost to road users who will need to pay the tax.</p> <p>Tolling has significant administration costs to implement and maintain. However, These could be minimised by building on existing tolling mechanisms.</p> <p>Tolling is an expensive means of generating revenue when compared to FED, RUC and a regional fuel tax. Administration and back office costs to the NZ Transport Agency to implement the toll scheme could potentially be reduced by taking advantage of existing road</p>	<p>At present only new roads can be subject to tolls. Tolling existing roads would be a move away from the established practice for toll roads.</p> <p>Road tolls and fuel tax both rely on the use of vehicles whether this is using roads or fuel. Unlike fuel use, which is forecast to decrease as electric vehicle take up increases and fuel efficiency in vehicles improves, the majority of road users will continue to use the roads if a toll was in place.</p>	<p>Establishing tolls on existing roads would take time to install necessary tolling infrastructure. Tolls for existing roads would require a legislative change.</p>

	large part of the forecast funding gap.			tolling systems in place.	The public may not be accepting of tolls on existing roads.	
Increasing RUC and FED Nationally	<p>Fuel use and vehicle use are relatively inelastic. Through financial modelling the increases in RUC and FED could match infrastructure funding needs with revenue.</p> <p>In the longer term FED will become less sustainable and more inequitable as vehicles both become more fuel-efficient and move away from being powered by fossil fuels.</p> <p>RUC is a sustainable source of revenue. Revenue is unlikely to be severely threatened in the short to medium term.</p> <p>The opportunity for evasion of FED is virtually nil, with fraudulent refund claims for non-road use effectively being the only opportunity for evading payment. Eligibility for refunds is very limited which limits the scope for fraud.</p>	<p>Fuel use and vehicle use are relatively inelastic. RUC is paid for upfront and FED is paid when fuel is purchased. Therefore, once FED or RUC is paid road use is viewed as free.</p> <p>Significant increases in RUC and FED rates would be required to change the road and fuel use decisions of road users. Fuel use is unlikely to change and low levels and therefore will have a low impact on environmental sustainability</p> <p>A tax on fuel use can promote the uptake of electric and more fuel efficient vehicles that can reduce emissions.</p> <p>Higher fuel prices can encourage more efficient transportation and fuel conservation.</p>	<p>Revenues from RUC and FED go into a general transport funding pool without a specific link to the parts of the network where costs were incurred. Increasing FED and RUC nationally spreads the burden of funding transport in a specific region across the country. Many of those outside the region who will benefit from the tax will experience limited benefit of the investment in the region.</p> <p>FED is likely to become more inequitable as the fuel efficiency of vehicles improves and electric vehicle uptake increases.</p> <p>Under the current system, RUC and FED charges are not differentiated by time or location. All kilometres or litres are taxed at the same price, regardless of when or where they</p>	There are no additional compliance and administration costs or requirements necessary as these are already in place for existing RUC and FED.	<p>FED and RUC are already used to collect revenue nationally to pay for transport infrastructure. Revenue generated is currently allocated in a way that is broadly proportionate to population.</p> <p>RUC and FED have been in place for a number of years and are well understood making them easier making them the easiest to comprehend.</p>	Increases to RUC and FED rates could be achieved by a legislative amendment to existing RUC and FED regulations.

			are used.			
Regional Fuel Tax	<p>Fuel use is relatively inelastic. Through financial modelling the regional fuel tax could match infrastructure funding needs with revenue.</p> <p>In the longer term a regional fuel tax will become less sustainable and more inequitable as vehicles both become more fuel-efficient and move away from being powered by fossil fuels.</p>	<p>Fuel use and vehicle use are relatively inelastic. A regional fuel tax will be incorporated into the price of when fuel is purchased. Therefore, once paid road use is viewed as free. A high regional fuel tax rate would be required to change the road and fuel use decisions of road users. A tax focussed on specific regions could be higher than a national rate which could have a positive impact on local environmental sustainability in the defined region.</p> <p>A regional fuel tax could be used to target regions that suffer from increased adverse environmental impacts as a result of road use.</p> <p>A tax on fuel use can promote the uptake of electric and more fuel efficient vehicles that can reduce emissions.</p> <p>Higher fuel prices can encourage more efficient</p>	<p>A regional fuel tax acts as a proxy for road use. Fuel consumers in the region the tax is imposed contribute based on litres of fuel purchased. Those who drive more may use more fuel.</p> <p>A regional fuel tax could raise equity issues with poorer residents living in lower cost accommodation further out from the city centre having to use more fuel to travel into the city and as a result may pay a greater proportion of income on the tax.</p> <p>Additionally poorer residents may be unable to access electric and newer fuel efficient vehicles resulting in higher fuel use.</p>	<p>There will be additional compliance and administration costs for fuel companies. However, these can be minimised by building on existing LAFT reporting and FED refund schemes.</p> <p>Additional compliance and administration costs will be incurred to manage and operate collection and enforcement of the tax and to administer any refund scheme.</p>	<p>A regional fuel tax would be a new tax introduced in a defined region. This would be a new method for raising revenue.</p> <p>A regional fuel tax could be aligned with existing LAFT legislation to ensure consistency with existing regulations.</p> <p>Any refunds could be aligned with existing FED refund provisions.</p>	<p>A regional fuel tax would require a compressed legislative process to achieve implementation by 1 July 2018.</p>



		transportation and fuel conservation.				
Increase local authority rates	An increase to rates could be matched so the additional revenue generated matches the funding required to deliver transport improvements.	Increasing rates would be unlikely to influence the road and fuel use decisions of road users. Once the levy is paid road use is viewed as free.	Increasing local authority rates is considered unfair and inequitable as the tax is applied to households regardless of the transport use of that household.  Rates are not in proportionate to the amount people use the transport system. For example, some owners/occupants do not make full use of the accessibility of their properties. In particular, households with elderly occupants tend to make less direct use of the transport system. This group can also be asset rich but income poor, and be highly sensitive to changes in rates.	Minimal compliance and administration costs as the increase would be made to existing rates bills.	Aligns with existing framework of funding the council's contribution to funding transport infrastructure out of property rates.	Increasing rates could be applied to the next rates bill for the region. Would have to wait for the next rates setting period to make the change.
Interim transport levy	An interim transport levy can be charged at a flat rate and could be matched so revenue generated from the levy matches the funding required to deliver transport improvements.	An interim transport levy would be unlikely to influence the road and fuel use decisions of road users. Once the levy is paid road use is viewed as free.	Renewing the interim transport levy is considered unfair and inequitable as the tax is applied to households regardless of the transport use of that household	Minimal compliance and administration costs as the levy would be an additional line on existing rates bills.	Aligns with existing framework of funding the council's contribution to funding transport infrastructure out of property rates.	The interim transport levy could be applied to the next rates bill for the region.  Renewing interim transport levy has been ruled out by Auckland Mayor Phil

			Rates are not proportionate to the amount people use the transport system. For example, some owners/occupants do not make full use of the accessibility of their properties.			Goff.
General Revenue	Government could provide funding that funds the transport needs of a defined region. However, this would require a reduction in spending elsewhere or increased borrowing or taxes. Increasing taxes or borrowing is not politically popular. During the election campaign the now Minister of Finance ruled out increasing taxes during the current term.	Funding from general revenue would be unlikely to influence the road and fuel use decisions of road users. Once the tax is paid road use is viewed as free.	Funding from general revenue spreads the burden of funding a region's transport across the country. Many of those outside the region will experience limited benefit of the investment in the region's transport network.	General revenue would not create any additional compliance and administration costs.	There would be no change to existing tax and funding regimes.	General revenue could be introduced relatively quickly.

## Section 5: Conclusions

### 5.1 What option, or combination of options, is likely best to address the problem, meet the policy objectives and deliver the highest net benefits?

#### **Preferred option:** Regional Fuel Tax

After considering the options against the criteria in section 3.2 taking into account the advantages and disadvantages of each option, a regional fuel tax is the preferred option. The regional fuel tax alone does not solve the funding gaps in the New Zealand transport system. However, it has the ability to generate revenue to make a significant contribution to regional transport projects while minimising negative externalities and impacts.

The regional fuel tax provides a quick to implement, relatively fair and equitable solution that is consistent with existing transport funding conventions. The regional fuel tax can be set up to minimise administration and compliance costs as much as possible. A regional fuel tax has the potential to contribute to improved environmental sustainability.

A regional fuel tax is broadly acceptable to Auckland AA Members, and is preferred over other potential funding options (such as rates increases). In a survey of AA members 51 percent were comfortable with it or felt it could at least be considered.<sup>17</sup>

Previously the Ministry of Transport has advised in favour of other options over a regional fuel tax. A change in government has resulted in a change in transport priorities that makes a regional fuel tax more appropriate at this time. The Government's focus has moved away from large national projects such as the Roads of National Significance that were considered to deliver wide national benefits, to more targeted transport investment.

As identified above the regional fuel tax will not completely solve the funding gap but will enable funding to be delivered to begin development of those transport projects determined to deliver the highest benefit or which are most necessary. Further funding will be required in the future. It is anticipated that this will come from a range of sources including reprioritising existing transport funding and possible new initiatives such as congestion pricing, targeted rates, infrastructure bonds, value capture or variable road pricing. These options are still under development at and may become available in the future.

#### **Revenue generation and integrity**

All options for intervention have the potential to deliver a contribution to the revenue required bring forward regional transport projects.

In the longer term, fuel taxes such as a regional fuel tax and FED are likely to become less sustainable and more inequitable as vehicles both become more fuel-efficient and move away from being powered by fossil fuels. While FED and RUC work reasonably well at present, a range of emerging issues and the opportunities provided by developing technology suggest they will not be the best way to fund transport in the longer term.

General revenue would not generate any additional revenue without an increase in taxes or increased borrowing.

## Equity and fairness

User pays solutions such as a regional fuel tax, FED and RUC are usually seen as fairer than financing the infrastructure from general taxation or general rates, since it allows the infrastructure to be financed by its true beneficiaries rather than the general public.<sup>18</sup>

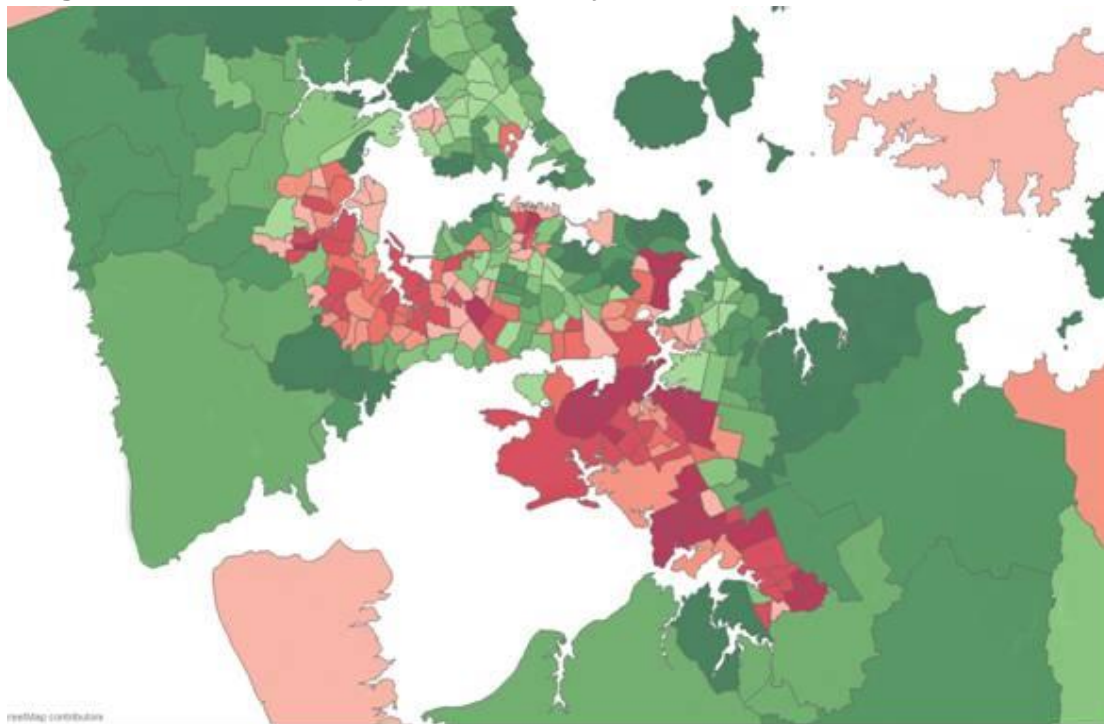
The regional fuel tax acts as a proxy for road use within a region and would apply equally across every litre of fuel sold in the defined region. In theory those who drive more will use more fuel and therefore contribute more. This creates a level of equity and fairness where those who will benefit from the transport projects pay for them. The benefits to a region can come in a number of ways including time savings from reduced congestion, increased public transport availability, improved roads, or lower costs of goods and services as freight moves more efficiently through the region.

There is the potential that equity and fairness of a fuel tax will be impacted by motorists purchasing fuel outside the region and then driving into the fuel tax area therefore avoiding the tax while benefiting from transport projects in the region. The reverse applies for fuel purchased in the region and is therefore subject to the tax being used outside the region.

Concerns have been raised over the impact on lower income households. Mangere Budgeting and Family Support Chief Executive Darryl Evans said the city's poorest families will be amongst those hardest hit if the new tax increases petrol prices. Since poorer families tended to live in the southern and western-most suburbs, they often face the longest commutes to jobs. Those who have no choice to drive, may start pooling car use with friends and family to share costs.<sup>19</sup>

As illustrated by the red areas in Image 3 below, lower income households tend to live further away from the central city and have to travel further to get into the CBD or to the opposite side of the region (for example from South Auckland to the Northern beaches). This results in higher fuel consumption by these households than those living closer to the centre. Additionally, lower income households are less likely to own newer more fuel efficient vehicles or electric vehicles.

**Image 3: Auckland NZ deprivation Index by location**



Red – most deprived Green – least deprived

This could result in lower income households contributing a higher proportion of their income to the tax compared to higher income households.

The AA has estimated there will be a \$135 annual cost of Regional Fuel Tax for the average motorist.<sup>20</sup>

When a regional fuel tax was proposed in 2008 The New Zealand Road Transport Forum suggested that an average private motorist's vehicle running costs would increase by approximately \$150 per year (\$160 in current prices) based on the AA's Annual survey of vehicle running costs.

Price spreading is a real risk to the equity and fairness of a regional fuel tax. Price spreading is where a fuel retailer pays the regional fuel tax but recovers the cost of it across the entire national market, eroding the regional nature of the tax. Price spreading occurred in the early 1990s when a regional petrol tax was in place in the main urban regions. More information on the risks of price spreading can be found in section 6.2.

Increasing RUC and FED and general taxation do not target a region's road use and places the burden for funding regional transport projects on those who would not necessarily benefit as much from the transport projects.

### **Environmental sustainability**

Intervention options that cause road users to reduce their road use either through reduced car use or a move to other transport modes will have a positive impact on environmental sustainability. A regional fuel tax will increase the cost of road use, making road users re consider their vehicle use and therefore reducing emissions. However, fuel use and vehicle

use are relatively inelastic, therefore, any intervention that targets road use would need to be significant to have a major impact on environmental sustainability. Although not the primary objective a regional fuel tax could target regions that suffer from increased environmental pressures as a result of road use.

Increasing the cost of fuel through a regional fuel tax can also promote the uptake of electric and more fuel efficient vehicles that use little or no fuel. Reduced fuel use benefits the environment through reduced emissions and vehicle users have lower costs of travel as they are not subject to the regional fuel tax.

Renewing the interim transport levy and funding from general taxation does not increase the cost of transport for the consumer as the tax is paid regardless of road or fuel use by drivers. This will not have any effect on consumer behaviour, and therefore, will have no impact on environmental sustainability.

### **Compliance and administration costs**

A regional fuel tax would have additional compliance and administration costs. However these can be minimised by using existing systems. Fuel companies already record and pay LAFT under the Local Government Act 1974. The regional fuel tax can align with the existing LAFT and FED refunds to reduce compliance costs and ensure the tax is consistent with existing transport and local authority funding schemes.

We have been informed by fuel companies that aligning the regional fuel tax with this legislation would reduce the compliance cost to fuel companies.

Regional fuel tax compliance costs would fall on non-transport users of fuels, particularly the farming, forestry, manufacturing and construction industries. These businesses would need to apply for regional tax refunds. Aligning the refund scheme with existing FED refunds would minimise the compliance costs to consumers.

Increasing RUC and FED would have the lowest compliance and administration costs outside of using general revenue or a transport levy. Tolling systems are already in place and are administered by NZ Transport Agency.

### **Coherence**

All options are coherent in the current context. A regional fuel tax applied to fuel wholesalers at the point fuel is transferred from a wholesaler to a final user or retailer and could be aligned with existing LAFT. Fuel companies have informed us that implementation in line with the existing tax would be their preferred approach. Refunds could be aligned with existing FED refunds administered by the NZ Transport Agency to ensure consistency with existing regimes.

### **Speed of implementation**

Funding infrastructure through general taxation would be funded through appropriations and could be passed through Parliament reasonably quickly.

A regional fuel tax will require amendments to primary legislation making it more difficult to

implement by 1 July 2018. A shortened legislative process would be necessary for the tax to be in place by 1 July 2018.

National increases to RUC and FED would be quick to implement. To implement the increase by 1 July 2018 Government would simply need to make changes to the regulation that stipulates FED and RUC rates.

Changes would be required to the Land Transport Management Act 2003 for a tolling regime to allow tolling to be used as a demand management or a significant revenue raising tool. Legislative change as well as technology, infrastructure investment and development would not be possible by 1 July 2018.

## 5.2 Summary table of costs and benefits of the preferred approach

Affected parties (identify)	Comment: nature of cost or benefit (eg ongoing, one-off), evidence and assumption (eg compliance rates), risks	Impact \$m present value, for monetised impacts; high, medium or low for non-monetised impacts	Evidence certainty (High, medium or low)
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### Additional costs of proposed approach, compared to taking no action

Regulated parties	Ongoing costs of compliance for fuel distributors.	Unknown	Medium-High
Regulators	One off set up costs for fuel companies to comply (\$200,000-\$500,000 per company)  Annual on-going enforcement monitoring costs for five staff (\$600,000 per annum)  NZ Transport Agency tactical solution to set up scheme by 1 July 2018 (one off)  Development of forms and guidelines (one off)  Stakeholder Engagement (one off)  Audit and Compliance (\$150,000 per annum)	\$2,000,000  6,000,000  \$990,000  \$10,000  \$6,000  \$1,500,000	Medium
Wider	On-going enforcement and	\$5,642,800 <sup>21</sup>	Medium

government	monitoring costs for 4 staff (\$564,280 per annum)		
Other parties	Cost to fuel consumers (\$150-170 million per annum)	\$1.5-1.7 billion	Medium
<b>Total Monetised Cost</b>	Per annum	\$1.6-1.8 billion	Medium
<b>Non-monetised costs</b>	See section 6.3 for non monetised costs/risks.	Medium	

#### Expected benefits of proposed approach, compared to taking no action

Regulated parties			
Regulators			
Wider government	\$150-170 million per annum Ongoing for 10 years. (reducing over time as electric vehicle take up increases)	\$1.5-1.7 billion	Medium-High
Other parties			
<b>Total Monetised Benefit</b>	The regional fuel tax will fund necessary infrastructure that will contribute to a reduction in Auckland's traffic congestion. (\$150-170 million per annum)  Please see section 5.3 for information on the monetised benefits of a reduction in congestion.	\$1.5-1.7 billion	Medium
<b>Non-monetised benefits</b>	The regional fuel tax will fund necessary infrastructure that will contribute to a reduction in Auckland's traffic congestion. Please see section 5.3 for information on the non monetised benefits of a reduction in congestion.	Medium	Medium



### 5.3 What other impacts is this approach likely to have?

#### Further impacts outside Auckland

Although it is intended that Auckland will be the only region allowed a regional fuel tax during the current parliamentary term, other regions may also be allowed a regional fuel tax in the future. The proposed legislation will enable any region to propose their own rate (Auckland have proposed a rate of 10 cents per litre). If a regional fuel tax is introduced in another area this will have an impact on the cost benefit analysis above.

If another region, outside Auckland introduces a regional fuel tax the benefit of the tax and the costs to the public will increase depending on the rate of the tax and the level of fuel purchased in the region. If another region were to introduce a regional fuel tax the costs to the fuel companies, local authorities and the NZ Transport Agency would increase. However, implementation and ongoing costs could be reduced by utilising existing systems brought about by the original introduction of the tax. This would improve the cost benefit analysis above.

#### Auckland congestion impact

The primary objective of changes to the legislation is to enable a regional fuel tax to raise revenue to help contribute to the funding of regional transport projects.

In Auckland, the transport projects brought forward and consumer behaviour change as a result of the tax will contribute to a reduction in congestion.

Although not directly linked to the regional fuel tax, NZIER estimate<sup>22</sup> the total benefits (economic and social) of decongestion to the Auckland economy between:

- \$0.9 billion and \$1.3 billion (1 percent to 1.4 percent of Auckland's GDP) – these estimates represent the economic and social benefits to Auckland if the road transport network was operating at its capacity i.e. as it is designed to
- \$1.4 billion and \$1.9 billion (between 1.5 percent and 2 percent of Auckland's GDP) – these estimates represent the benefits if traffic flowed freely, i.e. the average speed across the Auckland network was close or equal to the speed limit, which is also known as free-flow.

NZIER estimate Auckland's real GDP would increase by between \$488 million (0.52 percent) and \$842 million (0.90 percent) if Auckland traffic reduced to the capacity of its network or its network was increased to meet demand.

There are several other potential benefits from decongestion that NZIER did not attempt to quantify given data, time and resource constraints. The following benefits were not quantified:

- tighter single labour market area, i.e. greater choice in work location (better skill matching around the Auckland region)
- Auckland's overall liveability
- greater freedom for businesses to locate around Auckland (trading off labour market access and rental costs)

- greater benefits from urban sprawl – improved accessibility from decongestion will allow households to locate further from their workplace. The transport costs to locate further from work or city centres will be lower thereby increasing the benefits residents enjoy by living at the city fringe.
- increased tourism spending through attracting more visitors given improved ease of travelling.

**5.4 Is the preferred option compatible with the Government's 'Expectations for the design of regulatory systems'?**

The proposed legislative amendments are consistent with the Government's 'Expectations for the design of regulatory systems'.

## Section 6: Implementation and operation

### 6.1 How will the new arrangements work in practice?

The Minister has indicated that the regional fuel tax scheme should be in place by 1 July 2018. The legislation will empower the NZ Transport Agency to levy and collect the tax from 1 July 2018.

The regional fuel tax will be implemented through introduction of legislation amending the Land Transport Management Act 2003 followed by an Order in Council for each region that is permitted a regional fuel tax.

Legislation will specify a regional fuel tax cannot have an initial duration longer than ten years, from the date a proposal is approved by the Minister of Transport and the Minister of Finance. Legislation will provide for Ministerial review of the operation of a regional fuel tax at any time and a mandatory review before a regional fuel tax expires so that a decision can be made as to whether it should expire or be renewed.

Local authorities seeking a regional fuel tax will be required to make an application to the Minister of Transport and the Minister of Finance. The proposal will outline the proposed rate of the tax, the duration of the tax and the projects the revenue generated from the tax will be put towards. The projects to be funded will be drawn from the projects identified through existing regional transport or local plans or through groups such as in the ATAP (or any similar local authority – central government structure which might replace it) that requires public consultation.

The Minister of Transport and the Minister of Finance will have a broad discretion when making a decision on a regional fuel tax application. We anticipate that the Ministers will be informed by the priorities of Government at the time. This will likely include the considerations in this paper: revenue generation and integrity, equity and fairness, environmental sustainability, compliance and administration cost, coherence and speed of implementation. We anticipate that any application for a regional fuel tax from a region will be supported by a RIS (or equivalent) including a cost benefit analysis for the proposed tax and the transport projects that it will fund.

Following a successful application by a local authority the Order in Council will stipulate the projects that will be funded from the revenue generated from the tax.

#### **Implementation**

Fuel companies have indicated that if the tax was applied in the same manner as the LAFT then they could implement this by 1 July 2018. Some fuel companies indicated that they would prefer a longer lead in time to enable them to include the regional fuel tax into their pricing models.

The NZ Transport Agency and local authorities will be responsible for communications to ensure the public is aware of the regional fuel tax scheme and is properly educated when it is introduced.

### **Operation and enforcement**

The NZ Transport Agency will be responsible for the administration and operation of the regional fuel tax. The NZ Transport Agency and the local authority where a regional fuel tax applies will have monitoring and enforcement functions. Enforcement provisions will enable the local authority to monitor compliance with the tax to ensure fuel is not being transported into a region from a location not subject to the tax and then on sold without the tax applied.

A refund scheme for fuel used off road will be put in place and will be administered by the NZ Transport Agency. The refund framework will build upon the existing FED refund scheme already administered by the NZ Transport Agency. Initially this would be paper based but over time would become electronic.

Local Authorities will be given the power to monitor and enforce the regional fuel tax. Local Authorities will be given the power to bring action to prosecute those who attempt to evade the tax.

The NZ Transport Agency will be responsible for the reporting and collection of the tax from fuel companies and will be responsible for enforcing reporting and payment requirements as set out in the legislation.

Responsible parties have not raised any concerns that the regional fuel tax is not consistent with the Government's 'Expectations for the design of regulatory systems'.

## **6.2 What are the implementation risks?**

### **Price spreading**

Fuel is bought and sold in a competitive national market. Most fuel retailers operate across New Zealand. Given that fuel retailing is not a regional specific activity, the tax is difficult to implement equitably on a regional level due to the potential for price spreading.

Price spreading is where a fuel retailer pays the regional fuel tax but spreads the cost of it across the entire national market, eroding the regional nature of the tax. Price spreading occurred in the early 1990s when a regional petrol tax was in place in the main urban regions. The tax was spread across New Zealand and hence the funds were not sourced regionally. The tax becomes a national tax and not regionally equitable

Price spreading is a significant concern. Fuel companies have a strong commercial incentive to maximise the amount of fuel sold and maximise their profits. Fuel prices already vary significantly nationally and across and between regions for this reason. To maximise the amount of fuel sold and maximise their profits fuel companies may choose to price spread.

Price spreading would increase the cost of fuel nationwide and undermine the intended purpose of the tax, which is for a region's road users to pay for transport projects in Auckland.

If price spreading was to occur the larger companies have the ability to spread the cost of the tax to all fuel sales made across their network. For example, fuel companies could charge approximately three cent tax nationally across their network to cover a 10 cents per litre regional fuel tax required in for each litre of fuel sold in Auckland.

The extent to which prices would increase in one area will also depend on the extent of competition in that area or region. Price increases would likely be greater in rural areas than in urban areas reflecting generally the greater level of competition in many urban areas.

Outside a region if the larger fuel companies spread the cost across the country independent operators outside a region could increase their prices by the same amount increasing the cost of fuel for consumers outside a region and increasing the profits of these fuel retailers.

Price spreading could also have a negative impact on competition in a region's fuel market. If retailers with a large network can spread the tax across a greater volume of fuel sales nationwide then they would be able to charge a lower price in the Auckland market than independent retailers. This would create a situation where independent retailers are unable to compete with the larger retailers on price and could be forced out of the market. This would reduce competition and consumer choice.

A range of approaches for mitigating price spreading risks have been identified, including:

- Publication of a Regional Fuel Price Monitor based on monthly returns from wholesale distributors the NZ Transport Agency, including a breakdown of fuel distribution costs, benchmarked against costs before introduction of a regional fuel tax.
- Proposed changes to the Commerce Act could give the Commerce Commission authority to carry out investigations and into fuel pricing. This would illustrate to the public where price spreading is occurring as fuel prices in regions subject to a regional fuel tax should be higher than the national average fuel price by the rate of the tax.<sup>23</sup>
- Developing a proactive communication strategy designed to enlist industry support.

### **Tax fraud and evasion**

Individuals and businesses may use the regional fuel tax for financial gain by purchasing fuel outside the regional fuel tax area and re-selling it within the regional fuel tax area. The scale of this could be anything from small containers to entire 30,000 litre road tankers.

With a lack of natural borders between regions, except Cook Strait, there is a significant risk that fuel will be transported into a region without the supplier declaring that the fuel was supplied into that region. As a result the tax would not be paid and compliant fuel retailers would be undercut.

Offences and enforcement powers are recommended to manage tax fraud and evasion.

### **Tax avoidance**

The higher the regional fuel tax the more incentive there is to refuel vehicles or fill containers in a neighbouring region. In a relatively small country such as New Zealand, where many vehicle owners travel across or through regions, it is very possible for some users to avoid the tax (or reduce the amount to be paid).

For individuals the potential saving in dollar terms is not likely to be worthwhile. Only about three percent of car trips by individuals are between regions.

Tax avoidance is most likely to be considered by transport operators who use a lot of fuel and operate close to or drive through another tax region. The Ministry of Transport estimates that up to \$20 million of fuel could be purchased outside the Auckland region as a result of large transport operators deciding to refuel outside Auckland to avoid the tax.

Concerns have been raised that fuel consumers who live close to the regional boundary will travel outside the region to avoid paying the tax. This will likely have a negative impact on fuel stations just inside the border and a positive impact on fuel stations just outside the border.

### **Existing Public Transport Contracts**

The Bus and Coach Association has concerns that the indexation of the public transport subsidy will not adequately compensate public transport operators in the regions that impose a regional fuel tax for the additional costs of any intervention. The Ministry of Transport is currently investigating how this risk could be minimised.

### **Unsafe fuel storage**

Customers may fill containers outside the regional fuel tax area and transport and store them at home to avoid paying the tax. This creates significant safety risks including fire and spillage.

The only action fuel companies can take to mitigate this is ensuring customers are only filling approved containers.

### **Driver Safety**

Fuel companies have informed us that sites located in areas such as Dairy Flat, Bombay and Papakura are strategically positioned to facilitate rest breaks and allow long haul truck drivers to keep within logbook requirements. Circumstances may arise where companies instruct drivers to avoid filling up inside the regional fuel tax boundary potentially introducing risk to motorists.

Enforcement of existing long haul driver regulations could minimise this risk.

### **Potential for impact on other goods and services**

In the absence of price spreading, the tax has the potential to create further price variations in the market. Given the price of fuel affects the price of other goods and

services, a significant tax increase has the potential to cause other price changes in the market.

The potential impact on the prices of other goods and services will be partially offset by the reduction in transport costs due to reduced congestion as a result of increased use of public transport and changes in driver behaviour by reducing vehicle use. Westpac's November 2017 Economic Overview<sup>24</sup> estimated that a 10 cent per litre petrol tax for the Auckland region would add 0.06 percent to inflation next year.

There will also be a second-round effect as businesses pass on the increased cost of transport. Westpac have assumed that this would lift the impact to 0.1 percent. However, the removal of the Interim Transport Levy, which the Auckland Council added to property rates in 2015 and was due to expire next June. Removing this levy will reduce the CPI by around 0.05 percent, halving the net impact on inflation.

When a regional fuel tax was proposed in 2008 the New Zealand Road Transport Forum suggested that freight costs will increase by 1.3 percent with a 10 cent a litre regional fuel tax. An average private motorist's vehicle running costs would increase by approximately \$150 per year (approximately 5 percent) based on the AA's Annual survey of vehicle running costs.

## Section 7: Monitoring, evaluation and review

### 7.1 How will the impact of the new arrangements be monitored?

The NZ Transport Agency will be responsible for administration. The NZ Transport Agency and local authorities with a regional fuel tax will have monitoring and enforcement functions. Enforcement provisions will enable Auckland Council to monitor compliance with the tax to ensure fuel is not being transported into the Auckland region from a location not subject to the tax and then on-sold without the tax applied.

The tax will be collected at the wholesale level by the fuel companies at the time the fuel is transferred from the wholesaler to the final retail destination (to be defined in the legislation) whether this is the storage tank of a large vehicle fleet operator, a mobile storage tank located in the region or the storage tank or a fuel company's own retail site.

The revenue collected from the tax by fuel companies will be passed on to the NZ Transport Agency at regular intervals stipulated in the legislation consistent with current LAFT reporting and payment requirements to regional authorities. This will enable the NZ Transport Agency to monitor the effectiveness of the tax to generate revenue.

The NZ Transport Agency will be responsible for the collection of the data associated with the regional fuel tax. The data collected will be the number of litres delivered to a final retail location into a region. Through the fuel companies returns the NZ Transport Agency could use the data to calculate the fuel companies market shares in the region with a regional fuel tax. Currently the Ministry of Business Innovation and Employment collects data on fuel consumption at a national level while local authorities collect fuel data for their region through LAFT reporting.

The NZ Transport Agency will be responsible for the administration and oversight of the refund process and compliance costs for commercial non-road fuel users.

### 7.2 When and how will the new arrangements be reviewed?

The Order in Council will specify the projects that the revenue generated from the tax will be applied to. The Order in Council will remain in force for 10 years with an automatic review provision. Once this expires a new Order in Council may be required. Legislation will also allow Ministerial review at any time.

Legislation will specify a regional fuel tax cannot have an initial duration of more than ten years, from the date a proposal is approved by joint Ministers. Legislation will provide for Ministerial review of the operation of a regional fuel tax at any time and a mandatory review before a regional fuel tax expires so that a decision can be made whether it should expire or be renewed.

#### Legislation Review

Review may also be necessary if the risks identified in section 6.2 occur and the Government decides that a review is necessary to address equity and fairness issues.



As technology evolves and cars become more fuel efficient and electric vehicles become more prevalent a regional fuel tax will deliver diminishing returns. Current forecasts indicate that revenues will be constant for the first 10 years but drop off after this. As the revenue base erodes over time it may prompt review.

Technology is also evolving which may make other revenue generation tools more effective and efficient in the future. A review of the regional fuel tax may be necessary when new initiatives such as congestion charging, variable pricing or electronic road user charges become possible for all vehicles

### **Stakeholder Input**

Using existing Regional Land Transport requirements, Regional Plan requirements or groups such as ATAP (or its successor) to identify future transport requirements for the region will provide the opportunity for stakeholders and interested parties to have input and to raise concerns if and when a review occurs or a new Order in Council is necessary.

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